

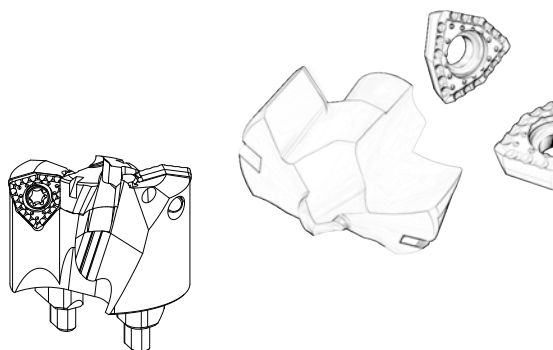


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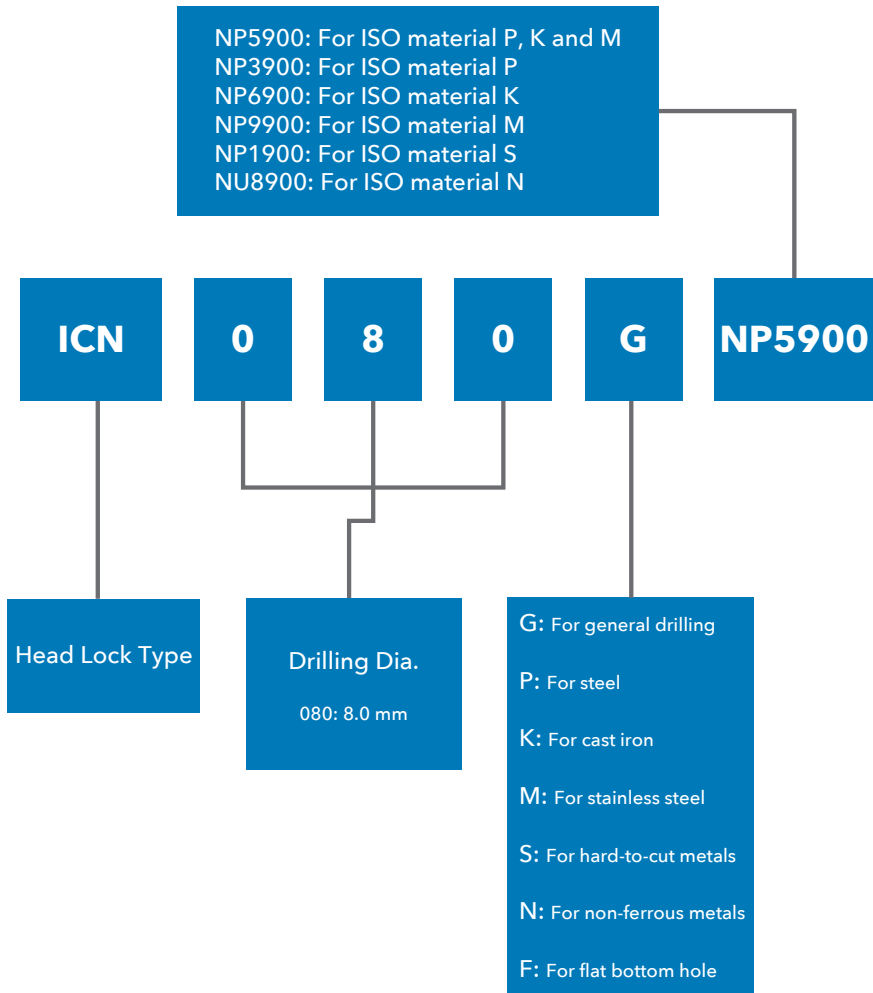
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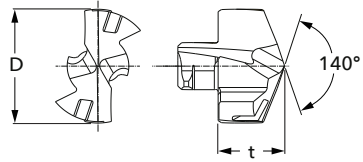


### ICN Drill Head Coding System



## ICN...G Drilling Head

For ICN Drills | For General Drilling (ISO P & K Materials)



Unit: mm

| Specification | Dimensions |     | Drilling Body       | Grade                      |
|---------------|------------|-----|---------------------|----------------------------|
|               | D          | t   |                     |                            |
| ICN-080-G     | 8.0        | 5.4 | ICN080089<br>-12-.. | NP5900<br>NP3900<br>NP6900 |
| ICN-081-G     | 8.1        | 5.4 |                     |                            |
| ICN-082-G     | 8.2        | 5.4 |                     |                            |
| ICN-083-G     | 8.3        | 5.4 |                     |                            |
| ICN-084-G     | 8.4        | 5.4 |                     |                            |
| ICN-085-G     | 8.5        | 5.4 |                     |                            |
| ICN-086-G     | 8.6        | 5.4 |                     |                            |
| ICN-087-G     | 8.7        | 5.4 |                     |                            |
| ICN-088-G     | 8.8        | 5.4 |                     |                            |
| ICN-089-G     | 8.9        | 5.4 |                     |                            |
| ICN-090-G     | 9.0        | 5.8 | ICN090099<br>-12-.. |                            |
| ICN-091-G     | 9.1        | 5.8 |                     |                            |
| ICN-092-G     | 9.2        | 5.8 |                     |                            |
| ICN-093-G     | 9.3        | 5.8 |                     |                            |
| ICN-094-G     | 9.4        | 5.8 |                     |                            |
| ICN-095-G     | 9.5        | 5.8 |                     |                            |
| ICN-096-G     | 9.6        | 5.8 |                     |                            |
| ICN-097-G     | 9.7        | 5.8 |                     |                            |
| ICN-098-G     | 9.8        | 5.8 |                     |                            |
| ICN-099-G     | 9.9        | 5.8 |                     |                            |
| ICN-100-G     | 10.0       | 6.2 | ICN100109<br>-16-.. |                            |
| ICN-101-G     | 10.1       | 6.2 |                     |                            |
| ICN-102-G     | 10.2       | 6.2 |                     |                            |
| ICN-103-G     | 10.3       | 6.2 |                     |                            |
| ICN-104-G     | 10.4       | 6.2 |                     |                            |
| ICN-105-G     | 10.5       | 6.2 |                     |                            |
| ICN-106-G     | 10.6       | 6.2 |                     |                            |
| ICN-107-G     | 10.7       | 6.2 |                     |                            |
| ICN-108-G     | 10.8       | 6.2 |                     |                            |
| ICN-109-G     | 10.9       | 6.2 |                     |                            |

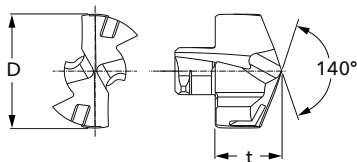
Unit: mm

| Specification | Dimensions |     | Drilling Body      | Grade                      |
|---------------|------------|-----|--------------------|----------------------------|
|               | D          | t   |                    |                            |
| ICN-110-G     | 11.0       | 6.6 | ICN110119<br>-16.. | NP5900<br>NP3900<br>NP6900 |
| ICN-111-G     | 11.1       | 6.6 |                    |                            |
| ICN-112-G     | 11.2       | 6.6 |                    |                            |
| ICN-113-G     | 11.3       | 6.6 |                    |                            |
| ICN-114-G     | 11.4       | 6.6 |                    |                            |
| ICN-115-G     | 11.5       | 6.6 |                    |                            |
| ICN-116-G     | 11.6       | 6.6 |                    |                            |
| ICN-117-G     | 11.7       | 6.6 |                    |                            |
| ICN-118-G     | 11.8       | 6.6 |                    |                            |
| ICN-119-G     | 11.9       | 6.6 |                    |                            |
| ICN-120-G     | 12.0       | 7.0 | ICN120129<br>-16.. |                            |
| ICN-121-G     | 12.1       | 7.0 |                    |                            |
| ICN-122-G     | 12.2       | 7.0 |                    |                            |
| ICN-123-G     | 12.3       | 7.0 |                    |                            |
| ICN-124-G     | 12.4       | 7.0 |                    |                            |
| ICN-125-G     | 12.5       | 7.0 |                    |                            |
| ICN-126-G     | 12.6       | 7.0 |                    |                            |
| ICN-127-G     | 12.7       | 7.0 |                    |                            |
| ICN-128-G     | 12.8       | 7.0 |                    |                            |
| ICN-129-G     | 12.9       | 7.0 |                    |                            |
| ICN-130-G     | 13.0       | 7.6 | ICN130139<br>-16.. |                            |
| ICN-131-G     | 13.1       | 7.6 |                    |                            |
| ICN-132-G     | 13.2       | 7.6 |                    |                            |
| ICN-133-G     | 13.3       | 7.6 |                    |                            |
| ICN-134-G     | 13.4       | 7.6 |                    |                            |
| ICN-135-G     | 13.5       | 7.6 |                    |                            |
| ICN-136-G     | 13.6       | 7.6 |                    |                            |
| ICN-137-G     | 13.7       | 7.6 |                    |                            |
| ICN-138-G     | 13.8       | 7.6 |                    |                            |
| ICN-139-G     | 13.9       | 7.6 |                    |                            |



## ICN...G Drilling Head

For ICN Drills | For General  
Drilling (ISO P & K Materials)



Unit: mm

| Specification | Dimensions |     | Drilling Body       | Grade                      |
|---------------|------------|-----|---------------------|----------------------------|
|               | D          | t   |                     |                            |
| ICN-140-G     | 14.0       | 8.1 | ICN140149<br>-16-.. | NP5900<br>NP3900<br>NP6900 |
| ICN-141-G     | 14.1       | 8.1 |                     |                            |
| ICN-142-G     | 14.2       | 8.1 |                     |                            |
| ICN-143-G     | 14.3       | 8.1 |                     |                            |
| ICN-144-G     | 14.4       | 8.1 |                     |                            |
| ICN-145-G     | 14.5       | 8.1 |                     |                            |
| ICN-146-G     | 14.6       | 8.1 |                     |                            |
| ICN-147-G     | 14.7       | 8.1 |                     |                            |
| ICN-148-G     | 14.8       | 8.1 |                     |                            |
| ICN-149-G     | 14.9       | 8.1 |                     |                            |
| ICN-150-G     | 15.0       | 8.7 | ICN150159<br>-20-.. |                            |
| ICN-151-G     | 15.1       | 8.7 |                     |                            |
| ICN-152-G     | 15.2       | 8.7 |                     |                            |
| ICN-153-G     | 15.3       | 8.7 |                     |                            |
| ICN-154-G     | 15.4       | 8.7 |                     |                            |
| ICN-155-G     | 15.5       | 8.7 |                     |                            |
| ICN-156-G     | 15.6       | 8.7 |                     |                            |
| ICN-157-G     | 15.7       | 8.7 |                     |                            |
| ICN-158-G     | 15.8       | 8.7 |                     |                            |
| ICN-159-G     | 15.9       | 8.7 |                     |                            |
| ICN-160-G     | 16.0       | 9.3 | ICN160169<br>-20-.. |                            |
| ICN-161-G     | 16.1       | 9.3 |                     |                            |
| ICN-162-G     | 16.2       | 9.3 |                     |                            |
| ICN-163-G     | 16.3       | 9.3 |                     |                            |
| ICN-164-G     | 16.4       | 9.3 |                     |                            |
| ICN-165-G     | 16.5       | 9.3 |                     |                            |
| ICN-166-G     | 16.6       | 9.3 |                     |                            |
| ICN-167-G     | 16.7       | 9.3 |                     |                            |
| ICN-168-G     | 16.8       | 9.3 |                     |                            |
| ICN-169-G     | 16.9       | 9.3 |                     |                            |

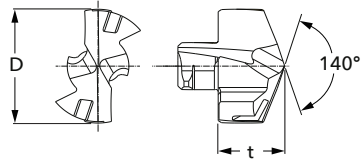
Unit: mm

| Specification | Dimensions |      | Drilling Body       | Grade                      |
|---------------|------------|------|---------------------|----------------------------|
|               | D          | t    |                     |                            |
| ICN-170-G     | 17.0       | 9.9  | ICN170179<br>-20-.. | NP5900<br>NP3900<br>NP6900 |
| ICN-171-G     | 17.1       | 9.9  |                     |                            |
| ICN-172-G     | 17.2       | 9.9  |                     |                            |
| ICN-173-G     | 17.3       | 9.9  |                     |                            |
| ICN-174-G     | 17.4       | 9.9  |                     |                            |
| ICN-175-G     | 17.5       | 9.9  |                     |                            |
| ICN-176-G     | 17.6       | 9.9  |                     |                            |
| ICN-177-G     | 17.7       | 9.9  |                     |                            |
| ICN-178-G     | 17.8       | 9.9  |                     |                            |
| ICN-179-G     | 17.9       | 9.9  |                     |                            |
| ICN-180-G     | 18.0       | 10.5 | ICN180189<br>-25-.. |                            |
| ICN-181-G     | 18.1       | 10.5 |                     |                            |
| ICN-182-G     | 18.2       | 10.5 |                     |                            |
| ICN-183-G     | 18.3       | 10.5 |                     |                            |
| ICN-184-G     | 18.4       | 10.5 |                     |                            |
| ICN-185-G     | 18.5       | 10.5 |                     |                            |
| ICN-186-G     | 18.6       | 10.5 |                     |                            |
| ICN-187-G     | 18.7       | 10.5 |                     |                            |
| ICN-188-G     | 18.8       | 10.5 |                     |                            |
| ICN-189-G     | 18.9       | 10.5 |                     |                            |
| ICN-190-G     | 19.0       | 11.0 | ICN190199<br>-25-.. |                            |
| ICN-191-G     | 19.1       | 11.0 |                     |                            |
| ICN-192-G     | 19.2       | 11.0 |                     |                            |
| ICN-193-G     | 19.3       | 11.0 |                     |                            |
| ICN-194-G     | 19.4       | 11.0 |                     |                            |
| ICN-195-G     | 19.5       | 11.0 |                     |                            |
| ICN-196-G     | 19.6       | 11.0 |                     |                            |
| ICN-197-G     | 19.7       | 11.0 |                     |                            |
| ICN-198-G     | 19.8       | 11.0 |                     |                            |
| ICN-199-G     | 19.9       | 11.0 |                     |                            |



## ICN...G Drilling Head

For ICN Drills | For General Drilling (ISO P & K Materials)



Unit: mm

| Specification | Dimensions |      | Drilling Body       | Grade                      |
|---------------|------------|------|---------------------|----------------------------|
|               | D          | t    |                     |                            |
| ICN-200-G     | 20.0       | 13.3 | ICN200209<br>-25-.. | NP5900<br>NP3900<br>NP6900 |
| ICN-201-G     | 20.1       | 13.3 |                     |                            |
| ICN-202-G     | 20.2       | 13.3 |                     |                            |
| ICN-203-G     | 20.3       | 13.3 |                     |                            |
| ICN-204-G     | 20.4       | 13.3 |                     |                            |
| ICN-205-G     | 20.5       | 13.3 |                     |                            |
| ICN-206-G     | 20.6       | 13.3 |                     |                            |
| ICN-207-G     | 20.7       | 13.3 |                     |                            |
| ICN-208-G     | 20.8       | 13.3 |                     |                            |
| ICN-209-G     | 20.9       | 13.3 |                     |                            |
| ICN-210-G     | 21.0       | 13.3 | ICN210219<br>-25-.. |                            |
| ICN-211-G     | 21.1       | 13.3 |                     |                            |
| ICN-212-G     | 21.2       | 13.3 |                     |                            |
| ICN-213-G     | 21.3       | 13.3 |                     |                            |
| ICN-214-G     | 21.4       | 13.3 |                     |                            |
| ICN-215-G     | 21.5       | 13.3 |                     |                            |
| ICN-216-G     | 21.6       | 13.3 |                     |                            |
| ICN-217-G     | 21.7       | 13.3 |                     |                            |
| ICN-218-G     | 21.8       | 13.3 |                     |                            |
| ICN-219-G     | 21.9       | 13.3 |                     |                            |
| ICN-220-G     | 22.0       | 14.3 | ICN220229<br>-25-.. |                            |
| ICN-221-G     | 22.1       | 14.3 |                     |                            |
| ICN-222-G     | 22.2       | 14.3 |                     |                            |
| ICN-223-G     | 22.3       | 14.3 |                     |                            |
| ICN-224-G     | 22.4       | 14.3 |                     |                            |
| ICN-225-G     | 22.5       | 14.3 |                     |                            |
| ICN-226-G     | 22.6       | 14.3 |                     |                            |
| ICN-227-G     | 22.7       | 14.3 |                     |                            |
| ICN-228-G     | 22.8       | 14.3 |                     |                            |
| ICN-229-G     | 22.9       | 14.3 |                     |                            |
| ICN-230-G     | 23.0       | 14.3 | ICN230239<br>-32-.. |                            |
| ICN-231-G     | 23.1       | 14.3 |                     |                            |
| ICN-232-G     | 23.2       | 14.3 |                     |                            |
| ICN-233-G     | 23.3       | 14.3 |                     |                            |
| ICN-234-G     | 23.4       | 14.3 |                     |                            |

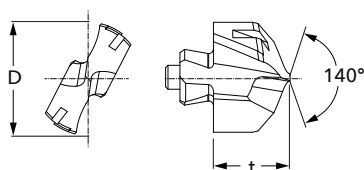
Unit: mm

| Specification | Dimensions |      | Drilling Body       | Grade                      |
|---------------|------------|------|---------------------|----------------------------|
|               | D          | t    |                     |                            |
| ICN-235-G     | 23.5       | 14.3 | ICN230239<br>-32-.. | NP5900<br>NP3900<br>NP6900 |
| ICN-236-G     | 23.6       | 14.3 |                     |                            |
| ICN-237-G     | 23.7       | 14.3 |                     |                            |
| ICN-238-G     | 23.8       | 14.3 |                     |                            |
| ICN-239-G     | 23.9       | 14.3 |                     |                            |
| ICN-240-G     | 24.0       | 15.3 | ICN240249<br>-32-.. |                            |
| ICN-241-G     | 24.1       | 15.3 |                     |                            |
| ICN-242-G     | 24.2       | 15.3 |                     |                            |
| ICN-243-G     | 24.3       | 15.3 |                     |                            |
| ICN-244-G     | 24.4       | 15.3 |                     |                            |
| ICN-245-G     | 24.5       | 15.3 |                     |                            |
| ICN-246-G     | 24.6       | 15.3 |                     |                            |
| ICN-247-G     | 24.7       | 15.3 |                     |                            |
| ICN-248-G     | 24.8       | 15.3 |                     |                            |
| ICN-249-G     | 24.9       | 15.3 |                     |                            |
| ICN-250-G     | 25.0       | 15.3 | ICN250260<br>-32-.. |                            |
| ICN-251-G     | 25.1       | 15.3 |                     |                            |
| ICN-252-G     | 25.2       | 15.3 |                     |                            |
| ICN-253-G     | 25.3       | 15.3 |                     |                            |
| ICN-254-G     | 25.4       | 15.3 |                     |                            |
| ICN-255-G     | 25.5       | 15.3 |                     |                            |
| ICN-256-G     | 25.6       | 15.3 |                     |                            |
| ICN-257-G     | 25.7       | 15.3 |                     |                            |
| ICN-258-G     | 25.8       | 15.3 |                     |                            |
| ICN-259-G     | 25.9       | 15.3 |                     |                            |
| ICN-260-G     | 26.0       | 15.3 | ICN250260<br>-32-   |                            |
| ICN-261-G     | 26.1       | 14.5 |                     |                            |
| ICN-262-G     | 26.2       | 14.5 |                     |                            |
| ICN-263-G     | 26.3       | 14.5 |                     |                            |
| ICN-264-G     | 26.4       | 14.5 |                     |                            |
| ICN-265-G     | 26.5       | 14.5 |                     |                            |
| ICN-266-G     | 26.6       | 14.5 |                     |                            |
| ICN-267-G     | 26.7       | 14.5 |                     |                            |
| ICN-268-G     | 26.8       | 14.5 |                     |                            |
| ICN-269-G     | 26.9       | 14.5 |                     |                            |



## ICN...G Drilling Head

For ICN Drills | For General  
Drilling (ISO P & K Materials)



Unit: mm

| Specification | Dimensions |      | Drilling Body       | Grade                      |
|---------------|------------|------|---------------------|----------------------------|
|               | D          | t    |                     |                            |
| ICN-270-G     | 27.0       | 15.5 | ICN270279<br>-32-.. | NP5900<br>NP3900<br>NP6900 |
| ICN-271-G     | 27.1       | 15.5 |                     |                            |
| ICN-272-G     | 27.2       | 15.5 |                     |                            |
| ICN-273-G     | 27.3       | 15.5 |                     |                            |
| ICN-274-G     | 27.4       | 15.5 |                     |                            |
| ICN-275-G     | 27.5       | 15.5 |                     |                            |
| ICN-276-G     | 27.6       | 15.5 |                     |                            |
| ICN-277-G     | 27.7       | 15.5 |                     |                            |
| ICN-278-G     | 27.8       | 15.5 |                     |                            |
| ICN-279-G     | 27.9       | 15.5 |                     |                            |
| ICN-280-G     | 28.0       | 16.0 | ICN280289<br>-32-.. |                            |
| ICN-281-G     | 28.1       | 16.0 |                     |                            |
| ICN-282-G     | 28.2       | 16.0 |                     |                            |
| ICN-283-G     | 28.3       | 16.0 |                     |                            |
| ICN-284-G     | 28.4       | 16.0 |                     |                            |
| ICN-285-G     | 28.5       | 16.0 |                     |                            |
| ICN-286-G     | 28.6       | 16.0 |                     |                            |
| ICN-287-G     | 28.7       | 16.0 |                     |                            |
| ICN-288-G     | 28.8       | 16.0 |                     |                            |
| ICN-289-G     | 28.9       | 16.0 |                     |                            |
| ICN-290-G     | 29.0       | 16.0 | ICN290299<br>-32-.. |                            |
| ICN-291-G     | 29.1       | 16.0 |                     |                            |
| ICN-292-G     | 29.2       | 16.0 |                     |                            |
| ICN-293-G     | 29.3       | 16.0 |                     |                            |
| ICN-294-G     | 29.4       | 16.0 |                     |                            |
| ICN-295-G     | 29.5       | 16.0 |                     |                            |
| ICN-296-G     | 29.6       | 16.0 |                     |                            |
| ICN-297-G     | 29.7       | 16.0 |                     |                            |
| ICN-298-G     | 29.8       | 16.0 |                     |                            |
| ICN-299-G     | 29.9       | 16.0 |                     |                            |
| ICN-300-G     | 30.0       | 16.0 | ICN300309<br>-32-.. |                            |
| ICN-301-G     | 30.1       | 16.0 |                     |                            |
| ICN-302-G     | 30.2       | 16.0 |                     |                            |
| ICN-303-G     | 30.3       | 16.0 |                     |                            |
| ICN-304-G     | 30.4       | 16.0 |                     |                            |

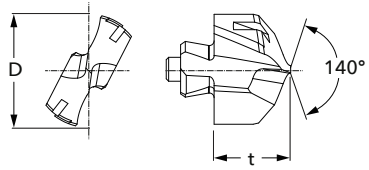
Unit: mm

| Specification | Dimensions |      | Drilling Body       | Grade                      |
|---------------|------------|------|---------------------|----------------------------|
|               | D          | t    |                     |                            |
| ICN-305-G     | 30.5       | 16.0 | ICN300309<br>-32-.. | NP5900<br>NP3900<br>NP6900 |
| ICN-306-G     | 30.6       | 16.0 |                     |                            |
| ICN-307-G     | 30.7       | 16.0 |                     |                            |
| ICN-308-G     | 30.8       | 16.0 |                     |                            |
| ICN-309-G     | 30.9       | 16.0 |                     |                            |
| ICN-310-G     | 31.0       | 6.0  | ICN310319<br>-32-.. |                            |
| ICN-311-G     | 31.1       | 16.0 |                     |                            |
| ICN-312-G     | 31.2       | 16.0 |                     |                            |
| ICN-313-G     | 31.3       | 16.0 |                     |                            |
| ICN-314-G     | 31.4       | 16.0 |                     |                            |
| ICN-315-G     | 31.5       | 16.0 |                     |                            |
| ICN-316-G     | 31.6       | 16.0 |                     |                            |
| ICN-317-G     | 31.7       | 16.0 |                     |                            |
| ICN-318-G     | 31.8       | 16.0 |                     |                            |
| ICN-319-G     | 31.9       | 16.0 |                     |                            |
| ICN-320-G     | 32.0       | 17.5 | ICN320329<br>-32-.. |                            |
| ICN-321-G     | 32.1       | 17.5 |                     |                            |
| ICN-322-G     | 32.2       | 17.5 |                     |                            |
| ICN-323-G     | 32.3       | 17.5 |                     |                            |
| ICN-324-G     | 32.4       | 17.5 |                     |                            |
| ICN-325-G     | 32.5       | 17.5 |                     |                            |
| ICN-326-G     | 32.6       | 17.5 |                     |                            |
| ICN-327-G     | 32.7       | 17.5 |                     |                            |
| ICN-328-G     | 32.8       | 17.5 |                     |                            |
| ICN-329-G     | 32.9       | 17.5 |                     |                            |
| ICN-330-G     | 33.0       | 18.0 | ICN330339<br>-32-.. |                            |
| ICN-331-G     | 33.1       | 18.0 |                     |                            |
| ICN-332-G     | 33.2       | 18.0 |                     |                            |
| ICN-333-G     | 33.3       | 18.0 |                     |                            |
| ICN-334-G     | 33.4       | 18.0 |                     |                            |
| ICN-335-G     | 33.5       | 18.0 |                     |                            |
| ICN-336-G     | 33.6       | 18.0 |                     |                            |
| ICN-337-G     | 33.7       | 18.0 |                     |                            |
| ICN-338-G     | 33.8       | 18.0 |                     |                            |
| ICN-339-G     | 33.9       | 18.0 |                     |                            |



## ICN...G Drilling Head

For ICN Drills | For General Drilling (ISO P & K Materials)



Unit: mm

| Specification | Dimensions |      | Drilling Body       | Grade                      |
|---------------|------------|------|---------------------|----------------------------|
|               | D          | t    |                     |                            |
| ICN-340-G     | 34.0       | 18.5 | ICN340349<br>-32-.. | NP5900<br>NP3900<br>NP6900 |
| ICN-341-G     | 34.1       | 18.5 |                     |                            |
| ICN-342-G     | 34.2       | 18.5 |                     |                            |
| ICN-343-G     | 34.3       | 18.5 |                     |                            |
| ICN-344-G     | 34.4       | 18.5 |                     |                            |
| ICN-345-G     | 34.5       | 18.5 |                     |                            |
| ICN-346-G     | 34.6       | 18.5 |                     |                            |
| ICN-347-G     | 34.7       | 18.5 |                     |                            |
| ICN-348-G     | 34.8       | 18.5 |                     |                            |
| ICN-349-G     | 34.9       | 18.5 |                     |                            |
| ICN-350-G     | 35.0       | 18.5 | ICN350359<br>-32-.. |                            |
| ICN-351-G     | 35.1       | 18.5 |                     |                            |
| ICN-352-G     | 35.2       | 18.5 |                     |                            |
| ICN-353-G     | 35.3       | 18.5 |                     |                            |
| ICN-354-G     | 35.4       | 18.5 |                     |                            |
| ICN-355-G     | 35.5       | 18.5 |                     |                            |
| ICN-356-G     | 35.6       | 18.5 |                     |                            |
| ICN-357-G     | 35.7       | 18.5 |                     |                            |
| ICN-358-G     | 35.8       | 18.5 |                     |                            |
| ICN-359-G     | 35.9       | 18.5 |                     |                            |
| ICN-360-G     | 36.0       | 19.5 | ICN360369<br>-32-.. |                            |
| ICN-361-G     | 36.1       | 19.5 |                     |                            |
| ICN-362-G     | 36.2       | 19.5 |                     |                            |
| ICN-363-G     | 36.3       | 19.5 |                     |                            |
| ICN-364-G     | 36.4       | 19.5 |                     |                            |
| ICN-365-G     | 36.5       | 19.5 |                     |                            |
| ICN-366-G     | 36.6       | 19.5 |                     |                            |
| ICN-367-G     | 36.7       | 19.5 |                     |                            |
| ICN-368-G     | 36.8       | 19.5 |                     |                            |
| ICN-369-G     | 36.9       | 19.5 |                     |                            |

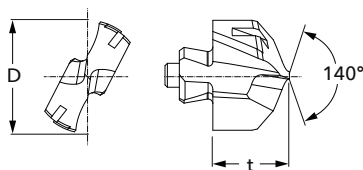
Unit: mm

| Specification | Dimensions |      | Drilling Body       | Grade                      |
|---------------|------------|------|---------------------|----------------------------|
|               | D          | t    |                     |                            |
| ICN-370-G     | 37.0       | 19.5 | ICN370379<br>-32-.. | NP5900<br>NP3900<br>NP6900 |
| ICN-371-G     | 37.1       | 19.5 |                     |                            |
| ICN-372-G     | 37.2       | 19.5 |                     |                            |
| ICN-373-G     | 37.3       | 19.5 |                     |                            |
| ICN-374-G     | 37.4       | 19.5 |                     |                            |
| ICN-375-G     | 37.5       | 19.5 |                     |                            |
| ICN-376-G     | 37.6       | 19.5 |                     |                            |
| ICN-377-G     | 37.7       | 19.5 |                     |                            |
| ICN-378-G     | 37.8       | 19.5 |                     |                            |
| ICN-379-G     | 37.9       | 19.5 |                     |                            |
| ICN-380-G     | 38.0       | 20.0 | ICN380389<br>-32-.. |                            |
| ICN-381-G     | 38.1       | 20.0 |                     |                            |
| ICN-382-G     | 38.2       | 20.0 |                     |                            |
| ICN-383-G     | 38.3       | 20.0 |                     |                            |
| ICN-384-G     | 38.4       | 20.0 |                     |                            |
| ICN-385-G     | 38.5       | 20.0 |                     |                            |
| ICN-386-G     | 38.6       | 20.0 |                     |                            |
| ICN-387-G     | 38.7       | 20.0 |                     |                            |
| ICN-388-G     | 38.8       | 20.0 |                     |                            |
| ICN-389-G     | 38.9       | 20.0 |                     |                            |
| ICN-390-G     | 39.0       | 20.0 | ICN390399<br>-32-.. |                            |
| ICN-391-G     | 39.1       | 20.0 |                     |                            |
| ICN-392-G     | 39.2       | 20.0 |                     |                            |
| ICN-393-G     | 39.3       | 20.0 |                     |                            |
| ICN-394-G     | 39.4       | 20.0 |                     |                            |
| ICN-395-G     | 39.5       | 20.0 |                     |                            |
| ICN-396-G     | 39.6       | 20.0 |                     |                            |
| ICN-397-G     | 39.7       | 20.0 |                     |                            |
| ICN-398-G     | 39.8       | 20.0 |                     |                            |
| ICN-399-G     | 39.9       | 20.0 |                     |                            |



## ICN...G Drilling Head

For ICN Drills | For General Drilling (ISO P & K Materials)



Unit: mm

| Specification | Dimensions |      | Drilling Body       | Grade                      |
|---------------|------------|------|---------------------|----------------------------|
|               | D          | t    |                     |                            |
| ICN-400-G     | 40.0       | 21.0 | ICN400409<br>-32-.. | NP5900<br>NP3900<br>NP6900 |
| ICN-401-G     | 40.1       | 21.0 |                     |                            |
| ICN-402-G     | 40.2       | 21.0 |                     |                            |
| ICN-403-G     | 40.3       | 21.0 |                     |                            |
| ICN-404-G     | 40.4       | 21.0 |                     |                            |
| ICN-405-G     | 40.5       | 21.0 |                     |                            |
| ICN-406-G     | 40.6       | 21.0 |                     |                            |
| ICN-407-G     | 40.7       | 21.0 |                     |                            |
| ICN-408-G     | 40.8       | 21.0 |                     |                            |
| ICN-409-G     | 40.9       | 21.0 |                     |                            |
| ICN-410-G     | 41.0       | 21.0 | ICN410419<br>-32-.. |                            |
| ICN-411-G     | 41.1       | 21.0 |                     |                            |
| ICN-412-G     | 41.2       | 21.0 |                     |                            |
| ICN-413-G     | 41.3       | 21.0 |                     |                            |
| ICN-414-G     | 41.4       | 21.0 |                     |                            |
| ICN-415-G     | 41.5       | 21.0 |                     |                            |
| ICN-416-G     | 41.6       | 21.0 |                     |                            |
| ICN-417-G     | 41.7       | 21.0 |                     |                            |
| ICN-418-G     | 41.8       | 21.0 |                     |                            |
| ICN-419-G     | 41.9       | 21.0 |                     |                            |
| ICN-420-G     | 42.0       | 21.0 | ICN420429<br>-50-.. |                            |
| ICN-421-G     | 42.1       | 21.0 |                     |                            |
| ICN-422-G     | 42.2       | 21.0 |                     |                            |
| ICN-423-G     | 42.3       | 21.0 |                     |                            |
| ICN-424-G     | 42.4       | 21.0 |                     |                            |
| ICN-425-G     | 42.5       | 21.0 |                     |                            |
| ICN-426-G     | 42.6       | 21.0 |                     |                            |
| ICN-427-G     | 42.7       | 21.0 |                     |                            |
| ICN-428-G     | 42.8       | 21.0 |                     |                            |
| ICN-429-G     | 42.9       | 21.0 |                     |                            |

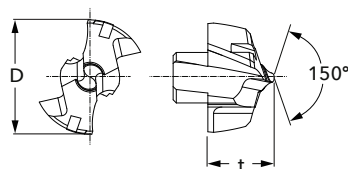
Unit: mm

| Specification | Dimensions |      | Drilling Body       | Grade                      |
|---------------|------------|------|---------------------|----------------------------|
|               | D          | t    |                     |                            |
| ICN-430-G     | 43.0       | 22.0 | ICN430439<br>-50-.. | NP5900<br>NP3900<br>NP6900 |
| ICN-431-G     | 43.1       | 22.0 |                     |                            |
| ICN-432-G     | 43.2       | 22.0 |                     |                            |
| ICN-433-G     | 43.3       | 22.0 |                     |                            |
| ICN-434-G     | 43.4       | 22.0 |                     |                            |
| ICN-435-G     | 43.5       | 22.0 |                     |                            |
| ICN-436-G     | 43.6       | 22.0 |                     |                            |
| ICN-437-G     | 43.7       | 22.0 |                     |                            |
| ICN-438-G     | 43.8       | 22.0 |                     |                            |
| ICN-439-G     | 43.9       | 22.0 |                     |                            |
| ICN-440-G     | 44.0       | 22.0 | ICN440450<br>-50-.. |                            |
| ICN-441-G     | 44.1       | 22.0 |                     |                            |
| ICN-442-G     | 44.2       | 22.0 |                     |                            |
| ICN-443-G     | 44.3       | 22.0 |                     |                            |
| ICN-444-G     | 44.4       | 22.0 |                     |                            |
| ICN-445-G     | 44.5       | 22.0 |                     |                            |
| ICN-446-G     | 44.6       | 22.0 |                     |                            |
| ICN-447-G     | 44.7       | 22.0 |                     |                            |
| ICN-448-G     | 44.8       | 22.0 |                     |                            |
| ICN-449-G     | 44.9       | 22.0 |                     |                            |
| ICN-450-G     | 45.0       | 22.0 |                     |                            |

## ICN...P Drilling Head

For ICN Drills | Better  $\geq 5D$

For Carbon and Alloy Steel (ISO P Materials)



Unit: mm

| Specification | Dimensions |     | Drilling Body      | Grade            |
|---------------|------------|-----|--------------------|------------------|
|               | D          | t   |                    |                  |
| ICN-080-P     | 8.0        | 5.4 | ICN080089<br>-12.. | NP3900<br>NP6900 |
| ICN-081-P     | 8.1        | 5.4 |                    |                  |
| ICN-082-P     | 8.2        | 5.4 |                    |                  |
| ICN-083-P     | 8.3        | 5.4 |                    |                  |
| ICN-084-P     | 8.4        | 5.4 |                    |                  |
| ICN-085-P     | 8.5        | 5.4 |                    |                  |
| ICN-086-P     | 8.6        | 5.4 |                    |                  |
| ICN-087-P     | 8.7        | 5.4 |                    |                  |
| ICN-088-P     | 8.8        | 5.4 |                    |                  |
| ICN-089-P     | 8.9        | 5.4 |                    |                  |
| ICN-090-P     | 9.0        | 5.8 | ICN090099<br>-12.. |                  |
| ICN-091-P     | 9.1        | 5.8 |                    |                  |
| ICN-092-P     | 9.2        | 5.8 |                    |                  |
| ICN-093-P     | 9.3        | 5.8 |                    |                  |
| ICN-094-P     | 9.4        | 5.8 |                    |                  |
| ICN-095-P     | 9.5        | 5.8 |                    |                  |
| ICN-096-P     | 9.6        | 5.8 |                    |                  |
| ICN-097-P     | 9.7        | 5.8 |                    |                  |
| ICN-098-P     | 9.8        | 5.8 |                    |                  |
| ICN-099-P     | 9.9        | 5.8 |                    |                  |
| ICN-100-P     | 10.0       | 6.2 | ICN100109<br>-16.. |                  |
| ICN-101-P     | 10.1       | 6.2 |                    |                  |
| ICN-102-P     | 10.2       | 6.2 |                    |                  |
| ICN-103-P     | 10.3       | 6.2 |                    |                  |
| ICN-104-P     | 10.4       | 6.2 |                    |                  |
| ICN-105-P     | 10.5       | 6.2 |                    |                  |
| ICN-106-P     | 10.6       | 6.2 |                    |                  |
| ICN-107-P     | 10.7       | 6.2 |                    |                  |
| ICN-108-P     | 10.8       | 6.2 |                    |                  |
| ICN-109-P     | 10.9       | 6.2 |                    |                  |

Unit: mm

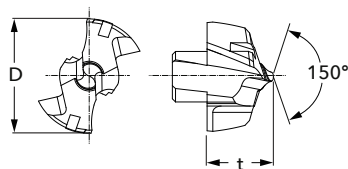
| Specification | Dimensions |     | Drilling Body      | Grade            |
|---------------|------------|-----|--------------------|------------------|
|               | D          | t   |                    |                  |
| ICN-110-P     | 11.0       | 6.6 | ICN110119<br>-16.. | NP3900<br>NP6900 |
| ICN-111-P     | 11.1       | 6.6 |                    |                  |
| ICN-112-P     | 11.2       | 6.6 |                    |                  |
| ICN-113-P     | 11.3       | 6.6 |                    |                  |
| ICN-114-P     | 11.4       | 6.6 |                    |                  |
| ICN-115-P     | 11.5       | 6.6 |                    |                  |
| ICN-116-P     | 11.6       | 6.6 |                    |                  |
| ICN-117-P     | 11.7       | 6.6 |                    |                  |
| ICN-118-P     | 11.8       | 6.6 |                    |                  |
| ICN-119-P     | 11.9       | 6.6 |                    |                  |
| ICN-120-P     | 12.0       | 7.0 | ICN120129<br>-16.. |                  |
| ICN-121-P     | 12.1       | 7.0 |                    |                  |
| ICN-122-P     | 12.2       | 7.0 |                    |                  |
| ICN-123-P     | 12.3       | 7.0 |                    |                  |
| ICN-124-P     | 12.4       | 7.0 |                    |                  |
| ICN-125-P     | 12.5       | 7.0 |                    |                  |
| ICN-126-P     | 12.6       | 7.0 |                    |                  |
| ICN-127-P     | 12.7       | 7.0 |                    |                  |
| ICN-128-P     | 12.8       | 7.0 |                    |                  |
| ICN-129-P     | 12.9       | 7.0 |                    |                  |
| ICN-130-P     | 13.0       | 7.6 | ICN130139<br>-16.. |                  |
| ICN-131-P     | 13.1       | 7.6 |                    |                  |
| ICN-132-P     | 13.2       | 7.6 |                    |                  |
| ICN-133-P     | 13.3       | 7.6 |                    |                  |
| ICN-134-P     | 13.4       | 7.6 |                    |                  |
| ICN-135-P     | 13.5       | 7.6 |                    |                  |
| ICN-136-P     | 13.6       | 7.6 |                    |                  |
| ICN-137-P     | 13.7       | 7.6 |                    |                  |
| ICN-138-P     | 13.8       | 7.6 |                    |                  |
| ICN-139-P     | 13.9       | 7.6 |                    |                  |



## ICN...P Drilling Head

For ICN Drills | Better >= 5D

For Carbon and Alloy Steel (ISO P Materials)



Unit: mm

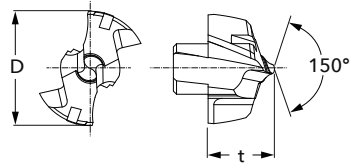
| Specification | Dimensions |     | Drilling Body       | Grade            |
|---------------|------------|-----|---------------------|------------------|
|               | D          | t   |                     |                  |
| ICN-140-P     | 14.0       | 8.1 | ICN140149<br>-16-.. | NP3900<br>NP6900 |
| ICN-141-P     | 14.1       | 8.1 |                     |                  |
| ICN-142-P     | 14.2       | 8.1 |                     |                  |
| ICN-143-P     | 14.3       | 8.1 |                     |                  |
| ICN-144-P     | 14.4       | 8.1 |                     |                  |
| ICN-145-P     | 14.5       | 8.1 |                     |                  |
| ICN-146-P     | 14.6       | 8.1 |                     |                  |
| ICN-147-P     | 14.7       | 8.1 |                     |                  |
| ICN-148-P     | 14.8       | 8.1 |                     |                  |
| ICN-149-P     | 14.9       | 8.1 |                     |                  |
| ICN-150-P     | 15.0       | 8.7 | ICN150159<br>-20-.. |                  |
| ICN-151-P     | 15.1       | 8.7 |                     |                  |
| ICN-152-P     | 15.2       | 8.7 |                     |                  |
| ICN-153-P     | 15.3       | 8.7 |                     |                  |
| ICN-154-P     | 15.4       | 8.7 |                     |                  |
| ICN-155-P     | 15.5       | 8.7 |                     |                  |
| ICN-156-P     | 15.6       | 8.7 |                     |                  |
| ICN-157-P     | 15.7       | 8.7 |                     |                  |
| ICN-158-P     | 15.8       | 8.7 |                     |                  |
| ICN-159-P     | 15.9       | 8.7 |                     |                  |
| ICN-160-P     | 16.0       | 9.3 | ICN160169<br>-20-.. |                  |
| ICN-161-P     | 16.1       | 9.3 |                     |                  |
| ICN-162-P     | 16.2       | 9.3 |                     |                  |
| ICN-163-P     | 16.3       | 9.3 |                     |                  |
| ICN-164-P     | 16.4       | 9.3 |                     |                  |
| ICN-165-P     | 16.5       | 9.3 |                     |                  |
| ICN-166-P     | 16.6       | 9.3 |                     |                  |
| ICN-167-P     | 16.7       | 9.3 |                     |                  |
| ICN-168-P     | 16.8       | 9.3 |                     |                  |
| ICN-169-P     | 16.9       | 9.3 |                     |                  |

Unit: mm

| Specification | Dimensions |      | Drilling Body       | Grade            |
|---------------|------------|------|---------------------|------------------|
|               | D          | t    |                     |                  |
| ICN-170-P     | 17.0       | 9.9  | ICN170179<br>-20-.. | NP3900<br>NP6900 |
| ICN-171-P     | 17.1       | 9.9  |                     |                  |
| ICN-172-P     | 17.2       | 9.9  |                     |                  |
| ICN-173-P     | 17.3       | 9.9  |                     |                  |
| ICN-174-P     | 17.4       | 9.9  |                     |                  |
| ICN-175-P     | 17.5       | 9.9  |                     |                  |
| ICN-176-P     | 17.6       | 9.9  |                     |                  |
| ICN-177-P     | 17.7       | 9.9  |                     |                  |
| ICN-178-P     | 17.8       | 9.9  |                     |                  |
| ICN-179-P     | 17.9       | 9.9  |                     |                  |
| ICN-180-P     | 18.0       | 10.5 | ICN180189<br>-25-.. |                  |
| ICN-181-P     | 18.1       | 10.5 |                     |                  |
| ICN-182-P     | 18.2       | 10.5 |                     |                  |
| ICN-183-P     | 18.3       | 10.5 |                     |                  |
| ICN-184-P     | 18.4       | 10.5 |                     |                  |
| ICN-185-P     | 18.5       | 10.5 |                     |                  |
| ICN-186-P     | 18.6       | 10.5 |                     |                  |
| ICN-187-P     | 18.7       | 10.5 |                     |                  |
| ICN-188-P     | 18.8       | 10.5 |                     |                  |
| ICN-189-P     | 18.9       | 10.5 |                     |                  |
| ICN-190-P     | 19.0       | 11.0 | ICN190199<br>-25-.. |                  |
| ICN-191-P     | 19.1       | 11.0 |                     |                  |
| ICN-192-P     | 19.2       | 11.0 |                     |                  |
| ICN-193-P     | 19.3       | 11.0 |                     |                  |
| ICN-194-P     | 19.4       | 11.0 |                     |                  |
| ICN-195-P     | 19.5       | 11.0 |                     |                  |
| ICN-196-P     | 19.6       | 11.0 |                     |                  |
| ICN-197-P     | 19.7       | 11.0 |                     |                  |
| ICN-198-P     | 19.8       | 11.0 |                     |                  |
| ICN-199-P     | 19.9       | 11.0 |                     |                  |

## ICN...P Drilling Head

For ICN Drills | Better  $\geq 5D$   
For Carbon and Alloy Steel (ISO P Materials)



Unit: mm

| Specification | Dimensions |      | Drilling Body       | Grade            |
|---------------|------------|------|---------------------|------------------|
|               | D          | t    |                     |                  |
| ICN-200-P     | 20.0       | 11.6 | ICN200209<br>-25-.. | NP3900<br>NP6900 |
| ICN-201-P     | 20.1       | 11.6 |                     |                  |
| ICN-202-P     | 20.2       | 11.6 |                     |                  |
| ICN-203-P     | 20.3       | 11.6 |                     |                  |
| ICN-204-P     | 20.4       | 11.6 |                     |                  |
| ICN-205-P     | 20.5       | 11.6 |                     |                  |
| ICN-206-P     | 20.6       | 11.6 |                     |                  |
| ICN-207-P     | 20.7       | 11.6 |                     |                  |
| ICN-208-P     | 20.8       | 11.6 |                     |                  |
| ICN-209-P     | 20.9       | 11.6 |                     |                  |
| ICN-210-P     | 21.0       | 12.1 | ICN210219<br>-25-.. |                  |
| ICN-211-P     | 21.1       | 12.1 |                     |                  |
| ICN-212-P     | 21.2       | 12.1 |                     |                  |
| ICN-213-P     | 21.3       | 12.1 |                     |                  |
| ICN-214-P     | 21.4       | 12.1 |                     |                  |
| ICN-215-P     | 21.5       | 12.1 |                     |                  |
| ICN-216-P     | 21.6       | 12.1 |                     |                  |
| ICN-217-P     | 21.7       | 12.1 |                     |                  |
| ICN-218-P     | 21.8       | 12.1 |                     |                  |
| ICN-219-P     | 21.9       | 12.1 |                     |                  |
| ICN-220-P     | 22.0       | 12.7 | ICN220229<br>-25-.. |                  |
| ICN-221-P     | 22.1       | 12.7 |                     |                  |
| ICN-222-P     | 22.2       | 12.7 |                     |                  |
| ICN-223-P     | 22.3       | 12.7 |                     |                  |
| ICN-224-P     | 22.4       | 12.7 |                     |                  |
| ICN-225-P     | 22.5       | 12.7 |                     |                  |
| ICN-226-P     | 22.6       | 12.7 |                     |                  |
| ICN-227-P     | 22.7       | 12.7 |                     |                  |
| ICN-228-P     | 22.8       | 12.7 |                     |                  |
| ICN-229-P     | 22.9       | 12.7 |                     |                  |
| ICN-230-P     | 23.0       | 13.3 | ICN230239<br>-32-.. |                  |
| ICN-231-P     | 23.1       | 13.3 |                     |                  |
| ICN-232-P     | 23.2       | 13.3 |                     |                  |
| ICN-233-P     | 23.3       | 13.3 |                     |                  |
| ICN-234-P     | 23.4       | 13.3 |                     |                  |

Unit: mm

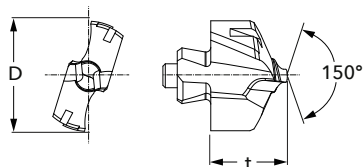
| Specification | Dimensions |      | Drilling Body       | Grade            |
|---------------|------------|------|---------------------|------------------|
|               | D          | t    |                     |                  |
| ICN-235-P     | 23.5       | 13.3 | ICN230239<br>-32-.. | NP3900<br>NP6900 |
| ICN-236-P     | 23.6       | 13.3 |                     |                  |
| ICN-237-P     | 23.7       | 13.3 |                     |                  |
| ICN-238-P     | 23.8       | 13.3 |                     |                  |
| ICN-239-P     | 23.9       | 13.3 |                     |                  |
| ICN-240-P     | 24.0       | 13.9 | ICN240249<br>-32-.. |                  |
| ICN-241-P     | 24.1       | 13.9 |                     |                  |
| ICN-242-P     | 24.2       | 13.9 |                     |                  |
| ICN-243-P     | 24.3       | 13.9 |                     |                  |
| ICN-244-P     | 24.4       | 13.9 |                     |                  |
| ICN-245-P     | 24.5       | 13.9 |                     |                  |
| ICN-246-P     | 24.6       | 13.9 |                     |                  |
| ICN-247-P     | 24.7       | 13.9 |                     |                  |
| ICN-248-P     | 24.8       | 13.9 |                     |                  |
| ICN-249-P     | 24.9       | 13.9 | ICN250260<br>-32-.. |                  |
| ICN-250-P     | 25.0       | 14.5 |                     |                  |
| ICN-251-P     | 25.1       | 14.5 |                     |                  |
| ICN-252-P     | 25.2       | 14.5 |                     |                  |
| ICN-253-P     | 25.3       | 14.5 |                     |                  |
| ICN-254-P     | 25.4       | 14.5 |                     |                  |
| ICN-255-P     | 25.5       | 14.5 |                     |                  |
| ICN-256-P     | 25.6       | 14.5 |                     |                  |
| ICN-257-P     | 25.7       | 14.5 |                     |                  |
| ICN-258-P     | 25.8       | 14.5 |                     |                  |
| ICN-259-P     | 25.9       | 14.5 | ICN250260<br>-32-   |                  |
| ICN-260-P     | 26.0       | 14.5 |                     |                  |
| ICN-261-P     | 26.1       | 14.5 |                     |                  |
| ICN-262-P     | 26.2       | 14.5 |                     |                  |
| ICN-263-P     | 26.3       | 14.5 |                     |                  |
| ICN-264-P     | 26.4       | 14.5 |                     |                  |
| ICN-265-P     | 26.5       | 14.5 |                     |                  |
| ICN-266-P     | 26.6       | 14.5 |                     |                  |
| ICN-267-P     | 26.7       | 14.5 |                     |                  |
| ICN-268-P     | 26.8       | 14.5 |                     |                  |
| ICN-269-P     | 26.9       | 14.5 |                     |                  |



## ICN...P Drilling Head

For ICN Drills | Better  $\geq$  5D

For Carbon and Alloy Steel (ISO P Materials)



Unit: mm

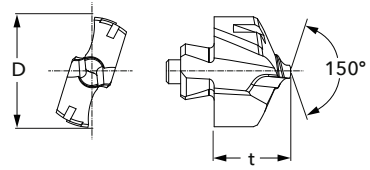
| Specification | Dimensions |      | Drilling Body      | Grade            |
|---------------|------------|------|--------------------|------------------|
|               | D          | t    |                    |                  |
| ICN-270-P     | 27.0       | 15.5 | ICN270279<br>-32.. | NP3900<br>NP6900 |
| ICN-271-P     | 27.1       | 15.5 |                    |                  |
| ICN-272-P     | 27.2       | 15.5 |                    |                  |
| ICN-273-P     | 27.3       | 15.5 |                    |                  |
| ICN-274-P     | 27.4       | 15.5 |                    |                  |
| ICN-275-P     | 27.5       | 15.5 |                    |                  |
| ICN-276-P     | 27.6       | 15.5 |                    |                  |
| ICN-277-P     | 27.7       | 15.5 |                    |                  |
| ICN-278-P     | 27.8       | 15.5 |                    |                  |
| ICN-279-P     | 27.9       | 15.5 |                    |                  |
| ICN-280-P     | 28.0       | 16.0 | ICN280289<br>-32.. |                  |
| ICN-281-P     | 28.1       | 16.0 |                    |                  |
| ICN-282-P     | 28.2       | 16.0 |                    |                  |
| ICN-283-P     | 28.3       | 16.0 |                    |                  |
| ICN-284-P     | 28.4       | 16.0 |                    |                  |
| ICN-285-P     | 28.5       | 16.0 |                    |                  |
| ICN-286-P     | 28.6       | 16.0 |                    |                  |
| ICN-287-P     | 28.7       | 16.0 |                    |                  |
| ICN-288-P     | 28.8       | 16.0 |                    |                  |
| ICN-289-P     | 28.9       | 16.0 |                    |                  |
| ICN-290-P     | 29.0       | 16.0 | ICN290299<br>-32.. |                  |
| ICN-291-P     | 29.1       | 16.0 |                    |                  |
| ICN-292-P     | 29.2       | 16.0 |                    |                  |
| ICN-293-P     | 29.3       | 16.0 |                    |                  |
| ICN-294-P     | 29.4       | 16.0 |                    |                  |
| ICN-295-P     | 29.5       | 16.0 |                    |                  |
| ICN-296-P     | 29.6       | 16.0 |                    |                  |
| ICN-297-P     | 29.7       | 16.0 |                    |                  |
| ICN-298-P     | 29.8       | 16.0 |                    |                  |
| ICN-299-P     | 29.9       | 16.0 |                    |                  |
| ICN-300-P     | 30.0       | 16.0 | ICN300309<br>-32.. |                  |
| ICN-301-P     | 30.1       | 16.0 |                    |                  |
| ICN-302-P     | 30.2       | 16.0 |                    |                  |
| ICN-303-P     | 30.3       | 16.0 |                    |                  |
| ICN-304-P     | 30.4       | 16.0 |                    |                  |

Unit: mm

| Specification | Dimensions |      | Drilling Body      | Grade            |
|---------------|------------|------|--------------------|------------------|
|               | D          | t    |                    |                  |
| ICN-305-P     | 30.5       | 16.0 | ICN300309<br>-32.. | NP3900<br>NP6900 |
| ICN-306-P     | 30.6       | 16.0 |                    |                  |
| ICN-307-P     | 30.7       | 16.0 |                    |                  |
| ICN-308-P     | 30.8       | 16.0 |                    |                  |
| ICN-309-P     | 30.9       | 16.0 |                    |                  |
| ICN-310-P     | 31.0       | 16.0 | ICN310319<br>-32.. |                  |
| ICN-311-P     | 31.1       | 16.0 |                    |                  |
| ICN-312-P     | 31.2       | 16.0 |                    |                  |
| ICN-313-P     | 31.3       | 16.0 |                    |                  |
| ICN-314-P     | 31.4       | 16.0 |                    |                  |
| ICN-315-P     | 31.5       | 16.0 |                    |                  |
| ICN-316-P     | 31.6       | 16.0 |                    |                  |
| ICN-317-P     | 31.7       | 16.0 |                    |                  |
| ICN-318-P     | 31.8       | 16.0 | ICN320329<br>-32.. |                  |
| ICN-319-P     | 31.9       | 16.0 |                    |                  |
| ICN-320-P     | 32.0       | 17.5 |                    |                  |
| ICN-321-P     | 32.1       | 17.5 |                    |                  |
| ICN-322-P     | 32.2       | 17.5 |                    |                  |
| ICN-323-P     | 32.3       | 17.5 |                    |                  |
| ICN-324-P     | 32.4       | 17.5 |                    |                  |
| ICN-325-P     | 32.5       | 17.5 |                    |                  |
| ICN-326-P     | 32.6       | 17.5 |                    |                  |
| ICN-327-P     | 32.7       | 17.5 | ICN330339<br>-32.. |                  |
| ICN-328-P     | 32.8       | 17.5 |                    |                  |
| ICN-329-P     | 32.9       | 17.5 |                    |                  |
| ICN-330-P     | 33.0       | 18.0 |                    |                  |
| ICN-331-P     | 33.1       | 18.0 |                    |                  |
| ICN-332-P     | 33.2       | 18.0 |                    |                  |
| ICN-333-P     | 33.3       | 18.0 |                    |                  |
| ICN-334-P     | 33.4       | 18.0 |                    |                  |
| ICN-335-P     | 33.5       | 18.0 |                    |                  |
| ICN-336-P     | 33.6       | 18.0 |                    |                  |
| ICN-337-P     | 33.7       | 18.0 |                    |                  |
| ICN-338-P     | 33.8       | 18.0 |                    |                  |
| ICN-339-P     | 33.9       | 18.0 |                    |                  |

## ICN...P Drilling Head

For ICN Drills | Better  $\geq 5D$   
For Carbon and Alloy Steel (ISO P Materials)



Unit: mm

| Specification | Dimensions |      | Drilling Body       | Grade            |
|---------------|------------|------|---------------------|------------------|
|               | D          | t    |                     |                  |
| ICN-340-P     | 34.0       | 18.5 | ICN340349<br>-32-.. | NP3900<br>NP6900 |
| ICN-341-P     | 34.1       | 18.5 |                     |                  |
| ICN-342-P     | 34.2       | 18.5 |                     |                  |
| ICN-343-P     | 34.3       | 18.5 |                     |                  |
| ICN-344-P     | 34.4       | 18.5 |                     |                  |
| ICN-345-P     | 34.5       | 18.5 |                     |                  |
| ICN-346-P     | 34.6       | 18.5 |                     |                  |
| ICN-347-P     | 34.7       | 18.5 |                     |                  |
| ICN-348-P     | 34.8       | 18.5 |                     |                  |
| ICN-349-P     | 34.9       | 18.5 |                     |                  |
| ICN-350-P     | 35.0       | 18.5 | ICN350359<br>-32-.. |                  |
| ICN-351-P     | 35.1       | 18.5 |                     |                  |
| ICN-352-P     | 35.2       | 18.5 |                     |                  |
| ICN-353-P     | 35.3       | 18.5 |                     |                  |
| ICN-354-P     | 35.4       | 18.5 |                     |                  |
| ICN-355-P     | 35.5       | 18.5 |                     |                  |
| ICN-356-P     | 35.6       | 18.5 |                     |                  |
| ICN-357-P     | 35.7       | 18.5 |                     |                  |
| ICN-358-P     | 35.8       | 18.5 |                     |                  |
| ICN-359-P     | 35.9       | 18.5 |                     |                  |
| ICN-360-P     | 36.0       | 19.5 | ICN360369<br>-32-.. |                  |
| ICN-361-P     | 36.1       | 19.5 |                     |                  |
| ICN-362-P     | 36.2       | 19.5 |                     |                  |
| ICN-363-P     | 36.3       | 19.5 |                     |                  |
| ICN-364-P     | 36.4       | 19.5 |                     |                  |
| ICN-365-P     | 36.5       | 19.5 |                     |                  |
| ICN-366-P     | 36.6       | 19.5 |                     |                  |
| ICN-367-P     | 36.7       | 19.5 |                     |                  |
| ICN-368-P     | 36.8       | 19.5 |                     |                  |
| ICN-369-P     | 36.9       | 19.5 |                     |                  |

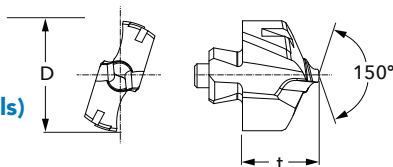
Unit: mm

| Specification | Dimensions |      | Drilling Body       | Grade            |
|---------------|------------|------|---------------------|------------------|
|               | D          | t    |                     |                  |
| ICN-370-P     | 37.0       | 19.5 | ICN370379<br>-32-.. | NP3900<br>NP6900 |
| ICN-371-P     | 37.1       | 19.5 |                     |                  |
| ICN-372-P     | 37.2       | 19.5 |                     |                  |
| ICN-373-P     | 37.3       | 19.5 |                     |                  |
| ICN-374-P     | 37.4       | 19.5 |                     |                  |
| ICN-375-P     | 37.5       | 19.5 |                     |                  |
| ICN-376-P     | 37.6       | 19.5 |                     |                  |
| ICN-377-P     | 37.7       | 19.5 |                     |                  |
| ICN-378-P     | 37.8       | 19.5 |                     |                  |
| ICN-379-P     | 37.9       | 19.5 |                     |                  |
| ICN-380-P     | 38.0       | 20.0 | ICN370379<br>-32-.. |                  |
| ICN-381-P     | 38.1       | 20.0 |                     |                  |
| ICN-382-P     | 38.2       | 20.0 |                     |                  |
| ICN-383-P     | 38.3       | 20.0 |                     |                  |
| ICN-384-P     | 38.4       | 20.0 |                     |                  |
| ICN-385-P     | 38.5       | 20.0 |                     |                  |
| ICN-386-P     | 38.6       | 20.0 |                     |                  |
| ICN-387-P     | 38.7       | 20.0 |                     |                  |
| ICN-388-P     | 38.8       | 20.0 |                     |                  |
| ICN-389-P     | 38.9       | 20.0 |                     |                  |
| ICN-390-P     | 39.0       | 20.0 | ICN390399<br>-32-.. |                  |
| ICN-391-P     | 39.1       | 20.0 |                     |                  |
| ICN-392-P     | 39.2       | 20.0 |                     |                  |
| ICN-393-P     | 39.3       | 20.0 |                     |                  |
| ICN-394-P     | 39.4       | 20.0 |                     |                  |
| ICN-395-P     | 39.5       | 20.0 |                     |                  |
| ICN-396-P     | 39.6       | 20.0 |                     |                  |
| ICN-397-P     | 39.7       | 20.0 |                     |                  |
| ICN-398-P     | 39.8       | 20.0 |                     |                  |
| ICN-399-P     | 39.9       | 20.0 |                     |                  |



## ICN...P Drilling Head

For ICN Drills | Better  $\geq 5D$   
For Carbon and Alloy Steel (ISO P Materials)



Unit: mm

| Specification | Dimensions |      | Drilling Body       | Grade            |
|---------------|------------|------|---------------------|------------------|
|               | D          | t    |                     |                  |
| ICN-400-P     | 40.0       | 21.0 | ICN400409<br>-32-.. | NP3900<br>NP6900 |
| ICN-401-P     | 40.1       | 21.0 |                     |                  |
| ICN-402-P     | 40.2       | 21.0 |                     |                  |
| ICN-403-P     | 40.3       | 21.0 |                     |                  |
| ICN-404-P     | 40.4       | 21.0 |                     |                  |
| ICN-405-P     | 40.5       | 21.0 |                     |                  |
| ICN-406-P     | 40.6       | 21.0 |                     |                  |
| ICN-407-P     | 40.7       | 21.0 |                     |                  |
| ICN-408-P     | 40.8       | 21.0 |                     |                  |
| ICN-409-P     | 40.9       | 21.0 |                     |                  |
| ICN-410-P     | 41.0       | 21.0 | ICN410419<br>-32-.. |                  |
| ICN-411-P     | 41.1       | 21.0 |                     |                  |
| ICN-412-P     | 41.2       | 21.0 |                     |                  |
| ICN-413-P     | 41.3       | 21.0 |                     |                  |
| ICN-414-P     | 41.4       | 21.0 |                     |                  |
| ICN-415-P     | 41.5       | 21.0 |                     |                  |
| ICN-416-P     | 41.6       | 21.0 |                     |                  |
| ICN-417-P     | 41.7       | 21.0 |                     |                  |
| ICN-418-P     | 41.8       | 21.0 |                     |                  |
| ICN-419-P     | 41.9       | 21.0 |                     |                  |
| ICN-420-P     | 42.0       | 21.0 | ICN420429<br>-50-.. |                  |
| ICN-421-P     | 42.1       | 21.0 |                     |                  |
| ICN-422-P     | 42.2       | 21.0 |                     |                  |
| ICN-423-P     | 42.3       | 21.0 |                     |                  |
| ICN-424-P     | 42.4       | 21.0 |                     |                  |
| ICN-425-P     | 42.5       | 21.0 |                     |                  |
| ICN-426-P     | 42.6       | 21.0 |                     |                  |
| ICN-427-P     | 42.7       | 21.0 |                     |                  |
| ICN-428-P     | 42.8       | 21.0 |                     |                  |
| ICN-429-P     | 42.9       | 21.0 |                     |                  |

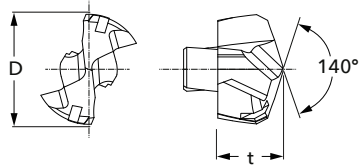
Unit: mm

| Specification | Dimensions |      | Drilling Body       | Grade            |
|---------------|------------|------|---------------------|------------------|
|               | D          | t    |                     |                  |
| ICN-430-P     | 43.0       | 22.0 | ICN430439<br>-50-.. | NP3900<br>NP6900 |
| ICN-431-P     | 43.1       | 22.0 |                     |                  |
| ICN-432-P     | 43.2       | 22.0 |                     |                  |
| ICN-433-P     | 43.3       | 22.0 |                     |                  |
| ICN-434-P     | 43.4       | 22.0 |                     |                  |
| ICN-435-P     | 43.5       | 22.0 |                     |                  |
| ICN-436-P     | 43.6       | 22.0 |                     |                  |
| ICN-437-P     | 43.7       | 22.0 |                     |                  |
| ICN-438-P     | 43.8       | 22.0 |                     |                  |
| ICN-439-P     | 43.9       | 22.0 |                     |                  |
| ICN-440-P     | 44.0       | 22.0 | ICN440450<br>-50-.. |                  |
| ICN-441-P     | 44.1       | 22.0 |                     |                  |
| ICN-442-P     | 44.2       | 22.0 |                     |                  |
| ICN-443-P     | 44.3       | 22.0 |                     |                  |
| ICN-444-P     | 44.4       | 22.0 |                     |                  |
| ICN-445-P     | 44.5       | 22.0 |                     |                  |
| ICN-446-P     | 44.6       | 22.0 |                     |                  |
| ICN-447-P     | 44.7       | 22.0 |                     |                  |
| ICN-448-P     | 44.8       | 22.0 |                     |                  |
| ICN-449-P     | 44.9       | 22.0 |                     |                  |
| ICN-450-P     | 45.0       | 22.0 |                     |                  |



## ICN...K Drilling Head

For ICN Drills | For Cast Iron  
(ISO K Materials)



Unit: mm

| Specification | Dimensions |     | Drilling Body      | Grade  |
|---------------|------------|-----|--------------------|--------|
|               | D          | t   |                    |        |
| ICN-080-K     | 8.0        | 5.4 | ICN080089<br>-12.. | NP6900 |
| ICN-081-K     | 8.1        | 5.4 |                    |        |
| ICN-082-K     | 8.2        | 5.4 |                    |        |
| ICN-083-K     | 8.3        | 5.4 |                    |        |
| ICN-084-K     | 8.4        | 5.4 |                    |        |
| ICN-085-K     | 8.5        | 5.4 |                    |        |
| ICN-086-K     | 8.6        | 5.4 |                    |        |
| ICN-087-K     | 8.7        | 5.4 |                    |        |
| ICN-088-K     | 8.8        | 5.4 |                    |        |
| ICN-089-K     | 8.9        | 5.4 |                    |        |
| ICN-090-K     | 9.0        | 5.8 | ICN090099<br>-12.. |        |
| ICN-091-K     | 9.1        | 5.8 |                    |        |
| ICN-092-K     | 9.2        | 5.8 |                    |        |
| ICN-093-K     | 9.3        | 5.8 |                    |        |
| ICN-094-K     | 9.4        | 5.8 |                    |        |
| ICN-095-K     | 9.5        | 5.8 |                    |        |
| ICN-096-K     | 9.6        | 5.8 |                    |        |
| ICN-097-K     | 9.7        | 5.8 |                    |        |
| ICN-098-K     | 9.8        | 5.8 |                    |        |
| ICN-099-K     | 9.9        | 5.8 |                    |        |
| ICN-100-K     | 10.0       | 6.2 | ICN100109<br>-16.. |        |
| ICN-101-K     | 10.1       | 6.2 |                    |        |
| ICN-102-K     | 10.2       | 6.2 |                    |        |
| ICN-103-K     | 10.3       | 6.2 |                    |        |
| ICN-104-K     | 10.4       | 6.2 |                    |        |
| ICN-105-K     | 10.5       | 6.2 |                    |        |
| ICN-106-K     | 10.6       | 6.2 |                    |        |
| ICN-107-K     | 10.7       | 6.2 |                    |        |
| ICN-108-K     | 10.8       | 6.2 |                    |        |
| ICN-109-K     | 10.9       | 6.2 |                    |        |

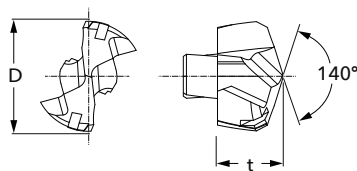
Unit: mm

| Specification | Dimensions |     | Drilling Body      | Grade  |
|---------------|------------|-----|--------------------|--------|
|               | D          | t   |                    |        |
| ICN-110-K     | 11.0       | 6.6 | ICN110119<br>-16.. | NP6900 |
| ICN-111-K     | 11.1       | 6.6 |                    |        |
| ICN-112-K     | 11.2       | 6.6 |                    |        |
| ICN-113-K     | 11.3       | 6.6 |                    |        |
| ICN-114-K     | 11.4       | 6.6 |                    |        |
| ICN-115-K     | 11.5       | 6.6 |                    |        |
| ICN-116-K     | 11.6       | 6.6 |                    |        |
| ICN-117-K     | 11.7       | 6.6 |                    |        |
| ICN-118-K     | 11.8       | 6.6 |                    |        |
| ICN-119-K     | 11.9       | 6.6 |                    |        |
| ICN-120-K     | 12.0       | 7.0 | ICN120129<br>-16.. |        |
| ICN-121-K     | 12.1       | 7.0 |                    |        |
| ICN-122-K     | 12.2       | 7.0 |                    |        |
| ICN-123-K     | 12.3       | 7.0 |                    |        |
| ICN-124-K     | 12.4       | 7.0 |                    |        |
| ICN-125-K     | 12.5       | 7.0 |                    |        |
| ICN-126-K     | 12.6       | 7.0 |                    |        |
| ICN-127-K     | 12.7       | 7.0 |                    |        |
| ICN-128-K     | 12.8       | 7.0 |                    |        |
| ICN-129-K     | 12.9       | 7.0 |                    |        |
| ICN-130-K     | 13.0       | 7.6 | ICN130139<br>-16.. |        |
| ICN-131-K     | 13.1       | 7.6 |                    |        |
| ICN-132-K     | 13.2       | 7.6 |                    |        |
| ICN-133-K     | 13.3       | 7.6 |                    |        |
| ICN-134-K     | 13.4       | 7.6 |                    |        |
| ICN-135-K     | 13.5       | 7.6 |                    |        |
| ICN-136-K     | 13.6       | 7.6 |                    |        |
| ICN-137-K     | 13.7       | 7.6 |                    |        |
| ICN-138-K     | 13.8       | 7.6 |                    |        |
| ICN-139-K     | 13.9       | 7.6 |                    |        |



## ICN...K Drilling Head

For ICN Drills | For Cast Iron  
(ISO K Materials)



Unit: mm

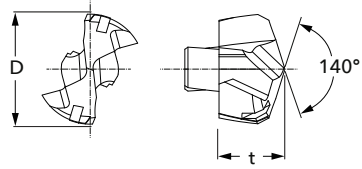
| Specification | Dimensions |     | Drilling Body       | Grade  |
|---------------|------------|-----|---------------------|--------|
|               | D          | t   |                     |        |
| ICN-140-K     | 14.0       | 8.1 | ICN140149<br>-16-.. | NP6900 |
| ICN-141-K     | 14.1       | 8.1 |                     |        |
| ICN-142-K     | 14.2       | 8.1 |                     |        |
| ICN-143-K     | 14.3       | 8.1 |                     |        |
| ICN-144-K     | 14.4       | 8.1 |                     |        |
| ICN-145-K     | 14.5       | 8.1 |                     |        |
| ICN-146-K     | 14.6       | 8.1 |                     |        |
| ICN-147-K     | 14.7       | 8.1 |                     |        |
| ICN-148-K     | 14.8       | 8.1 |                     |        |
| ICN-149-K     | 14.9       | 8.1 |                     |        |
| ICN-150-K     | 15.0       | 8.7 | ICN150159<br>-20-.. |        |
| ICN-151-K     | 15.1       | 8.7 |                     |        |
| ICN-152-K     | 15.2       | 8.7 |                     |        |
| ICN-153-K     | 15.3       | 8.7 |                     |        |
| ICN-154-K     | 15.4       | 8.7 |                     |        |
| ICN-155-K     | 15.5       | 8.7 |                     |        |
| ICN-156-K     | 15.6       | 8.7 |                     |        |
| ICN-157-K     | 15.7       | 8.7 |                     |        |
| ICN-158-K     | 15.8       | 8.7 |                     |        |
| ICN-159-K     | 15.9       | 8.7 |                     |        |
| ICN-160-K     | 16.0       | 9.3 | ICN100109<br>-16-.. |        |
| ICN-161-K     | 16.1       | 9.3 |                     |        |
| ICN-162-K     | 16.2       | 9.3 |                     |        |
| ICN-163-K     | 16.3       | 9.3 |                     |        |
| ICN-164-K     | 16.4       | 9.3 |                     |        |
| ICN-165-K     | 16.5       | 9.3 |                     |        |
| ICN-166-K     | 16.6       | 9.3 |                     |        |
| ICN-167-K     | 16.7       | 9.3 |                     |        |
| ICN-168-K     | 16.8       | 9.3 |                     |        |
| ICN-169-K     | 16.9       | 9.3 |                     |        |

Unit: mm

| Specification | Dimensions |      | Drilling Body       | Grade  |
|---------------|------------|------|---------------------|--------|
|               | D          | t    |                     |        |
| ICN-170-K     | 17.0       | 9.9  | ICN170179<br>-20-.. | NP6900 |
| ICN-171-K     | 17.1       | 9.9  |                     |        |
| ICN-172-K     | 17.2       | 9.9  |                     |        |
| ICN-173-K     | 17.3       | 9.9  |                     |        |
| ICN-174-K     | 17.4       | 9.9  |                     |        |
| ICN-175-K     | 17.5       | 9.9  |                     |        |
| ICN-176-K     | 17.6       | 9.9  |                     |        |
| ICN-177-K     | 17.7       | 9.9  |                     |        |
| ICN-178-K     | 17.8       | 9.9  |                     |        |
| ICN-179-K     | 17.9       | 9.9  |                     |        |
| ICN-180-K     | 18.0       | 10.5 | ICN180189<br>-25-.. |        |
| ICN-181-K     | 18.1       | 10.5 |                     |        |
| ICN-182-K     | 18.2       | 10.5 |                     |        |
| ICN-183-K     | 18.3       | 10.5 |                     |        |
| ICN-184-K     | 18.4       | 10.5 |                     |        |
| ICN-185-K     | 18.5       | 10.5 |                     |        |
| ICN-186-K     | 18.6       | 10.5 |                     |        |
| ICN-187-K     | 18.7       | 10.5 |                     |        |
| ICN-188-K     | 18.8       | 10.5 |                     |        |
| ICN-189-K     | 18.9       | 10.5 |                     |        |
| ICN-190-K     | 19.0       | 11.0 | ICN190199<br>-25-.. |        |
| ICN-191-K     | 19.1       | 11.0 |                     |        |
| ICN-192-K     | 19.2       | 11.0 |                     |        |
| ICN-193-K     | 19.3       | 11.0 |                     |        |
| ICN-194-K     | 19.4       | 11.0 |                     |        |
| ICN-195-K     | 19.5       | 11.0 |                     |        |
| ICN-196-K     | 19.6       | 11.0 |                     |        |
| ICN-197-K     | 19.7       | 11.0 |                     |        |
| ICN-198-K     | 19.8       | 11.0 |                     |        |
| ICN-199-K     | 19.9       | 11.0 |                     |        |

## ICN...K Drilling Head

For ICN Drills | For Cast Iron  
(ISO K Materials)



Unit: mm

| Specification | Dimensions |      | Drilling Body       | Grade  |
|---------------|------------|------|---------------------|--------|
|               | D          | t    |                     |        |
| ICN-200-K     | 20.0       | 11.6 | ICN200209<br>-25-.. | NP6900 |
| ICN-201-K     | 20.1       | 11.6 |                     |        |
| ICN-202-K     | 20.2       | 11.6 |                     |        |
| ICN-203-K     | 20.3       | 11.6 |                     |        |
| ICN-204-K     | 20.4       | 11.6 |                     |        |
| ICN-205-K     | 20.5       | 11.6 |                     |        |
| ICN-206-K     | 20.6       | 11.6 |                     |        |
| ICN-207-K     | 20.7       | 11.6 |                     |        |
| ICN-208-K     | 20.8       | 11.6 |                     |        |
| ICN-209-K     | 20.9       | 11.6 |                     |        |
| ICN-210-K     | 21.0       | 12.1 | ICN210219<br>-25-.. |        |
| ICN-211-K     | 21.1       | 12.1 |                     |        |
| ICN-212-K     | 21.2       | 12.1 |                     |        |
| ICN-213-K     | 21.3       | 12.1 |                     |        |
| ICN-214-K     | 21.4       | 12.1 |                     |        |
| ICN-215-K     | 21.5       | 12.1 |                     |        |
| ICN-216-K     | 21.6       | 12.1 |                     |        |
| ICN-217-K     | 21.7       | 12.1 |                     |        |
| ICN-218-K     | 21.8       | 12.1 |                     |        |
| ICN-219-K     | 21.9       | 12.1 | ICN220229<br>-25-.. |        |
| ICN-220-K     | 22.0       | 12.7 |                     |        |
| ICN-221-K     | 22.1       | 12.7 |                     |        |
| ICN-222-K     | 22.2       | 12.7 |                     |        |
| ICN-223-K     | 22.3       | 12.7 |                     |        |
| ICN-224-K     | 22.4       | 12.7 |                     |        |
| ICN-225-K     | 22.5       | 12.7 |                     |        |
| ICN-226-K     | 22.6       | 12.7 |                     |        |
| ICN-227-K     | 22.7       | 12.7 |                     |        |
| ICN-228-K     | 22.8       | 12.7 |                     |        |
| ICN-229-K     | 22.9       | 12.7 |                     |        |

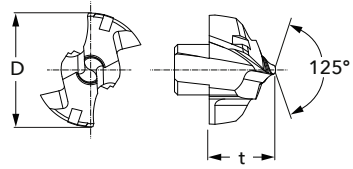
Unit: mm

| Specification | Dimensions |      | Drilling Body       | Grade  |
|---------------|------------|------|---------------------|--------|
|               | D          | t    |                     |        |
| ICN-230-K     | 23.0       | 13.3 | ICN230239<br>-32-.. | NP6900 |
| ICN-231-K     | 23.1       | 13.3 |                     |        |
| ICN-232-K     | 23.2       | 13.3 |                     |        |
| ICN-233-K     | 23.3       | 13.3 |                     |        |
| ICN-234-K     | 23.4       | 13.3 |                     |        |
| ICN-235-K     | 23.5       | 13.3 |                     |        |
| ICN-236-K     | 23.6       | 13.3 |                     |        |
| ICN-237-K     | 23.7       | 13.3 |                     |        |
| ICN-238-K     | 23.8       | 13.3 |                     |        |
| ICN-239-K     | 23.9       | 13.3 |                     |        |
| ICN-240-K     | 24.0       | 13.9 | ICN240249<br>-32-.. |        |
| ICN-241-K     | 24.1       | 13.9 |                     |        |
| ICN-242-K     | 24.2       | 13.9 |                     |        |
| ICN-243-K     | 24.3       | 13.9 |                     |        |
| ICN-244-K     | 24.4       | 13.9 |                     |        |
| ICN-245-K     | 24.5       | 13.9 |                     |        |
| ICN-246-K     | 24.6       | 13.9 |                     |        |
| ICN-247-K     | 24.7       | 13.9 |                     |        |
| ICN-248-K     | 24.8       | 13.9 |                     |        |
| ICN-249-K     | 24.9       | 13.9 |                     |        |
| ICN-250-K     | 25.0       | 14.5 | ICN250260<br>-32-.. |        |
| ICN-251-K     | 25.1       | 14.5 |                     |        |
| ICN-252-K     | 25.2       | 14.5 |                     |        |
| ICN-253-K     | 25.3       | 14.5 |                     |        |
| ICN-254-K     | 25.4       | 14.5 |                     |        |
| ICN-255-K     | 25.5       | 14.5 |                     |        |
| ICN-256-K     | 25.6       | 14.5 |                     |        |
| ICN-257-K     | 25.7       | 14.5 |                     |        |
| ICN-258-K     | 25.8       | 14.5 |                     |        |
| ICN-259-K     | 25.9       | 14.5 |                     |        |
| ICN-260-K     | 26.0       | 14.5 |                     |        |



## ICN...M Drilling Head

For ICN Drills | For Stainless Steel  
(ISO M Materials)



Unit: mm

| Specification | Dimensions |     | Drilling Body       | Grade                                |
|---------------|------------|-----|---------------------|--------------------------------------|
|               | D          | t   |                     |                                      |
| ICN-080-M     | 8.0        | 5.4 | ICN080089<br>-12-.. |                                      |
| ICN-081-M     | 8.1        | 5.4 |                     |                                      |
| ICN-082-M     | 8.2        | 5.4 |                     |                                      |
| ICN-083-M     | 8.3        | 5.4 |                     |                                      |
| ICN-084-M     | 8.4        | 5.4 |                     |                                      |
| ICN-085-M     | 8.5        | 5.4 |                     |                                      |
| ICN-086-M     | 8.6        | 5.4 |                     |                                      |
| ICN-087-M     | 8.7        | 5.4 |                     |                                      |
| ICN-088-M     | 8.8        | 5.4 |                     |                                      |
| ICN-089-M     | 8.9        | 5.4 | ICN090099<br>-12-.. | NP3900<br>NP9900<br>NP1900<br>NU8900 |
| ICN-090-M     | 9.0        | 5.8 |                     |                                      |
| ICN-091-M     | 9.1        | 5.8 |                     |                                      |
| ICN-092-M     | 9.2        | 5.8 |                     |                                      |
| ICN-093-M     | 9.3        | 5.8 |                     |                                      |
| ICN-094-M     | 9.4        | 5.8 |                     |                                      |
| ICN-095-M     | 9.5        | 5.8 |                     |                                      |
| ICN-096-M     | 9.6        | 5.8 |                     |                                      |
| ICN-097-M     | 9.7        | 5.8 |                     |                                      |
| ICN-098-M     | 9.8        | 5.8 | ICN100109<br>-16-.. |                                      |
| ICN-099-M     | 9.9        | 5.8 |                     |                                      |
| ICN-100-M     | 10.0       | 6.2 |                     |                                      |
| ICN-101-M     | 10.1       | 6.2 |                     |                                      |
| ICN-102-M     | 10.2       | 6.2 |                     |                                      |
| ICN-103-M     | 10.3       | 6.2 |                     |                                      |
| ICN-104-M     | 10.4       | 6.2 |                     |                                      |
| ICN-105-M     | 10.5       | 6.2 |                     |                                      |
| ICN-106-M     | 10.6       | 6.2 |                     |                                      |
| ICN-107-M     | 10.7       | 6.2 |                     |                                      |
| ICN-108-M     | 10.8       | 6.2 |                     |                                      |
| ICN-109-M     | 10.9       | 6.2 |                     |                                      |

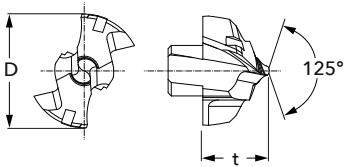
Unit: mm

| Specification | Dimensions |     | Drilling Body       | Grade                                |
|---------------|------------|-----|---------------------|--------------------------------------|
|               | D          | t   |                     |                                      |
| ICN-110-M     | 11.0       | 6.6 | ICN110119<br>-16-.. |                                      |
| ICN-111-M     | 11.1       | 6.6 |                     |                                      |
| ICN-112-M     | 11.2       | 6.6 |                     |                                      |
| ICN-113-M     | 11.3       | 6.6 |                     |                                      |
| ICN-114-M     | 11.4       | 6.6 |                     |                                      |
| ICN-115-M     | 11.5       | 6.6 |                     |                                      |
| ICN-116-RD    | 11.6       | 6.6 |                     |                                      |
| ICN-117-RD    | 11.7       | 6.6 |                     |                                      |
| ICN-118-M     | 11.8       | 6.6 |                     |                                      |
| ICN-119-M     | 11.9       | 6.6 | ICN120129<br>-16-.. | NP3900<br>NP9900<br>NP1900<br>NU8900 |
| ICN-120-M     | 12.0       | 7.0 |                     |                                      |
| ICN-121-M     | 12.1       | 7.0 |                     |                                      |
| ICN-122-M     | 12.2       | 7.0 |                     |                                      |
| ICN-123-M     | 12.3       | 7.0 |                     |                                      |
| ICN-124-M     | 12.4       | 7.0 |                     |                                      |
| ICN-125-M     | 12.5       | 7.0 |                     |                                      |
| ICN-126-M     | 12.6       | 7.0 |                     |                                      |
| ICN-127-M     | 12.7       | 7.0 |                     |                                      |
| ICN-128-M     | 12.8       | 7.0 | ICN130139<br>-16-.. |                                      |
| ICN-129-M     | 12.9       | 7.0 |                     |                                      |
| ICN-130-M     | 13.0       | 7.6 |                     |                                      |
| ICN-131-M     | 13.1       | 7.6 |                     |                                      |
| ICN-132-M     | 13.2       | 7.6 |                     |                                      |
| ICN-133-M     | 13.3       | 7.6 |                     |                                      |
| ICN-134-M     | 13.4       | 7.6 |                     |                                      |
| ICN-135-M     | 13.5       | 7.6 |                     |                                      |
| ICN-136-M     | 13.6       | 7.6 |                     |                                      |
| ICN-137-M     | 13.7       | 7.6 |                     |                                      |
| ICN-138-M     | 13.8       | 7.6 |                     |                                      |
| ICN-139-M     | 13.9       | 7.6 |                     |                                      |



## ICN...M Drilling Head

For ICN Drills | For Stainless Steel  
(ISO M Materials)



Unit: mm

| Specification | Dimensions |     | Drilling Body       | Grade                                |
|---------------|------------|-----|---------------------|--------------------------------------|
|               | D          | t   |                     |                                      |
| ICN-140-M     | 14.0       | 8.1 | ICN140149<br>-16-.. | NP3900<br>NP9900<br>NP1900<br>NU8900 |
| ICN-141-M     | 14.1       | 8.1 |                     |                                      |
| ICN-142-M     | 14.2       | 8.1 |                     |                                      |
| ICN-143-M     | 14.3       | 8.1 |                     |                                      |
| ICN-144-M     | 14.4       | 8.1 |                     |                                      |
| ICN-145-M     | 14.5       | 8.1 |                     |                                      |
| ICN-146-M     | 14.6       | 8.1 |                     |                                      |
| ICN-147-M     | 14.7       | 8.1 |                     |                                      |
| ICN-148-M     | 14.8       | 8.1 |                     |                                      |
| ICN-149-M     | 14.9       | 8.1 |                     |                                      |
| ICN-150-M     | 15.0       | 8.7 | ICN150159<br>-20-.. |                                      |
| ICN-151-M     | 15.1       | 8.7 |                     |                                      |
| ICN-152-M     | 15.2       | 8.7 |                     |                                      |
| ICN-153-M     | 15.3       | 8.7 |                     |                                      |
| ICN-154-M     | 15.4       | 8.7 |                     |                                      |
| ICN-155-M     | 15.5       | 8.7 |                     |                                      |
| ICN-156-M     | 15.6       | 8.7 |                     |                                      |
| ICN-157-M     | 15.7       | 8.7 |                     |                                      |
| ICN-158-M     | 15.8       | 8.7 |                     |                                      |
| ICN-159-M     | 15.9       | 8.7 |                     |                                      |
| ICN-160-M     | 16.0       | 9.3 | ICN160169<br>-20-.. |                                      |
| ICN-161-M     | 16.1       | 9.3 |                     |                                      |
| ICN-162-M     | 16.2       | 9.3 |                     |                                      |
| ICN-163-M     | 16.3       | 9.3 |                     |                                      |
| ICN-164-M     | 16.4       | 9.3 |                     |                                      |
| ICN-165-M     | 16.5       | 9.3 |                     |                                      |
| ICN-166-M     | 16.6       | 9.3 |                     |                                      |
| ICN-167-M     | 16.7       | 9.3 |                     |                                      |
| ICN-168-M     | 16.8       | 9.3 |                     |                                      |
| ICN-169-M     | 16.9       | 9.3 |                     |                                      |

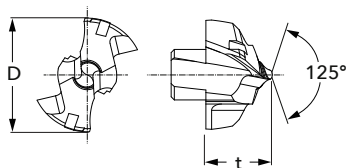
Unit: mm

| Specification | Dimensions |      | Drilling Body       | Grade                                |
|---------------|------------|------|---------------------|--------------------------------------|
|               | D          | t    |                     |                                      |
| ICN-170-M     | 17.0       | 9.9  | ICN170179<br>-20-.. | NP3900<br>NP9900<br>NP1900<br>NU8900 |
| ICN-171-M     | 17.1       | 9.9  |                     |                                      |
| ICN-172-M     | 17.2       | 9.9  |                     |                                      |
| ICN-173-M     | 17.3       | 9.9  |                     |                                      |
| ICN-174-M     | 17.4       | 9.9  |                     |                                      |
| ICN-175-M     | 17.5       | 9.9  |                     |                                      |
| ICN-176-M     | 17.6       | 9.9  |                     |                                      |
| ICN-177-M     | 17.7       | 9.9  |                     |                                      |
| ICN-178-M     | 17.8       | 9.9  |                     |                                      |
| ICN-179-M     | 17.9       | 9.9  |                     |                                      |
| ICN-180-M     | 18.0       | 10.5 | ICN180189<br>-25-.. |                                      |
| ICN-181-M     | 18.1       | 10.5 |                     |                                      |
| ICN-182-M     | 18.2       | 10.5 |                     |                                      |
| ICN-183-M     | 18.3       | 10.5 |                     |                                      |
| ICN-184-M     | 18.4       | 10.5 |                     |                                      |
| ICN-185-M     | 18.5       | 10.5 |                     |                                      |
| ICN-186-M     | 18.6       | 10.5 |                     |                                      |
| ICN-187-M     | 18.7       | 10.5 |                     |                                      |
| ICN-188-M     | 18.8       | 10.5 |                     |                                      |
| ICN-189-M     | 18.9       | 10.5 | ICN190199<br>-25-.. |                                      |
| ICN-190-M     | 19.0       | 11.0 |                     |                                      |
| ICN-191-M     | 19.1       | 11.0 |                     |                                      |
| ICN-192-M     | 19.2       | 11.0 |                     |                                      |
| ICN-193-M     | 19.3       | 11.0 |                     |                                      |
| ICN-194-M     | 19.4       | 11.0 |                     |                                      |
| ICN-195-M     | 19.5       | 11.0 |                     |                                      |
| ICN-196-M     | 19.6       | 11.0 |                     |                                      |
| ICN-197-M     | 19.7       | 11.0 |                     |                                      |
| ICN-198-M     | 19.8       | 11.0 |                     |                                      |
| ICN-199-M     | 19.9       | 11.0 |                     |                                      |



## ICN...M Drilling Head

For ICN Drills | For Stainless Steel  
(ISO M Materials)



Unit: mm

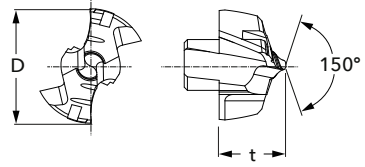
| Specification | Dimensions |      | Drilling Body       | Grade                                |
|---------------|------------|------|---------------------|--------------------------------------|
|               | D          | t    |                     |                                      |
| ICN-200-M     | 20.0       | 11.6 | ICN200209<br>-25-.. | NP3900<br>NP9900<br>NP1900<br>NU8900 |
| ICN-201-M     | 20.1       | 11.6 |                     |                                      |
| ICN-202-M     | 20.2       | 11.6 |                     |                                      |
| ICN-203-M     | 20.3       | 11.6 |                     |                                      |
| ICN-204-M     | 20.4       | 11.6 |                     |                                      |
| ICN-205-M     | 20.5       | 11.6 |                     |                                      |
| ICN-206-M     | 20.6       | 11.6 |                     |                                      |
| ICN-207-M     | 20.7       | 11.6 |                     |                                      |
| ICN-208-M     | 20.8       | 11.6 |                     |                                      |
| ICN-209-M     | 20.9       | 11.6 |                     |                                      |
| ICN-210-M     | 21.0       | 12.1 | ICN210219<br>-25-.. |                                      |
| ICN-211-M     | 21.1       | 12.1 |                     |                                      |
| ICN-212-M     | 21.2       | 12.1 |                     |                                      |
| ICN-213-M     | 21.3       | 12.1 |                     |                                      |
| ICN-214-M     | 21.4       | 12.1 |                     |                                      |
| ICN-215-M     | 21.5       | 12.1 |                     |                                      |
| ICN-216-M     | 21.6       | 12.1 |                     |                                      |
| ICN-217-M     | 21.7       | 12.1 |                     |                                      |
| ICN-218-M     | 21.8       | 12.1 |                     |                                      |
| ICN-219-M     | 21.9       | 12.1 |                     |                                      |
| ICN-220-M     | 22.0       | 12.7 | ICN220229<br>-25-.. |                                      |
| ICN-221-M     | 22.1       | 12.7 |                     |                                      |
| ICN-222-M     | 22.2       | 12.7 |                     |                                      |
| ICN-223-M     | 22.3       | 12.7 |                     |                                      |
| ICN-224-M     | 22.4       | 12.7 |                     |                                      |
| ICN-225-M     | 22.5       | 12.7 |                     |                                      |
| ICN-226-M     | 22.6       | 12.7 |                     |                                      |
| ICN-227-M     | 22.7       | 12.7 |                     |                                      |
| ICN-228-M     | 22.8       | 12.7 |                     |                                      |
| ICN-229-M     | 22.9       | 12.7 |                     |                                      |

Unit: mm

| Specification | Dimensions |      | Drilling Body       | Grade                                |
|---------------|------------|------|---------------------|--------------------------------------|
|               | D          | t    |                     |                                      |
| ICN-230-M     | 23.0       | 13.3 | ICN230239<br>-32-.. | NP3900<br>NP9900<br>NP1900<br>NU8900 |
| ICN-231-M     | 23.1       | 13.3 |                     |                                      |
| ICN-232-M     | 23.2       | 13.3 |                     |                                      |
| ICN-233-M     | 23.3       | 13.3 |                     |                                      |
| ICN-234-M     | 23.4       | 13.3 |                     |                                      |
| ICN-235-M     | 23.5       | 13.3 |                     |                                      |
| ICN-236-M     | 23.6       | 13.3 |                     |                                      |
| ICN-237-M     | 23.7       | 13.3 |                     |                                      |
| ICN-238-M     | 23.8       | 13.3 |                     |                                      |
| ICN-239-M     | 23.9       | 13.3 |                     |                                      |
| ICN-240-M     | 24.0       | 13.9 | ICN240249<br>-32-.. |                                      |
| ICN-241-M     | 24.1       | 13.9 |                     |                                      |
| ICN-242-M     | 24.2       | 13.9 |                     |                                      |
| ICN-243-M     | 24.3       | 13.9 |                     |                                      |
| ICN-244-M     | 24.4       | 13.9 |                     |                                      |
| ICN-245-M     | 24.5       | 13.9 |                     |                                      |
| ICN-246-M     | 24.6       | 13.9 |                     |                                      |
| ICN-247-M     | 24.7       | 13.9 |                     |                                      |
| ICN-248-M     | 24.8       | 13.9 |                     |                                      |
| ICN-249-M     | 24.9       | 13.9 |                     |                                      |
| ICN-250-M     | 25.0       | 14.5 | ICN250260<br>-32-.. |                                      |
| ICN-251-M     | 25.1       | 14.5 |                     |                                      |
| ICN-252-M     | 25.2       | 14.5 |                     |                                      |
| ICN-253-M     | 25.3       | 14.5 |                     |                                      |
| ICN-254-M     | 25.4       | 14.5 |                     |                                      |
| ICN-255-M     | 25.5       | 14.5 |                     |                                      |
| ICN-256-M     | 25.6       | 14.5 |                     |                                      |
| ICN-257-M     | 25.7       | 14.5 |                     |                                      |
| ICN-258-M     | 25.8       | 14.5 |                     |                                      |
| ICN-259-M     | 25.9       | 14.5 |                     |                                      |
| ICN-260-M     | 26.0       | 14.5 |                     |                                      |

## ICN...S Drilling Head

For ICN Drills | For Hard-to-cut Metals (ISO S Materials)



Unit: mm

| Specification | Dimensions |     | Drilling Body       | Grade                      |
|---------------|------------|-----|---------------------|----------------------------|
|               | D          | t   |                     |                            |
| ICN-080-S     | 8.0        | 5.4 | ICN080089<br>-12-.. | NP9900<br>NP1900<br>NU8900 |
| ICN-081-S     | 8.1        | 5.4 |                     |                            |
| ICN-082-S     | 8.2        | 5.4 |                     |                            |
| ICN-083-S     | 8.3        | 5.4 |                     |                            |
| ICN-084-S     | 8.4        | 5.4 |                     |                            |
| ICN-085-S     | 8.5        | 5.4 |                     |                            |
| ICN-086-S     | 8.6        | 5.4 |                     |                            |
| ICN-087-S     | 8.7        | 5.4 |                     |                            |
| ICN-088-S     | 8.8        | 5.4 |                     |                            |
| ICN-089-S     | 8.9        | 5.4 |                     |                            |
| ICN-090-S     | 9.0        | 5.8 | ICN090099<br>-12-.. |                            |
| ICN-091-S     | 9.1        | 5.8 |                     |                            |
| ICN-092-S     | 9.2        | 5.8 |                     |                            |
| ICN-093-S     | 9.3        | 5.8 |                     |                            |
| ICN-094-S     | 9.4        | 5.8 |                     |                            |
| ICN-095-S     | 9.5        | 5.8 |                     |                            |
| ICN-096-S     | 9.6        | 5.8 |                     |                            |
| ICN-097-S     | 9.7        | 5.8 |                     |                            |
| ICN-098-S     | 9.8        | 5.8 |                     |                            |
| ICN-099-S     | 9.9        | 5.8 |                     |                            |
| ICN-100-S     | 10.0       | 6.2 | ICN100109<br>-16-.. |                            |
| ICN-101-S     | 10.1       | 6.2 |                     |                            |
| ICN-102-S     | 10.2       | 6.2 |                     |                            |
| ICN-103-S     | 10.3       | 6.2 |                     |                            |
| ICN-104-S     | 10.4       | 6.2 |                     |                            |
| ICN-105-S     | 10.5       | 6.2 |                     |                            |
| ICN-106-S     | 10.6       | 6.2 |                     |                            |
| ICN-107-S     | 10.7       | 6.2 |                     |                            |
| ICN-108-S     | 10.8       | 6.2 |                     |                            |
| ICN-109-S     | 10.9       | 6.2 |                     |                            |

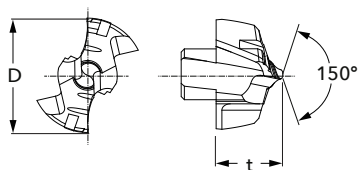
Unit: mm

| Specification | Dimensions |     | Drilling Body      | Grade                      |
|---------------|------------|-----|--------------------|----------------------------|
|               | D          | t   |                    |                            |
| ICN-110-S     | 11.0       | 6.6 | ICN110119<br>-16.. | NP9900<br>NP1900<br>NU8900 |
| ICN-111-S     | 11.1       | 6.6 |                    |                            |
| ICN-112-S     | 11.2       | 6.6 |                    |                            |
| ICN-113-S     | 11.3       | 6.6 |                    |                            |
| ICN-114-S     | 11.4       | 6.6 |                    |                            |
| ICN-115-S     | 11.5       | 6.6 |                    |                            |
| ICN-116-S     | 11.6       | 6.6 |                    |                            |
| ICN-117-S     | 11.7       | 6.6 |                    |                            |
| ICN-118-S     | 11.8       | 6.6 |                    |                            |
| ICN-119-S     | 11.9       | 6.6 |                    |                            |
| ICN-120-S     | 12.0       | 7.0 | ICN120129<br>-16.. |                            |
| ICN-121-S     | 12.1       | 7.0 |                    |                            |
| ICN-122-S     | 12.2       | 7.0 |                    |                            |
| ICN-123-S     | 12.3       | 7.0 |                    |                            |
| ICN-124-S     | 12.4       | 7.0 |                    |                            |
| ICN-125-S     | 12.5       | 7.0 |                    |                            |
| ICN-126-S     | 12.6       | 7.0 |                    |                            |
| ICN-127-S     | 12.7       | 7.0 |                    |                            |
| ICN-128-S     | 12.8       | 7.0 |                    |                            |
| ICN-129-S     | 12.9       | 7.0 | ICN130139<br>-16.. |                            |
| ICN-130-S     | 13.0       | 7.6 |                    |                            |
| ICN-131-S     | 13.1       | 7.6 |                    |                            |
| ICN-132-S     | 13.2       | 7.6 |                    |                            |
| ICN-133-S     | 13.3       | 7.6 |                    |                            |
| ICN-134-S     | 13.4       | 7.6 |                    |                            |
| ICN-135-S     | 13.5       | 7.6 |                    |                            |
| ICN-136-S     | 13.6       | 7.6 |                    |                            |
| ICN-137-S     | 13.7       | 7.6 |                    |                            |
| ICN-138-S     | 13.8       | 7.6 |                    |                            |
| ICN-139-S     | 13.9       | 7.6 |                    |                            |



## ICN...S Drilling Head

For ICN Drills | For Hard-to-cut Metals (ISO S Materials)



Unit: mm

| Specification | Dimensions |     | Drilling Body       | Grade                      |
|---------------|------------|-----|---------------------|----------------------------|
|               | D          | t   |                     |                            |
| ICN-140-S     | 14.0       | 8.1 | ICN140149<br>-16-.. | NP9900<br>NP1900<br>NU8900 |
| ICN-141-S     | 14.1       | 8.1 |                     |                            |
| ICN-142-S     | 14.2       | 8.1 |                     |                            |
| ICN-143-S     | 14.3       | 8.1 |                     |                            |
| ICN-144-S     | 14.4       | 8.1 |                     |                            |
| ICN-145-S     | 14.5       | 8.1 |                     |                            |
| ICN-146-S     | 14.6       | 8.1 |                     |                            |
| ICN-147-S     | 14.7       | 8.1 |                     |                            |
| ICN-148-S     | 14.8       | 8.1 |                     |                            |
| ICN-149-S     | 14.9       | 8.1 |                     |                            |
| ICN-150-S     | 15.0       | 8.7 | ICN150159<br>-20-.. |                            |
| ICN-151-S     | 15.1       | 8.7 |                     |                            |
| ICN-152-S     | 15.2       | 8.7 |                     |                            |
| ICN-153-S     | 15.3       | 8.7 |                     |                            |
| ICN-154-S     | 15.4       | 8.7 |                     |                            |
| ICN-155-S     | 15.5       | 8.7 |                     |                            |
| ICN-156-S     | 15.6       | 8.7 |                     |                            |
| ICN-157-S     | 15.7       | 8.7 |                     |                            |
| ICN-158-S     | 15.8       | 8.7 |                     |                            |
| ICN-159-S     | 15.9       | 8.7 |                     |                            |
| ICN-160-S     | 16.0       | 9.3 | ICN160169<br>-20-.. |                            |
| ICN-161-S     | 16.1       | 9.3 |                     |                            |
| ICN-162-S     | 16.2       | 9.3 |                     |                            |
| ICN-163-S     | 16.3       | 9.3 |                     |                            |
| ICN-164-S     | 16.4       | 9.3 |                     |                            |
| ICN-165-S     | 16.5       | 9.3 |                     |                            |
| ICN-166-S     | 16.6       | 9.3 |                     |                            |
| ICN-167-S     | 16.7       | 9.3 |                     |                            |
| ICN-168-S     | 16.8       | 9.3 |                     |                            |
| ICN-169-S     | 16.9       | 9.3 |                     |                            |

Unit: mm

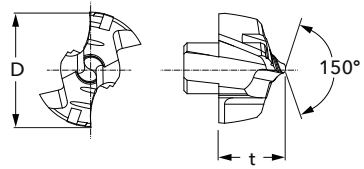
| Specification | Dimensions |      | Drilling Body       | Grade                      |
|---------------|------------|------|---------------------|----------------------------|
|               | D          | t    |                     |                            |
| ICN-170-S     | 17.0       | 9.9  | ICN170179<br>-20-.. | NP9900<br>NP1900<br>NU8900 |
| ICN-171-S     | 17.1       | 9.9  |                     |                            |
| ICN-172-S     | 17.2       | 9.9  |                     |                            |
| ICN-173-S     | 17.3       | 9.9  |                     |                            |
| ICN-174-S     | 17.4       | 9.9  |                     |                            |
| ICN-175-S     | 17.5       | 9.9  |                     |                            |
| ICN-176-S     | 17.6       | 9.9  |                     |                            |
| ICN-177-S     | 17.7       | 9.9  |                     |                            |
| ICN-178-S     | 17.8       | 9.9  |                     |                            |
| ICN-179-S     | 17.9       | 9.9  |                     |                            |
| ICN-180-S     | 18.0       | 10.5 | ICN180189<br>-25-.. |                            |
| ICN-181-S     | 18.1       | 10.5 |                     |                            |
| ICN-182-S     | 18.2       | 10.5 |                     |                            |
| ICN-183-S     | 18.3       | 10.5 |                     |                            |
| ICN-184-S     | 18.4       | 10.5 |                     |                            |
| ICN-185-S     | 18.5       | 10.5 |                     |                            |
| ICN-186-S     | 18.6       | 10.5 |                     |                            |
| ICN-187-S     | 18.7       | 10.5 |                     |                            |
| ICN-188-S     | 18.8       | 10.5 |                     |                            |
| ICN-189-S     | 18.9       | 10.5 |                     |                            |
| ICN-190-S     | 19.0       | 11.0 | ICN190199<br>-25-.. |                            |
| ICN-191-S     | 19.1       | 11.0 |                     |                            |
| ICN-192-S     | 19.2       | 11.0 |                     |                            |
| ICN-193-S     | 19.3       | 11.0 |                     |                            |
| ICN-194-S     | 19.4       | 11.0 |                     |                            |
| ICN-195-S     | 19.5       | 11.0 |                     |                            |
| ICN-196-S     | 19.6       | 11.0 |                     |                            |
| ICN-197-S     | 19.7       | 11.0 |                     |                            |
| ICN-198-S     | 19.8       | 11.0 |                     |                            |
| ICN-199-S     | 19.9       | 11.0 |                     |                            |





## ICN...S Drilling Head

For ICN Drills | For Hard-to-cut Metals (ISO S Materials)



Unit: mm

| Specification | Dimensions |      | Drilling Body       | Grade                      |
|---------------|------------|------|---------------------|----------------------------|
|               | D          | t    |                     |                            |
| ICN-200-S     | 20.0       | 11.6 | ICN200209<br>-25-.. | NP9900<br>NP1900<br>NU8900 |
| ICN-201-S     | 20.1       | 11.6 |                     |                            |
| ICN-202-S     | 20.2       | 11.6 |                     |                            |
| ICN-203-S     | 20.3       | 11.6 |                     |                            |
| ICN-204-S     | 20.4       | 11.6 |                     |                            |
| ICN-205-S     | 20.5       | 11.6 |                     |                            |
| ICN-206-S     | 20.6       | 11.6 |                     |                            |
| ICN-207-S     | 20.7       | 11.6 |                     |                            |
| ICN-208-S     | 20.8       | 11.6 |                     |                            |
| ICN-209-S     | 20.9       | 11.6 |                     |                            |
| ICN-210-S     | 21.0       | 12.1 | ICN210219<br>-25-.. |                            |
| ICN-211-S     | 21.1       | 12.1 |                     |                            |
| ICN-212-S     | 21.2       | 12.1 |                     |                            |
| ICN-213-S     | 21.3       | 12.1 |                     |                            |
| ICN-214-S     | 21.4       | 12.1 |                     |                            |
| ICN-215-S     | 21.5       | 12.1 |                     |                            |
| ICN-216-S     | 21.6       | 12.1 |                     |                            |
| ICN-217-S     | 21.7       | 12.1 |                     |                            |
| ICN-218-S     | 21.8       | 12.1 |                     |                            |
| ICN-219-S     | 21.9       | 12.1 |                     |                            |
| ICN-220-S     | 22.0       | 12.7 | ICN220229<br>-25-.. |                            |
| ICN-221-S     | 22.1       | 12.7 |                     |                            |
| ICN-222-S     | 22.2       | 12.7 |                     |                            |
| ICN-223-S     | 22.3       | 12.7 |                     |                            |
| ICN-224-S     | 22.4       | 12.7 |                     |                            |
| ICN-225-S     | 22.5       | 12.7 |                     |                            |
| ICN-226-S     | 22.6       | 12.7 |                     |                            |
| ICN-227-S     | 22.7       | 12.7 |                     |                            |
| ICN-228-S     | 22.8       | 12.7 |                     |                            |
| ICN-229-S     | 22.9       | 12.7 |                     |                            |

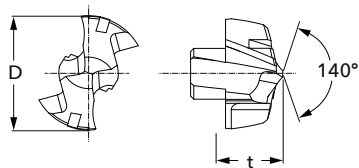
Unit: mm

| Specification | Dimensions |      | Drilling Body       | Grade                      |
|---------------|------------|------|---------------------|----------------------------|
|               | D          | t    |                     |                            |
| ICN-230-S     | 23.0       | 13.3 | ICN230239<br>-32-.. | NP9900<br>NP1900<br>NU8900 |
| ICN-231-S     | 23.1       | 13.3 |                     |                            |
| ICN-232-S     | 23.2       | 13.3 |                     |                            |
| ICN-233-S     | 23.3       | 13.3 |                     |                            |
| ICN-234-S     | 23.4       | 13.3 |                     |                            |
| ICN-235-S     | 23.5       | 13.3 |                     |                            |
| ICN-236-S     | 23.6       | 13.3 |                     |                            |
| ICN-237-S     | 23.7       | 13.3 |                     |                            |
| ICN-238-S     | 23.8       | 13.3 |                     |                            |
| ICN-239-S     | 23.9       | 13.3 |                     |                            |
| ICN-240-S     | 24.0       | 13.9 | ICN240249<br>-32-.. |                            |
| ICN-241-S     | 24.1       | 13.9 |                     |                            |
| ICN-242-S     | 24.2       | 13.9 |                     |                            |
| ICN-243-S     | 24.3       | 13.9 |                     |                            |
| ICN-244-S     | 24.4       | 13.9 |                     |                            |
| ICN-245-S     | 24.5       | 13.9 |                     |                            |
| ICN-246-S     | 24.6       | 13.9 |                     |                            |
| ICN-247-S     | 24.7       | 13.9 |                     |                            |
| ICN-248-S     | 24.8       | 13.9 |                     |                            |
| ICN-249-S     | 24.9       | 13.9 |                     |                            |
| ICN-250-S     | 25.0       | 14.5 | ICN250260<br>-32-.. |                            |
| ICN-251-S     | 25.1       | 14.5 |                     |                            |
| ICN-252-S     | 25.2       | 14.5 |                     |                            |
| ICN-253-S     | 25.3       | 14.5 |                     |                            |
| ICN-254-S     | 25.4       | 14.5 |                     |                            |
| ICN-255-S     | 25.5       | 14.5 |                     |                            |
| ICN-256-S     | 25.6       | 14.5 |                     |                            |
| ICN-257-S     | 25.7       | 14.5 |                     |                            |
| ICN-258-S     | 25.8       | 14.5 |                     |                            |
| ICN-259-S     | 25.9       | 14.5 |                     |                            |
| ICN-260-S     | 26.0       | 14.5 |                     |                            |



## ICN...F Drilling Head

For ICN Drills | Flat Bottom

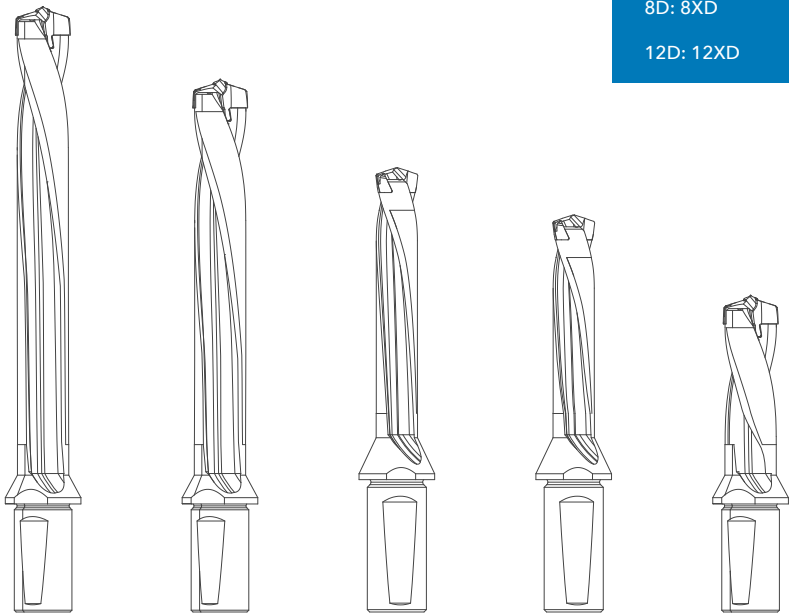
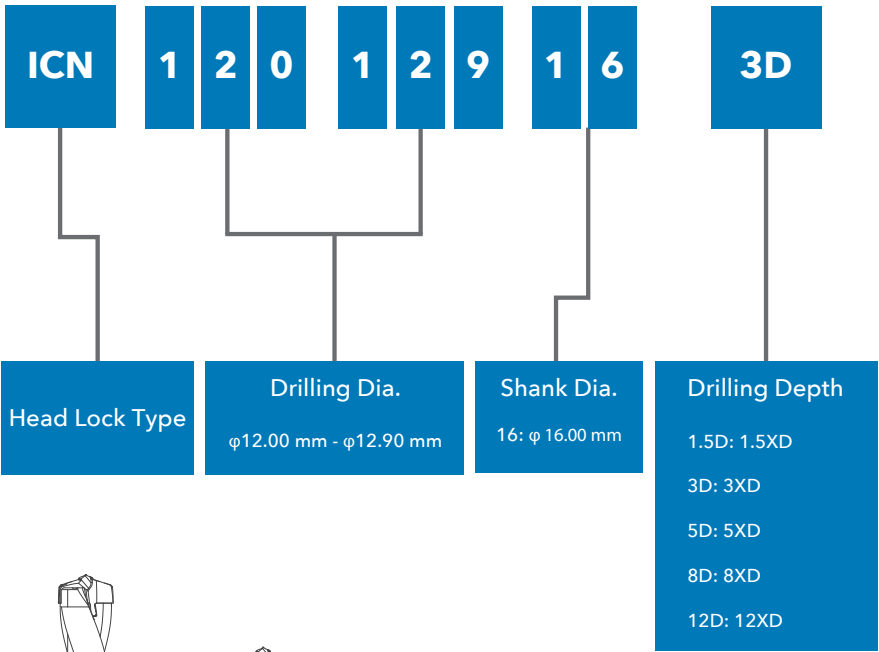


Unit: mm

| Specification | Dimensions |      | Drilling Body   | Grade                                                    |
|---------------|------------|------|-----------------|----------------------------------------------------------|
|               | D          | t    |                 |                                                          |
| ICN-080-F     | 8.0        | 4.0  | ICN080089-12-.. | NP5900<br>NP3900<br>NP6900<br>NP9900<br>NP1900<br>NU8900 |
| ICN-085-F     | 8.5        | 4.0  |                 |                                                          |
| ICN-090-F     | 9.0        | 4.2  |                 |                                                          |
| ICN-095-F     | 9.5        | 4.2  | ICN090099-12-.. |                                                          |
| ICN-100-F     | 10.0       | 4.4  | ICN100109-16-.. |                                                          |
| ICN-105-F     | 10.5       | 4.4  |                 |                                                          |
| ICN-110-F     | 11.0       | 4.5  |                 |                                                          |
| ICN-115-F     | 11.5       | 4.5  | ICN110119-16-.. |                                                          |
| ICN-120-F     | 12.0       | 4.8  |                 |                                                          |
| ICN-125-F     | 12.5       | 4.8  |                 |                                                          |
| ICN-130-F     | 13.0       | 5.1  | ICN120129-16-.. |                                                          |
| ICN-135-F     | 13.5       | 5.1  |                 |                                                          |
| ICN-140-F     | 14.0       | 5.5  |                 |                                                          |
| ICN-145-F     | 14.5       | 5.5  | ICN130139-16-.. |                                                          |
| ICN-150-F     | 15.0       | 5.9  | ICN140149-16-.. |                                                          |
| ICN-155-F     | 15.5       | 5.9  |                 |                                                          |
| ICN-160-F     | 16.0       | 6.3  |                 |                                                          |
| ICN-165-F     | 16.5       | 6.3  | ICN150159-20-.. |                                                          |
| ICN-170-F     | 17.0       | 6.6  | ICN160169-20-.. |                                                          |
| ICN-175-F     | 17.5       | 6.6  |                 |                                                          |
| ICN-180-F     | 18.0       | 6.9  |                 |                                                          |
| ICN-185-F     | 18.5       | 6.9  | ICN170179-20-.. |                                                          |
| ICN-190-F     | 19.0       | 7.2  |                 |                                                          |
| ICN-195-F     | 19.5       | 7.2  |                 |                                                          |
| ICN-200-F     | 20.0       | 8.2  | ICN180189-25-.. |                                                          |
| ICN-205-F     | 20.5       | 8.2  |                 |                                                          |
| ICN-210-F     | 21.0       | 8.6  |                 |                                                          |
| ICN-215-F     | 21.5       | 8.6  | ICN190199-25-.. |                                                          |
| ICN-220-F     | 22.0       | 8.9  |                 |                                                          |
| ICN-225-F     | 22.5       | 8.9  |                 |                                                          |
| ICN-230-F     | 23.0       | 9.3  | ICN200219-25-.. |                                                          |
| ICN-235-F     | 23.5       | 9.3  |                 |                                                          |
| ICN-240-F     | 24.0       | 9.7  |                 |                                                          |
| ICN-245-F     | 24.5       | 9.7  | ICN210219-25-.. |                                                          |
| ICN-250-F     | 25.0       | 10.1 |                 |                                                          |
| ICN-255-F     | 25.5       | 10.1 |                 |                                                          |
| ICN-260-F     | 26.0       | 10.1 | ICN220229-25-.. |                                                          |
|               |            |      | ICN230239-32-.. |                                                          |
|               |            |      | ICN240249-32-.. |                                                          |
|               |            |      | ICN250260-32-.. |                                                          |



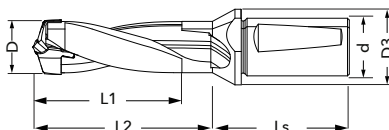
ICN Drill Body Coding System SumoHead





## ICN...1.5D Drilling Body

With Coolant Holes | Weldon Shank  
Drilling Depth 1.5XD



Unit: mm

| Specification     | Drilling Dia. | Dimensions |    |      |      |    |      | Key      |
|-------------------|---------------|------------|----|------|------|----|------|----------|
|                   |               | d          | D3 | L1   | L2   | Ls | D    |          |
| ICN080089-12-1.5D | 8.0-8.9       | 12         | 16 | 23.4 | 34.4 | 45 | 7.5  | K8-11.9  |
| ICN090099-12-1.5D | 9.0-9.9       | 12         | 16 | 24.0 | 36.8 | 45 | 8.5  |          |
| ICN100109-16-1.5D | 10.0-10.9     | 16         | 20 | 25.0 | 39.0 | 48 | 9.5  |          |
| ICN110119-16-1.5D | 11.0-11.9     | 16         | 20 | 27.0 | 42.3 | 48 | 10.5 |          |
| ICN120129-16-1.5D | 12.0-12.9     | 16         | 20 | 29.0 | 43.5 | 48 | 11.5 | K12-16.9 |
| ICN130139-16-1.5D | 13.0-13.9     | 16         | 20 | 31.0 | 45.7 | 48 | 12.5 |          |
| ICN140149-16-1.5D | 14.0-14.9     | 16         | 20 | 33.0 | 46.9 | 48 | 13.5 |          |
| ICN150159-20-1.5D | 15.0-15.9     | 20         | 25 | 36.0 | 54.4 | 50 | 14.5 |          |
| ICN160169-20-1.5D | 16.0-16.9     | 20         | 25 | 38.0 | 54.0 | 50 | 15.5 | K17-20.9 |
| ICN170179-20-1.5D | 17.0-17.9     | 20         | 25 | 40.4 | 59.7 | 50 | 16.5 |          |
| ICN180189-25-1.5D | 18.0-18.9     | 25         | 32 | 42.0 | 65.0 | 56 | 17.5 |          |
| ICN190199-25-1.5D | 19.0-19.9     | 25         | 32 | 44.0 | 66.2 | 56 | 18.5 |          |
| ICN200209-25-1.5D | 20.0-20.9     | 25         | 32 | 47.0 | 71.6 | 56 | 19.5 | K21-26   |
| ICN210219-25-1.5D | 21.0-21.9     | 25         | 32 | 49.0 | 73.9 | 56 | 20.5 |          |
| ICN220229-25-1.5D | 22.0-22.9     | 25         | 32 | 50.8 | 73.2 | 56 | 21.5 |          |
| ICN230239-32-1.5D | 23.0-23.9     | 32         | 42 | 53.0 | 82.5 | 60 | 22.5 |          |
| ICN240249-32-1.5D | 24.0-24.9     | 32         | 42 | 55.3 | 84.9 | 60 | 23.5 |          |
| ICN250260-32-1.5D | 25.0-26.0     | 32         | 42 | 58.0 | 89.5 | 60 | 24.5 |          |
| ICN250260-32-1.5D | 26.0-26.9     | 32         | 42 | 58   | 89.5 | 60 | 24.5 |          |
| ICN270279-32-1.5D | 27.0-27.9     | 32         | 42 | 63.5 | 95.5 | 60 | 26.5 |          |

Insert pages :

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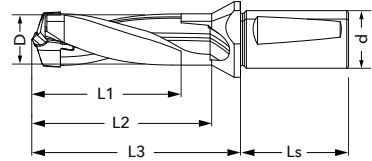
ICN...M page 17

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## ICN...1.5D Drilling Body

With Coolant Holes | Weldon Shank  
Drilling Depth 1.5XD



Unit: mm

| Specification     | Drilling Dia. | Dimensions |      |       |       |      |    | Key    |
|-------------------|---------------|------------|------|-------|-------|------|----|--------|
|                   |               | d          | L1   | L2    | L3    | D    | Ls |        |
| ICN280289-32-1.5D | 28.0-28.9     | 32         | 43.5 | 72.5  | 72.5  | 27.5 | 60 | K27-32 |
| ICN290299-32-1.5D | 29.0-29.9     | 32         | 45.0 | 75.0  | 75.0  | 28.5 | 60 |        |
| ICN300309-32-1.5D | 30.0-30.9     | 32         | 46.5 | 77.5  | 77.5  | 29.5 | 60 |        |
| ICN310319-32-1.5D | 31.0-31.9     | 32         | 48.0 | 80.0  | 80.0  | 30.5 | 60 |        |
| ICN320229-32-1.5D | 32.0-32.9     | 32         | 49.5 | 82.5  | 82.5  | 31.5 | 60 |        |
| ICN330339-32-1.5D | 33.0-33.9     | 32         | 51.0 | 85.0  | 85.0  | 32.5 | 60 |        |
| ICN340349-32-1.5D | 34.0-34.9     | 32         | 52.5 | 87.5  | 87.5  | 33.5 | 60 | K33-38 |
| ICN350359-32-1.5D | 35.0-35.9     | 32         | 54.0 | 90.0  | 90.0  | 34.5 | 60 |        |
| ICN360369-32-1.5D | 36.0-36.9     | 32         | 55.5 | 92.5  | 92.5  | 35.5 | 60 |        |
| ICN370379-32-1.5D | 37.0-37.9     | 32         | 57.0 | 95.0  | 95.0  | 36.5 | 60 |        |
| ICN380389-32-1.5D | 38.0-38.9     | 32         | 58.5 | 97.5  | 97.5  | 37.5 | 60 |        |
| ICN390399-32-1.5D | 39.0-39.9     | 32         | 60.0 | 100.0 | 100.0 | 38.5 | 60 |        |
| ICN400409-32-1.5D | 40.0-40.9     | 32         | 61.5 | 102.5 | 102.5 | 39.5 | 60 | K39-45 |
| ICN410419-32-1.5D | 41.0-41.9     | 32         | 63.0 | 105.0 | 105.0 | 40.5 | 60 |        |
| ICN420429-50-1.5D | 42.0-42.9     | 50         | 64.5 | 107.5 | 107.5 | 41.5 | 80 |        |
| ICN430439-50-1.5D | 43.0-43.9     | 50         | 66.0 | 110.0 | 110.0 | 42.5 | 80 |        |
| ICN440450-50-1.5D | 44.0-45.0     | 50         | 67.5 | 112.5 | 112.5 | 43.5 | 80 |        |

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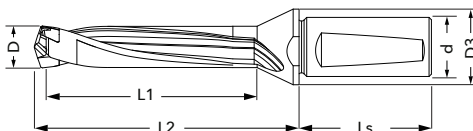
ICN...G page 5

ICN...P page 11



## ICN...3D Drilling Body

With Coolant Holes | Weldon Shank  
Drilling Depth 3XD



Unit: mm

| Specification   | Drilling Dia. | Dimensions |    |      |       |    |      | Key      |
|-----------------|---------------|------------|----|------|-------|----|------|----------|
|                 |               | d          | D3 | L1   | L2    | Ls | D    |          |
| ICN080089-12-3D | 8.0-8.9       | 12         | 16 | 36.0 | 47.4  | 45 | 7.5  | K8-11.9  |
| ICN090099-12-3D | 9.0-9.9       | 12         | 16 | 37.0 | 49.6  | 45 | 8.5  |          |
| ICN100109-16-3D | 10.0-10.9     | 16         | 20 | 41.0 | 55.0  | 48 | 9.5  |          |
| ICN110119-16-3D | 11.0-11.9     | 16         | 20 | 45.0 | 60.3  | 48 | 10.5 |          |
| ICN120129-16-3D | 12.0-12.9     | 16         | 20 | 48.0 | 62.5  | 48 | 11.5 | K12-16.9 |
| ICN130139-16-3D | 13.0-13.9     | 16         | 20 | 52.0 | 66.7  | 48 | 12.5 |          |
| ICN140149-16-3D | 14.0-14.9     | 16         | 20 | 55.5 | 68.9  | 48 | 13.5 |          |
| ICN150159-20-3D | 15.0-15.9     | 20         | 25 | 60.0 | 78.4  | 50 | 14.5 |          |
| ICN160169-20-3D | 16.0-16.9     | 20         | 25 | 63.0 | 79.0  | 50 | 15.5 | K17-20.9 |
| ICN170179-20-3D | 17.0-17.9     | 20         | 25 | 66.0 | 79.7  | 50 | 16.5 |          |
| ICN180189-25-3D | 18.0-18.9     | 25         | 32 | 70.5 | 93.5  | 56 | 17.5 |          |
| ICN190199-25-3D | 19.0-19.9     | 25         | 32 | 75.0 | 97.2  | 56 | 18.5 |          |
| ICN200209-25-3D | 20.0-20.9     | 25         | 32 | 78.0 | 102.6 | 56 | 19.5 | K21-26   |
| ICN210219-25-3D | 21.0-21.9     | 25         | 32 | 82.0 | 106.9 | 56 | 20.5 |          |
| ICN220229-25-3D | 22.0-22.9     | 25         | 32 | 85.8 | 108.2 | 56 | 21.5 |          |
| ICN230239-32-3D | 23.0-23.9     | 32         | 42 | 89.3 | 119.5 | 60 | 22.5 |          |
| ICN240249-32-3D | 24.0-24.9     | 32         | 42 | 93.3 | 122.9 | 60 | 23.5 |          |
| ICN250260-32-3D | 25.0-26.0     | 32         | 42 | 97.2 | 128.5 | 60 | 24.5 |          |
| ICN250260-32-3D | 26.0-26.9     | 32         | 42 | 97.2 | 128.5 | 60 | 24.5 |          |
| ICN270279-32-3D | 27.0-27.9     | 32         | 42 | 105  | 137   | 60 | 26.5 |          |

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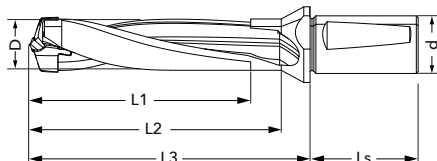
ICN...M page 17

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## ICN...3D Drilling Body

With Coolant Holes | Weldon Shank  
Drilling Depth 3XD



Unit: mm

| Specification   | Drilling Dia. | Dimensions |       |       |       |      |    | Key    |
|-----------------|---------------|------------|-------|-------|-------|------|----|--------|
|                 |               | d          | L1    | L2    | L3    | D    | Ls |        |
| ICN280289-32-3D | 28.0-28.9     | 32         | 87.0  | 116.0 | 136.0 | 27.5 | 60 | K27-32 |
| ICN290299-32-3D | 29.0-29.9     | 32         | 90.0  | 120.0 | 140.0 | 28.5 | 60 |        |
| ICN300309-32-3D | 30.0-30.9     | 32         | 93.0  | 124.0 | 144.0 | 29.5 | 60 |        |
| ICN310319-32-3D | 31.0-31.9     | 32         | 96.0  | 128.0 | 148.0 | 30.5 | 60 |        |
| ICN320229-32-3D | 32.0-32.9     | 32         | 99.0  | 132.0 | 152.0 | 31.5 | 60 |        |
| ICN330339-32-3D | 33.0-33.9     | 32         | 102.0 | 136.0 | 156.0 | 32.5 | 60 |        |
| ICN340349-32-3D | 34.0-34.9     | 32         | 105.0 | 140.0 | 160.0 | 33.5 | 60 | K33-38 |
| ICN350359-32-3D | 35.0-35.9     | 32         | 108.0 | 144.0 | 164.0 | 34.5 | 60 |        |
| ICN360369-32-3D | 36.0-36.9     | 32         | 111.0 | 148.0 | 168.0 | 35.5 | 60 |        |
| ICN370379-32-3D | 37.0-37.9     | 32         | 114.0 | 152.0 | 172.0 | 36.5 | 60 |        |
| ICN380389-32-3D | 38.0-38.9     | 32         | 117.0 | 156.0 | 176.0 | 37.5 | 60 |        |
| ICN390399-32-3D | 39.0-39.9     | 32         | 120.0 | 160.0 | 180.0 | 38.5 | 60 |        |
| ICN400409-32-3D | 40.0-40.9     | 32         | 123.0 | 164.0 | 184.0 | 39.5 | 60 | K39-45 |
| ICN410419-32-3D | 41.0-41.9     | 32         | 126.0 | 168.0 | 188.0 | 40.5 | 60 |        |
| ICN420429-50-3D | 42.0-42.9     | 50         | 129.0 | 172.0 | 192.0 | 41.5 | 80 |        |
| ICN430439-50-3D | 43.0-43.9     | 50         | 132.0 | 176.0 | 196.0 | 42.5 | 80 |        |
| ICN440450-50-3D | 44.0-45.0     | 50         | 135.0 | 180.0 | 200.0 | 43.5 | 80 |        |

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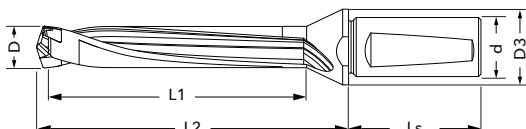
ICN...G page 5

ICN...P page 11



## ICN...5D Drilling Body

With Coolant Holes | Weldon Shank  
Drilling Depth 5XD



Unit: mm

| Specification   | Drilling Dia. | Dimensions |    |       |       |    |      | Key      |
|-----------------|---------------|------------|----|-------|-------|----|------|----------|
|                 |               | d          | D3 | L1    | L2    | Ls | D    |          |
| ICN080089-12-5D | 8.0-8.9       | 12         | 16 | 54.0  | 65.4  | 45 | 7.5  | K8-11.9  |
| ICN090099-12-5D | 9.0-9.9       | 12         | 16 | 57.0  | 69.6  | 45 | 8.5  |          |
| ICN100109-16-5D | 10.0-10.9     | 16         | 20 | 63.0  | 78.0  | 48 | 9.5  |          |
| ICN110119-16-5D | 11.0-11.9     | 16         | 20 | 69.0  | 84.3  | 48 | 10.5 |          |
| ICN120129-16-5D | 12.0-12.9     | 16         | 20 | 75.0  | 89.5  | 48 | 11.5 | K12-16.9 |
| ICN130139-16-5D | 13.0-13.9     | 16         | 20 | 80.0  | 94.7  | 48 | 12.5 |          |
| ICN140149-16-5D | 14.0-14.9     | 16         | 20 | 83.7  | 96.9  | 48 | 13.5 |          |
| ICN150159-20-5D | 15.0-15.9     | 20         | 25 | 92.0  | 110.4 | 50 | 14.5 |          |
| ICN160169-20-5D | 16.0-16.9     | 20         | 25 | 98.0  | 114.0 | 50 | 15.5 | K17-20.9 |
| ICN170179-20-5D | 17.0-17.9     | 20         | 25 | 103.4 | 122.7 | 50 | 16.5 |          |
| ICN180189-25-5D | 18.0-18.9     | 25         | 32 | 109.3 | 132.0 | 56 | 17.5 |          |
| ICN190199-25-5D | 19.0-19.9     | 25         | 32 | 114.0 | 136.2 | 56 | 18.5 |          |
| ICN200209-25-5D | 20.0-20.9     | 25         | 32 | 120.0 | 144.6 | 56 | 19.5 | K21-26   |
| ICN210219-25-5D | 21.0-21.9     | 25         | 32 | 126.0 | 150.9 | 56 | 20.5 |          |
| ICN220229-25-5D | 22.0-22.9     | 25         | 32 | 131.8 | 154.2 | 56 | 21.5 |          |
| ICN230239-32-5D | 23.0-23.9     | 32         | 42 | 137.0 | 167.5 | 60 | 22.5 |          |
| ICN240249-32-5D | 24.0-24.9     | 32         | 42 | 143.0 | 172.9 | 60 | 23.5 |          |
| ICN250260-32-5D | 25.0-26.0     | 32         | 42 | 149.2 | 180.5 | 60 | 24.5 |          |
| ICN250260-32-5D | 26.0-26.9     | 32         | 42 | 149.2 | 180.5 | 60 | 24.5 |          |
| ICN270279-32-5D | 27.0-27.9     | 32         | 42 | 161.5 | 193.5 | 60 | 26.5 |          |

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ICN...M page 17

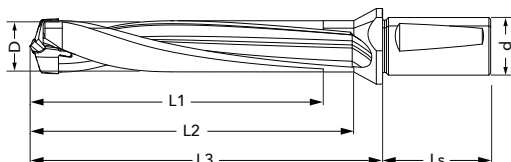
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ICN...F page 23



## ICN...5D Drilling Body

With Coolant Holes | Weldon Shank  
Drilling Depth 5XD



Unit: mm

| Specification   | Drilling Dia. | Dimensions |       |       |       |      |    | Key    |
|-----------------|---------------|------------|-------|-------|-------|------|----|--------|
|                 |               | d          | L1    | L2    | L3    | D    | Ls |        |
| ICN280289-32-5D | 28.0-28.9     | 32         | 145.0 | 174.0 | 194.0 | 27.5 | 60 | K27-32 |
| ICN290299-32-5D | 29.0-29.9     | 32         | 150.0 | 180.0 | 200.0 | 28.5 | 60 |        |
| ICN300309-32-5D | 30.0-30.9     | 32         | 155.0 | 186.0 | 206.0 | 29.5 | 60 |        |
| ICN310319-32-5D | 31.0-31.9     | 32         | 160.0 | 192.0 | 212.0 | 30.5 | 60 |        |
| ICN320229-32-5D | 32.0-32.9     | 32         | 165.0 | 198.0 | 218.0 | 31.5 | 60 |        |
| ICN330339-32-5D | 33.0-33.9     | 32         | 170.0 | 204.0 | 224.0 | 32.5 | 60 |        |
| ICN340349-32-5D | 34.0-34.9     | 32         | 175.0 | 210.0 | 230.0 | 33.5 | 60 | K33-38 |
| ICN350359-32-5D | 35.0-35.9     | 32         | 180.0 | 216.0 | 236.0 | 34.5 | 60 |        |
| ICN360369-32-5D | 36.0-36.9     | 32         | 185.0 | 222.0 | 242.0 | 35.5 | 60 |        |
| ICN370379-32-5D | 37.0-37.9     | 32         | 190.0 | 228.0 | 248.0 | 36.5 | 60 |        |
| ICN380389-32-5D | 38.0-38.9     | 32         | 195.0 | 234.0 | 254.0 | 37.5 | 60 |        |
| ICN390399-32-5D | 39.0-39.9     | 32         | 200.0 | 240.0 | 260.0 | 38.5 | 60 | K39-45 |
| ICN400409-32-5D | 40.0-40.9     | 32         | 205.0 | 246.0 | 266.0 | 39.5 | 60 |        |
| ICN410419-32-5D | 41.0-41.9     | 32         | 210.0 | 252.0 | 272.0 | 40.5 | 60 |        |
| ICN420429-50-5D | 42.0-42.9     | 50         | 215.0 | 258.0 | 278.0 | 41.5 | 80 |        |
| ICN430439-50-5D | 43.0-43.9     | 50         | 220.0 | 264.0 | 284.0 | 42.5 | 80 |        |
| ICN440450-50-5D | 44.0-45.0     | 50         | 225.0 | 270.0 | 290.0 | 43.5 | 80 |        |

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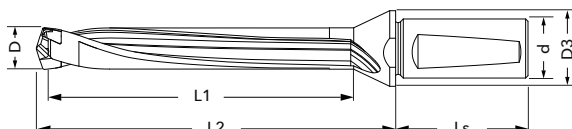
ICN...G page 5

ICN...P page 11



## ICN...8D Drilling Body

With Coolant Holes | Weldon Shank  
Drilling Depth 8XD



Unit: mm

| Specification   | Drilling Dia. | Dimensions |    |       |       |    |      | Key      |
|-----------------|---------------|------------|----|-------|-------|----|------|----------|
|                 |               | d          | D3 | L1    | L2    | Ls | D    |          |
| ICN080089-12-8D | 8.0-8.9       | 12         | 16 | 82.0  | 93.4  | 45 | 7.5  | K8-11.9  |
| ICN090099-12-8D | 9.0-9.9       | 12         | 16 | 87.0  | 99.0  | 45 | 8.5  |          |
| ICN100109-16-8D | 10.0-10.9     | 16         | 20 | 96.0  | 110.0 | 48 | 9.5  |          |
| ICN110119-16-8D | 11.0-11.9     | 16         | 20 | 105.0 | 120.3 | 48 | 10.5 |          |
| ICN120129-16-8D | 12.0-12.9     | 16         | 20 | 114.0 | 128.0 | 48 | 11.5 | K12-16.9 |
| ICN130139-16-8D | 13.0-13.9     | 16         | 20 | 122.0 | 136.7 | 48 | 12.5 |          |
| ICN140149-16-8D | 14.0-14.9     | 16         | 20 | 130.5 | 143.9 | 48 | 13.5 |          |
| ICN150159-20-8D | 15.0-15.9     | 20         | 25 | 140.0 | 158.4 | 50 | 14.5 |          |
| ICN160169-20-8D | 16.0-16.9     | 20         | 25 | 148.0 | 164.0 | 50 | 15.5 | K17-20.9 |
| ICN170179-20-8D | 17.0-17.9     | 20         | 25 | 157.0 | 176.7 | 50 | 16.5 |          |
| ICN180189-25-8D | 18.0-18.9     | 25         | 32 | 166.0 | 189.0 | 56 | 17.5 |          |
| ICN190199-25-8D | 19.0-19.9     | 25         | 32 | 174.0 | 196.2 | 56 | 18.5 |          |
| ICN200209-25-8D | 20.0-20.9     | 25         | 32 | 183.0 | 207.6 | 56 | 19.5 | K21-26   |
| ICN210219-25-8D | 21.0-21.9     | 25         | 32 | 192.0 | 216.9 | 56 | 20.5 |          |
| ICN220229-25-8D | 22.0-22.9     | 25         | 32 | 201.0 | 223.2 | 56 | 21.5 |          |
| ICN230239-32-8D | 23.0-23.9     | 32         | 42 | 208.0 | 238.5 | 60 | 22.5 |          |
| ICN240249-32-8D | 24.0-24.9     | 32         | 42 | 217.9 | 247.9 | 60 | 23.5 |          |
| ICN250260-32-8D | 25.0-26.0     | 32         | 42 | 227.0 | 258.5 | 60 | 24.5 |          |
| ICN250260-32-8D | 26.0-26.9     | 32         | 42 | 227   | 258.5 | 60 | 24.5 |          |
| ICN270279-32-8D | 27.0-27.9     | 32         | 42 | 245.5 | 277.5 | 60 | 26.5 |          |

Insert pages :

ICN...G page 2

ICN...P page 8

ICN...K page 14

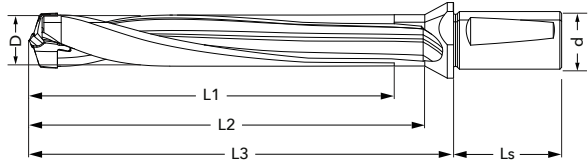
ICN...M page 17

ICN...S page 20

ICN...F page 23

## ICN...8D Drilling Body

With Coolant Holes | Weldon Shank  
Drilling Depth 8XD



Unit: mm

| Specification   | Drilling Dia. | Dimensions |       |       |       |      |    | Key    |
|-----------------|---------------|------------|-------|-------|-------|------|----|--------|
|                 |               | d          | L1    | L2    | L3    | D    | Ls |        |
| ICN280289-32-8D | 28.0-28.9     | 32         | 232.0 | 261.0 | 281.0 | 27.5 | 60 | K27-32 |
| ICN290299-32-8D | 29.0-29.9     | 32         | 240.0 | 270.0 | 290.0 | 28.5 | 60 |        |
| ICN300309-32-8D | 30.0-30.9     | 32         | 248.0 | 279.0 | 299.0 | 29.5 | 60 |        |
| ICN310319-32-8D | 31.0-31.9     | 32         | 256.0 | 288.0 | 308.0 | 30.5 | 60 |        |
| ICN320229-32-8D | 32.0-32.9     | 32         | 264.0 | 297.0 | 317.0 | 31.5 | 60 |        |
| ICN330339-32-8D | 33.0-33.9     | 32         | 272.0 | 306.0 | 326.0 | 32.5 | 60 |        |
| ICN340349-32-8D | 34.0-34.9     | 32         | 280.0 | 315.0 | 335.0 | 33.5 | 60 | K33-38 |
| ICN350359-32-8D | 35.0-35.9     | 32         | 288.0 | 324.0 | 344.0 | 34.5 | 60 |        |
| ICN360369-32-8D | 36.0-36.9     | 32         | 296.0 | 333.0 | 353.0 | 35.5 | 60 |        |
| ICN370379-32-8D | 37.0-37.9     | 32         | 304.0 | 342.0 | 362.0 | 36.5 | 60 |        |
| ICN380389-32-8D | 38.0-38.9     | 32         | 312.0 | 351.0 | 371.0 | 37.5 | 60 |        |
| ICN390399-32-8D | 39.0-39.9     | 32         | 320.0 | 360.0 | 380.0 | 38.5 | 60 | K39-45 |
| ICN400409-32-8D | 40.0-40.9     | 32         | 328.0 | 369.0 | 389.0 | 39.5 | 60 |        |
| ICN410419-32-8D | 41.0-41.9     | 32         | 336.0 | 378.0 | 398.0 | 40.5 | 60 |        |
| ICN420429-50-8D | 42.0-42.9     | 50         | 344.0 | 387.0 | 407.0 | 41.5 | 80 |        |
| ICN430439-50-8D | 43.0-43.9     | 50         | 352.0 | 396.0 | 416.0 | 42.5 | 80 |        |
| ICN440450-50-8D | 44.0-45.0     | 50         | 360.0 | 405.0 | 425.0 | 43.5 | 80 |        |

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ICN...G page 5

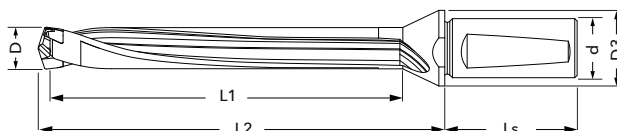
ICN...P page 11



## ICN...12D Drilling Body

With Coolant Holes | Weldon Shank

Drilling Depth 12XD



Unit: mm

| Specification    | Drilling Dia. | Dimensions |    |       |       |    |      | Key      |
|------------------|---------------|------------|----|-------|-------|----|------|----------|
|                  |               | d          | D3 | L1    | L2    | Ls | D    |          |
| ICN120129-16-12D | 12.0-12.9     | 16         | 20 | 166.0 | 179.5 | 48 | 11.5 | K12-16.9 |
| ICN130139-16-12D | 13.0-13.9     | 16         | 20 | 178.0 | 192.6 | 48 | 12.5 |          |
| ICN140149-16-12D | 14.0-14.9     | 16         | 20 | 190.6 | 203.9 | 48 | 13.5 |          |
| ICN150159-20-12D | 15.0-15.9     | 20         | 20 | 204.0 | 222.4 | 50 | 14.5 |          |
| ICN160169-20-12D | 16.0-16.9     | 20         | 20 | 216.0 | 232.0 | 50 | 15.5 |          |
| ICN170179-20-12D | 17.0-17.9     | 20         | 20 | 229.0 | 248.7 | 50 | 16.5 | K17-20.9 |
| ICN180189-25-12D | 18.0-18.9     | 25         | 32 | 242.0 | 265.0 | 56 | 17.5 |          |
| ICN190199-25-12D | 19.0-19.9     | 25         | 32 | 254.0 | 276.2 | 56 | 18.5 |          |
| ICN200209-25-12D | 20.0-20.9     | 25         | 32 | 267.0 | 291.6 | 56 | 19.5 |          |
| ICN210219-25-12D | 21.0-21.9     | 25         | 32 | 280.0 | 304.9 | 56 | 20.5 | K21-26   |
| ICN220229-25-12D | 22.0-22.9     | 25         | 32 | 293.0 | 315.2 | 56 | 21.5 |          |
| ICN230239-32-12D | 23.0-23.9     | 32         | 42 | 305.0 | 334.5 | 60 | 22.5 |          |
| ICN240249-32-12D | 24.0-24.9     | 32         | 42 | 318.0 | 347.9 | 60 | 23.5 |          |
| ICN250260-32-12D | 25.0-26.0     | 32         | 42 | 331.0 | -     | 60 | 24.5 |          |
| ICN250260-32-12D | 26.0-26.9     | 32         | 42 | 331   | 362.5 | 60 | 24.5 |          |
| ICN270279-32-12D | 27.0-27.9     | 32         | 42 | 357.5 | 389.5 | 60 | 26.5 |          |

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ICN...G page 2

ICN...P page 8

ICN...K page 14

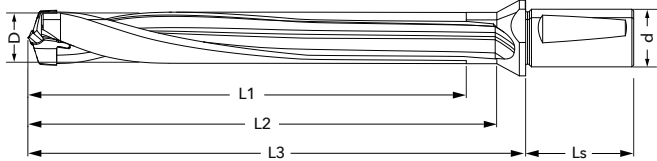
ICN...M page 17

ICN...S page 20

ICN...F page 23

## ICN...12D Drilling Body

With Coolant Holes | Weldon Shank  
Drilling Depth 12XD



Unit: mm

| Specification    | Drilling Dia. | Dimensions |       |       |       |      |    | Key                                                                               |
|------------------|---------------|------------|-------|-------|-------|------|----|-----------------------------------------------------------------------------------|
|                  |               | d          | L1    | L2    | L3    | D    | Ls |  |
| ICN280289-32-12D | 28.0-28.9     | 32         | 348.0 | 377.0 | 397.0 | 27.5 | 60 | K27-32                                                                            |
| ICN290299-32-12D | 29.0-29.9     | 32         | 360.0 | 390.0 | 410.0 | 28.5 | 60 |                                                                                   |
| ICN300309-32-12D | 30.0-30.9     | 32         | 372.0 | 403.0 | 423.0 | 29.5 | 60 |                                                                                   |
| ICN310319-32-12D | 31.0-31.9     | 32         | 384.0 | 416.0 | 436.0 | 30.5 | 60 |                                                                                   |
| ICN320229-32-12D | 32.0-32.9     | 32         | 396.0 | 429.0 | 449.0 | 31.5 | 60 |                                                                                   |
| ICN330339-32-12D | 33.0-33.9     | 32         | 408.0 | 442.0 | 462.0 | 32.5 | 60 |                                                                                   |
| ICN340349-32-12D | 34.0-34.9     | 32         | 420.0 | 455.0 | 475.0 | 33.5 | 60 | K33-38                                                                            |
| ICN350359-32-12D | 35.0-35.9     | 32         | 432.0 | 468.0 | 488.0 | 34.5 | 60 |                                                                                   |
| ICN360369-32-12D | 36.0-36.9     | 32         | 444.0 | 481.0 | 501.0 | 35.5 | 60 |                                                                                   |
| ICN370379-32-12D | 37.0-37.9     | 32         | 456.0 | 494.0 | 514.0 | 36.5 | 60 |                                                                                   |
| ICN380389-32-12D | 38.0-38.9     | 32         | 468.0 | 507.0 | 527.0 | 37.5 | 60 |                                                                                   |
| ICN390399-32-12D | 39.0-39.9     | 32         | 480.0 | 520.0 | 540.0 | 38.5 | 60 |                                                                                   |
| ICN400409-32-12D | 40.0-40.9     | 32         | 492.0 | 533.0 | 553.0 | 39.5 | 60 | K39-45                                                                            |
| ICN410419-32-12D | 41.0-41.9     | 32         | 504.0 | 546.0 | 566.0 | 40.5 | 60 |                                                                                   |
| ICN420429-50-12D | 42.0-42.9     | 50         | 516.0 | 559.0 | 579.0 | 41.5 | 80 |                                                                                   |
| ICN430439-50-12D | 43.0-43.9     | 50         | 528.0 | 572.0 | 592.0 | 42.5 | 80 |                                                                                   |
| ICN440450-50-12D | 44.0-45.0     | 50         | 540.0 | 585.0 | 605.0 | 43.5 | 80 |                                                                                   |

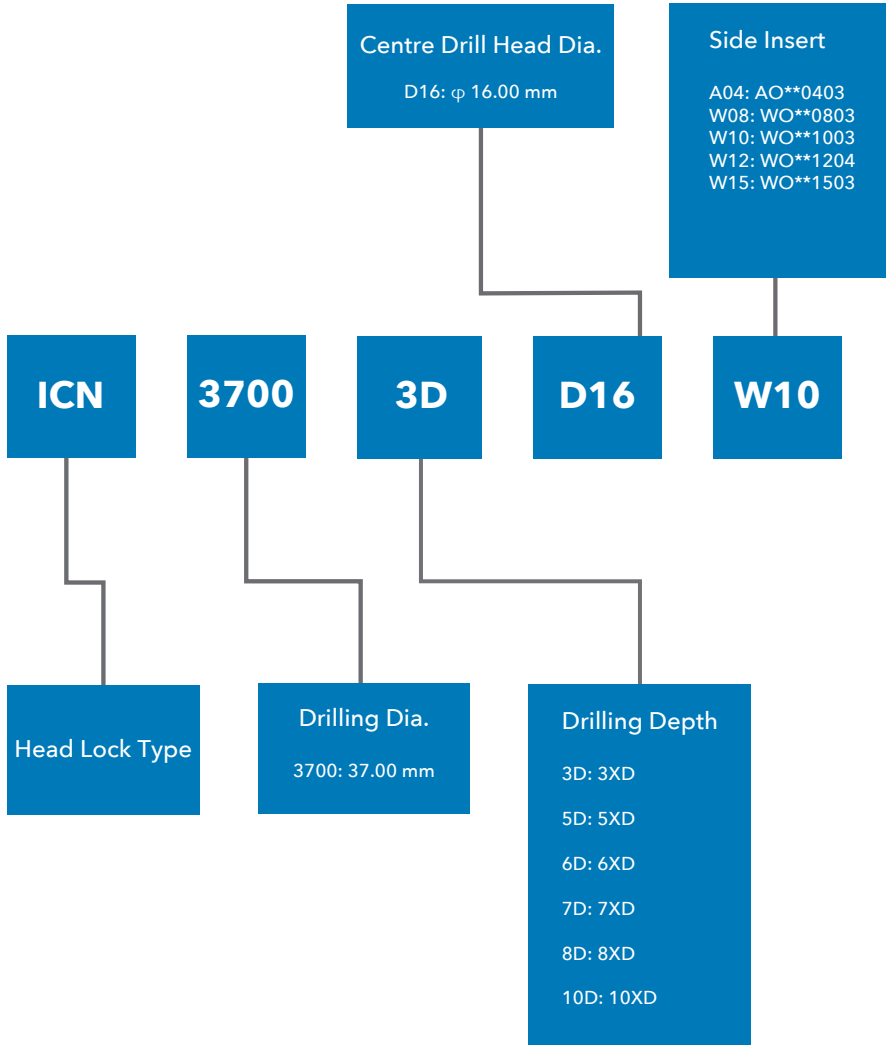
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ICN...P page 11

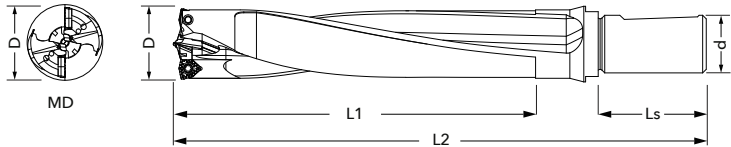


## ICN Drill Body Coding System CombiHead



## ICN...3D-D Drilling Body

With Pilot Drill and Side Inserts | Weldon Shank | Drilling Depth 3XD



Unit: mm

| Specification      | Centre Drill | Side Insert | Dimensions |     |     |    |       | Accessories                                                                       |                                                                                   |                                                                                   |             |     |             |     |
|--------------------|--------------|-------------|------------|-----|-----|----|-------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------|-----|-------------|-----|
|                    |              |             | d          | L1  | L2  | Ls | D     |  |  |  |             |     |             |     |
| ICN2800-3D-D14-A04 | MD-140-P     | AO**0403    | 32         | 84  | 118 | 60 | 28    | K14-16.9                                                                          | ICNM-025080                                                                       | T9                                                                                |             |     |             |     |
| ICN2858-3D-D15-A04 | MD-150-P     | AO**0403    | 32         | 86  | 120 | 60 | 28.58 |                                                                                   |                                                                                   |                                                                                   |             |     |             |     |
| ICN2900-3D-D16-A04 | MD-160-P     | AO**0403    | 32         | 87  | 121 | 60 | 29    |                                                                                   |                                                                                   |                                                                                   |             |     |             |     |
| ICN2936-3D-D16-A04 | MD-160-P     | AO**0403    | 32         | 89  | 123 | 60 | 29.36 |                                                                                   |                                                                                   |                                                                                   |             |     |             |     |
| ICN3000-3D-D16-A04 | MD-160-P     | AO**0403    | 32         | 90  | 125 | 60 | 30    |                                                                                   |                                                                                   |                                                                                   |             |     |             |     |
| ICN3018-3D-D18-A04 | MD-180-P     | AO**0403    | 32         | 91  | 126 | 60 | 30.18 | K17-19.9                                                                          | ICNM-030080                                                                       | T10                                                                               |             |     |             |     |
| ICN3096-3D-D18-A04 | MD-180-P     | AO**0403    | 32         | 93  | 128 | 60 | 30.96 |                                                                                   |                                                                                   |                                                                                   |             |     |             |     |
| ICN3100-3D-D18-A04 | MD-180-P     | AO**0403    | 32         | 94  | 129 | 60 | 31    |                                                                                   |                                                                                   |                                                                                   |             |     |             |     |
| ICN3175-3D-D15-W08 | MD-150-P     | WO**0803    | 32         | 96  | 133 | 60 | 31.75 | K14-16.9                                                                          |                                                                                   |                                                                                   | ICNM-030080 | T10 |             |     |
| ICN3200-3D-D15-W08 | MD-150-P     | WO**0803    | 32         | 97  | 134 | 60 | 32    |                                                                                   |                                                                                   |                                                                                   |             |     |             |     |
| ICN3300-3D-D16-W08 | MD-160-P     | WO**0803    | 32         | 99  | 136 | 60 | 33    |                                                                                   |                                                                                   |                                                                                   |             |     |             |     |
| ICN3320-3D-D16-W08 | MD-160-P     | WO**0803    | 32         | 100 | 137 | 60 | 33.2  |                                                                                   |                                                                                   |                                                                                   |             |     |             |     |
| ICN3335-3D-D16-W08 | MD-160-P     | WO**0803    | 32         | 101 | 138 | 60 | 33.35 |                                                                                   |                                                                                   |                                                                                   |             |     |             |     |
| ICN3400-3D-D18-W08 | MD-180-P     | WO**0803    | 32         | 102 | 139 | 60 | 34    | K17-19.9                                                                          |                                                                                   |                                                                                   |             |     | ICNM-030080 | T10 |
| ICN3493-3D-D18-W08 | MD-180-P     | WO**0803    | 32         | 105 | 142 | 60 | 34.93 |                                                                                   |                                                                                   |                                                                                   |             |     |             |     |
| ICN3500-3D-D18-W08 | MD-180-P     | WO**0803    | 32         | 106 | 144 | 60 | 35    |                                                                                   |                                                                                   |                                                                                   |             |     |             |     |
| ICN3600-3D-D18-W08 | MD-180-P     | WO**0803    | 32         | 108 | 146 | 60 | 36    |                                                                                   |                                                                                   |                                                                                   |             |     |             |     |
| ICN3653-3D-D19-W08 | MD-190-P     | WO**0803    | 32         | 110 | 148 | 60 | 36.53 |                                                                                   |                                                                                   |                                                                                   |             |     |             |     |
| ICN3700-3D-D16-W10 | MD-160-P     | WO**1003    | 32         | 111 | 149 | 60 | 37    | K14-16.9                                                                          | ICNM-040100                                                                       | T15                                                                               |             |     |             |     |
| ICN3750-3D-D16-W10 | MD-160-P     | WO**1003    | 32         | 113 | 151 | 60 | 37.5  |                                                                                   |                                                                                   |                                                                                   |             |     |             |     |
| ICN3800-3D-D16-W10 | MD-160-P     | WO**1003    | 32         | 114 | 154 | 60 | 38    |                                                                                   |                                                                                   |                                                                                   |             |     |             |     |
| ICN3810-3D-D16-W10 | MD-160-P     | WO**1003    | 32         | 115 | 155 | 60 | 38.1  |                                                                                   |                                                                                   |                                                                                   |             |     |             |     |

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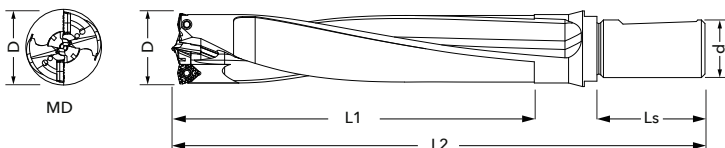
MD.....\* page 110



## ICN...3D-D Drilling Body



With Pilot Drill and Side Inserts | Weldon Shank | Drilling Depth 3XD



Unit: mm

| Specification      | Centre Drill | Side Insert | Dimensions |     |     |    |       | Accessories                                                                       |                                                                                   |                                                                                   |
|--------------------|--------------|-------------|------------|-----|-----|----|-------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
|                    |              |             | d          | L1  | L2  | Ls | D     |  |  |  |
| ICN3900-3D-D18-W10 | MD-180-P     | WO**1003    | 32         | 117 | 157 | 60 | 39    | K17-19.9                                                                          | ICNM-040100                                                                       | T15                                                                               |
| ICN3920-3D-D18-W10 | MD-180-P     | WO**1003    | 32         | 118 | 158 | 60 | 39.2  |                                                                                   |                                                                                   |                                                                                   |
| ICN3970-3D-D18-W10 | MD-180-P     | WO**1003    | 32         | 120 | 160 | 60 | 39.7  |                                                                                   |                                                                                   |                                                                                   |
| ICN4000-3D-D18-W10 | MD-180-P     | WO**1003    | 32         | 121 | 164 | 60 | 40    |                                                                                   |                                                                                   |                                                                                   |
| ICN4100-3D-D19-W10 | MD-190-P     | WO**1003    | 32         | 123 | 166 | 60 | 41    |                                                                                   |                                                                                   |                                                                                   |
| ICN4128-3D-D19-W10 | MD-190-P     | WO**1003    | 32         | 124 | 167 | 60 | 41.28 | K14-16.9                                                                          |                                                                                   |                                                                                   |
| ICN4200-3D-D19-W10 | MD-190-P     | WO**1204    | 50         | 126 | 170 | 80 | 42    |                                                                                   |                                                                                   |                                                                                   |
| ICN4300-3D-D16-W12 | MD-160-P     | WO**1204    | 50         | 129 | 173 | 80 | 43    |                                                                                   |                                                                                   |                                                                                   |
| ICN4400-3D-D18-W12 | MD-180-P     | WO**1204    | 50         | 132 | 176 | 80 | 44    |                                                                                   |                                                                                   |                                                                                   |
| ICN4445-3D-D18-W12 | MD-180-P     | WO**1204    | 50         | 134 | 178 | 80 | 44.45 |                                                                                   |                                                                                   |                                                                                   |
| ICN4500-3D-D18-W12 | MD-180-P     | WO**1204    | 50         | 135 | 179 | 80 | 45    |                                                                                   |                                                                                   |                                                                                   |
| ICN4600-3D-D19-W12 | MD-190-P     | WO**1204    | 50         | 138 | 182 | 80 | 46    |                                                                                   |                                                                                   |                                                                                   |
| ICN4700-3D-D20-W12 | MD-200-P     | WO**1204    | 50         | 141 | 185 | 80 | 47    |                                                                                   |                                                                                   |                                                                                   |
| ICN4763-3D-D21-W12 | MD-210-P     | WO**1204    | 50         | 143 | 187 | 80 | 47.63 | K20-26.9                                                                          |                                                                                   |                                                                                   |
| ICN4800-3D-D21-W12 | MD-210-P     | WO**1204    | 50         | 144 | 189 | 80 | 48    |                                                                                   |                                                                                   |                                                                                   |
| ICN4900-3D-D22-W12 | MD-220-P     | WO**1204    | 50         | 147 | 192 | 80 | 49    |                                                                                   |                                                                                   |                                                                                   |
| ICN5000-3D-D23-W12 | MD-230-P     | WO**1204    | 50         | 150 | 195 | 80 | 50    |                                                                                   |                                                                                   |                                                                                   |
| ICN5080-3D-D24-W12 | MD-240-P     | WO**1204    | 50         | 153 | 198 | 80 | 50.8  |                                                                                   |                                                                                   |                                                                                   |
| ICN5100-3D-D24-W12 | MD-240-P     | WO**1204    | 50         | 154 | 199 | 80 | 51    |                                                                                   |                                                                                   |                                                                                   |
| ICN5200-3D-D25-W12 | MD-250-P     | WO**1204    | 50         | 156 | 201 | 80 | 52    |                                                                                   |                                                                                   |                                                                                   |
| ICN5300-3D-D26-W12 | MD-260-P     | WO**1204    | 50         | 159 | 204 | 80 | 53    |                                                                                   |                                                                                   |                                                                                   |
| ICN5398-3D-D27-W12 | MD-270-P     | WO**1204    | 50         | 162 | 207 | 80 | 53.98 |                                                                                   |                                                                                   |                                                                                   |
| ICN5400-3D-D27-W12 | MD-270-P     | WO**1204    | 50         | 163 | 208 | 80 | 54    | K27-32                                                                            |                                                                                   |                                                                                   |
| ICN5500-3D-D28-W12 | MD-280-P     | WO**1204    | 50         | 165 | 210 | 80 | 55    |                                                                                   |                                                                                   |                                                                                   |

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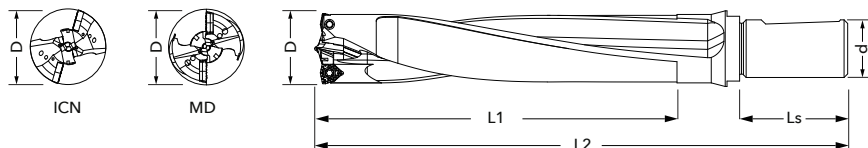
WOMT...W... page 109

MD.....\* page 110



## ICN...3D-D Drilling Body

With Pilot Drill and Side Inserts | Weldon Shank | Drilling Depth 3XD



Unit: mm

| Specification        | Centre Drill | Side Insert | Dimensions |     |     |    |    | Accessories                                                                       |                                                                                   |                                                                                   |
|----------------------|--------------|-------------|------------|-----|-----|----|----|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
|                      |              |             | d          | L1  | L2  | Ls | D  |  |  |  |
| ICN5600-3D-D20-W15   | MD-200-P     | WO**1503    | 50         | 168 | 213 | 80 | 56 | K17-19.9                                                                          | ICNM-050100                                                                       | T20                                                                               |
| ICN5700-3D-D21-W15   | MD-210-P     | WO**1503    | 50         | 171 | 216 | 80 | 57 | K20-26                                                                            |                                                                                   |                                                                                   |
| ICN5800-3D-D22-W15   | MD-220-P     | WO**1503    | 50         | 174 | 219 | 80 | 58 |                                                                                   |                                                                                   |                                                                                   |
| ICN5900-3D-D23-W15   | MD-230-P     | WO**1503    | 50         | 177 | 222 | 80 | 59 |                                                                                   |                                                                                   |                                                                                   |
| ICN6000-3D-D24-W15   | MD-240-P     | WO**1503    | 50         | 180 | 225 | 80 | 60 |                                                                                   |                                                                                   |                                                                                   |
| ICN6100-3D-D25-W15   | MD-250-P     | WO**1503    | 50         | 183 | 228 | 80 | 61 |                                                                                   |                                                                                   |                                                                                   |
| ICN6200-3D-D26-W15   | MD-260-P     | WO**1503    | 50         | 186 | 231 | 80 | 62 |                                                                                   |                                                                                   |                                                                                   |
| ICN6300-3D-D27-W15   | MD-270-P     | WO**1503    | 50         | 189 | 234 | 80 | 63 | K27-32                                                                            |                                                                                   |                                                                                   |
| ICN6400-3D-D28-W15   | MD-280-P     | WO**1503    | 50         | 192 | 237 | 80 | 64 |                                                                                   |                                                                                   |                                                                                   |
| ICN6500-3D-ICN29-W15 | ICN-290-P    | WO**1503    | 50         | 195 | 240 | 80 | 65 |                                                                                   |                                                                                   |                                                                                   |
| ICN6600-3D-ICN30-W15 | ICN-300-P    | WO**1503    | 50         | 198 | 243 | 80 | 66 |                                                                                   |                                                                                   |                                                                                   |
| ICN6700-3D-ICN31-W15 | ICN-310-P    | WO**1503    | 50         | 201 | 246 | 80 | 67 |                                                                                   |                                                                                   |                                                                                   |
| ICN6800-3D-ICN32-W15 | ICN-320-P    | WO**1503    | 50         | 204 | 249 | 80 | 68 |                                                                                   |                                                                                   |                                                                                   |
| ICN6900-3D-ICN33-W15 | ICN-330-P    | WO**1503    | 50         | 207 | 252 | 80 | 69 | K33-38                                                                            |                                                                                   |                                                                                   |
| ICN7000-3D-ICN34-W15 | ICN-340-P    | WO**1503    | 50         | 210 | 255 | 80 | 70 |                                                                                   |                                                                                   |                                                                                   |
| ICN7100-3D-ICN35-W15 | ICN-350-P    | WO**1503    | 50         | 213 | 292 | 80 | 71 |                                                                                   |                                                                                   |                                                                                   |
| ICN7200-3D-ICN36-W15 | ICN-360-P    | WO**1503    | 50         | 216 | 296 | 80 | 72 |                                                                                   |                                                                                   |                                                                                   |
| ICN7300-3D-ICN37-W15 | ICN-370-P    | WO**1503    | 50         | 219 | 300 | 80 | 73 |                                                                                   |                                                                                   |                                                                                   |
| ICN7400-3D-ICN38-W15 | ICN-380-P    | WO**1503    | 50         | 222 | 304 | 80 | 74 |                                                                                   |                                                                                   |                                                                                   |
| ICN7500-3D-ICN39-W15 | ICN-390-P    | WO**1503    | 50         | 225 | 308 | 80 | 75 | K39-45                                                                            |                                                                                   |                                                                                   |
| ICN7600-3D-ICN40-W15 | ICN-400-P    | WO**1503    | 50         | 228 | 312 | 80 | 76 |                                                                                   |                                                                                   |                                                                                   |
| ICN7700-3D-ICN41-W15 | ICN-410-P    | WO**1503    | 50         | 231 | 316 | 80 | 77 |                                                                                   |                                                                                   |                                                                                   |
| ICN7800-3D-ICN42-W15 | ICN-420-P    | WO**1503    | 50         | 234 | 320 | 80 | 78 |                                                                                   |                                                                                   |                                                                                   |
| ICN7900-3D-ICN43-W15 | ICN-430-P    | WO**1503    | 50         | 237 | 324 | 80 | 79 |                                                                                   |                                                                                   |                                                                                   |
| ICN8000-3D-ICN44-W15 | ICN-440-P    | WO**1503    | 50         | 240 | 330 | 80 | 80 |                                                                                   |                                                                                   |                                                                                   |

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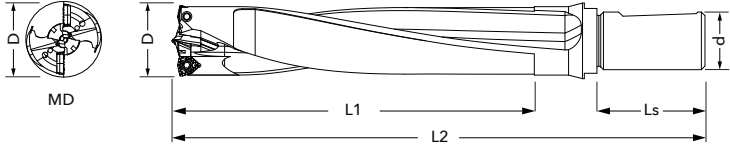
MD.....\* page 110



## ICN...5D-D Drilling Body



With Pilot Drill and Side Inserts | Weldon Shank | Drilling Depth 5XD



Unit: mm

| Specification      | Centre Drill | Side Insert | Dimensions |     |     |    |       | Accessories                                                                       |                                                                                   |                                                                                   |             |     |             |     |
|--------------------|--------------|-------------|------------|-----|-----|----|-------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------|-----|-------------|-----|
|                    |              |             | d          | L1  | L2  | Ls | D     |  |  |  |             |     |             |     |
| ICN2800-5D-D14-A04 | MD-140-P     | AO**0403    | 32         | 140 | 174 | 60 | 28    | K14-16.9                                                                          | ICNM-025080                                                                       | T9                                                                                |             |     |             |     |
| ICN2858-5D-D15-A04 | MD-150-P     | AO**0403    | 32         | 143 | 177 | 60 | 28.58 |                                                                                   |                                                                                   |                                                                                   |             |     |             |     |
| ICN2900-5D-D16-A04 | MD-160-P     | AO**0403    | 32         | 145 | 179 | 60 | 29    |                                                                                   |                                                                                   |                                                                                   |             |     |             |     |
| ICN2936-5D-D16-A04 | MD-160-P     | AO**0403    | 32         | 147 | 181 | 60 | 29.36 |                                                                                   |                                                                                   |                                                                                   |             |     |             |     |
| ICN3000-5D-D16-A04 | MD-160-P     | AO**0403    | 32         | 150 | 185 | 60 | 30    |                                                                                   |                                                                                   |                                                                                   |             |     |             |     |
| ICN3018-5D-D18-A04 | MD-180-P     | AO**0403    | 32         | 151 | 186 | 60 | 30.18 | K17-19.9                                                                          | ICNM-030080                                                                       | T10                                                                               |             |     |             |     |
| ICN3096-5D-D18-A04 | MD-180-P     | AO**0403    | 32         | 155 | 190 | 60 | 30.96 |                                                                                   |                                                                                   |                                                                                   |             |     |             |     |
| ICN3100-5D-D18-A04 | MD-180-P     | AO**0403    | 32         | 156 | 191 | 60 | 31    |                                                                                   |                                                                                   |                                                                                   |             |     |             |     |
| ICN3175-5D-D15-W08 | MD-150-P     | WO**0803    | 32         | 159 | 196 | 60 | 31.75 | K14-16.9                                                                          |                                                                                   |                                                                                   | ICNM-030080 | T10 |             |     |
| ICN3200-5D-D15-W08 | MD-150-P     | WO**0803    | 32         | 160 | 197 | 60 | 32    |                                                                                   |                                                                                   |                                                                                   |             |     |             |     |
| ICN3300-5D-D16-W08 | MD-160-P     | WO**0803    | 32         | 165 | 202 | 60 | 33    |                                                                                   |                                                                                   |                                                                                   |             |     |             |     |
| ICN3320-5D-D16-W08 | MD-160-P     | WO**0803    | 32         | 166 | 203 | 60 | 33.2  |                                                                                   |                                                                                   |                                                                                   |             |     |             |     |
| ICN3335-5D-D16-W08 | MD-160-P     | WO**0803    | 32         | 167 | 204 | 60 | 33.35 |                                                                                   |                                                                                   |                                                                                   |             |     |             |     |
| ICN3400-5D-D18-W08 | MD-180-P     | WO**0803    | 32         | 170 | 207 | 60 | 34    | K17-19.9                                                                          |                                                                                   |                                                                                   |             |     | ICNM-030080 | T10 |
| ICN3493-5D-D18-W08 | MD-180-P     | WO**0803    | 32         | 175 | 212 | 60 | 34.93 |                                                                                   |                                                                                   |                                                                                   |             |     |             |     |
| ICN3500-5D-D18-W08 | MD-180-P     | WO**0803    | 32         | 176 | 214 | 60 | 35    |                                                                                   |                                                                                   |                                                                                   |             |     |             |     |
| ICN3600-5D-D18-W08 | MD-180-P     | WO**0803    | 32         | 180 | 218 | 60 | 36    |                                                                                   |                                                                                   |                                                                                   |             |     |             |     |
| ICN3653-5D-D19-W08 | MD-190-P     | WO**0803    | 32         | 183 | 221 | 60 | 36.53 |                                                                                   |                                                                                   |                                                                                   |             |     |             |     |
| ICN3700-5D-D16-W10 | MD-160-P     | WO**1003    | 32         | 185 | 223 | 60 | 37    | K14-16.9                                                                          | ICNM-040100                                                                       | T15                                                                               |             |     |             |     |
| ICN3750-5D-D16-W10 | MD-160-P     | WO**1003    | 32         | 188 | 226 | 60 | 37.5  |                                                                                   |                                                                                   |                                                                                   |             |     |             |     |
| ICN3800-5D-D16-W10 | MD-160-P     | WO**1003    | 32         | 190 | 230 | 60 | 38    |                                                                                   |                                                                                   |                                                                                   |             |     |             |     |
| ICN3810-5D-D16-W10 | MD-160-P     | WO**1003    | 32         | 191 | 231 | 60 | 38.1  |                                                                                   |                                                                                   |                                                                                   |             |     |             |     |

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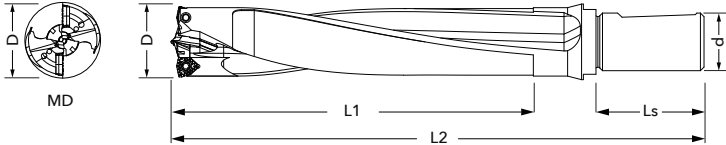
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MD.....\* page 110

## ICN...5D-D Drilling Body

With Pilot Drill and Side Inserts | Weldon Shank | Drilling Depth 5XD



Unit: mm

| Specification      | Centre Drill | Side Insert | Dimensions |     |     |    |       | Accessories                                                                       |                                                                                   |                                                                                   |
|--------------------|--------------|-------------|------------|-----|-----|----|-------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
|                    |              |             | d          | L1  | L2  | Ls | D     |  |  |  |
| ICN3900-5D-D18-W10 | MD-180-P     | WO**1003    | 32         | 195 | 235 | 60 | 39    | K17-19.9                                                                          | ICNM-040100                                                                       | T15                                                                               |
| ICN3920-5D-D18-W10 | MD-180-P     | WO**1003    | 32         | 196 | 236 | 60 | 39.2  |                                                                                   |                                                                                   |                                                                                   |
| ICN3970-5D-D18-W10 | MD-180-P     | WO**1003    | 32         | 199 | 239 | 60 | 39.7  |                                                                                   |                                                                                   |                                                                                   |
| ICN4000-5D-D18-W10 | MD-180-P     | WO**1003    | 32         | 200 | 243 | 60 | 40    |                                                                                   |                                                                                   |                                                                                   |
| ICN4100-5D-D19-W10 | MD-190-P     | WO**1003    | 32         | 205 | 248 | 60 | 41    |                                                                                   |                                                                                   |                                                                                   |
| ICN4128-5D-D19-W10 | MD-190-P     | WO**1003    | 32         | 207 | 250 | 60 | 41.28 | K14-16.9                                                                          |                                                                                   |                                                                                   |
| ICN4200-5D-D19-W10 | MD-190-P     | WO**1204    | 50         | 210 | 254 | 80 | 42    |                                                                                   |                                                                                   |                                                                                   |
| ICN4300-5D-D16-W12 | MD-160-P     | WO**1204    | 50         | 215 | 259 | 80 | 43    |                                                                                   |                                                                                   |                                                                                   |
| ICN4400-5D-D18-W12 | MD-180-P     | WO**1204    | 50         | 220 | 264 | 80 | 44    |                                                                                   |                                                                                   |                                                                                   |
| ICN4445-5D-D18-W12 | MD-180-P     | WO**1204    | 50         | 223 | 267 | 80 | 44.45 |                                                                                   |                                                                                   |                                                                                   |
| ICN4500-5D-D18-W12 | MD-180-P     | WO**1204    | 50         | 225 | 269 | 80 | 45    |                                                                                   |                                                                                   |                                                                                   |
| ICN4600-5D-D19-W12 | MD-190-P     | WO**1204    | 50         | 230 | 274 | 80 | 46    |                                                                                   |                                                                                   |                                                                                   |
| ICN4700-5D-D20-W12 | MD-200-P     | WO**1204    | 50         | 235 | 279 | 80 | 47    |                                                                                   |                                                                                   |                                                                                   |
| ICN4763-5D-D21-W12 | MD-210-P     | WO**1204    | 50         | 139 | 183 | 80 | 47.63 | K20-26.9                                                                          |                                                                                   |                                                                                   |
| ICN4800-5D-D21-W12 | MD-210-P     | WO**1204    | 50         | 240 | 285 | 80 | 48    |                                                                                   |                                                                                   |                                                                                   |
| ICN4900-5D-D22-W12 | MD-220-P     | WO**1204    | 50         | 245 | 290 | 80 | 49    |                                                                                   |                                                                                   |                                                                                   |
| ICN5000-5D-D23-W12 | MD-230-P     | WO**1204    | 50         | 250 | 295 | 80 | 50    |                                                                                   |                                                                                   |                                                                                   |
| ICN5080-5D-D24-W12 | MD-240-P     | WO**1204    | 50         | 254 | 299 | 80 | 50.8  |                                                                                   |                                                                                   |                                                                                   |
| ICN5100-5D-D24-W12 | MD-240-P     | WO**1204    | 50         | 255 | 300 | 80 | 51    |                                                                                   |                                                                                   |                                                                                   |
| ICN5200-5D-D25-W12 | MD-250-P     | WO**1204    | 50         | 260 | 305 | 80 | 52    |                                                                                   |                                                                                   |                                                                                   |
| ICN5300-5D-D26-W12 | MD-260-P     | WO**1204    | 50         | 265 | 310 | 80 | 53    |                                                                                   |                                                                                   |                                                                                   |
| ICN5398-5D-D27-W12 | MD-270-P     | WO**1204    | 50         | 270 | 315 | 80 | 53.98 |                                                                                   |                                                                                   |                                                                                   |
| ICN5400-5D-D27-W12 | MD-270-P     | WO**1204    | 50         | 271 | 316 | 80 | 54    | K27-32                                                                            |                                                                                   |                                                                                   |
| ICN5500-5D-D28-W12 | MD-280-P     | WO**1204    | 50         | 275 | 320 | 80 | 55    |                                                                                   |                                                                                   |                                                                                   |

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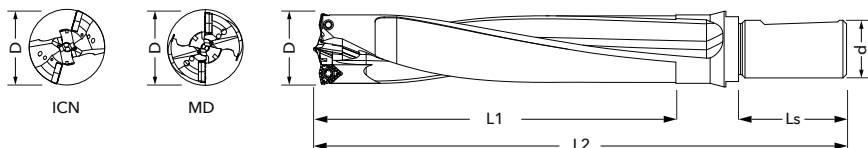
MD.....\* page 110



## ICN...5D-D Drilling Body



With Pilot Drill and Side Inserts | Weldon Shank | Drilling Depth 5XD



Unit: mm

| Specification        | Centre Drill | Side Insert | Dimensions |     |     |    |    | Accessories                                                                       |                                                                                   |                                                                                   |
|----------------------|--------------|-------------|------------|-----|-----|----|----|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
|                      |              |             | d          | L1  | L2  | Ls | D  |  |  |  |
| ICN5600-5D-D20-W15   | MD-200-P     | WO**1503    | 50         | 280 | 325 | 80 | 56 | K17-19.9                                                                          | ICNM-050100                                                                       | T20                                                                               |
| ICN5700-5D-D21-W15   | MD-210-P     | WO**1503    | 50         | 285 | 330 | 80 | 57 | K20-26                                                                            |                                                                                   |                                                                                   |
| ICN5800-5D-D22-W15   | MD-220-P     | WO**1503    | 50         | 290 | 335 | 80 | 58 |                                                                                   |                                                                                   |                                                                                   |
| ICN5900-5D-D23-W15   | MD-230-P     | WO**1503    | 50         | 295 | 340 | 80 | 59 |                                                                                   |                                                                                   |                                                                                   |
| ICN6000-5D-D24-W15   | MD-240-P     | WO**1503    | 50         | 300 | 345 | 80 | 60 |                                                                                   |                                                                                   |                                                                                   |
| ICN6100-5D-D25-W15   | MD-250-P     | WO**1503    | 50         | 305 | 350 | 80 | 61 |                                                                                   |                                                                                   |                                                                                   |
| ICN6200-5D-D26-W15   | MD-260-P     | WO**1503    | 50         | 310 | 355 | 80 | 62 | K27-32                                                                            |                                                                                   |                                                                                   |
| ICN6300-5D-D27-W15   | MD-270-P     | WO**1503    | 50         | 315 | 360 | 80 | 63 |                                                                                   |                                                                                   |                                                                                   |
| ICN6400-5D-D28-W15   | MD-280-P     | WO**1503    | 50         | 320 | 365 | 80 | 64 |                                                                                   |                                                                                   |                                                                                   |
| ICN6500-5D-ICN29-W15 | ICN-290-P    | WO**1503    | 50         | 325 | 370 | 80 | 65 |                                                                                   |                                                                                   |                                                                                   |
| ICN6600-5D-ICN30-W15 | ICN-300-P    | WO**1503    | 50         | 330 | 375 | 80 | 66 |                                                                                   |                                                                                   |                                                                                   |
| ICN6700-5D-ICN31-W15 | ICN-310-P    | WO**1503    | 50         | 335 | 380 | 80 | 67 | K33-38                                                                            |                                                                                   |                                                                                   |
| ICN6800-5D-ICN32-W15 | ICN-320-P    | WO**1503    | 50         | 340 | 385 | 80 | 68 |                                                                                   |                                                                                   |                                                                                   |
| ICN6900-5D-ICN33-W15 | ICN-330-P    | WO**1503    | 50         | 345 | 390 | 80 | 69 |                                                                                   |                                                                                   |                                                                                   |
| ICN7000-5D-ICN34-W15 | ICN-340-P    | WO**1503    | 50         | 350 | 395 | 80 | 70 |                                                                                   |                                                                                   |                                                                                   |
| ICN7100-5D-ICN35-W15 | ICN-350-P    | WO**1503    | 50         | 355 | 400 | 80 | 71 |                                                                                   |                                                                                   |                                                                                   |
| ICN7200-5D-ICN36-W15 | ICN-360-P    | WO**1503    | 50         | 360 | 405 | 80 | 72 | K39-45                                                                            |                                                                                   |                                                                                   |
| ICN7300-5D-ICN37-W15 | ICN-370-P    | WO**1503    | 50         | 365 | 410 | 80 | 73 |                                                                                   |                                                                                   |                                                                                   |
| ICN7400-5D-ICN38-W15 | ICN-380-P    | WO**1503    | 50         | 370 | 415 | 80 | 74 |                                                                                   |                                                                                   |                                                                                   |
| ICN7500-5D-ICN39-W15 | ICN-390-P    | WO**1503    | 50         | 375 | 420 | 80 | 75 |                                                                                   |                                                                                   |                                                                                   |
| ICN7600-5D-ICN40-W15 | ICN-400-P    | WO**1503    | 50         | 380 | 425 | 80 | 76 |                                                                                   |                                                                                   |                                                                                   |
| ICN7700-5D-ICN41-W15 | ICN-410-P    | WO**1503    | 50         | 385 | 430 | 80 | 77 | K39-45                                                                            |                                                                                   |                                                                                   |
| ICN7800-5D-ICN42-W15 | ICN-420-P    | WO**1503    | 50         | 390 | 435 | 80 | 78 |                                                                                   |                                                                                   |                                                                                   |
| ICN7900-5D-ICN43-W15 | ICN-430-P    | WO**1503    | 50         | 395 | 440 | 80 | 79 |                                                                                   |                                                                                   |                                                                                   |
| ICN8000-5D-ICN44-W15 | ICN-440-P    | WO**1503    | 50         | 400 | 445 | 80 | 80 |                                                                                   |                                                                                   |                                                                                   |

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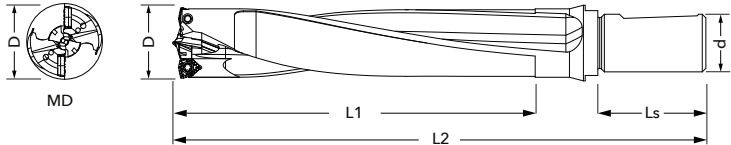
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## ICN...6D-D Drilling Body

With Pilot Drill and Side Inserts | Weldon Shank | Drilling Depth 6XD



Unit: mm

| Specification      | Centre Drill | Side Insert | Dimensions |     |     |    |       | Accessories |             |     |
|--------------------|--------------|-------------|------------|-----|-----|----|-------|-------------|-------------|-----|
|                    |              |             | d          | L1  | L2  | Ls | D     |             |             |     |
| ICN2800-6D-D14-A04 | MD-140-P     | AO**0403    | 32         | 168 | 202 | 60 | 28    | K14-16.9    | ICNM-025080 | T9  |
| ICN2858-6D-D15-A04 | MD-150-P     | AO**0403    | 32         | 172 | 206 | 60 | 28.58 |             |             |     |
| ICN2900-6D-D16-A04 | MD-160-P     | AO**0403    | 32         | 174 | 208 | 60 | 29    |             |             |     |
| ICN2936-6D-D16-A04 | MD-160-P     | AO**0403    | 32         | 177 | 211 | 60 | 29.36 |             |             |     |
| ICN3000-6D-D16-A04 | MD-160-P     | AO**0403    | 32         | 180 | 215 | 60 | 30    |             |             |     |
| ICN3018-6D-D18-A04 | MD-180-P     | AO**0403    | 32         | 182 | 217 | 60 | 30.18 | K17-19.9    |             |     |
| ICN3096-6D-D18-A04 | MD-180-P     | AO**0403    | 32         | 186 | 221 | 60 | 30.96 |             |             |     |
| ICN3100-6D-D18-A04 | MD-180-P     | AO**0403    | 32         | 187 | 222 | 60 | 31    | K14-16.9    | ICNM-030080 | T10 |
| ICN3175-6D-D15-W08 | MD-150-P     | WO**0803    | 32         | 191 | 228 | 60 | 31.75 |             |             |     |
| ICN3200-6D-D15-W08 | MD-150-P     | WO**0803    | 32         | 192 | 229 | 60 | 32    |             |             |     |
| ICN3300-6D-D16-W08 | MD-160-P     | WO**0803    | 32         | 198 | 235 | 60 | 33    |             |             |     |
| ICN3320-6D-D16-W08 | MD-160-P     | WO**0803    | 32         | 200 | 237 | 60 | 33.2  |             |             |     |
| ICN3335-6D-D16-W08 | MD-160-P     | WO**0803    | 32         | 201 | 238 | 60 | 33.35 | K17-19.9    |             |     |
| ICN3400-6D-D18-W08 | MD-180-P     | WO**0803    | 32         | 204 | 241 | 60 | 34    |             |             |     |
| ICN3493-6D-D18-W08 | MD-180-P     | WO**0803    | 32         | 210 | 247 | 60 | 34.93 |             |             |     |
| ICN3500-6D-D18-W08 | MD-180-P     | WO**0803    | 32         | 211 | 249 | 60 | 35    | K14-16.9    | ICNM-040100 | T15 |
| ICN3600-6D-D18-W08 | MD-180-P     | WO**0803    | 32         | 216 | 254 | 60 | 36    |             |             |     |
| ICN3653-6D-D19-W08 | MD-190-P     | WO**0803    | 32         | 220 | 258 | 60 | 36.53 |             |             |     |
| ICN3700-6D-D16-W10 | MD-160-P     | WO**1003    | 32         | 222 | 260 | 60 | 37    | K14-16.9    |             |     |
| ICN3750-6D-D16-W10 | MD-160-P     | WO**1003    | 32         | 225 | 263 | 60 | 37.5  |             |             |     |
| ICN3800-6D-D16-W10 | MD-160-P     | WO**1003    | 32         | 228 | 268 | 60 | 38    |             |             |     |
| ICN3810-6D-D16-W10 | MD-160-P     | WO**1003    | 32         | 229 | 269 | 60 | 38.1  |             |             |     |

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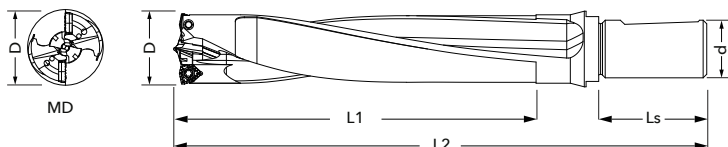
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## ICN...6D-D Drilling Body

With Pilot Drill and Side Inserts | Weldon Shank | Drilling Depth 6XD



Unit: mm

| Specification      | Centre Drill | Side Insert | Dimensions |     |     |    |       | Accessories                                                                       |                                                                                   |                                                                                   |
|--------------------|--------------|-------------|------------|-----|-----|----|-------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
|                    |              |             | d          | L1  | L2  | Ls | D     |  |  |  |
| ICN3900-6D-D18-W10 | MD-180-P     | WO**1003    | 32         | 234 | 274 | 60 | 39    | K17-19.9                                                                          | ICNM-040100                                                                       | T15                                                                               |
| ICN3920-6D-D18-W10 | MD-180-P     | WO**1003    | 32         | 236 | 276 | 60 | 39.2  |                                                                                   |                                                                                   |                                                                                   |
| ICN3970-6D-D18-W10 | MD-180-P     | WO**1003    | 32         | 239 | 279 | 60 | 39.7  |                                                                                   |                                                                                   |                                                                                   |
| ICN4000-6D-D18-W10 | MD-180-P     | WO**1003    | 32         | 240 | 283 | 60 | 40    |                                                                                   |                                                                                   |                                                                                   |
| ICN4100-6D-D19-W10 | MD-190-P     | WO**1003    | 32         | 246 | 289 | 60 | 41    |                                                                                   |                                                                                   |                                                                                   |
| ICN4128-6D-D19-W10 | MD-190-P     | WO**1003    | 32         | 248 | 291 | 60 | 41.28 | K14-16.9                                                                          |                                                                                   |                                                                                   |
| ICN4200-6D-D19-W10 | MD-190-P     | WO**1204    | 50         | 252 | 296 | 80 | 42    |                                                                                   |                                                                                   |                                                                                   |
| ICN4300-6D-D16-W12 | MD-160-P     | WO**1204    | 50         | 258 | 302 | 80 | 43    |                                                                                   |                                                                                   |                                                                                   |
| ICN4400-6D-D18-W12 | MD-180-P     | WO**1204    | 50         | 264 | 308 | 80 | 44    |                                                                                   |                                                                                   |                                                                                   |
| ICN4445-6D-D18-W12 | MD-180-P     | WO**1204    | 50         | 267 | 311 | 80 | 44.45 |                                                                                   |                                                                                   |                                                                                   |
| ICN4500-6D-D18-W12 | MD-180-P     | WO**1204    | 50         | 270 | 314 | 80 | 45    |                                                                                   |                                                                                   |                                                                                   |
| ICN4600-6D-D19-W12 | MD-190-P     | WO**1204    | 50         | 276 | 320 | 80 | 46    |                                                                                   |                                                                                   |                                                                                   |
| ICN4700-6D-D20-W12 | MD-200-P     | WO**1204    | 50         | 282 | 326 | 80 | 47    |                                                                                   |                                                                                   |                                                                                   |
| ICN4763-6D-D21-W12 | MD-210-P     | WO**1204    | 50         | 286 | 330 | 80 | 47.63 | K20-26.9                                                                          |                                                                                   |                                                                                   |
| ICN4800-6D-D21-W12 | MD-210-P     | WO**1204    | 50         | 288 | 333 | 80 | 48    |                                                                                   |                                                                                   |                                                                                   |
| ICN4900-6D-D22-W12 | MD-220-P     | WO**1204    | 50         | 294 | 339 | 80 | 49    |                                                                                   |                                                                                   |                                                                                   |
| ICN5000-6D-D23-W12 | MD-230-P     | WO**1204    | 50         | 300 | 345 | 80 | 50    |                                                                                   |                                                                                   |                                                                                   |
| ICN5080-6D-D24-W12 | MD-240-P     | WO**1204    | 50         | 305 | 350 | 80 | 50.8  |                                                                                   |                                                                                   |                                                                                   |
| ICN5100-6D-D24-W12 | MD-240-P     | WO**1204    | 50         | 306 | 351 | 80 | 51    |                                                                                   |                                                                                   |                                                                                   |
| ICN5200-6D-D25-W12 | MD-250-P     | WO**1204    | 50         | 312 | 357 | 80 | 52    |                                                                                   |                                                                                   |                                                                                   |
| ICN5300-6D-D26-W12 | MD-260-P     | WO**1204    | 50         | 318 | 363 | 80 | 53    |                                                                                   |                                                                                   |                                                                                   |
| ICN5398-6D-D27-W12 | MD-270-P     | WO**1204    | 50         | 324 | 369 | 80 | 53.98 |                                                                                   |                                                                                   |                                                                                   |
| ICN5400-6D-D27-W12 | MD-270-P     | WO**1204    | 50         | 325 | 370 | 80 | 54    | K27-32                                                                            |                                                                                   |                                                                                   |
| ICN5500-6D-D28-W12 | MD-280-P     | WO**1204    | 50         | 330 | 375 | 80 | 55    |                                                                                   |                                                                                   |                                                                                   |

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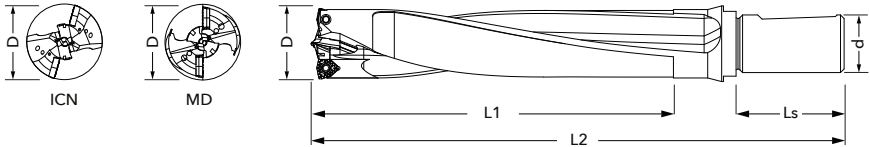
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## ICN...6D-D Drilling Body

With Pilot Drill and Side Inserts | Weldon Shank | Drilling Depth 6XD



Unit: mm

| Specification        | Centre Drill | Side Insert | Dimensions |     |     |    |    | Accessories                                                                       |                                                                                   |                                                                                   |
|----------------------|--------------|-------------|------------|-----|-----|----|----|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
|                      |              |             | d          | L1  | L2  | Ls | D  |  |  |  |
| ICN5600-6D-D20-W15   | MD-200-P     | WO**1503    | 50         | 336 | 381 | 80 | 56 | K17-19.9                                                                          | ICNM-050100                                                                       | T20                                                                               |
| ICN5700-6D-D21-W15   | MD-210-P     | WO**1503    | 50         | 342 | 387 | 80 | 57 | K20-26                                                                            |                                                                                   |                                                                                   |
| ICN5800-6D-D22-W15   | MD-220-P     | WO**1503    | 50         | 348 | 393 | 80 | 58 |                                                                                   |                                                                                   |                                                                                   |
| ICN5900-6D-D23-W15   | MD-230-P     | WO**1503    | 50         | 354 | 399 | 80 | 59 |                                                                                   |                                                                                   |                                                                                   |
| ICN6000-6D-D24-W15   | MD-240-P     | WO**1503    | 50         | 360 | 405 | 80 | 60 |                                                                                   |                                                                                   |                                                                                   |
| ICN6100-6D-D25-W15   | MD-250-P     | WO**1503    | 50         | 366 | 411 | 80 | 61 |                                                                                   |                                                                                   |                                                                                   |
| ICN6200-6D-D26-W15   | MD-260-P     | WO**1503    | 50         | 372 | 417 | 80 | 62 |                                                                                   |                                                                                   |                                                                                   |
| ICN6300-6D-D27-W15   | MD-270-P     | WO**1503    | 50         | 378 | 423 | 80 | 63 |                                                                                   |                                                                                   |                                                                                   |
| ICN6400-6D-D28-W15   | MD-280-P     | WO**1503    | 50         | 384 | 429 | 80 | 64 |                                                                                   |                                                                                   |                                                                                   |
| ICN6500-6D-ICN29-W15 | ICN-290-P    | WO**1503    | 50         | 390 | 435 | 80 | 65 | K27-32                                                                            |                                                                                   |                                                                                   |
| ICN6600-6D-ICN30-W15 | ICN-300-P    | WO**1503    | 50         | 396 | 441 | 80 | 66 |                                                                                   |                                                                                   |                                                                                   |
| ICN6700-6D-ICN31-W15 | ICN-310-P    | WO**1503    | 50         | 402 | 447 | 80 | 67 |                                                                                   |                                                                                   |                                                                                   |
| ICN6800-6D-ICN32-W15 | ICN-320-P    | WO**1503    | 50         | 408 | 453 | 80 | 68 |                                                                                   |                                                                                   |                                                                                   |
| ICN6900-6D-ICN33-W15 | ICN-330-P    | WO**1503    | 50         | 414 | 459 | 80 | 69 | K33-38                                                                            |                                                                                   |                                                                                   |
| ICN7000-6D-ICN34-W15 | ICN-340-P    | WO**1503    | 50         | 420 | 465 | 80 | 70 |                                                                                   |                                                                                   |                                                                                   |
| ICN7100-6D-ICN35-W15 | ICN-350-P    | WO**1503    | 50         | 426 | 505 | 80 | 71 |                                                                                   |                                                                                   |                                                                                   |
| ICN7200-6D-ICN36-W15 | ICN-360-P    | WO**1503    | 50         | 432 | 512 | 80 | 72 |                                                                                   |                                                                                   |                                                                                   |
| ICN7300-6D-ICN37-W15 | ICN-370-P    | WO**1503    | 50         | 438 | 519 | 80 | 73 |                                                                                   |                                                                                   |                                                                                   |
| ICN7400-6D-ICN38-W15 | ICN-380-P    | WO**1503    | 50         | 444 | 526 | 80 | 74 |                                                                                   |                                                                                   |                                                                                   |
| ICN7500-6D-ICN39-W15 | ICN-390-P    | WO**1503    | 50         | 450 | 533 | 80 | 75 |                                                                                   |                                                                                   |                                                                                   |
| ICN7600-6D-ICN40-W15 | ICN-400-P    | WO**1503    | 50         | 456 | 540 | 80 | 76 |                                                                                   |                                                                                   |                                                                                   |
| ICN7700-6D-ICN41-W15 | ICN-410-P    | WO**1503    | 50         | 462 | 547 | 80 | 77 | K39-45                                                                            |                                                                                   |                                                                                   |
| ICN7800-6D-ICN42-W15 | ICN-420-P    | WO**1503    | 50         | 468 | 554 | 80 | 78 |                                                                                   |                                                                                   |                                                                                   |
| ICN7900-6D-ICN43-W15 | ICN-430-P    | WO**1503    | 50         | 474 | 561 | 80 | 79 |                                                                                   |                                                                                   |                                                                                   |
| ICN8000-6D-ICN44-W15 | ICN-440-P    | WO**1503    | 50         | 480 | 568 | 80 | 80 |                                                                                   |                                                                                   |                                                                                   |

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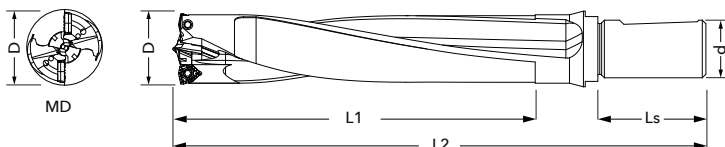
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## ICN...7D-D Drilling Body



With Pilot Drill and Side Inserts | Weldon Shank | Drilling Depth 7XD



Unit: mm

| Specification      | Centre Drill | Side Insert | Dimensions |     |     |    |       | Accessories                                                                       |                                                                                   |                                                                                   |
|--------------------|--------------|-------------|------------|-----|-----|----|-------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
|                    |              |             | d          | L1  | L2  | Ls | D     |  |  |  |
| ICN2800-7D-D14-A04 | MD-140-P     | AO**0403    | 32         | 196 | 230 | 60 | 28    | K14-16.9                                                                          | ICNM-025080                                                                       | T9                                                                                |
| ICN2858-7D-D15-A04 | MD-150-P     | AO**0403    | 32         | 201 | 235 | 60 | 28.58 |                                                                                   |                                                                                   |                                                                                   |
| ICN2900-7D-D16-A04 | MD-160-P     | AO**0403    | 32         | 203 | 237 | 60 | 29    |                                                                                   |                                                                                   |                                                                                   |
| ICN2936-7D-D16-A04 | MD-160-P     | AO**0403    | 32         | 206 | 240 | 60 | 29.36 |                                                                                   |                                                                                   |                                                                                   |
| ICN3000-7D-D16-A04 | MD-160-P     | AO**0403    | 32         | 210 | 245 | 60 | 30    |                                                                                   |                                                                                   |                                                                                   |
| ICN3018-7D-D18-A04 | MD-180-P     | AO**0403    | 32         | 212 | 247 | 60 | 30.18 | K17-19.9                                                                          |                                                                                   |                                                                                   |
| ICN3096-7D-D18-A04 | MD-180-P     | AO**0403    | 32         | 217 | 252 | 60 | 30.96 |                                                                                   |                                                                                   |                                                                                   |
| ICN3100-7D-D18-A04 | MD-180-P     | AO**0403    | 32         | 218 | 253 | 60 | 31    | K14-16.9                                                                          | ICNM-030080                                                                       | T10                                                                               |
| ICN3175-7D-D15-W08 | MD-150-P     | WO**0803    | 32         | 223 | 260 | 60 | 31.75 |                                                                                   |                                                                                   |                                                                                   |
| ICN3200-7D-D15-W08 | MD-150-P     | WO**0803    | 32         | 224 | 261 | 60 | 32    |                                                                                   |                                                                                   |                                                                                   |
| ICN3300-7D-D16-W08 | MD-160-P     | WO**0803    | 32         | 231 | 268 | 60 | 33    |                                                                                   |                                                                                   |                                                                                   |
| ICN3320-7D-D16-W08 | MD-160-P     | WO**0803    | 32         | 233 | 270 | 60 | 33.2  |                                                                                   |                                                                                   |                                                                                   |
| ICN3335-7D-D16-W08 | MD-160-P     | WO**0803    | 32         | 234 | 271 | 60 | 33.35 | K17-19.9                                                                          |                                                                                   |                                                                                   |
| ICN3400-7D-D18-W08 | MD-180-P     | WO**0803    | 32         | 238 | 275 | 60 | 34    |                                                                                   |                                                                                   |                                                                                   |
| ICN3493-7D-D18-W08 | MD-180-P     | WO**0803    | 32         | 245 | 282 | 60 | 34.93 |                                                                                   |                                                                                   |                                                                                   |
| ICN3500-7D-D18-W08 | MD-180-P     | WO**0803    | 32         | 246 | 284 | 60 | 35    |                                                                                   |                                                                                   |                                                                                   |
| ICN3600-7D-D18-W08 | MD-180-P     | WO**0803    | 32         | 252 | 290 | 60 | 36    |                                                                                   |                                                                                   |                                                                                   |
| ICN3653-7D-D19-W08 | MD-190-P     | WO**0803    | 32         | 256 | 294 | 60 | 36.53 | K14-16.9                                                                          | ICNM-040100                                                                       | T15                                                                               |
| ICN3700-7D-D16-W10 | MD-160-P     | WO**1003    | 32         | 259 | 297 | 60 | 37    |                                                                                   |                                                                                   |                                                                                   |
| ICN3750-7D-D16-W10 | MD-160-P     | WO**1003    | 32         | 263 | 301 | 60 | 37.5  |                                                                                   |                                                                                   |                                                                                   |
| ICN3800-7D-D16-W10 | MD-160-P     | WO**1003    | 32         | 266 | 306 | 60 | 38    |                                                                                   |                                                                                   |                                                                                   |
| ICN3810-7D-D16-W10 | MD-160-P     | WO**1003    | 32         | 267 | 307 | 60 | 38.1  |                                                                                   |                                                                                   |                                                                                   |

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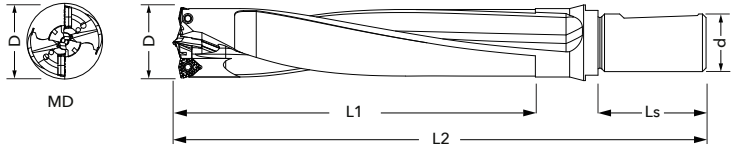
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## ICN...7D-D Drilling Body

With Pilot Drill and Side Inserts | Weldon Shank | Drilling Depth 7XD



Unit: mm

| Specification      | Centre Drill | Side Insert | Dimensions |     |     |    |       | Accessories                                                                       |                                                                                   |                                                                                   |
|--------------------|--------------|-------------|------------|-----|-----|----|-------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
|                    |              |             | d          | L1  | L2  | LS | D     |  |  |  |
| ICN3900-7D-D18-W10 | MD-180-P     | WO**1003    | 32         | 273 | 313 | 60 | 39    | K17-19.9                                                                          | ICNM-040100                                                                       | T15                                                                               |
| ICN3920-7D-D18-W10 | MD-180-P     | WO**1003    | 32         | 275 | 315 | 60 | 39.2  |                                                                                   |                                                                                   |                                                                                   |
| ICN3970-7D-D18-W10 | MD-180-P     | WO**1003    | 32         | 278 | 318 | 60 | 39.7  |                                                                                   |                                                                                   |                                                                                   |
| ICN4000-7D-D18-W10 | MD-180-P     | WO**1003    | 32         | 280 | 323 | 60 | 40    |                                                                                   |                                                                                   |                                                                                   |
| ICN4100-7D-D19-W10 | MD-190-P     | WO**1003    | 32         | 287 | 330 | 60 | 41    |                                                                                   |                                                                                   |                                                                                   |
| ICN4128-7D-D19-W10 | MD-190-P     | WO**1003    | 32         | 289 | 332 | 60 | 41.28 | K14-16.9                                                                          |                                                                                   |                                                                                   |
| ICN4200-7D-D19-W10 | MD-190-P     | WO**1204    | 50         | 294 | 338 | 80 | 42    |                                                                                   |                                                                                   |                                                                                   |
| ICN4300-7D-D16-W12 | MD-160-P     | WO**1204    | 50         | 301 | 345 | 80 | 43    |                                                                                   |                                                                                   |                                                                                   |
| ICN4400-7D-D18-W12 | MD-180-P     | WO**1204    | 50         | 308 | 352 | 80 | 44    |                                                                                   |                                                                                   |                                                                                   |
| ICN4445-7D-D18-W12 | MD-180-P     | WO**1204    | 50         | 312 | 356 | 80 | 44.45 |                                                                                   |                                                                                   |                                                                                   |
| ICN4500-7D-D18-W12 | MD-180-P     | WO**1204    | 50         | 315 | 359 | 80 | 45    |                                                                                   |                                                                                   |                                                                                   |
| ICN4600-7D-D19-W12 | MD-190-P     | WO**1204    | 50         | 322 | 366 | 80 | 46    |                                                                                   |                                                                                   |                                                                                   |
| ICN4700-7D-D20-W12 | MD-200-P     | WO**1204    | 50         | 329 | 373 | 80 | 47    |                                                                                   |                                                                                   |                                                                                   |
| ICN4763-7D-D21-W12 | MD-210-P     | WO**1204    | 50         | 334 | 378 | 80 | 47.63 | K20-26.9                                                                          |                                                                                   |                                                                                   |
| ICN4800-7D-D21-W12 | MD-210-P     | WO**1204    | 50         | 336 | 381 | 80 | 48    |                                                                                   |                                                                                   |                                                                                   |
| ICN4900-7D-D22-W12 | MD-220-P     | WO**1204    | 50         | 343 | 388 | 80 | 49    |                                                                                   |                                                                                   |                                                                                   |
| ICN5000-7D-D23-W12 | MD-230-P     | WO**1204    | 50         | 350 | 395 | 80 | 50    |                                                                                   |                                                                                   |                                                                                   |
| ICN5080-7D-D24-W12 | MD-240-P     | WO**1204    | 50         | 356 | 401 | 80 | 50.8  |                                                                                   |                                                                                   |                                                                                   |
| ICN5100-7D-D24-W12 | MD-240-P     | WO**1204    | 50         | 357 | 402 | 80 | 51    |                                                                                   |                                                                                   |                                                                                   |
| ICN5200-7D-D25-W12 | MD-250-P     | WO**1204    | 50         | 364 | 409 | 80 | 52    |                                                                                   |                                                                                   |                                                                                   |
| ICN5300-7D-D26-W12 | MD-260-P     | WO**1204    | 50         | 371 | 416 | 80 | 53    |                                                                                   |                                                                                   |                                                                                   |
| ICN5398-7D-D27-W12 | MD-270-P     | WO**1204    | 50         | 378 | 423 | 80 | 53.98 |                                                                                   |                                                                                   |                                                                                   |
| ICN5400-7D-D27-W12 | MD-270-P     | WO**1204    | 50         | 379 | 424 | 80 | 54    | K27-32                                                                            |                                                                                   |                                                                                   |
| ICN5500-7D-D28-W12 | MD-280-P     | WO**1204    | 50         | 385 | 430 | 80 | 55    |                                                                                   |                                                                                   |                                                                                   |

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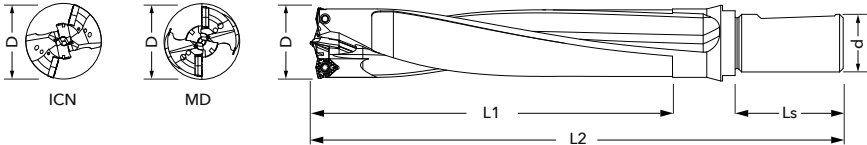
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## ICN...7D-D Drilling Body



With Pilot Drill and Side Inserts | Weldon Shank | Drilling Depth 7XD



Unit: mm

| Specification        | Centre Drill | Side Insert | Dimensions |     |     |    |    | Accessories                                                                       |                                                                                   |                                                                                   |
|----------------------|--------------|-------------|------------|-----|-----|----|----|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
|                      |              |             | d          | L1  | L2  | Ls | D  |  |  |  |
| ICN5600-7D-D20-W15   | MD-200-P     | WO**1503    | 50         | 392 | 437 | 80 | 56 | K17-19.9                                                                          | ICNM-050100                                                                       | T20                                                                               |
| ICN5700-7D-D21-W15   | MD-210-P     | WO**1503    | 50         | 399 | 444 | 80 | 57 | K20-26                                                                            |                                                                                   |                                                                                   |
| ICN5800-7D-D22-W15   | MD-220-P     | WO**1503    | 50         | 406 | 451 | 80 | 58 |                                                                                   |                                                                                   |                                                                                   |
| ICN5900-7D-D23-W15   | MD-230-P     | WO**1503    | 50         | 413 | 458 | 80 | 59 |                                                                                   |                                                                                   |                                                                                   |
| ICN6000-7D-D24-W15   | MD-240-P     | WO**1503    | 50         | 420 | 465 | 80 | 60 |                                                                                   |                                                                                   |                                                                                   |
| ICN6100-7D-D25-W15   | MD-250-P     | WO**1503    | 50         | 427 | 472 | 80 | 61 |                                                                                   |                                                                                   |                                                                                   |
| ICN6200-7D-D26-W15   | MD-260-P     | WO**1503    | 50         | 434 | 479 | 80 | 62 |                                                                                   |                                                                                   |                                                                                   |
| ICN6300-7D-D27-W15   | MD-270-P     | WO**1503    | 50         | 441 | 486 | 80 | 63 |                                                                                   |                                                                                   |                                                                                   |
| ICN6400-7D-D28-W15   | MD-280-P     | WO**1503    | 50         | 448 | 493 | 80 | 64 |                                                                                   |                                                                                   |                                                                                   |
| ICN6500-7D-ICN29-W15 | ICN-290-P    | WO**1503    | 50         | 455 | 500 | 80 | 65 | K27-32                                                                            |                                                                                   |                                                                                   |
| ICN6600-7D-ICN30-W15 | ICN-300-P    | WO**1503    | 50         | 462 | 507 | 80 | 66 |                                                                                   |                                                                                   |                                                                                   |
| ICN6700-7D-ICN31-W15 | ICN-310-P    | WO**1503    | 50         | 469 | 514 | 80 | 67 |                                                                                   |                                                                                   |                                                                                   |
| ICN6800-7D-ICN32-W15 | ICN-320-P    | WO**1503    | 50         | 476 | 521 | 80 | 68 | K33-38                                                                            |                                                                                   |                                                                                   |
| ICN6900-7D-ICN33-W15 | ICN-330-P    | WO**1503    | 50         | 483 | 528 | 80 | 69 |                                                                                   |                                                                                   |                                                                                   |
| ICN7000-7D-ICN34-W15 | ICN-340-P    | WO**1503    | 50         | 490 | 535 | 80 | 70 |                                                                                   |                                                                                   |                                                                                   |
| ICN7100-7D-ICN35-W15 | ICN-350-P    | WO**1503    | 50         | 497 | 576 | 80 | 71 | K39-45                                                                            |                                                                                   |                                                                                   |
| ICN7200-7D-ICN36-W15 | ICN-360-P    | WO**1503    | 50         | 504 | 584 | 80 | 72 |                                                                                   |                                                                                   |                                                                                   |
| ICN7300-7D-ICN37-W15 | ICN-370-P    | WO**1503    | 50         | 511 | 592 | 80 | 73 |                                                                                   |                                                                                   |                                                                                   |
| ICN7400-7D-ICN38-W15 | ICN-380-P    | WO**1503    | 50         | 518 | 600 | 80 | 74 |                                                                                   |                                                                                   |                                                                                   |
| ICN7500-7D-ICN39-W15 | ICN-390-P    | WO**1503    | 50         | 525 | 608 | 80 | 75 |                                                                                   |                                                                                   |                                                                                   |
| ICN7600-7D-ICN40-W15 | ICN-400-P    | WO**1503    | 50         | 532 | 616 | 80 | 76 |                                                                                   |                                                                                   |                                                                                   |
| ICN7700-7D-ICN41-W15 | ICN-410-P    | WO**1503    | 50         | 539 | 624 | 80 | 77 | K39-45                                                                            |                                                                                   |                                                                                   |
| ICN7800-7D-ICN42-W15 | ICN-420-P    | WO**1503    | 50         | 546 | 632 | 80 | 78 |                                                                                   |                                                                                   |                                                                                   |
| ICN7900-7D-ICN43-W15 | ICN-430-P    | WO**1503    | 50         | 553 | 640 | 80 | 79 |                                                                                   |                                                                                   |                                                                                   |
| ICN8000-7D-ICN44-W15 | ICN-440-P    | WO**1503    | 50         | 560 | 648 | 80 | 80 |                                                                                   |                                                                                   |                                                                                   |

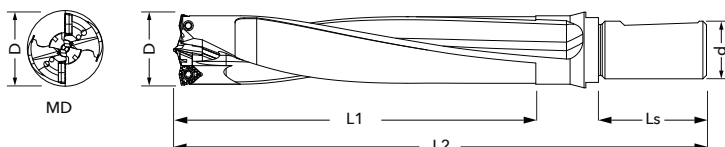
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## ICN...8D-D Drilling Body

With Pilot Drill and Side Inserts | Weldon Shank | Drilling Depth 8XD



Unit: mm

| Specification      | Center Drill | Side Insert | Dimensions |     |     |    |       | Accessories                                                                       |                                                                                   |                                                                                   |
|--------------------|--------------|-------------|------------|-----|-----|----|-------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
|                    |              |             | d          | L1  | L2  | Ls | D     |  |  |  |
| ICN2800-8D-D14-A04 | MD-140-P     | AO**0403    | 32         | 224 | 258 | 60 | 28    | K14-16.9                                                                          | ICNM-025080                                                                       | T9                                                                                |
| ICN2858-8D-D15-A04 | MD-150-P     | AO**0403    | 32         | 229 | 263 | 60 | 28.58 |                                                                                   |                                                                                   |                                                                                   |
| ICN2900-8D-D16-A04 | MD-160-P     | AO**0403    | 32         | 232 | 266 | 60 | 29    |                                                                                   |                                                                                   |                                                                                   |
| ICN2936-8D-D16-A04 | MD-160-P     | AO**0403    | 32         | 235 | 269 | 60 | 29.36 |                                                                                   |                                                                                   |                                                                                   |
| ICN3000-8D-D16-A04 | MD-160-P     | AO**0403    | 32         | 240 | 275 | 60 | 30    |                                                                                   |                                                                                   |                                                                                   |
| ICN3018-8D-D18-A04 | MD-180-P     | AO**0403    | 32         | 242 | 277 | 60 | 30.18 |                                                                                   |                                                                                   |                                                                                   |
| ICN3096-8D-D18-A04 | MD-180-P     | AO**0403    | 32         | 248 | 283 | 60 | 30.96 | K17-19.9                                                                          |                                                                                   |                                                                                   |
| ICN3100-8D-D18-A04 | MD-180-P     | AO**0403    | 32         | 249 | 284 | 60 | 31    |                                                                                   |                                                                                   |                                                                                   |
| ICN3175-8D-D15-W08 | MD-150-P     | WO**0803    | 32         | 254 | 291 | 60 | 31.75 | K14-16.9                                                                          | ICNM-030080                                                                       | T10                                                                               |
| ICN3200-8D-D15-W08 | MD-150-P     | WO**0803    | 32         | 256 | 293 | 60 | 32    |                                                                                   |                                                                                   |                                                                                   |
| ICN3300-8D-D16-W08 | MD-160-P     | WO**0803    | 32         | 264 | 301 | 60 | 33    |                                                                                   |                                                                                   |                                                                                   |
| ICN3320-8D-D16-W08 | MD-160-P     | WO**0803    | 32         | 266 | 303 | 60 | 33.2  |                                                                                   |                                                                                   |                                                                                   |
| ICN3335-8D-D16-W08 | MD-160-P     | WO**0803    | 32         | 267 | 304 | 60 | 33.35 |                                                                                   |                                                                                   |                                                                                   |
| ICN3400-8D-D18-W08 | MD-180-P     | WO**0803    | 32         | 272 | 309 | 60 | 34    |                                                                                   |                                                                                   |                                                                                   |
| ICN3493-8D-D18-W08 | MD-180-P     | WO**0803    | 32         | 280 | 317 | 60 | 34.93 | K17-19.9                                                                          |                                                                                   |                                                                                   |
| ICN3500-8D-D18-W08 | MD-180-P     | WO**0803    | 32         | 281 | 319 | 60 | 35    |                                                                                   |                                                                                   |                                                                                   |
| ICN3600-8D-D18-W08 | MD-180-P     | WO**0803    | 32         | 288 | 326 | 60 | 36    |                                                                                   |                                                                                   |                                                                                   |
| ICN3653-8D-D19-W08 | MD-190-P     | WO**0803    | 32         | 293 | 331 | 60 | 36.53 |                                                                                   |                                                                                   |                                                                                   |
| ICN3700-8D-D16-W10 | MD-160-P     | WO**1003    | 32         | 296 | 334 | 60 | 37    |                                                                                   |                                                                                   |                                                                                   |
| ICN3750-8D-D16-W10 | MD-160-P     | WO**1003    | 32         | 300 | 338 | 60 | 37.5  |                                                                                   |                                                                                   |                                                                                   |
| ICN3800-8D-D16-W10 | MD-160-P     | WO**1003    | 32         | 304 | 344 | 60 | 38    | K14-16.9                                                                          | ICNM-040100                                                                       | T15                                                                               |
| ICN3810-8D-D16-W10 | MD-160-P     | WO**1003    | 32         | 305 | 345 | 60 | 38.1  |                                                                                   |                                                                                   |                                                                                   |

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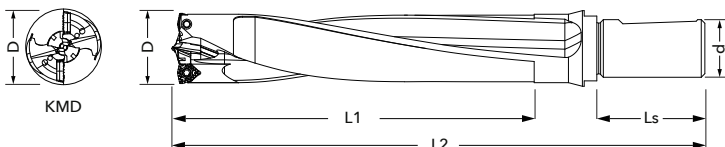
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## ICN...8D-D Drilling Body



With Pilot Drill and Side Inserts | Weldon Shank | Drilling Depth 8XD



Unit: mm

| Specification      | Centre Drill | Side Insert | Dimensions |     |     |    |       | Accessories                                                                       |                                                                                   |                                                                                   |
|--------------------|--------------|-------------|------------|-----|-----|----|-------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
|                    |              |             | d          | L1  | L2  | Ls | D     |  |  |  |
| ICN3900-8D-D18-W10 | MD-180-P     | WO**1003    | 32         | 312 | 352 | 60 | 39    | K17-19.9                                                                          | ICNM-040100                                                                       | T15                                                                               |
| ICN3920-8D-D18-W10 | MD-180-P     | WO**1003    | 32         | 314 | 354 | 60 | 39.2  |                                                                                   |                                                                                   |                                                                                   |
| ICN3970-8D-D18-W10 | MD-180-P     | WO**1003    | 32         | 318 | 358 | 60 | 39.7  |                                                                                   |                                                                                   |                                                                                   |
| ICN4000-8D-D18-W10 | MD-180-P     | WO**1003    | 32         | 320 | 363 | 60 | 40    |                                                                                   |                                                                                   |                                                                                   |
| ICN4100-8D-D19-W10 | MD-190-P     | WO**1003    | 32         | 328 | 371 | 60 | 41    |                                                                                   |                                                                                   |                                                                                   |
| ICN4128-8D-D19-W10 | MD-190-P     | WO**1003    | 32         | 331 | 374 | 60 | 41.28 |                                                                                   |                                                                                   |                                                                                   |
| ICN4200-8D-D19-W10 | MD-190-P     | WO**1204    | 50         | 336 | 380 | 80 | 42    | K14-16.9                                                                          |                                                                                   |                                                                                   |
| ICN4300-8D-D16-W12 | MD-160-P     | WO**1204    | 50         | 344 | 388 | 80 | 43    |                                                                                   |                                                                                   |                                                                                   |
| ICN4400-8D-D18-W12 | MD-180-P     | WO**1204    | 50         | 352 | 396 | 80 | 44    | K17-19.9                                                                          |                                                                                   |                                                                                   |
| ICN4445-8D-D18-W12 | MD-180-P     | WO**1204    | 50         | 356 | 400 | 80 | 44.45 |                                                                                   |                                                                                   |                                                                                   |
| ICN4500-8D-D18-W12 | MD-180-P     | WO**1204    | 50         | 360 | 404 | 80 | 45    |                                                                                   |                                                                                   |                                                                                   |
| ICN4600-8D-D19-W12 | MD-190-P     | WO**1204    | 50         | 368 | 412 | 80 | 46    |                                                                                   |                                                                                   |                                                                                   |
| ICN4700-8D-D20-W12 | MD-200-P     | WO**1204    | 50         | 376 | 420 | 80 | 47    |                                                                                   |                                                                                   |                                                                                   |
| ICN4763-8D-D21-W12 | MD-210-P     | WO**1204    | 50         | 382 | 426 | 80 | 47.63 |                                                                                   |                                                                                   |                                                                                   |
| ICN4800-8D-D21-W12 | MD-210-P     | WO**1204    | 50         | 384 | 429 | 80 | 48    | K20-26.9                                                                          |                                                                                   |                                                                                   |
| ICN4900-8D-D22-W12 | MD-220-P     | WO**1204    | 50         | 392 | 437 | 80 | 49    |                                                                                   |                                                                                   |                                                                                   |
| ICN5000-8D-D23-W12 | MD-230-P     | WO**1204    | 50         | 400 | 445 | 80 | 50    |                                                                                   |                                                                                   |                                                                                   |
| ICN5080-8D-D24-W12 | MD-240-P     | WO**1204    | 50         | 407 | 452 | 80 | 50.8  |                                                                                   |                                                                                   |                                                                                   |
| ICN5100-8D-D24-W12 | MD-240-P     | WO**1204    | 50         | 408 | 453 | 80 | 51    |                                                                                   |                                                                                   |                                                                                   |
| ICN5200-8D-D25-W12 | MD-250-P     | WO**1204    | 50         | 416 | 461 | 80 | 52    |                                                                                   |                                                                                   |                                                                                   |
| ICN5300-8D-D26-W12 | MD-260-P     | WO**1204    | 50         | 424 | 469 | 80 | 53    | K27-32                                                                            |                                                                                   |                                                                                   |
| ICN5398-8D-D27-W12 | MD-270-P     | WO**1204    | 50         | 432 | 477 | 80 | 53.98 |                                                                                   |                                                                                   |                                                                                   |
| ICN5400-8D-D27-W12 | MD-270-P     | WO**1204    | 50         | 433 | 478 | 80 | 54    |                                                                                   |                                                                                   |                                                                                   |
| ICN5500-8D-D28-W12 | MD-280-P     | WO**1204    | 50         | 440 | 485 | 80 | 55    |                                                                                   |                                                                                   |                                                                                   |

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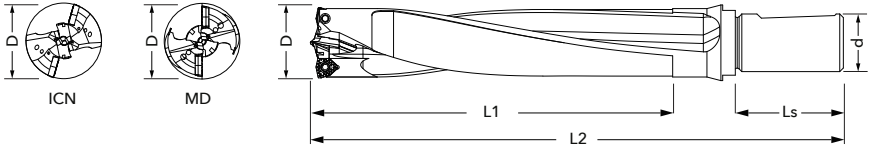
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## ICN...8D-D Drilling Body



With Pilot Drill and Side Inserts | Weldon Shank | Drilling Depth 8XD



Unit: mm

| Specification        | Centre Drill | Side Insert | Dimensions |     |     |    |    | Accessories                                                                       |                                                                                   |                                                                                   |
|----------------------|--------------|-------------|------------|-----|-----|----|----|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
|                      |              |             | d          | L1  | L2  | Ls | D  |  |  |  |
| ICN5600-8D-D20-W15   | MD-200-P     | WO**1503    | 50         | 448 | 493 | 80 | 56 | K17-19.9                                                                          | ICNM-050100                                                                       | T20                                                                               |
| ICN5700-8D-D21-W15   | MD-210-P     | WO**1503    | 50         | 456 | 501 | 80 | 57 |                                                                                   |                                                                                   |                                                                                   |
| ICN5800-8D-D22-W15   | MD-220-P     | WO**1503    | 50         | 464 | 509 | 80 | 58 |                                                                                   |                                                                                   |                                                                                   |
| ICN5900-8D-D23-W15   | MD-230-P     | WO**1503    | 50         | 472 | 517 | 80 | 59 |                                                                                   |                                                                                   |                                                                                   |
| ICN6000-8D-D24-W15   | MD-240-P     | WO**1503    | 50         | 480 | 525 | 80 | 60 |                                                                                   |                                                                                   |                                                                                   |
| ICN6100-8D-D25-W15   | MD-250-P     | WO**1503    | 50         | 488 | 533 | 80 | 61 |                                                                                   |                                                                                   |                                                                                   |
| ICN6200-8D-D26-W15   | MD-260-P     | WO**1503    | 50         | 496 | 541 | 80 | 62 |                                                                                   |                                                                                   |                                                                                   |
| ICN6300-8D-D27-W15   | MD-270-P     | WO**1503    | 50         | 504 | 549 | 80 | 63 |                                                                                   |                                                                                   |                                                                                   |
| ICN6400-8D-D28-W15   | MD-280-P     | WO**1503    | 50         | 512 | 557 | 80 | 64 |                                                                                   |                                                                                   |                                                                                   |
| ICN6500-8D-ICN29-W15 | ICN-290-P    | WO**1503    | 50         | 520 | 565 | 80 | 65 |                                                                                   |                                                                                   |                                                                                   |
| ICN6600-8D-ICN30-W15 | ICN-300-P    | WO**1503    | 50         | 528 | 573 | 80 | 66 |                                                                                   |                                                                                   |                                                                                   |
| ICN6700-8D-ICN31-W15 | ICN-310-P    | WO**1503    | 50         | 536 | 581 | 80 | 67 |                                                                                   |                                                                                   |                                                                                   |
| ICN6800-8D-ICN32-W15 | ICN-320-P    | WO**1503    | 50         | 544 | 589 | 80 | 68 |                                                                                   |                                                                                   |                                                                                   |
| ICN6900-8D-ICN33-W15 | ICN-330-P    | WO**1503    | 50         | 552 | 597 | 80 | 69 |                                                                                   |                                                                                   |                                                                                   |
| ICN7000-8D-ICN34-W15 | ICN-340-P    | WO**1503    | 50         | 560 | 605 | 80 | 70 |                                                                                   |                                                                                   |                                                                                   |
| ICN7100-8D-ICN35-W15 | ICN-350-P    | WO**1503    | 50         | 568 | 647 | 80 | 71 |                                                                                   |                                                                                   |                                                                                   |
| ICN7200-8D-ICN36-W15 | ICN-360-P    | WO**1503    | 50         | 576 | 656 | 80 | 72 |                                                                                   |                                                                                   |                                                                                   |
| ICN7300-8D-ICN37-W15 | ICN-370-P    | WO**1503    | 50         | 584 | 673 | 80 | 73 |                                                                                   |                                                                                   |                                                                                   |
| ICN7400-8D-ICN38-W15 | ICN-380-P    | WO**1503    | 50         | 592 | 682 | 80 | 74 |                                                                                   |                                                                                   |                                                                                   |
| ICN7500-8D-ICN39-W15 | ICN-390-P    | WO**1503    | 50         | 600 | 691 | 80 | 75 |                                                                                   |                                                                                   |                                                                                   |
| ICN7600-8D-ICN40-W15 | ICN-400-P    | WO**1503    | 50         | 608 | 670 | 80 | 76 |                                                                                   |                                                                                   |                                                                                   |
| ICN7700-8D-ICN41-W15 | ICN-410-P    | WO**1503    | 50         | 616 | 679 | 80 | 77 |                                                                                   |                                                                                   |                                                                                   |
| ICN7800-8D-ICN42-W15 | ICN-420-P    | WO**1503    | 50         | 624 | 688 | 80 | 78 |                                                                                   |                                                                                   |                                                                                   |
| ICN7900-8D-ICN43-W15 | ICN-430-P    | WO**1503    | 50         | 632 | 697 | 80 | 79 |                                                                                   |                                                                                   |                                                                                   |
| ICN8000-8D-ICN44-W15 | ICN-440-P    | WO**1503    | 50         | 640 | 706 | 80 | 80 |                                                                                   |                                                                                   |                                                                                   |

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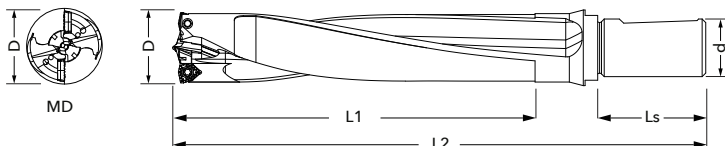
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## ICN...10D-D Drilling Body

With Pilot Drill and Side Inserts | Weldon Shank | Drilling Depth 10XD



Unit: mm

| Specification       | Centre Drill | Side Insert | Dimensions |     |     |    |       | Accessories                                                                       |                                                                                   |                                                                                   |
|---------------------|--------------|-------------|------------|-----|-----|----|-------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
|                     |              |             | d          | L1  | L2  | Ls | D     |  |  |  |
| ICN2800-10D-D14-A04 | MD-140-P     | AO**0403    | 32         | 280 | 314 | 60 | 28    | K14-16.9                                                                          | ICNM-025080                                                                       | T9                                                                                |
| ICN2858-10D-D15-A04 | MD-150-P     | AO**0403    | 32         | 286 | 320 | 60 | 28.58 |                                                                                   |                                                                                   |                                                                                   |
| ICN2900-10D-D16-A04 | MD-160-P     | AO**0403    | 32         | 290 | 324 | 60 | 29    |                                                                                   |                                                                                   |                                                                                   |
| ICN2936-10D-D16-A04 | MD-160-P     | AO**0403    | 32         | 294 | 328 | 60 | 29.36 |                                                                                   |                                                                                   |                                                                                   |
| ICN3000-10D-D16-A04 | MD-160-P     | AO**0403    | 32         | 300 | 335 | 60 | 30    |                                                                                   |                                                                                   |                                                                                   |
| ICN3018-10D-D18-A04 | MD-180-P     | AO**0403    | 32         | 302 | 337 | 60 | 30.18 | K17-19.9                                                                          |                                                                                   |                                                                                   |
| ICN3096-10D-D18-A04 | MD-180-P     | AO**0403    | 32         | 310 | 345 | 60 | 30.96 |                                                                                   |                                                                                   |                                                                                   |
| ICN3100-10D-D18-A04 | MD-180-P     | AO**0403    | 32         | 311 | 346 | 60 | 31    | K14-16.9                                                                          | ICNM-030080                                                                       | T10                                                                               |
| ICN3175-10D-D15-W08 | MD-150-P     | WO**0803    | 32         | 318 | 355 | 60 | 31.75 |                                                                                   |                                                                                   |                                                                                   |
| ICN3200-10D-D15-W08 | MD-150-P     | WO**0803    | 32         | 320 | 357 | 60 | 32    |                                                                                   |                                                                                   |                                                                                   |
| ICN3300-10D-D16-W08 | MD-160-P     | WO**0803    | 32         | 330 | 367 | 60 | 33    |                                                                                   |                                                                                   |                                                                                   |
| ICN3320-10D-D16-W08 | MD-160-P     | WO**0803    | 32         | 332 | 369 | 60 | 33.2  |                                                                                   |                                                                                   |                                                                                   |
| ICN3335-10D-D16-W08 | MD-160-P     | WO**0803    | 32         | 334 | 371 | 60 | 33.35 | K17-19.9                                                                          |                                                                                   |                                                                                   |
| ICN3400-10D-D18-W08 | MD-180-P     | WO**0803    | 32         | 340 | 377 | 60 | 34    |                                                                                   |                                                                                   |                                                                                   |
| ICN3493-10D-D18-W08 | MD-180-P     | WO**0803    | 32         | 350 | 387 | 60 | 34.93 |                                                                                   |                                                                                   |                                                                                   |
| ICN3500-10D-D18-W08 | MD-180-P     | WO**0803    | 32         | 350 | 388 | 60 | 35    |                                                                                   |                                                                                   |                                                                                   |
| ICN3600-10D-D18-W08 | MD-180-P     | WO**0803    | 32         | 360 | 398 | 60 | 36    |                                                                                   |                                                                                   |                                                                                   |
| ICN3653-10D-D19-W08 | MD-190-P     | WO**0803    | 32         | 366 | 404 | 60 | 36.53 | K14-16.9                                                                          | ICNM-040100                                                                       | T15                                                                               |
| ICN3700-10D-D16-W10 | MD-160-P     | WO**1003    | 32         | 370 | 408 | 60 | 37    |                                                                                   |                                                                                   |                                                                                   |
| ICN3750-10D-D16-W10 | MD-160-P     | WO**1003    | 32         | 375 | 413 | 60 | 37.5  |                                                                                   |                                                                                   |                                                                                   |
| ICN3800-10D-D16-W10 | MD-160-P     | WO**1003    | 32         | 380 | 420 | 60 | 38    |                                                                                   |                                                                                   |                                                                                   |
| ICN3810-10D-D16-W10 | MD-160-P     | WO**1003    | 32         | 381 | 421 | 60 | 38.1  |                                                                                   |                                                                                   |                                                                                   |

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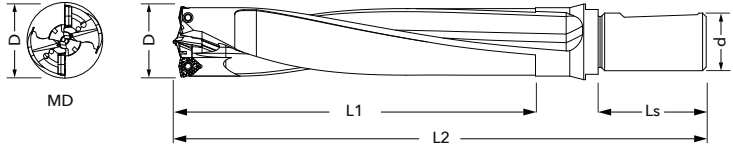
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## ICN...10D-D Drilling Body

With Pilot Drill and Side Inserts | Weldon Shank | Drilling Depth 10XD



Unit: mm

| Specification       | Center Drll | Side Insert | Dimensions |     |     |    |       | Accessories                                                                       |                                                                                   |                                                                                   |          |
|---------------------|-------------|-------------|------------|-----|-----|----|-------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|----------|
|                     |             |             | d          | L1  | L2  | Ls | D     |  |  |  |          |
| ICN3900-10D-D18-W10 | MD-180-P    | WO**1003    | 32         | 390 | 430 | 60 | 39    | K17-19.9                                                                          | ICNM-040100                                                                       | T15                                                                               |          |
| ICN3920-10D-D18-W10 | MD-180-P    | WO**1003    | 32         | 392 | 432 | 60 | 39.2  |                                                                                   |                                                                                   |                                                                                   |          |
| ICN3970-10D-D18-W10 | MD-180-P    | WO**1003    | 32         | 397 | 437 | 60 | 39.7  |                                                                                   |                                                                                   |                                                                                   |          |
| ICN4000-10D-D18-W10 | MD-180-P    | WO**1003    | 32         | 400 | 443 | 60 | 40    |                                                                                   |                                                                                   |                                                                                   |          |
| ICN4100-10D-D19-W10 | MD-190-P    | WO**1003    | 32         | 410 | 453 | 60 | 41    |                                                                                   |                                                                                   |                                                                                   |          |
| ICN4128-10D-D19-W10 | MD-190-P    | WO**1003    | 32         | 413 | 456 | 60 | 41.28 | K14-16.9                                                                          |                                                                                   |                                                                                   |          |
| ICN4200-10D-D19-W10 | MD-190-P    | WO**1204    | 50         | 420 | 464 | 80 | 42    |                                                                                   |                                                                                   |                                                                                   |          |
| ICN4300-10D-D16-W12 | MD-160-P    | WO**1204    | 50         | 430 | 474 | 80 | 43    |                                                                                   |                                                                                   |                                                                                   |          |
| ICN4400-10D-D18-W12 | MD-180-P    | WO**1204    | 50         | 440 | 484 | 80 | 44    |                                                                                   |                                                                                   |                                                                                   | K17-19.9 |
| ICN4445-10D-D18-W12 | MD-180-P    | WO**1204    | 50         | 445 | 489 | 80 | 44.45 |                                                                                   |                                                                                   |                                                                                   |          |
| ICN4500-10D-D18-W12 | MD-180-P    | WO**1204    | 50         | 450 | 494 | 80 | 45    |                                                                                   |                                                                                   |                                                                                   |          |
| ICN4600-10D-D19-W12 | MD-190-P    | WO**1204    | 50         | 460 | 504 | 80 | 46    |                                                                                   |                                                                                   |                                                                                   |          |
| ICN4700-10D-D20-W12 | MD-200-P    | WO**1204    | 50         | 470 | 514 | 80 | 47    | K20-26.9                                                                          |                                                                                   |                                                                                   |          |
| ICN4763-10D-D21-W12 | MD-210-P    | WO**1204    | 50         | 477 | 521 | 80 | 47.63 |                                                                                   |                                                                                   |                                                                                   |          |
| ICN4800-10D-D21-W12 | MD-210-P    | WO**1204    | 50         | 480 | 525 | 80 | 48    |                                                                                   |                                                                                   |                                                                                   |          |
| ICN4900-10D-D22-W12 | MD-220-P    | WO**1204    | 50         | 490 | 535 | 80 | 49    |                                                                                   |                                                                                   |                                                                                   |          |
| ICN5000-10D-D23-W12 | MD-230-P    | WO**1204    | 50         | 500 | 545 | 80 | 50    |                                                                                   |                                                                                   |                                                                                   | K27-32   |
| ICN5080-10D-D24-W12 | MD-240-P    | WO**1204    | 50         | 508 | 553 | 80 | 50.8  |                                                                                   |                                                                                   |                                                                                   |          |
| ICN5100-10D-D24-W12 | MD-240-P    | WO**1204    | 50         | 510 | 555 | 80 | 51    |                                                                                   |                                                                                   |                                                                                   |          |
| ICN5200-10D-D25-W12 | MD-250-P    | WO**1204    | 50         | 520 | 565 | 80 | 52    |                                                                                   |                                                                                   |                                                                                   |          |
| ICN5300-10D-D26-W12 | MD-260-P    | WO**1204    | 50         | 530 | 575 | 80 | 53    |                                                                                   |                                                                                   |                                                                                   |          |
| ICN5398-10D-D27-W12 | MD-270-P    | WO**1204    | 50         | 540 | 585 | 80 | 53.98 | K27-32                                                                            |                                                                                   |                                                                                   |          |
| ICN5400-10D-D27-W12 | MD-270-P    | WO**1204    | 50         | 541 | 586 | 80 | 54    |                                                                                   |                                                                                   |                                                                                   |          |
| ICN5500-10D-D28-W12 | MD-280-P    | WO**1204    | 50         | 550 | 595 | 80 | 55    |                                                                                   |                                                                                   |                                                                                   |          |

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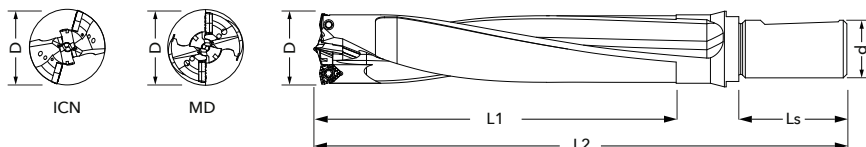
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## ICN...10D-D Drilling Body



With Pilot Drill and Side Inserts | Weldon Shank | Drilling Depth 10XD



Unit: mm

| Specification         | Center Drill | Side Insert | Dimensions |     |     |    |    | Accessories                                                                       |                                                                                   |                                                                                   |
|-----------------------|--------------|-------------|------------|-----|-----|----|----|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
|                       |              |             | d          | L1  | L2  | Ls | D  |  |  |  |
| ICN5600-10D-D20-W15   | MD-200-P     | WO**1503    | 50         | 560 | 605 | 80 | 56 | K17-19.9                                                                          | ICNM-050100                                                                       | T20                                                                               |
| ICN5700-10D-D21-W15   | MD-210-P     | WO**1503    | 50         | 570 | 615 | 80 | 57 | K20-26                                                                            |                                                                                   |                                                                                   |
| ICN5800-10D-D22-W15   | MD-220-P     | WO**1503    | 50         | 580 | 625 | 80 | 58 |                                                                                   |                                                                                   |                                                                                   |
| ICN5900-10D-D23-W15   | MD-230-P     | WO**1503    | 50         | 590 | 635 | 80 | 59 |                                                                                   |                                                                                   |                                                                                   |
| ICN6000-10D-D24-W15   | MD-240-P     | WO**1503    | 50         | 600 | 645 | 80 | 60 |                                                                                   |                                                                                   |                                                                                   |
| ICN6100-10D-D25-W15   | MD-250-P     | WO**1503    | 50         | 610 | 655 | 80 | 61 |                                                                                   |                                                                                   |                                                                                   |
| ICN6200-10D-D26-W15   | MD-260-P     | WO**1503    | 50         | 620 | 665 | 80 | 62 |                                                                                   |                                                                                   |                                                                                   |
| ICN6300-10D-D27-W15   | MD-270-P     | WO**1503    | 50         | 630 | 675 | 80 | 63 |                                                                                   |                                                                                   |                                                                                   |
| ICN6400-10D-D28-W15   | MD-280-P     | WO**1503    | 50         | 640 | 685 | 80 | 64 |                                                                                   |                                                                                   |                                                                                   |
| ICN6500-10D-ICN29-W15 | ICN-290-P    | WO**1503    | 50         | 650 | 695 | 80 | 65 |                                                                                   |                                                                                   |                                                                                   |
| ICN6600-10D-ICN30-W15 | ICN-300-P    | WO**1503    | 50         | 660 | 705 | 80 | 66 |                                                                                   |                                                                                   |                                                                                   |
| ICN6700-10D-ICN31-W15 | ICN-310-P    | WO**1503    | 50         | 670 | 715 | 80 | 67 |                                                                                   |                                                                                   |                                                                                   |
| ICN6800-10D-ICN32-W15 | ICN-320-P    | WO**1503    | 50         | 680 | 725 | 80 | 68 |                                                                                   |                                                                                   |                                                                                   |
| ICN6900-10D-ICN33-W15 | ICN-330-P    | WO**1503    | 50         | 690 | 735 | 80 | 69 | K33-38                                                                            |                                                                                   |                                                                                   |
| ICN7000-10D-ICN34-W15 | ICN-340-P    | WO**1503    | 50         | 700 | 745 | 80 | 70 |                                                                                   |                                                                                   |                                                                                   |
| ICN7100-10D-ICN35-W15 | ICN-350-P    | WO**1503    | 50         | 710 | 789 | 80 | 71 |                                                                                   |                                                                                   |                                                                                   |
| ICN7200-10D-ICN36-W15 | ICN-360-P    | WO**1503    | 50         | 720 | 800 | 80 | 72 |                                                                                   |                                                                                   |                                                                                   |
| ICN7300-10D-ICN37-W15 | ICN-370-P    | WO**1503    | 50         | 730 | 811 | 80 | 73 |                                                                                   |                                                                                   |                                                                                   |
| ICN7400-10D-ICN38-W15 | ICN-380-P    | WO**1503    | 50         | 740 | 822 | 80 | 74 |                                                                                   |                                                                                   |                                                                                   |
| ICN7500-10D-ICN39-W15 | ICN-390-P    | WO**1503    | 50         | 750 | 833 | 80 | 75 |                                                                                   |                                                                                   |                                                                                   |
| ICN7600-10D-ICN40-W15 | ICN-400-P    | WO**1503    | 50         | 760 | 844 | 80 | 76 |                                                                                   |                                                                                   |                                                                                   |
| ICN7700-10D-ICN41-W15 | ICN-410-P    | WO**1503    | 50         | 770 | 855 | 80 | 77 |                                                                                   |                                                                                   |                                                                                   |
| ICN7800-10D-ICN42-W15 | ICN-420-P    | WO**1503    | 50         | 780 | 866 | 80 | 78 |                                                                                   |                                                                                   |                                                                                   |
| ICN7900-10D-ICN43-W15 | ICN-430-P    | WO**1503    | 50         | 632 | 697 | 80 | 79 |                                                                                   |                                                                                   |                                                                                   |
| ICN8000-10D-ICN44-W15 | ICN-440-P    | WO**1503    | 50         | 640 | 706 | 80 | 80 |                                                                                   |                                                                                   |                                                                                   |

Insert pages :

WOMT...W... page 109

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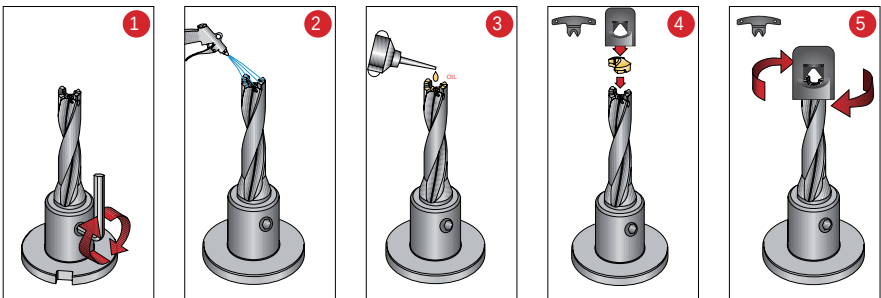


## General Recommendations

- ICN drills can be used in any type of adaptation. However, concentric adaptation such as spring collets and hydraulic chucks are advantageous for better runout. When machining high temperature alloys or applying very high machining loads, it is advisable to use strong gripping adapters such as endmill holders, power or hydraulic chucks.
- Dry drilling should not be performed under any circumstances.
- Semi-synthetic or emulsion lubricants are recommended
- It is essential to use internal coolant in all ICN applications. In the event of low coolant pressure or when used in a stationary application, adding an external coolant can improve tool life.
- When only external coolant can be applied, it is recommended to drill into maximum depth of 2xD hole depth to diameter ratio.
- When using M.Q.L. coolant, there is no need for special accessories. For smooth M.Q.L. coolant flow there is a spherical cavity on the rear side of the drill shank.



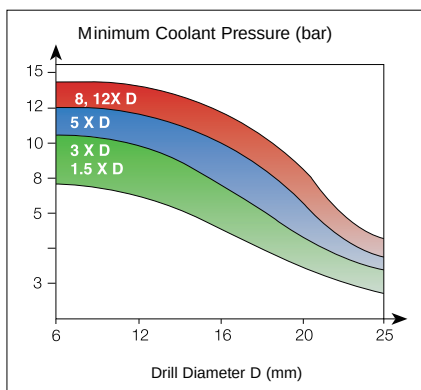
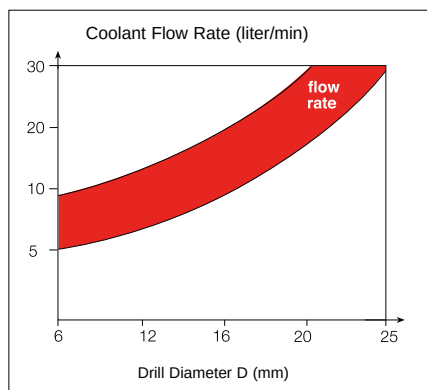
### How to lock ICN drilling head





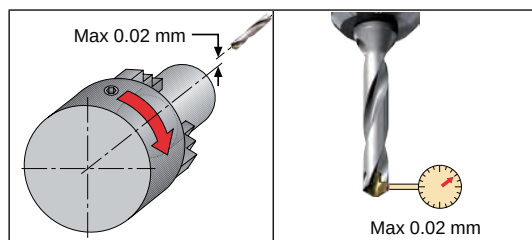
### User Guide - Cooling Instructions

- When drilling stainless steel or high temperature alloys using the ICN drilling head, it is highly recommended to apply high pressure oil or 7-10% mineral or vegetable based oil emulsion.
- Following is recommended coolant flow rate and pressure.



- For optimal performance, it is recommended to adjust runout of outer points or chisel with a maximum of 0.02 mm. Large runout will influence drill performance tool life and hole quality.
- No setup time is needed after indexing the ICN drill head.
- ICN drills can be used either on milling centers or lathe machines.
- When using ICN drill in stationary (lathe) applications, we recommend using specific device or eccentric sleeve to reduce misalignment. Misalignment will cause poor performance of the ICN drill or even tool breakage.

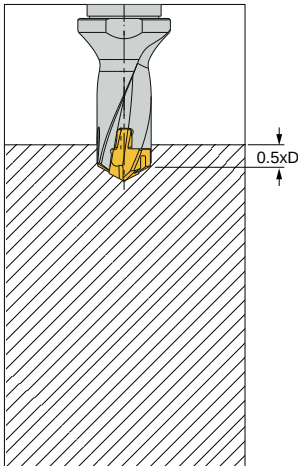
### Maximum Runout, Misalignment



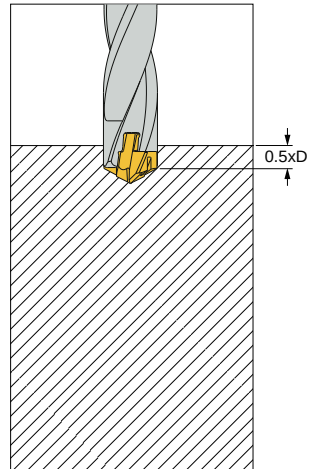
## User Guide - How to drill deep holes

- Prior to using 8xD or 12xD drills, it is recommended to drill a 1.5xD pre-hole using a short or centering drill. Enter the pre-hole at slow speed and feed until 2-5 mm from its bottom. Start the cooling system and increase rotation to recommended drilling speed. Hold for 2-3 seconds, then, continue at the recommended drilling feed.

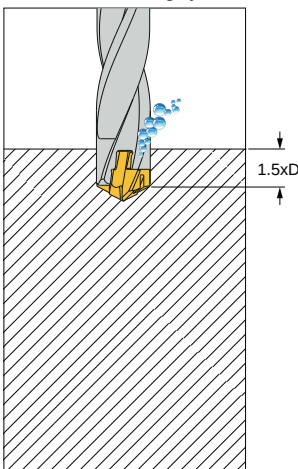
- 1 Pre-hole 0.5xD deep for centering



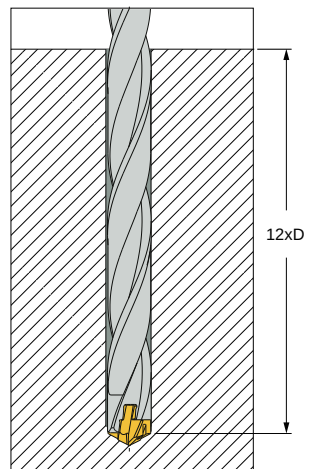
- 2 Slow rotation and feed during entrance to the pre-hole



- 3 Maintain for 2-3 seconds and activate the cooling system



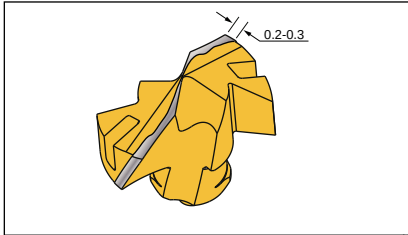
- 4 Continue drilling at recommended cutting conditions



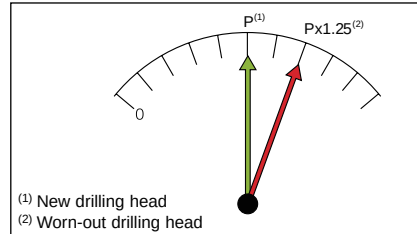


## Indication of Drill Head Wear

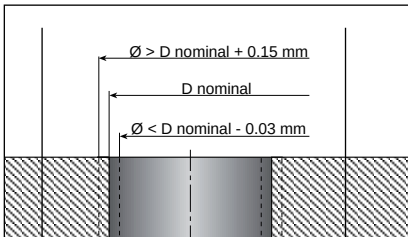
### Wear Limit



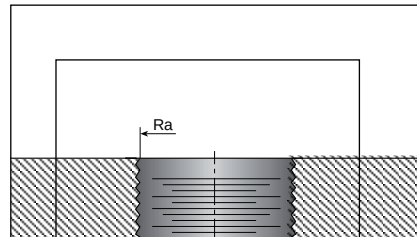
### Power Restriction



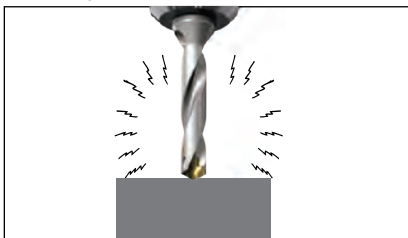
### Diameter Change



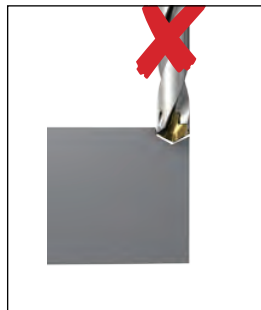
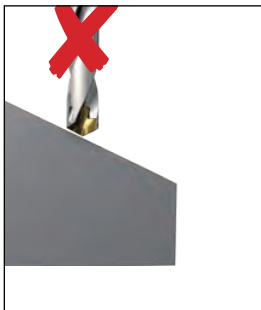
### Surface Finish Declines



### Vibration Noise Drastically Increases



### Drilling Limitations





## Material Groups

## Recommended Machining Conditions

| ISO | Material                                                     | Condition                      | (N/mm <sup>2</sup> ) | (HB) | Vc(m/min)  | Feed rate(mm/rev) |           |           |           |           |           |           |
|-----|--------------------------------------------------------------|--------------------------------|----------------------|------|------------|-------------------|-----------|-----------|-----------|-----------|-----------|-----------|
|     |                                                              |                                |                      |      |            | D=8-9.9           | D=10-11.9 | D=12-13.9 | D=14-15.9 | D=16-19.9 | D=20-25.9 | D=26-32.9 |
| P   | Non-alloy steel and cast steel, free cutting steel           | <0.25% C Annealed              | 420                  | 125  | 80-110-140 |                   |           |           |           |           |           |           |
|     |                                                              | >=0.25% C Annealed             | 650                  | 190  | 80-105-130 | 0.12              | 0.15      | 0.18      | 0.20      | 0.25      | 0.25      | 0.30      |
|     |                                                              | <0.55% C Quenched and tempered | 850                  | 250  | 80-100-120 | 0.17              | 0.21      | 0.24      | 0.27      | 0.35      | 0.35      | 0.40      |
|     |                                                              | >=0.55% C Annealed             | 750                  | 220  | 70-90-110  | 0.22              | 0.28      | 0.30      | 0.35      | 0.45      | 0.45      | 0.50      |
|     |                                                              | Quenched and tempered          | 1000                 | 300  | 50-70-90   |                   |           |           |           |           |           |           |
|     |                                                              | Annealed                       | 600                  | 200  | 80-100-120 | 0.12              | 0.14      | 0.16      | 0.18      | 0.23      | 0.25      | 0.30      |
|     | Low alloy and cast steel (less than 5% of alloying elements) | Quenched and tempered          | 930                  | 275  | 70-90-110  | 0.18              | 0.21      | 0.24      | 0.26      | 0.31      | 0.35      | 0.40      |
|     |                                                              |                                | 1000                 | 300  | 50-70-90   | 0.25              | 0.28      | 0.32      | 0.35      | 0.40      | 0.45      | 0.50      |
|     |                                                              |                                | 1200                 | 350  | 40-55-70   |                   |           |           |           |           |           |           |
|     | High alloyed steel, cast steel and tool steel                | Annealed                       | 680                  | 200  | 50-70-90   | 0.12              | 0.12      | 0.15      | 0.18      | 0.20      | 0.22      | 0.25      |
|     |                                                              | Quenched and tempered          | 1100                 | 325  | 40-60-80   | 0.16              | 0.17      | 0.20      | 0.23      | 0.25      | 0.27      | 0.30      |
|     | Stainless steel and cast steel                               | Ferritic/martensitic           | 680                  | 200  | 40-55-70   | 0.20              | 0.22      | 0.25      | 0.28      | 0.30      | 0.33      | 0.35      |
|     |                                                              | Martensitic                    | 820                  | 240  | 40-55-70   | 0.10              | 0.12      | 0.14      | 0.16      | 0.16      | 0.18      | 0.20      |
| M   | Stainless steel and cast steel                               | Austenitic, duplex             | 600                  | 180  | 30-50-70   | 0.12              | 0.15      | 0.17      | 0.20      | 0.21      | 0.24      | 0.27      |
|     |                                                              |                                |                      |      |            | 0.15              | 0.18      | 0.20      | 0.24      | 0.26      | 0.30      | 0.35      |
| K   | Gray cast iron (GG)                                          | Ferritic / pearlitic           |                      | 180  | 90-125-160 |                   |           |           |           |           |           |           |
|     |                                                              | Pearlitic / martensitic        |                      | 260  | 80-110-140 |                   |           |           |           |           |           |           |
|     | Nodular cast iron (GGG)                                      | Ferritic                       |                      | 160  | 90-135-180 | 0.15              | 0.20      | 0.25      | 0.30      | 0.35      | 0.35      | 0.40      |
|     |                                                              | Pearlitic                      |                      | 250  | 80-110-140 | 0.22              | 0.27      | 0.32      | 0.37      | 0.45      | 0.47      | 0.50      |
|     | Malleable cast iron                                          | Ferritic                       |                      | 130  | 90-125-160 | 0.30              | 0.35      | 0.40      | 0.45      | 0.55      | 0.60      | 0.60      |
|     |                                                              | Pearlitic                      |                      | 230  | 80-110-140 |                   |           |           |           |           |           |           |
| N   | Aluminum-wrought alloys                                      | Not hardenable                 |                      | 60   | 90-155-220 |                   |           |           |           |           |           |           |
|     |                                                              | Hardenable                     |                      | 100  | 90-155-220 |                   |           |           |           |           |           |           |
|     | Aluminum-cast alloys                                         | <=12% Si Not hardenable        |                      | 75   | 90-155-220 | 0.20              | 0.25      | 0.30      | 0.35      | 0.40      | 0.35      | 0.50      |
|     |                                                              | Hardenable                     |                      | 90   | 90-155-220 | 0.27              | 0.32      | 0.37      | 0.42      | 0.50      | 0.47      | 0.67      |
|     |                                                              | >12% Si High temperature       |                      | 130  | 80-120-160 | 0.35              | 0.40      | 0.45      | 0.50      | 0.60      | 0.60      | 0.75      |
|     | >1% Pb Copper alloys                                         | Free cutting                   |                      | 110  | 90-155-220 |                   |           |           |           |           |           |           |
|     |                                                              | Brass                          |                      | 90   | 90-155-220 |                   |           |           |           |           |           |           |
|     | Non metallic                                                 | Electrolytic copper            |                      | 100  | 90-155-220 |                   |           |           |           |           |           |           |
|     |                                                              | Duroplastics, fiber plastics   |                      |      |            |                   |           |           |           |           |           |           |
|     |                                                              | Hard rubber                    |                      |      |            |                   |           |           |           |           |           |           |



## Material Groups

## Recommended Machining Conditions

| ISO      | Material                                              | Condition                   | (N/mm <sup>2</sup> ) | (HB) hardness | Vc(m/min) | Feed rate(mm/rev) |           |           |           |           |           |           |
|----------|-------------------------------------------------------|-----------------------------|----------------------|---------------|-----------|-------------------|-----------|-----------|-----------|-----------|-----------|-----------|
|          |                                                       |                             |                      |               |           | D=8-9.9           | D=10-11.9 | D=12-13.9 | D=14-15.9 | D=16-19.9 | D=20-25.9 | D=26-32.9 |
| <b>S</b> | High temperature alloys<br>Fe based<br>Ni or Co based | Annealed                    |                      | 200           | 30-45-60  |                   |           |           |           |           |           |           |
|          |                                                       | Hardened                    |                      | 280           | 20-35-50  | 0.06              | 0.08      | 0.10      | 0.12      | 0.12      | 0.14      | 0.16      |
|          |                                                       | Annealed                    |                      | 250           | 20-35-50  | 0.08              | 0.10      | 0.12      | 0.15      | 0.16      | 0.18      | 0.20      |
|          |                                                       | Hardened                    |                      | 350           | 20-35-50  | 0.11              | 0.13      | 0.15      | 0.18      | 0.20      | 0.22      | 0.25      |
|          | Titanium alloys                                       | Cast                        |                      | 320           | 20-35-50  |                   |           |           |           |           |           |           |
|          |                                                       | Pure                        |                      |               |           | 0.06              | 0.08      | 0.16      | 0.12      | 0.14      | 0.25      | 0.18      |
|          |                                                       | Alpha+beta alloys, hardened |                      |               | 20-35-50  | 0.09              | 0.11      | 0.24      | 0.16      | 0.18      | 0.35      | 0.22      |
| <b>N</b> | Hardened steel                                        |                             |                      |               |           | 0.12              | 0.15      | 0.20      | 0.20      | 0.22      | 0.25      | 0.27      |
|          |                                                       | Hardened                    |                      |               | 20-35-50  | 0.06              | 0.08      | 0.14      | 0.12      | 0.14      | 0.16      | 0.18      |
|          |                                                       | Hardened                    |                      |               |           | 0.09              | 0.11      | 0.17      | 0.16      | 0.18      | 0.20      | 0.22      |

## Recommended Machining Conditions for ICN Large Dia. Drills

| ISO      | Material                                                     | Condition                     | (N/mm <sup>2</sup> ) | (HB) hardness | Vc(min-max) | Feed vs. Drill Diameter F [mm/rev] |            |            |            |            |
|----------|--------------------------------------------------------------|-------------------------------|----------------------|---------------|-------------|------------------------------------|------------|------------|------------|------------|
|          |                                                              |                               |                      |               |             | 26< ØD <28                         | 29< ØD <32 | 33< ØD <35 | 36< ØD <43 | 44< ØD <50 |
| <b>P</b> | Non-alloy steel and cast steel, free cutting steel           | <0.25% C Annealed             | 420                  | 125           | 120-200     |                                    |            |            |            |            |
|          |                                                              | >=0.25% C Annealed            | 650                  | 190           |             |                                    |            |            |            |            |
|          |                                                              | <0.55% C Quenchedand tempered | 850                  | 250           |             | 0.25                               | 0.25       | 0.25       | 0.25       | 0.28       |
|          |                                                              | >=0.55% C Annealed            | 750                  | 220           | 130-190     | 0.35                               | 0.35       | 0.40       | 0.40       | 0.45       |
|          | Low alloy and cast steel (less than 5% of alloying elements) | Quenchedand tempered          | 1000                 | 300           |             |                                    |            |            |            |            |
|          |                                                              | Annealed                      | 600                  | 200           |             |                                    |            |            |            |            |
|          |                                                              | Quenched-                     | 930                  | 275           | 120-180     | 0.25                               | 0.25       | 0.25       | 0.25       | 0.26       |
|          |                                                              | and-tempered                  | 1000                 | 300           |             | 0.33                               | 0.33       | 0.38       | 0.38       | 0.43       |
|          | High alloyed steel, cast steel and tool steel                | 1200                          | 350                  |               |             |                                    |            |            |            |            |
|          |                                                              | Annealed                      | 680                  | 200           | 100-160     | 0.25                               | 0.25       | 0.25       | 0.25       | 0.26       |
|          | Stainless steel and cast steel                               | Quenchedand tempered          | 1100                 | 325           |             | 0.33                               | 0.33       | 0.36       | 0.36       | 0.41       |
|          |                                                              | Ferritic/martensitic          | 680                  | 200           | 90-140      | 0.12                               | 0.12       | 0.16       | 0.18       | 0.18       |
|          |                                                              | Martensitic                   | 820                  | 240           |             | 0.24                               | 0.24       | 0.25       | 0.25       | 0.30       |



## Recommended Machining Conditions for ICN Large Dia. Drills

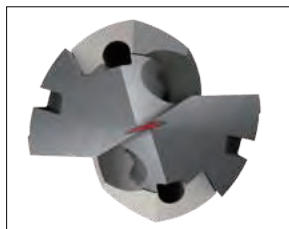
| ISO      | Material                       | Condition                    | (N/mm <sup>2</sup> ) | (HRC)<br>hardness | Vc(min-max) | Feed vs. Drill Diameter F [mm/rev] |                   |                   |                   |                   |
|----------|--------------------------------|------------------------------|----------------------|-------------------|-------------|------------------------------------|-------------------|-------------------|-------------------|-------------------|
|          |                                |                              |                      |                   |             | 26 < ØD < 28                       | 29 < ØD < 32      | 33 < ØD < 35      | 36 < ØD < 43      | 44 < ØD < 50      |
| <b>M</b> | Stainless steel and cast steel | Austenitic,<br>duplex        | 600                  | 180               | 90-140      | 0.12<br>-<br>0.24                  | 0.12<br>-<br>0.24 | 0.16<br>-<br>0.25 | 0.18<br>-<br>0.25 | 0.18<br>-<br>0.30 |
|          |                                |                              |                      |                   |             |                                    |                   |                   |                   |                   |
| <b>K</b> | Gray cast iron (GG)            | Ferritic/pearlitic           |                      | 180               | 150-250     | 0.25<br>-<br>0.40                  | 0.25<br>-<br>0.45 | 0.30<br>-<br>0.50 | 0.30<br>-<br>0.50 | 0.35<br>-<br>0.55 |
|          |                                | Pearlitic/martensitic        |                      | 260               |             |                                    |                   |                   |                   |                   |
|          | Nodular cast iron (GGG)        | Ferritic                     |                      | 160               |             |                                    |                   |                   |                   |                   |
|          |                                | Pearlitic                    |                      | 250               |             |                                    |                   |                   |                   |                   |
|          | Malleable cast iron            | Ferritic                     |                      | 130               |             |                                    |                   |                   |                   |                   |
|          |                                | Pearlitic                    |                      | 230               |             |                                    |                   |                   |                   |                   |
| <b>N</b> | Aluminum-wrought alloys        | Not hardenable               |                      | 60                | 160-260     | 0.30<br>-<br>0.50                  | 0.30<br>-<br>0.50 | 0.35<br>-<br>0.55 | 0.35<br>-<br>0.55 | 0.40<br>-<br>0.60 |
|          |                                | Hardenable                   |                      | 100               |             |                                    |                   |                   |                   |                   |
|          | Aluminum-<br>cast alloys       | <=12% Si Not hardenable      |                      | 75                |             |                                    |                   |                   |                   |                   |
|          |                                | Hardenable                   |                      | 90                |             |                                    |                   |                   |                   |                   |
|          | >12% Si                        | Hightemperature              |                      | 130               |             |                                    |                   |                   |                   |                   |
|          |                                | >1% Pb Free cutting          |                      | 110               |             |                                    |                   |                   |                   |                   |
|          | Copper alloys                  | Brass                        |                      | 90                |             |                                    |                   |                   |                   |                   |
|          |                                | Electrolytic copper          |                      | 100               |             |                                    |                   |                   |                   |                   |
| <b>S</b> | Non metallic                   | Duroplastics, fiber plastics |                      |                   |             |                                    |                   |                   |                   |                   |
|          |                                | Hard rubber                  |                      |                   |             |                                    |                   |                   |                   |                   |
|          | High temperature alloys        | Fe based Annealed            |                      | 200               |             |                                    |                   |                   |                   |                   |
|          |                                | Hardened                     |                      | 280               |             |                                    |                   |                   |                   |                   |
|          |                                | Annealed                     |                      | 250               |             |                                    |                   |                   |                   |                   |
|          |                                | Hardened                     |                      | 350               |             |                                    |                   |                   |                   |                   |
|          |                                | Ni or Co based Cast          |                      | 320               |             |                                    |                   |                   |                   |                   |
|          | Titanium alloys                | Pure                         | 400                  |                   |             |                                    |                   |                   |                   |                   |
|          |                                | Alpha+beta alloys, hardened  | 1050                 |                   |             |                                    |                   |                   |                   |                   |
| <b>N</b> | Hardened steel                 | Hardened                     |                      | 55 HRC            | 20-50       | 0.10<br>-<br>0.16                  | 0.12<br>-<br>0.18 | 0.14<br>-<br>0.20 | 0.14<br>-<br>0.20 | 0.16<br>-<br>0.22 |
|          |                                | Hardened                     |                      | 60 HRC            |             |                                    |                   |                   |                   |                   |
|          | Chilled cast iron              | Cast                         |                      | 400               |             |                                    |                   |                   |                   |                   |
|          | Cast iron                      | Hardened                     |                      | 55 HRC            |             |                                    |                   |                   |                   |                   |

## Troubleshooting



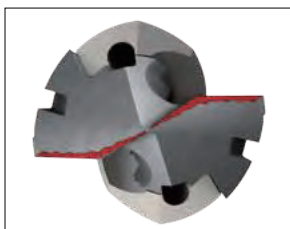
### · Cutting Edge Chipping

1. Check the stability of the machine spindle, tool and workpiece clamping rigidity.
2. Reduce feed rate, increase speed.
3. If the drill vibrates, reduce cutting speed and increase feed rate.
4. When drilling rough, hard or sloped surface (up to 7°), reduce the feed rate by 30%-50% during entrance and exit.
5. Check cooling lubricant. Increase coolant pressure. In case of external coolant supply, improve jet direction and add cooling jets.



### · Chisel Area Chipping

1. Reduce feed rate.
2. Increase coolant pressure.
3. Check the adaptation. Use hydraulic clamping chuck, maxin power chuck or side lock systems.
4. Increase workpiece chucking force.



### · Excessive Flank Wear

1. Check that the correct geometry is used.
2. Reduce cutting speed.
3. Increase internal coolant pressure.



### · Excessive Flute Land Wear

1. Check that the correct geometry is used.
2. Check the runout and make sure it is within 0.02 mm T.I.R. (radial and axial).
3. Reduce cutting speed.
4. When drilling rough, hard or sloped surface (up to 7°), reduce the feed rate by 30%-50% during entrance and exit.
5. Increase coolant pressure.
6. Check the chisel point runout and make sure it is within 0.02 mm T.I.R.
7. Increase workpiece chucking force stability and rigidity.
8. If there is low pocket gripping force - replace drill body

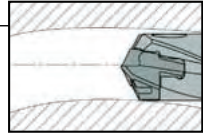


## Troubleshooting



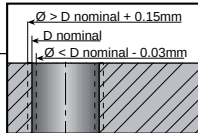
### • Built-Up Edge

1. Increase cutting speed/feed.
2. Increase coolant pressure.



### • Hole Not Straight:

1. Drill a pre-hole for centering (check recommendations for pre-hole operation).
2. Increase coolant pressure; improve jet direction in case of external coolant supply.
3. Increase the feed.

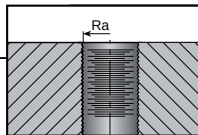


### • Deviation of Dia. Tolerance

1. Check the runout and make sure it is within 0.02 mm T.I.R. (radial and axial cutting points).
2. Reduce feed rate.
3. Check the chisel point runout and make sure that it is within 0.02 mm T.I.R.
4. Wrong cutting edge. Replace head.
5. Increase workpiece chucking force.
6. Check the adaptation. Use hydraulic clamping chuck, maxin power chuck or side clamping systems.
7. Increase internal coolant pressure.

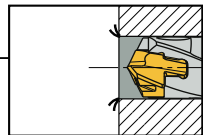
### • Inaccurate Hole Position

1. Check the run-out and make sure it is within 0.02 mm T.I.R. (radial and axial).
2. Check the stability of the machine spindle, tool and workpiece clamping rigidity.
3. When drilling rough, hard or sloped surface (up to 7°), reduce the feed rate by 30%-50% during entrance.
4. Drill a pre-hole with a 140° point angle for centering.
5. Check the chisel point runout and make sure it is within 0.02 mm T.I.R.



### • Surface Finish Too Rough

1. Check the runout and make sure it is within 0.02 mm T.I.R. (radial and axial).
2. Adjust the feed for improved chip formation.
3. In case of chip jamming - increase the coolant flow and/or reduce the cutting speed.
4. Increase the coolant pressure.
5. Check the chisel point runout and make sure it is within 0.02 mm T.I.R.
6. Use pecking cycle.
7. Use double margin geometry.

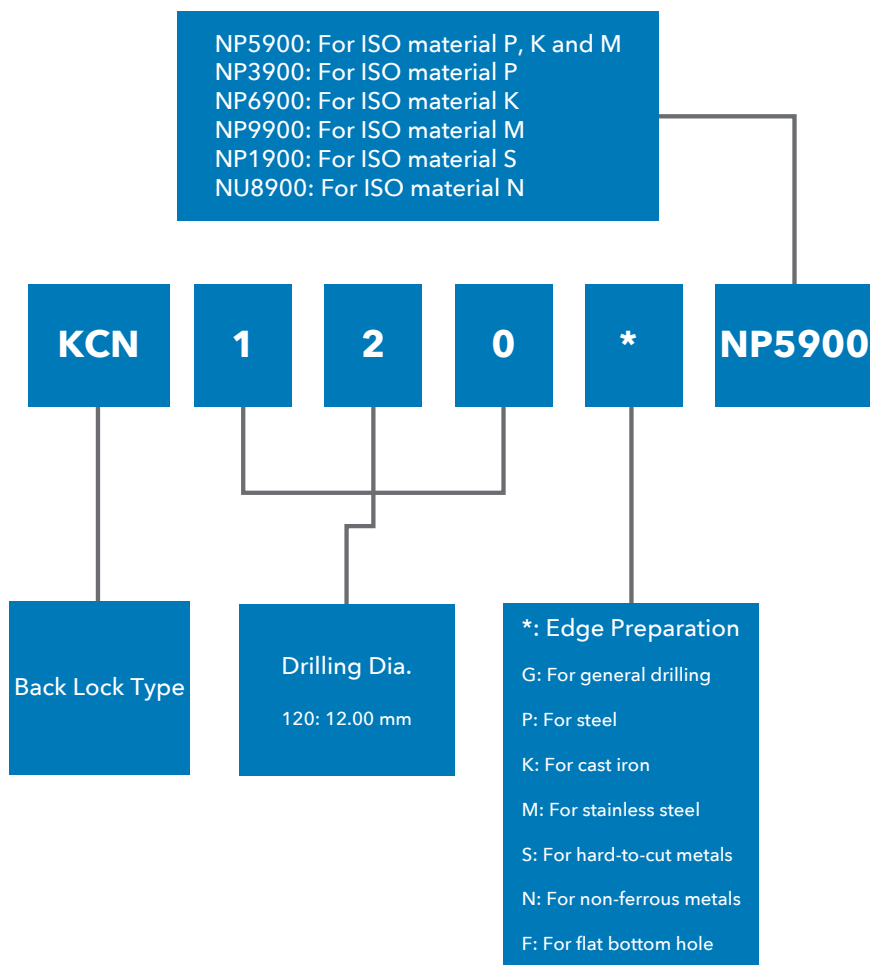


### • Burrs on Exit

1. Reduce the feed rate by 30%-50% during exit.
2. Replace the worn head.
3. Check the adaptation. Use hydraulic clamping chuck, maxin power chuck or side clamping systems.

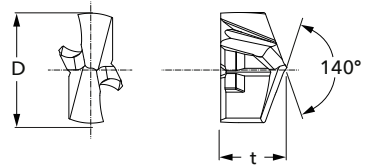


### KCN Drill Head Coding System



## KCN...\* Drilling Head

For KCN Drills



Unit: mm

| Specification | Dimensions |      | Drilling Body      | Grade                                                    |
|---------------|------------|------|--------------------|----------------------------------------------------------|
|               | D          | t    |                    |                                                          |
| KCN-120.*     | 12.0       | 9.8  | KCN120129<br>-16.. | NP5900<br>NP3900<br>NP6900<br>NP9900<br>NP1900<br>NU8900 |
| KCN-121.*     | 12.1       | 9.8  |                    |                                                          |
| KCN-122.*     | 12.2       | 9.8  |                    |                                                          |
| KCN-123.*     | 12.3       | 9.8  |                    |                                                          |
| KCN-124.*     | 12.4       | 9.8  |                    |                                                          |
| KCN-125.*     | 12.5       | 9.8  |                    |                                                          |
| KCN-126.*     | 12.6       | 9.8  |                    |                                                          |
| KCN-127.*     | 12.7       | 9.8  |                    |                                                          |
| KCN-128.*     | 12.8       | 9.8  |                    |                                                          |
| KCN-129.*     | 12.9       | 9.8  |                    |                                                          |
| KCN-130.*     | 13.0       | 9.8  | KCN130139<br>-16.. |                                                          |
| KCN-131.*     | 13.1       | 9.8  |                    |                                                          |
| KCN-132.*     | 13.2       | 9.8  |                    |                                                          |
| KCN-133.*     | 13.3       | 9.8  |                    |                                                          |
| KCN-134.*     | 13.4       | 9.8  |                    |                                                          |
| KCN-135.*     | 13.5       | 9.8  |                    |                                                          |
| KCN-136.*     | 13.6       | 9.8  |                    |                                                          |
| KCN-137.*     | 13.7       | 9.8  |                    |                                                          |
| KCN-138.*     | 13.8       | 9.8  |                    |                                                          |
| KCN-139.*     | 13.9       | 9.8  |                    |                                                          |
| KCN-140.*     | 14.0       | 10.3 | KCN140149<br>-16.. |                                                          |
| KCN-141.*     | 14.1       | 10.3 |                    |                                                          |
| KCN-142.*     | 14.2       | 10.3 |                    |                                                          |
| KCN-143.*     | 14.3       | 10.3 |                    |                                                          |
| KCN-144.*     | 14.4       | 10.3 |                    |                                                          |
| KCN-145.*     | 14.5       | 10.3 |                    |                                                          |
| KCN-146.*     | 14.6       | 10.3 |                    |                                                          |
| KCN-147.*     | 14.7       | 10.3 |                    |                                                          |
| KCN-148.*     | 14.8       | 10.3 |                    |                                                          |
| KCN-149.*     | 14.9       | 10.3 |                    |                                                          |
| KCN-150.*     | 15.0       | 10.3 | KCN150159<br>-20.. |                                                          |
| KCN-151.*     | 15.1       | 10.3 |                    |                                                          |
| KCN-152.*     | 15.2       | 10.3 |                    |                                                          |
| KCN-153.*     | 15.3       | 10.3 |                    |                                                          |
| KCN-154.*     | 15.4       | 10.3 |                    |                                                          |
| KCN-155.*     | 15.5       | 10.3 |                    |                                                          |
| KCN-156.*     | 15.6       | 10.3 |                    |                                                          |
| KCN-157.*     | 15.7       | 10.3 |                    |                                                          |
| KCN-158.*     | 15.8       | 10.3 |                    |                                                          |
| KCN-159.*     | 15.9       | 10.3 |                    |                                                          |

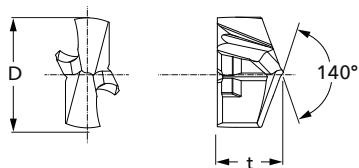
Unit: mm

| Specification | Dimensions |      | Drilling Body      | Grade                                                    |
|---------------|------------|------|--------------------|----------------------------------------------------------|
|               | D          | t    |                    |                                                          |
| KCN-160.*     | 16.0       | 11.3 | KCN160169<br>-20.. | NP5900<br>NP3900<br>NP6900<br>NP9900<br>NP1900<br>NU8900 |
| KCN-161.*     | 16.1       | 11.3 |                    |                                                          |
| KCN-162.*     | 16.2       | 11.3 |                    |                                                          |
| KCN-163.*     | 16.3       | 11.3 |                    |                                                          |
| KCN-164.*     | 16.4       | 11.3 |                    |                                                          |
| KCN-165.*     | 16.5       | 11.3 |                    |                                                          |
| KCN-166.*     | 16.6       | 11.3 |                    |                                                          |
| KCN-167.*     | 16.7       | 11.3 |                    |                                                          |
| KCN-168.*     | 16.8       | 11.3 |                    |                                                          |
| KCN-169.*     | 16.9       | 11.3 |                    |                                                          |
| KCN-170.*     | 17.0       | 11.3 | KCN170179<br>-20.. |                                                          |
| KCN-171.*     | 17.1       | 11.3 |                    |                                                          |
| KCN-172.*     | 17.2       | 11.3 |                    |                                                          |
| KCN-173.*     | 17.3       | 11.3 |                    |                                                          |
| KCN-174.*     | 17.4       | 11.3 |                    |                                                          |
| KCN-175.*     | 17.5       | 11.3 |                    |                                                          |
| KCN-176.*     | 17.6       | 11.3 |                    |                                                          |
| KCN-177.*     | 17.7       | 11.3 |                    |                                                          |
| KCN-178.*     | 17.8       | 11.3 |                    |                                                          |
| KCN-179.*     | 17.9       | 11.3 |                    |                                                          |
| KCN-180.*     | 18.0       | 12.5 | KCN180189<br>-25.. |                                                          |
| KCN-181.*     | 18.1       | 12.5 |                    |                                                          |
| KCN-182.*     | 18.2       | 12.5 |                    |                                                          |
| KCN-183.*     | 18.3       | 12.5 |                    |                                                          |
| KCN-184.*     | 18.4       | 12.5 |                    |                                                          |
| KCN-185.*     | 18.5       | 12.5 |                    |                                                          |
| KCN-186.*     | 18.6       | 12.5 |                    |                                                          |
| KCN-187.*     | 18.7       | 12.5 |                    |                                                          |
| KCN-188.*     | 18.8       | 12.5 |                    |                                                          |
| KCN-189.*     | 18.9       | 12.5 |                    |                                                          |
| KCN-190.*     | 19.0       | 12.5 | KCN190199<br>-25.. |                                                          |
| KCN-191.*     | 19.1       | 12.5 |                    |                                                          |
| KCN-192.*     | 19.2       | 12.5 |                    |                                                          |
| KCN-193.*     | 19.3       | 12.5 |                    |                                                          |
| KCN-194.*     | 19.4       | 12.5 |                    |                                                          |
| KCN-195.*     | 19.5       | 12.5 |                    |                                                          |
| KCN-196.*     | 19.6       | 12.5 |                    |                                                          |
| KCN-197.*     | 19.7       | 12.5 |                    |                                                          |
| KCN-198.*     | 19.8       | 12.5 |                    |                                                          |
| KCN-199.*     | 19.9       | 12.5 |                    |                                                          |



## KCN...\* Drilling Head

For KCN Drills



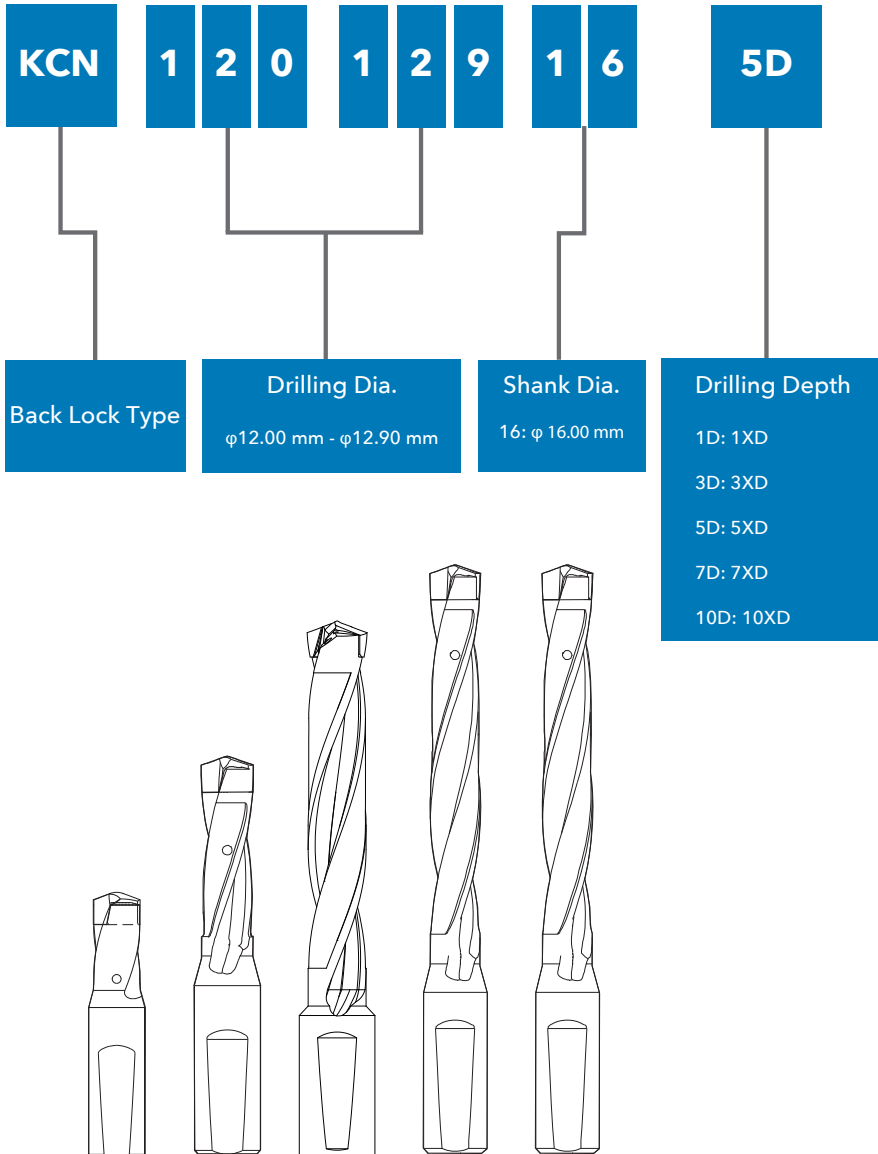
Unit: mm

| Specification | Dimensions |      | Drilling Body       | Grade                                                    |
|---------------|------------|------|---------------------|----------------------------------------------------------|
|               | D          | t    |                     |                                                          |
| KCN-200.*     | 20.0       | 13.3 | KCN200209<br>-25-.. | NP5900<br>NP3900<br>NP6900<br>NP9900<br>NP1900<br>NU8900 |
| KCN-201.*     | 20.1       | 13.3 |                     |                                                          |
| KCN-202.*     | 20.2       | 13.3 |                     |                                                          |
| KCN-203.*     | 20.3       | 13.3 |                     |                                                          |
| KCN-204.*     | 20.4       | 13.3 |                     |                                                          |
| KCN-205.*     | 20.5       | 13.3 |                     |                                                          |
| KCN-206.*     | 20.6       | 13.3 |                     |                                                          |
| KCN-207.*     | 20.7       | 13.3 |                     |                                                          |
| KCN-208.*     | 20.8       | 13.3 |                     |                                                          |
| KCN-209.*     | 20.9       | 13.3 |                     |                                                          |
| KCN-210.*     | 21.0       | 13.3 | KCN210219<br>-25-.. |                                                          |
| KCN-211.*     | 21.1       | 13.3 |                     |                                                          |
| KCN-212.*     | 21.2       | 13.3 |                     |                                                          |
| KCN-213.*     | 21.3       | 13.3 |                     |                                                          |
| KCN-214.*     | 21.4       | 13.3 |                     |                                                          |
| KCN-215.*     | 21.5       | 13.3 |                     |                                                          |
| KCN-216.*     | 21.6       | 13.3 |                     |                                                          |
| KCN-217.*     | 21.7       | 13.3 |                     |                                                          |
| KCN-218.*     | 21.8       | 13.3 |                     |                                                          |
| KCN-219.*     | 21.9       | 13.3 |                     |                                                          |
| KCN-220.*     | 22.0       | 14.3 | KCN220229<br>-25-.. |                                                          |
| KCN-221.*     | 22.1       | 14.3 |                     |                                                          |
| KCN-222.*     | 22.2       | 14.3 |                     |                                                          |
| KCN-223.*     | 22.3       | 14.3 |                     |                                                          |
| KCN-224.*     | 22.4       | 14.3 |                     |                                                          |
| KCN-225.*     | 22.5       | 14.3 |                     |                                                          |
| KCN-226.*     | 22.6       | 14.3 |                     |                                                          |
| KCN-227.*     | 22.7       | 14.3 |                     |                                                          |
| KCN-228.*     | 22.8       | 14.3 |                     |                                                          |
| KCN-229.*     | 22.9       | 14.3 |                     |                                                          |

Unit: mm

| Specification | Dimensions |      | Drilling Body      | Grade                                                    |
|---------------|------------|------|--------------------|----------------------------------------------------------|
|               | D          | t    |                    |                                                          |
| KCN-230.*     | 23.0       | 14.3 | KCN230239<br>-32.. | NP5900<br>NP3900<br>NP6900<br>NP9900<br>NP1900<br>NU8900 |
| KCN-231.*     | 23.1       | 14.3 |                    |                                                          |
| KCN-232.*     | 23.2       | 14.3 |                    |                                                          |
| KCN-233.*     | 23.3       | 14.3 |                    |                                                          |
| KCN-234.*     | 23.4       | 14.3 |                    |                                                          |
| KCN-235.*     | 23.5       | 14.3 |                    |                                                          |
| KCN-236.*     | 23.6       | 14.3 |                    |                                                          |
| KCN-237.*     | 23.7       | 14.3 |                    |                                                          |
| KCN-238.*     | 23.8       | 14.3 |                    |                                                          |
| KCN-239.*     | 23.9       | 14.3 | KCN240249<br>-32.. |                                                          |
| KCN-240.*     | 24.0       | 15.3 |                    |                                                          |
| KCN-241.*     | 24.1       | 15.3 |                    |                                                          |
| KCN-242.*     | 24.2       | 15.3 |                    |                                                          |
| KCN-243.*     | 24.3       | 15.3 |                    |                                                          |
| KCN-244.*     | 24.4       | 15.3 |                    |                                                          |
| KCN-245.*     | 24.5       | 15.3 |                    |                                                          |
| KCN-246.*     | 24.6       | 15.3 |                    |                                                          |
| KCN-247.*     | 24.7       | 15.3 |                    |                                                          |
| KCN-248.*     | 24.8       | 15.3 | KCN250260<br>-32.. |                                                          |
| KCN-249.*     | 24.9       | 15.3 |                    |                                                          |
| KCN-250.*     | 25.0       | 15.3 |                    |                                                          |
| KCN-251.*     | 25.1       | 15.3 |                    |                                                          |
| KCN-252.*     | 25.2       | 15.3 |                    |                                                          |
| KCN-253.*     | 25.3       | 15.3 |                    |                                                          |
| KCN-254.*     | 25.4       | 15.3 |                    |                                                          |
| KCN-255.*     | 25.5       | 15.3 |                    |                                                          |
| KCN-256.*     | 25.6       | 15.3 |                    |                                                          |
| KCN-257.*     | 25.7       | 15.3 |                    |                                                          |
| KCN-258.*     | 25.8       | 15.3 |                    |                                                          |
| KCN-259.*     | 25.9       | 15.3 |                    |                                                          |
| KCN-260.*     | 26.0       | 15.3 |                    |                                                          |

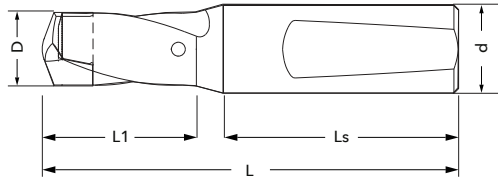
## KCN Drill Body Coding System SumoHead





### KCN...1D Drilling Body

With Coolant Holes | Weldon Shank  
Drilling Depth 1XD



Unit: mm

| Specification   | Drilling Dia. | Dimensions |     |    |      |    | Lock Screw   | Wrench    |
|-----------------|---------------|------------|-----|----|------|----|--------------|-----------|
|                 |               | d          | L   | L1 | D    | Ls |              |           |
| KCN120129-16-1D | 12.0-12.9     | 16         | 78  | 14 | 11.5 | 48 | M2.5-M2.5x13 | T5x156    |
| KCN130139-16-1D | 13.0-13.9     | 16         | 81  | 15 | 12.5 | 48 |              |           |
| KCN140149-20-1D | 14.0-14.9     | 20         | 85  | 16 | 13.5 | 50 | M3.0-M2.5x14 | T5x156    |
| KCN150159-20-1D | 15.0-15.9     | 20         | 85  | 16 | 14.5 | 50 |              |           |
| KCN160169-20-1D | 16.0-16.9     | 20         | 88  | 18 | 15.5 | 50 | M3.5-M3.0x16 | 1.5mmx185 |
| KCN170179-20-1D | 17.0-17.9     | 20         | 88  | 18 | 16.5 | 50 |              |           |
| KCN180189-25-1D | 18.0-18.9     | 25         | 99  | 20 | 17.5 | 56 |              |           |
| KCN190199-25-1D | 19.0-19.9     | 25         | 99  | 20 | 18.5 | 56 |              |           |
| KCN200209-25-1D | 20.0-20.9     | 25         | 102 | 22 | 19.5 | 56 |              |           |
| KCN210219-25-1D | 21.0-21.9     | 25         | 102 | 22 | 20.5 | 56 | M4.0-M3.0x19 | 2.0mmx210 |
| KCN220229-25-1D | 22.0-22.9     | 25         | 107 | 24 | 21.5 | 56 |              |           |
| KCN230239-25-1D | 23.0-23.9     | 25         | 107 | 24 | 22.5 | 56 | M5.0-M4.0x23 | 2.5mmx240 |
| KCN240249-32-1D | 24.0-24.9     | 32         | 115 | 26 | 23.5 | 60 |              |           |
| KCN250260-32-1D | 25.0-26.0     | 32         | 115 | 26 | 24.5 | 60 |              |           |

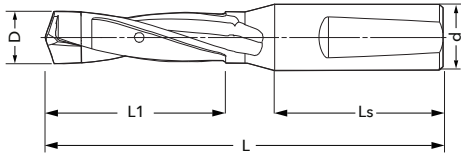
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KCN...\* page 64



KCN...3D Drilling Body

With Coolant Holes | Weldon Shank  
Drilling Depth 3XD



Unit: mm

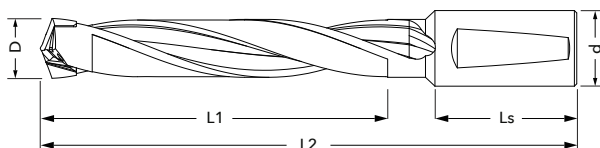
| Specification   | Drilling Dia. | Dimensions |     |    |      |    |              | Lock Screw | Wrench |
|-----------------|---------------|------------|-----|----|------|----|--------------|------------|--------|
|                 |               | d          | L   | L1 | D    | Ls |              |            |        |
| KCN120129-16-3D | 12.0-12.9     | 16         | 111 | 42 | 11.5 | 48 | M2.5-M2.5x13 | T5x156     |        |
| KCN130139-16-3D | 13.0-13.9     | 16         | 111 | 42 | 12.5 | 48 |              |            |        |
| KCN140149-20-3D | 14.0-14.9     | 20         | 122 | 48 | 13.5 | 50 | M3.0-M2.5x14 | T5x156     |        |
| KCN150159-20-3D | 15.0-15.9     | 20         | 122 | 48 | 14.5 | 50 |              |            |        |
| KCN160169-20-3D | 16.0-16.9     | 20         | 130 | 54 | 15.5 | 50 | M3.5-M3.0x16 | 1.5mmx185  |        |
| KCN170179-20-3D | 17.0-17.9     | 20         | 130 | 54 | 16.5 | 50 |              |            |        |
| KCN180189-25-3D | 18.0-18.9     | 25         | 144 | 60 | 17.5 | 56 |              |            |        |
| KCN190199-25-3D | 19.0-19.9     | 25         | 144 | 60 | 18.5 | 56 |              |            |        |
| KCN200209-25-3D | 20.0-20.9     | 25         | 153 | 66 | 19.5 | 56 |              |            |        |
| KCN210219-25-3D | 21.0-21.9     | 25         | 153 | 66 | 20.5 | 56 | M4.0-M3.0x19 | 2.0mmx210  |        |
| KCN220229-25-3D | 22.0-22.9     | 25         | 161 | 72 | 21.5 | 56 |              |            |        |
| KCN230239-25-3D | 23.0-23.9     | 25         | 161 | 72 | 22.5 | 56 | M5.0-M4.0x23 | 2.5mmx240  |        |
| KCN240249-32-3D | 24.0-24.9     | 32         | 174 | 78 | 23.5 | 60 |              |            |        |
| KCN250260-32-3D | 25.0-26.0     | 32         | 174 | 78 | 24.5 | 60 |              |            |        |

Insert pages :  
KCN...\* page 64



## KCN...5D Drilling Body

With Coolant Holes | Weldon Shank  
Drilling Depth 5XD



Unit: mm

| Specification   | Drilling Dia. | Dimensions |     |     |      |    | Lock Screw   | Wrench    |
|-----------------|---------------|------------|-----|-----|------|----|--------------|-----------|
|                 |               | d          | L   | L1  | D    | Ls |              |           |
| KCN120129-16-5D | 12.0-12.9     | 16         | 139 | 70  | 11.5 | 48 | M2.5-M2.5x13 | T5x156    |
| KCN130139-16-5D | 13.0-13.9     | 16         | 139 | 70  | 12.5 | 48 |              |           |
| KCN140149-20-5D | 14.0-14.9     | 20         | 154 | 80  | 13.5 | 50 | M3.0-M2.5x14 | T6x188    |
| KCN150159-20-5D | 15.0-15.9     | 20         | 154 | 80  | 14.5 | 50 |              |           |
| KCN160169-20-5D | 16.0-16.9     | 20         | 166 | 90  | 15.5 | 50 | M3.5-M3.0x16 | 1.5mmx185 |
| KCN170179-20-5D | 17.0-17.9     | 20         | 166 | 90  | 16.5 | 50 |              |           |
| KCN180189-25-5D | 18.0-18.9     | 25         | 184 | 100 | 17.5 | 56 | M3.5-M3.0x16 | 1.5mmx225 |
| KCN190199-25-5D | 19.0-19.9     | 25         | 184 | 100 | 18.5 | 56 |              |           |
| KCN200209-25-5D | 20.0-20.9     | 25         | 197 | 110 | 19.5 | 56 |              |           |
| KCN210219-25-5D | 21.0-21.9     | 25         | 197 | 110 | 20.5 | 56 | M4.0-M3.0x19 | 2.0mmx260 |
| KCN220229-25-5D | 22.0-22.9     | 25         | 209 | 120 | 21.5 | 56 |              |           |
| KCN230239-25-5D | 23.0-23.9     | 25         | 209 | 120 | 22.5 | 56 | M5.0-M4.0x23 | 2.5mmx240 |
| KCN240249-32-5D | 24.0-24.9     | 32         | 226 | 130 | 23.5 | 60 |              |           |
| KCN250260-32-5D | 25.0-26.0     | 32         | 226 | 130 | 24.5 | 60 |              |           |

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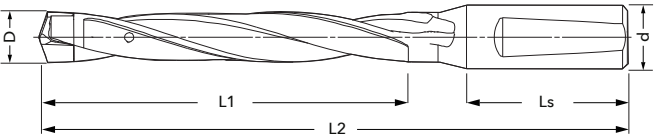
KCN...\* page 64





## KCN...7D Drilling Body

With Coolant Holes | Weldon Shank  
Drilling Depth 7XD



Unit: mm

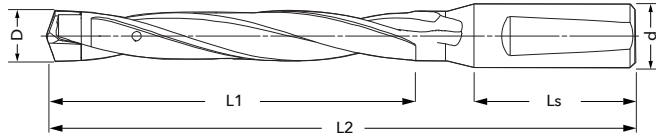
| Specification   | Drilling Dia. | Dimensions |     |     |      |    | Lock Screw   | Wrench    |
|-----------------|---------------|------------|-----|-----|------|----|--------------|-----------|
|                 |               | d          | L   | L1  | D    | Ls |              |           |
| KCN120129-16-7D | 12.0-12.9     | 16         | 167 | 98  | 11.5 | 48 | M2.5-M2.5x13 | T5x188    |
| KCN130139-16-7D | 13.0-13.9     | 16         | 167 | 98  | 12.5 | 48 |              |           |
| KCN140149-20-7D | 14.0-14.9     | 20         | 186 | 112 | 13.5 | 50 | M3.0-M2.5x14 | T6x290    |
| KCN150159-20-7D | 15.0-15.9     | 20         | 186 | 112 | 14.5 | 50 |              |           |
| KCN160169-20-7D | 16.0-16.9     | 20         | 202 | 126 | 15.5 | 50 | M3.5-M3.0x16 | 1.5mmx225 |
| KCN170179-20-7D | 17.0-17.9     | 20         | 202 | 126 | 16.5 | 50 |              |           |
| KCN180189-25-7D | 18.0-18.9     | 25         | 224 | 140 | 17.5 | 56 | M3.5-M3.0x16 | 1.5mmx297 |
| KCN190199-25-7D | 19.0-19.9     | 25         | 224 | 140 | 18.5 | 56 |              |           |
| KCN200209-25-7D | 20.0-20.9     | 25         | 241 | 154 | 19.5 | 56 |              |           |
| KCN210219-25-7D | 21.0-21.9     | 25         | 241 | 154 | 20.5 | 56 | M4.0-M3.0x19 | 2.0mmx343 |
| KCN220229-25-7D | 22.0-22.9     | 25         | 257 | 168 | 21.5 | 56 |              |           |
| KCN230239-25-7D | 23.0-23.9     | 25         | 257 | 168 | 22.5 | 56 | M5.0-M4.0x23 | 2.5mmx295 |
| KCN240249-32-7D | 24.0-24.9     | 32         | 278 | 182 | 23.5 | 60 |              |           |
| KCN250260-32-7D | 25.0-26.0     | 32         | 278 | 182 | 24.5 | 60 |              |           |

Insert pages :  
KCN...\* page 64



## KCN...10D Drilling Body

With Coolant Holes | Weldon Shank  
Drilling Depth 10XD



Unit: mm

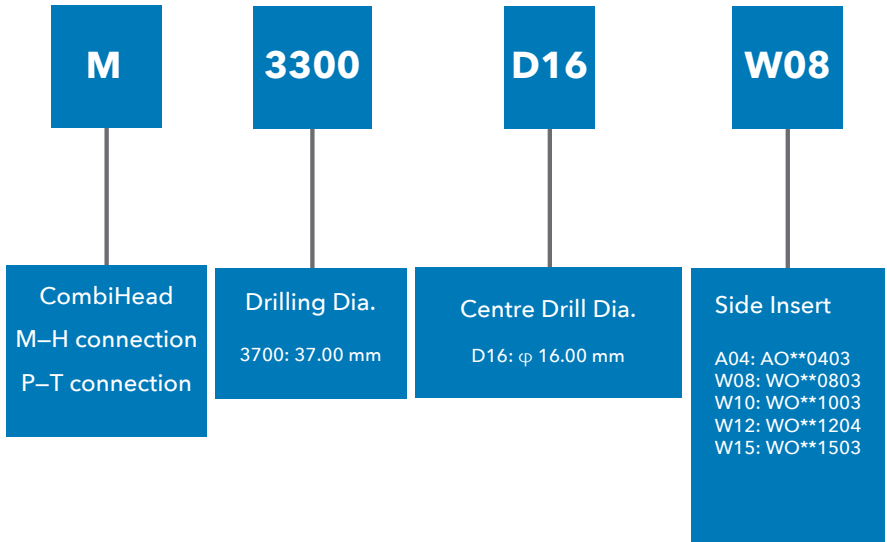
| Specification    | Drilling Dia. | Dimensions |     |     |      |    |              | Lock Screw                                                                        | Wrench                                                                            |
|------------------|---------------|------------|-----|-----|------|----|--------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
|                  |               | d          | L   | L1  | D    | Ls |              |  |  |
| KCN120129-16-10D | 12.0-12.9     | 16         | 195 | 130 | 11.5 | 48 | M2.5-M2.5x13 |  | T5x290                                                                            |
| KCN130139-16-10D | 13.0-13.9     | 16         | 205 | 140 | 12.5 | 48 |              |                                                                                   |                                                                                   |
| KCN140149-20-10D | 14.0-14.9     | 20         | 220 | 150 | 13.5 | 50 | M3.0-M2.5x14 |  | T6x290                                                                            |
| KCN150159-20-10D | 15.0-15.9     | 20         | 230 | 160 | 14.5 | 50 |              |                                                                                   |                                                                                   |
| KCN160169-20-10D | 16.0-16.9     | 20         | 241 | 170 | 15.5 | 50 | M3.5-M3.0x16 |  | 1.5mmx297                                                                         |
| KCN170179-20-10D | 17.0-17.9     | 20         | 251 | 180 | 16.5 | 50 |              |                                                                                   |                                                                                   |
| KCN180189-25-10D | 18.0-18.9     | 25         | 269 | 190 | 17.5 | 56 |              |                                                                                   |                                                                                   |
| KCN190199-25-10D | 19.0-19.9     | 25         | 279 | 200 | 18.5 | 56 |              |                                                                                   |                                                                                   |
| KCN200209-25-10D | 20.0-20.9     | 25         | 297 | 210 | 19.5 | 56 | M3.5-M3.0x16 |  | 1.5mmx351                                                                         |
| KCN210219-25-10D | 21.0-21.9     | 25         | 307 | 220 | 20.5 | 56 |              |                                                                                   |                                                                                   |
| KCN220229-25-10D | 22.0-22.9     | 25         | 319 | 230 | 21.5 | 56 | M4.0-M3.0x19 |  | 2.0mmx343                                                                         |
| KCN230239-25-10D | 23.0-23.9     | 25         | 329 | 240 | 22.5 | 56 |              |                                                                                   |                                                                                   |
| KCN240249-32-10D | 24.0-24.9     | 32         | 346 | 250 | 23.5 | 60 | M5.0-M4.0x23 |  | 2.5mmx393                                                                         |
| KCN250260-32-10D | 25.0-26.0     | 32         | 356 | 260 | 24.5 | 60 |              |                                                                                   |                                                                                   |

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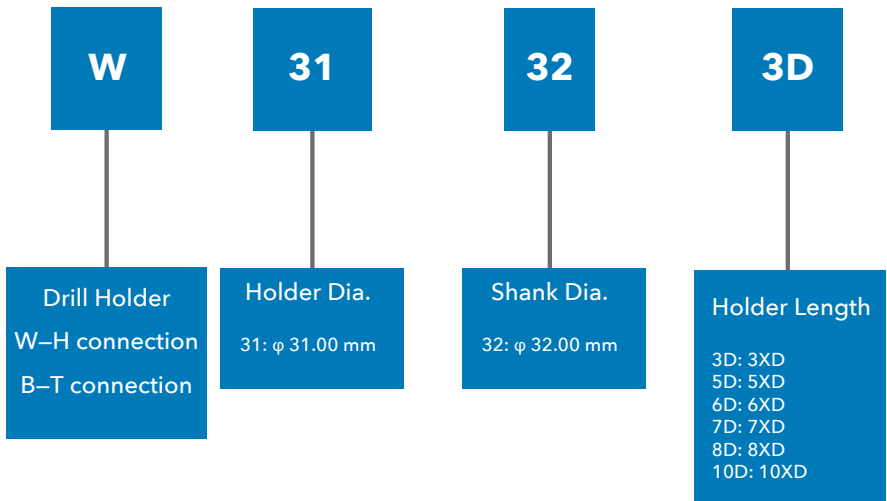
KCN...\* page 64



KCN Drill Body Coding System CombiHead



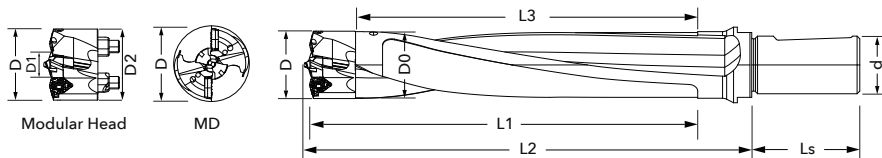
Holder Coding System





## KCNM...3D Modular Drilling Tools

Large Diameter | Modular Head | Drilling Depth 3XD



Unit: mm

| Specification | Drilling Dia. | Centre Drill | Side Insert |
|---------------|---------------|--------------|-------------|
| M2800-D14-A04 | 28.00         | MD-140-P     | AO**0403    |
| M2858-D15-A04 | 28.58         | MD-150-P     | AO**0403    |
| M2900-D16-A04 | 29.00         | MD-160-P     | AO**0403    |
| M2936-D16-A04 | 29.36         | MD-160-P     | AO**0403    |
| M3000-D16-A04 | 30.00         | MD-160-P     | AO**0403    |
| M3018-D18-A04 | 30.18         | MD-180-P     | AO**0403    |
| M3096-D18-A04 | 30.96         | MD-180-P     | AO**0403    |
| M3100-D18-A04 | 31.00         | MD-180-P     | AO**0403    |
| M3175-D15-W08 | 31.75         | MD-150-P     | WO**0803    |
| M3200-D15-W08 | 32.00         | MD-150-P     | WO**0803    |
| M3300-D16-W08 | 33.00         | MD-160-P     | WO**0803    |
| M3320-D16-W08 | 33.20         | MD-160-P     | WO**0803    |
| M3335-D16-W08 | 33.35         | MD-160-P     | WO**0803    |
| M3400-D18-W08 | 34.00         | MD-180-P     | WO**0803    |
| M3493-D18-W08 | 34.93         | MD-180-P     | WO**0803    |
| M3500-D18-W08 | 35.00         | MD-180-P     | WO**0803    |
| M3600-D18-W08 | 36.00         | MD-180-P     | WO**0803    |
| M3653-D19-W08 | 36.53         | MD-190-P     | WO**0803    |
| M3700-D16-W10 | 37.00         | MD-160-P     | WO**1003    |
| M3750-D16-W10 | 37.50         | MD-160-P     | WO**1003    |

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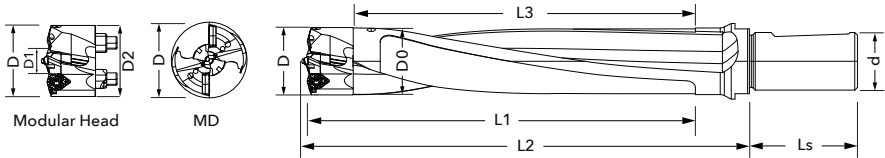
AOMT... page 109

WOMT...W... page 109

MD.....\* page 110

## KCNM...3D Modular Drilling Tools

Large Diameter | Modular Head | Drilling Depth 3XD



Unit: mm

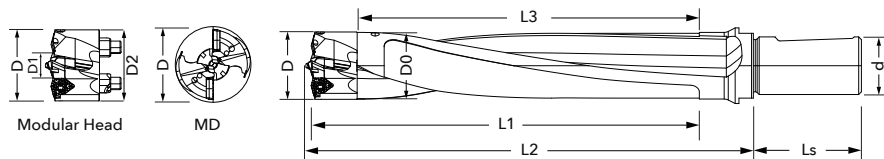
| Specification | Drilling Holder | Dimensions |       |    |     |     |     |    | Accessories                                                                       |                                                                                   |                                                                                   |
|---------------|-----------------|------------|-------|----|-----|-----|-----|----|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
|               |                 | D2         | D0    | d  | L1  | L2  | L3  | Ls |  |  |  |
| M2800-D14-A04 | W27-32-3D       | 27.5       | 27    | 32 | 95  | 134 | 75  | 60 | K14-16.9                                                                          | KCNM025080                                                                        | T9                                                                                |
| M2858-D15-A04 |                 | 27.5       | 27    | 32 | 95  | 134 | 75  | 60 |                                                                                   |                                                                                   |                                                                                   |
| M2900-D16-A04 |                 | 27.5       | 27    | 32 | 95  | 134 | 75  | 60 |                                                                                   |                                                                                   |                                                                                   |
| M2936-D16-A04 |                 | 27.5       | 27    | 32 | 95  | 134 | 75  | 60 |                                                                                   |                                                                                   |                                                                                   |
| M3000-D16-A04 | W29-32-3D       | 29.5       | 29    | 32 | 100 | 138 | 80  | 60 | K17-19.9                                                                          | KCNM030080                                                                        | T10                                                                               |
| M3018-D18-A04 |                 | 29.5       | 29    | 32 | 100 | 138 | 80  | 60 |                                                                                   |                                                                                   |                                                                                   |
| M3096-D18-A04 |                 | 29.5       | 29    | 32 | 100 | 138 | 80  | 60 |                                                                                   |                                                                                   |                                                                                   |
| M3100-D18-A04 |                 | 29.5       | 29    | 32 | 100 | 138 | 80  | 60 |                                                                                   |                                                                                   |                                                                                   |
| M3175-D15-W08 | W31-32-3D       | 31.25      | 30.75 | 32 | 112 | 148 | 90  | 60 | K14-16.9                                                                          | KCNM030080                                                                        | T10                                                                               |
| M3200-D15-W08 |                 | 31.25      | 30.75 | 32 | 112 | 148 | 90  | 60 |                                                                                   |                                                                                   |                                                                                   |
| M3300-D16-W08 |                 | 31.25      | 30.75 | 32 | 112 | 148 | 90  | 60 |                                                                                   |                                                                                   |                                                                                   |
| M3320-D16-W08 |                 | 31.25      | 30.75 | 32 | 112 | 148 | 90  | 60 |                                                                                   |                                                                                   |                                                                                   |
| M3335-D16-W08 |                 | 31.25      | 30.75 | 32 | 112 | 148 | 90  | 60 |                                                                                   |                                                                                   |                                                                                   |
| M3400-D18-W08 |                 | 31.25      | 30.75 | 32 | 112 | 148 | 90  | 60 |                                                                                   |                                                                                   |                                                                                   |
| M3493-D18-W08 |                 | 31.25      | 30.75 | 32 | 112 | 148 | 90  | 60 |                                                                                   |                                                                                   |                                                                                   |
| M3500-D18-W08 | W34-32-3D       | 34.5       | 34    | 32 | 122 | 160 | 100 | 60 | K17-19.9                                                                          | KCNM040120                                                                        | T15                                                                               |
| M3600-D18-W08 |                 | 34.5       | 34    | 32 | 122 | 160 | 100 | 60 |                                                                                   |                                                                                   |                                                                                   |
| M3653-D19-W08 |                 | 34.5       | 34    | 32 | 122 | 160 | 100 | 60 |                                                                                   |                                                                                   |                                                                                   |
| M3700-D16-W10 |                 | 34.5       | 34    | 32 | 122 | 160 | 100 | 60 |                                                                                   |                                                                                   |                                                                                   |
| M3750-D16-W10 |                 | 34.5       | 34    | 32 | 122 | 160 | 100 | 60 |                                                                                   |                                                                                   |                                                                                   |



## KCNM...3D Modular Drilling Tools



Large Diameter | Modular Head | Drilling Depth 3XD



Unit: mm

| Specification | Drilling Dia. | Centre Drill | Side Insert |
|---------------|---------------|--------------|-------------|
| M3800-D16-W10 | 38.00         | MD-160-P     | WO**1003    |
| M3810-D16-W10 | 38.10         | MD-160-P     | WO**1003    |
| M3900-D18-W10 | 39.00         | MD-180-P     | WO**1003    |
| M3920-D18-W10 | 39.20         | MD-180-P     | WO**1003    |
| M3970-D18-W10 | 39.70         | MD-180-P     | WO**1003    |
| M4000-D18-W10 | 40.00         | MD-180-P     | WO**1003    |
| M4100-D19-W10 | 41.00         | MD-190-P     | WO**1003    |
| M4128-D19-W10 | 41.28         | MD-190-P     | WO**1003    |
| M4200-D19-W10 | 42.00         | MD-190-P     | WO**1204    |
| M4300-D16-W12 | 43.00         | MD-160-P     | WO**1204    |
| M4400-D18-W12 | 44.00         | MD-180-P     | WO**1204    |
| M4445-D18-W12 | 44.45         | MD-180-P     | WO**1204    |
| M4500-D18-W12 | 45.00         | MD-180-P     | WO**1204    |
| M4600-D19-W12 | 46.00         | MD-190-P     | WO**1204    |
| M4700-D20-W12 | 47.00         | MD-200-P     | WO**1204    |
| M4763-D21-W12 | 47.63         | MD-210-P     | WO**1204    |
| M4800-D21-W12 | 48.00         | MD-210-P     | WO**1204    |
| M4900-D22-W12 | 49.00         | MD-220-P     | WO**1204    |
| M5000-D23-W12 | 50.00         | MD-230-P     | WO**1204    |
| M5080-D24-W12 | 50.80         | MD-240-P     | WO**1204    |
| M5100-D24-W12 | 51.00         | MD-240-P     | WO**1204    |
| M5200-D25-W12 | 52.00         | MD-250-P     | WO**1204    |
| M5300-D26-W12 | 53.00         | MD-260-P     | WO**1204    |
| M5398-D27-W12 | 53.98         | MD-270-P     | WO**1204    |
| M5400-D27-W12 | 54.00         | MD-270-P     | WO**1204    |
| M5500-D28-W12 | 55.00         | MD-280-P     | WO**1204    |

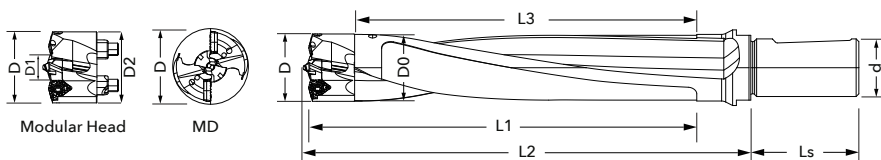
Insert pages :

WOMT...W... page 109

MD.....\* page 110

# KCNM...3D Modular Drilling Tools

Large Diameter | Modular Head | Drilling Depth 3XD



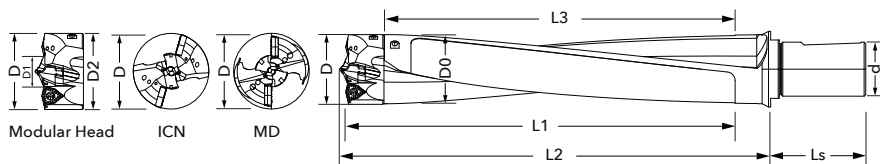
Unit: mm

| Specification | Drilling Holder | Dimensions |      |    |     |     |     |    | Accessories                                                                       |                                                                                   |                                                                                   |
|---------------|-----------------|------------|------|----|-----|-----|-----|----|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
|               |                 | D2         | D0   | d  | L1  | L2  | L3  | Ls |  |  |  |
| M3800-D16-W10 | W37-32-3D       | 37.5       | 37   | 32 | 125 | 165 | 100 | 60 | K14-16.9                                                                          | KCNM040120                                                                        | T15                                                                               |
| M3810-D16-W10 |                 | 37.5       | 37   | 32 | 125 | 165 | 100 | 60 |                                                                                   |                                                                                   |                                                                                   |
| M3900-D18-W10 |                 | 37.5       | 37   | 32 | 125 | 165 | 100 | 60 |                                                                                   |                                                                                   |                                                                                   |
| M3920-D18-W10 |                 | 37.5       | 37   | 32 | 125 | 165 | 100 | 60 |                                                                                   |                                                                                   |                                                                                   |
| M3970-D18-W10 |                 | 37.5       | 37   | 32 | 125 | 165 | 100 | 60 |                                                                                   |                                                                                   |                                                                                   |
| M4000-D18-W10 | W39-50-3D       | 39.5       | 39   | 50 | 135 | 180 | 110 | 60 | K17-20                                                                            |                                                                                   |                                                                                   |
| M4100-D19-W10 |                 | 39.5       | 39   | 50 | 135 | 180 | 110 | 60 |                                                                                   |                                                                                   |                                                                                   |
| M4128-D19-W10 |                 | 39.5       | 39   | 50 | 135 | 180 | 110 | 60 |                                                                                   |                                                                                   |                                                                                   |
| M4200-D19-W10 |                 | 41.5       | 41   | 50 | 140 | 185 | 115 | 80 |                                                                                   |                                                                                   |                                                                                   |
| M4300-D16-W12 | W41-50-3D       | 41.5       | 41   | 50 | 140 | 185 | 115 | 80 | K14-16.9                                                                          |                                                                                   |                                                                                   |
| M4400-D18-W12 |                 | 41.5       | 41   | 50 | 140 | 185 | 115 | 80 |                                                                                   |                                                                                   |                                                                                   |
| M4445-D18-W12 |                 | 41.5       | 41   | 50 | 140 | 185 | 115 | 80 |                                                                                   |                                                                                   |                                                                                   |
| M4500-D18-W12 | W44-50-3D       | 44.5       | 44   | 50 | 150 | 195 | 124 | 80 | K17-19.9                                                                          |                                                                                   |                                                                                   |
| M4600-D19-W12 |                 | 44.5       | 44   | 50 | 150 | 195 | 124 | 80 |                                                                                   |                                                                                   |                                                                                   |
| M4700-D20-W12 |                 | 44.5       | 44   | 50 | 150 | 195 | 124 | 80 |                                                                                   |                                                                                   |                                                                                   |
| M4763-D21-W12 |                 | 44.5       | 44   | 50 | 150 | 195 | 124 | 80 |                                                                                   |                                                                                   |                                                                                   |
| M4800-D21-W12 | W47-50-3D       | 47.5       | 47   | 50 | 160 | 200 | 125 | 80 | K20-26                                                                            |                                                                                   |                                                                                   |
| M4900-D22-W12 |                 | 47.5       | 47   | 50 | 160 | 200 | 125 | 80 |                                                                                   |                                                                                   |                                                                                   |
| M5000-D23-W12 |                 | 47.5       | 47   | 50 | 160 | 200 | 125 | 80 |                                                                                   |                                                                                   |                                                                                   |
| M5080-D24-W12 | W50-50-3D       | 50.3       | 49.8 | 50 | 170 | 210 | 135 | 80 |                                                                                   |                                                                                   |                                                                                   |
| M5100-D24-W12 |                 | 50.3       | 49.8 | 50 | 170 | 210 | 135 | 80 |                                                                                   |                                                                                   |                                                                                   |
| M5200-D25-W12 |                 | 50.3       | 49.8 | 50 | 170 | 210 | 135 | 80 |                                                                                   |                                                                                   |                                                                                   |
| M5300-D26-W12 |                 | 50.3       | 49.8 | 50 | 170 | 210 | 135 | 80 |                                                                                   |                                                                                   |                                                                                   |
| M5398-D27-W12 | W53-50-3D       | 53.4       | 53   | 50 | 175 | 215 | 140 | 80 |                                                                                   |                                                                                   |                                                                                   |
| M5400-D27-W12 |                 | 53.4       | 53   | 50 | 175 | 215 | 140 | 80 |                                                                                   |                                                                                   |                                                                                   |
| M5500-D28-W12 |                 | 53.4       | 53   | 50 | 175 | 215 | 140 | 80 |                                                                                   |                                                                                   |                                                                                   |



## KCNM...3D Modular Drilling Tools

Large Diameter | Modular Head | Drilling Depth 3XD



Unit: mm

| Specification   | Drilling Dia. | Centre Drill | Side Insert |
|-----------------|---------------|--------------|-------------|
| P5600-D20-W15   | 56.00         | MD-200-P     | WO**1503    |
| P5700-D21-W15   | 57.00         | MD-210-P     | WO**1503    |
| P5800-D22-W15   | 58.00         | MD-220-P     | WO**1503    |
| P5900-D23-W15   | 59.00         | MD-230-P     | WO**1503    |
| P6000-D24-W15   | 60.00         | MD-240-P     | WO**1503    |
| P6100-D25-W15   | 61.00         | MD-250-P     | WO**1503    |
| P6200-D26-W15   | 62.00         | MD-260-P     | WO**1503    |
| P6300-D27-W15   | 63.00         | MD-270-P     | WO**1503    |
| P6400-D28-W15   | 64.00         | MD-280-P     | WO**1503    |
| P6500-ICN29-W15 | 65.00         | ICN-290-P    | WO**1503    |
| P6600-ICN30-W15 | 66.00         | ICN-300-P    | WO**1503    |
| P6700-ICN31-W15 | 67.00         | ICN-310-P    | WO**1503    |
| P6800-ICN32-W15 | 68.00         | ICN-320-P    | WO**1503    |
| P6900-ICN33-W15 | 69.00         | ICN-330-P    | WO**1503    |
| P7000-ICN34-W15 | 70.00         | ICN-340-P    | WO**1503    |
| P7100-ICN35-W15 | 71.00         | ICN-350-P    | WO**1503    |
| P7200-ICN36-W15 | 72.00         | ICN-360-P    | WO**1503    |
| P7300-ICN37-W15 | 73.00         | ICN-370-P    | WO**1503    |
| P7400-ICN38-W15 | 74.00         | ICN-380-P    | WO**1503    |
| P7500-ICN39-W15 | 75.00         | ICN-390-P    | WO**1503    |
| P7600-ICN40-W15 | 76.00         | ICN-400-P    | WO**1503    |
| P7700-ICN41-W15 | 77.00         | ICN-410-P    | WO**1503    |
| P7800-ICN42-W15 | 78.00         | ICN-420-P    | WO**1503    |
| P7900-ICN43-W15 | 79.00         | ICN-430-P    | WO**1503    |
| P8000-ICN44-W15 | 80.00         | ICN-440-P    | WO**1503    |

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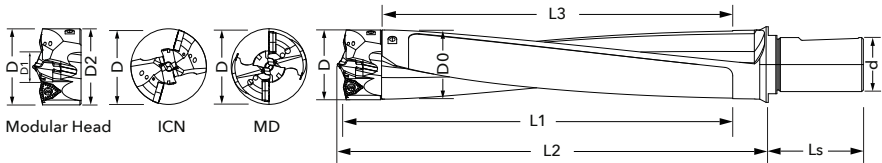
WOMT...W... page 109

MD.....\* page 110



# KCNM...3D Modular Drilling Tools

Large Diameter | Modular Head | Drilling Depth 3XD



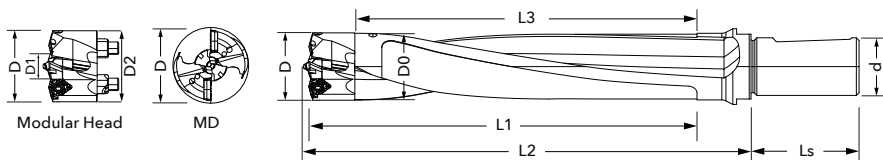
Unit: mm

| Specification   | Drilling Holder | Dimensions |    |    |     |     |     |    | Accessories                                                                       |                                                                                   |                                                                                   |
|-----------------|-----------------|------------|----|----|-----|-----|-----|----|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
|                 |                 | D2         | D0 | d  | L1  | L2  | L3  | Ls |  |  |  |
| P5600-D20-W15   | B53-50-3D       | 55         | 53 | 50 | 214 | 237 | 180 | 80 | K20-26                                                                            | KCNM050100                                                                        | T20                                                                               |
| P5700-D21-W15   |                 | 56         | 53 | 50 | 214 | 237 | 180 | 80 |                                                                                   |                                                                                   |                                                                                   |
| P5800-D22-W15   |                 | 57         | 53 | 50 | 214 | 237 | 180 | 80 |                                                                                   |                                                                                   |                                                                                   |
| P5900-D23-W15   | B58-50-3D       | 58         | 58 | 50 | 234 | 262 | 200 | 80 |                                                                                   |                                                                                   |                                                                                   |
| P6000-D24-W15   |                 | 59         | 58 | 50 | 234 | 262 | 200 | 80 |                                                                                   |                                                                                   |                                                                                   |
| P6100-D25-W15   |                 | 60         | 58 | 50 | 234 | 262 | 200 | 80 |                                                                                   |                                                                                   |                                                                                   |
| P6200-D26-W15   |                 | 61         | 58 | 50 | 234 | 262 | 200 | 80 |                                                                                   |                                                                                   |                                                                                   |
| P6300-D27-W15   |                 | 62         | 58 | 50 | 234 | 262 | 200 | 80 |                                                                                   |                                                                                   |                                                                                   |
| P6400-D28-W15   |                 | 63         | 58 | 50 | 234 | 262 | 200 | 80 |                                                                                   |                                                                                   |                                                                                   |
| P6500-ICN29-W15 | B64-50-3D       | 64         | 64 | 50 | 250 | 273 | 215 | 80 | K27-32                                                                            |                                                                                   |                                                                                   |
| P6600-ICN30-W15 |                 | 65         | 64 | 50 | 250 | 273 | 215 | 80 |                                                                                   |                                                                                   |                                                                                   |
| P6700-ICN31-W15 |                 | 66         | 64 | 50 | 250 | 273 | 215 | 80 |                                                                                   |                                                                                   |                                                                                   |
| P6800-ICN32-W15 |                 | 67         | 64 | 50 | 250 | 273 | 215 | 80 | K33-38                                                                            |                                                                                   |                                                                                   |
| P6900-ICN33-W15 |                 | 68         | 64 | 50 | 250 | 273 | 215 | 80 |                                                                                   |                                                                                   |                                                                                   |
| P7000-ICN34-W15 |                 | 69         | 64 | 50 | 250 | 273 | 215 | 80 |                                                                                   |                                                                                   |                                                                                   |
| P7100-ICN35-W15 |                 | 70         | 64 | 50 | 250 | 273 | 215 | 80 |                                                                                   |                                                                                   |                                                                                   |
| P7200-ICN36-W15 | B71-50-3D       | 71         | 71 | 50 | 285 | 305 | 245 | 80 | K39-45                                                                            |                                                                                   |                                                                                   |
| P7300-ICN37-W15 |                 | 72         | 71 | 50 | 285 | 305 | 245 | 80 |                                                                                   |                                                                                   |                                                                                   |
| P7400-ICN38-W15 |                 | 73         | 71 | 50 | 285 | 305 | 245 | 80 |                                                                                   |                                                                                   |                                                                                   |
| P7500-ICN39-W15 |                 | 74         | 71 | 50 | 285 | 305 | 245 | 80 |                                                                                   |                                                                                   |                                                                                   |
| P7600-ICN40-W15 |                 | 75         | 71 | 50 | 285 | 305 | 245 | 80 |                                                                                   |                                                                                   |                                                                                   |
| P7700-ICN41-W15 |                 | 76         | 71 | 50 | 285 | 305 | 245 | 80 |                                                                                   |                                                                                   |                                                                                   |
| P7800-ICN42-W15 |                 | 77         | 71 | 50 | 285 | 305 | 245 | 80 |                                                                                   |                                                                                   |                                                                                   |
| P7900-ICN43-W15 |                 | 78         | 71 | 50 | 285 | 305 | 245 | 80 |                                                                                   |                                                                                   |                                                                                   |
| P8000-ICN44-W15 |                 | 79         | 71 | 50 | 285 | 305 | 245 | 80 |                                                                                   |                                                                                   |                                                                                   |



## KCNM...5D Modular Drilling Tools

Large Diameter | Modular Head | Drilling Depth 5XD



Unit: mm

| Specification | Drilling Dia. | Centre Drill | Side Insert |
|---------------|---------------|--------------|-------------|
| M2800-D14-A04 | 28.00         | MD-140-P     | AO**0403    |
| M2858-D15-A04 | 28.58         | MD-150-P     | AO**0403    |
| M2900-D16-A04 | 29.00         | MD-160-P     | AO**0403    |
| M2936-D16-A04 | 29.36         | MD-160-P     | AO**0403    |
| M3000-D16-A04 | 30.00         | MD-160-P     | AO**0403    |
| M3018-D18-A04 | 30.18         | MD-180-P     | AO**0403    |
| M3096-D18-A04 | 30.96         | MD-180-P     | AO**0403    |
| M3100-D18-A04 | 31.00         | MD-180-P     | AO**0403    |
| M3175-D15-W08 | 31.75         | MD-150-P     | WO**0803    |
| M3200-D15-W08 | 32.00         | MD-150-P     | WO**0803    |
| M3300-D16-W08 | 33.00         | MD-160-P     | WO**0803    |
| M3320-D16-W08 | 33.20         | MD-160-P     | WO**0803    |
| M3335-D16-W08 | 33.35         | MD-160-P     | WO**0803    |
| M3400-D18-W08 | 34.00         | MD-180-P     | WO**0803    |
| M3493-D18-W08 | 34.93         | MD-180-P     | WO**0803    |
| M3500-D18-W08 | 35.00         | MD-180-P     | WO**0803    |
| M3600-D18-W08 | 36.00         | MD-180-P     | WO**0803    |
| M3653-D19-W08 | 36.53         | MD-190-P     | WO**0803    |
| M3700-D16-W10 | 37.00         | MD-160-P     | WO**1003    |
| M3750-D16-W10 | 37.50         | MD-160-P     | WO**1003    |

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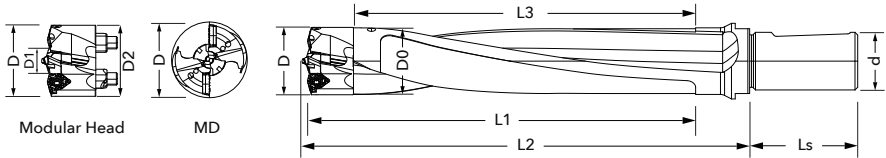
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## KCNM...5D Modular Drilling Tools

Large Diameter | Modular Head | Drilling Depth 5XD



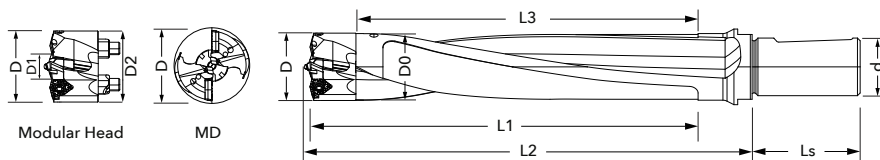
Unit: mm

| Specification | Drilling Holder | Dimensions |       |    |     |     |     |    | Accessories                                                                       |                                                                                   |                                                                                   |
|---------------|-----------------|------------|-------|----|-----|-----|-----|----|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
|               |                 | D2         | D0    | d  | L1  | L2  | L3  | Ls |  |  |  |
| M2800-D14-A04 | W27-32-5D       | 27.5       | 27    | 32 | 155 | 194 | 135 | 60 | K14-16.9                                                                          | KCNM025080                                                                        | T9                                                                                |
| M2858-D15-A04 |                 | 27.5       | 27    | 32 | 155 | 194 | 135 | 60 |                                                                                   |                                                                                   |                                                                                   |
| M2900-D16-A04 |                 | 27.5       | 27    | 32 | 155 | 194 | 135 | 60 |                                                                                   |                                                                                   |                                                                                   |
| M2936-D16-A04 |                 | 27.5       | 27    | 32 | 155 | 194 | 135 | 60 |                                                                                   |                                                                                   |                                                                                   |
| M3000-D16-A04 | W29-32-5D       | 29.5       | 29    | 32 | 160 | 199 | 140 | 60 | K17-19.9                                                                          |                                                                                   |                                                                                   |
| M3018-D18-A04 |                 | 29.5       | 29    | 32 | 160 | 199 | 140 | 60 |                                                                                   |                                                                                   |                                                                                   |
| M3096-D18-A04 |                 | 29.5       | 29    | 32 | 160 | 199 | 140 | 60 |                                                                                   |                                                                                   |                                                                                   |
| M3100-D18-A04 |                 | 29.5       | 29    | 32 | 160 | 199 | 140 | 60 |                                                                                   |                                                                                   |                                                                                   |
| M3175-D15-W08 | W31-32-5D       | 31.25      | 30.75 | 32 | 177 | 212 | 155 | 60 | K14-16.9                                                                          | KCNM030100                                                                        | T10                                                                               |
| M3200-D15-W08 |                 | 31.25      | 30.75 | 32 | 177 | 212 | 155 | 60 |                                                                                   |                                                                                   |                                                                                   |
| M3300-D16-W08 |                 | 31.25      | 30.75 | 32 | 177 | 212 | 155 | 60 |                                                                                   |                                                                                   |                                                                                   |
| M3320-D16-W08 |                 | 31.25      | 30.75 | 32 | 177 | 212 | 155 | 60 |                                                                                   |                                                                                   |                                                                                   |
| M3335-D16-W08 |                 | 31.25      | 30.75 | 32 | 177 | 212 | 155 | 60 |                                                                                   |                                                                                   |                                                                                   |
| M3400-D18-W08 |                 | 31.25      | 30.75 | 32 | 177 | 212 | 155 | 60 |                                                                                   |                                                                                   |                                                                                   |
| M3493-D18-W08 |                 | 31.25      | 30.75 | 32 | 177 | 212 | 155 | 60 |                                                                                   |                                                                                   |                                                                                   |
| M3500-D18-W08 | W34-32-5D       | 34.5       | 34    | 32 | 192 | 230 | 170 | 60 | K17-19.9                                                                          |                                                                                   |                                                                                   |
| M3600-D18-W08 |                 | 34.5       | 34    | 32 | 192 | 230 | 170 | 60 |                                                                                   |                                                                                   |                                                                                   |
| M3653-D19-W08 |                 | 34.5       | 34    | 32 | 192 | 230 | 170 | 60 |                                                                                   |                                                                                   |                                                                                   |
| M3700-D16-W10 |                 | 34.5       | 34    | 32 | 192 | 230 | 170 | 60 | K14-16.9                                                                          | KCNM040120                                                                        | T15                                                                               |
| M3750-D16-W10 |                 | 34.5       | 34    | 32 | 192 | 230 | 170 | 60 |                                                                                   |                                                                                   |                                                                                   |



## KCNM...5D Modular Drilling Tools

Large Diameter | Modular Head | Drilling Depth 5XD



Unit: mm

| Specification | Drilling Dia. | Centre Drill | Side Insert |
|---------------|---------------|--------------|-------------|
| M3800-D16-W10 | 38.00         | MD-160-P     | WO**1003    |
| M3810-D16-W10 | 38.10         | MD-160-P     | WO**1003    |
| M3900-D18-W10 | 39.00         | MD-180-P     | WO**1003    |
| M3920-D18-W10 | 39.20         | MD-180-P     | WO**1003    |
| M3970-D18-W10 | 39.70         | MD-180-P     | WO**1003    |
| M4000-D18-W10 | 40.00         | MD-180-P     | WO**1003    |
| M4100-D19-W10 | 41.00         | MD-190-P     | WO**1003    |
| M4128-D19-W10 | 41.28         | MD-190-P     | WO**1003    |
| M4200-D19-W10 | 42.00         | MD-190-P     | WO**1204    |
| M4300-D16-W12 | 43.00         | MD-160-P     | WO**1204    |
| M4400-D18-W12 | 44.00         | MD-180-P     | WO**1204    |
| M4445-D18-W12 | 44.45         | MD-180-P     | WO**1204    |
| M4500-D18-W12 | 45.00         | MD-180-P     | WO**1204    |
| M4600-D19-W12 | 46.00         | MD-190-P     | WO**1204    |
| M4700-D20-W12 | 47.00         | MD-200-P     | WO**1204    |
| M4763-D21-W12 | 47.63         | MD-210-P     | WO**1204    |
| M4800-D21-W12 | 48.00         | MD-210-P     | WO**1204    |
| M4900-D22-W12 | 49.00         | MD-220-P     | WO**1204    |
| M5000-D23-W12 | 50.00         | MD-230-P     | WO**1204    |
| M5080-D24-W12 | 50.80         | MD-240-P     | WO**1204    |
| M5100-D24-W12 | 51.00         | MD-240-P     | WO**1204    |
| M5200-D25-W12 | 52.00         | MD-250-P     | WO**1204    |
| M5300-D26-W12 | 53.00         | MD-260-P     | WO**1204    |
| M5398-D27-W12 | 53.98         | MD-270-P     | WO**1204    |
| M5400-D27-W12 | 54.00         | MD-270-P     | WO**1204    |
| M5500-D28-W12 | 55.00         | MD-280-P     | WO**1204    |

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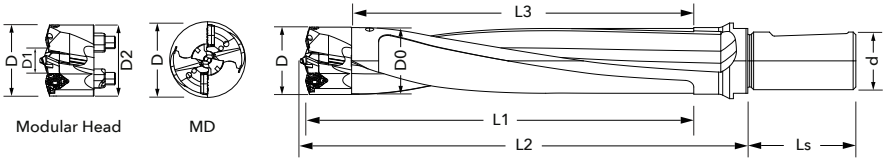
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## KCNM...5D Modular Drilling Tools

Large Diameter | Modular Head | Drilling Depth 5XD



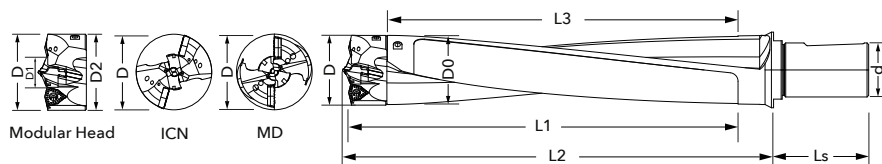
Unit: mm

| Specification | Drilling Holder | Dimensions |      |    |     |     |     |     | Accessories                                                                       |                                                                                   |                                                                                   |
|---------------|-----------------|------------|------|----|-----|-----|-----|-----|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
|               |                 | D2         | D0   | d  | L1  | L2  | L3  | Ls  |  |  |  |
| M3800-D16-W10 | W37-32-5D       | 37.5       | 37   | 32 | 215 | 245 | 190 | 60  | K14-16.9                                                                          | KCNM040120                                                                        | T15                                                                               |
| M3810-D16-W10 |                 | 37.5       | 37   | 32 | 215 | 245 | 190 | 60  |                                                                                   |                                                                                   |                                                                                   |
| M3900-D18-W10 |                 | 37.5       | 37   | 32 | 215 | 245 | 190 | 60  |                                                                                   |                                                                                   |                                                                                   |
| M3920-D18-W10 |                 | 37.5       | 37   | 32 | 215 | 245 | 190 | 60  |                                                                                   |                                                                                   |                                                                                   |
| M3970-D18-W10 |                 | 37.5       | 37   | 32 | 215 | 245 | 190 | 60  |                                                                                   |                                                                                   |                                                                                   |
| M4000-D18-W10 | W39-50-5D       | 39.5       | 39   | 50 | 220 | 265 | 195 | 60  | K17-20                                                                            |                                                                                   |                                                                                   |
| M4100-D19-W10 |                 | 39.5       | 39   | 50 | 220 | 265 | 195 | 60  |                                                                                   |                                                                                   |                                                                                   |
| M4128-D19-W10 |                 | 39.5       | 39   | 50 | 220 | 265 | 195 | 60  |                                                                                   |                                                                                   |                                                                                   |
| M4200-D19-W10 | W41-50-5D       | 41.5       | 41   | 50 | 230 | 277 | 205 | 80  | K14-16.9                                                                          |                                                                                   |                                                                                   |
| M4300-D16-W12 |                 | 41.5       | 41   | 50 | 230 | 277 | 205 | 80  |                                                                                   |                                                                                   |                                                                                   |
| M4400-D18-W12 |                 | 41.5       | 41   | 50 | 230 | 277 | 205 | 80  |                                                                                   |                                                                                   |                                                                                   |
| M4445-D18-W12 |                 | 41.5       | 41   | 50 | 230 | 277 | 205 | 80  |                                                                                   |                                                                                   |                                                                                   |
| M4500-D18-W12 |                 | W44-50-5D  | 44.5 | 44 | 50  | 245 | 285 | 219 |                                                                                   |                                                                                   |                                                                                   |
| M4600-D19-W12 | 44.5            |            | 44   | 50 | 245 | 285 | 219 | 80  |                                                                                   |                                                                                   |                                                                                   |
| M4700-D20-W12 | 44.5            |            | 44   | 50 | 245 | 285 | 219 | 80  |                                                                                   |                                                                                   |                                                                                   |
| M4763-D21-W12 | 44.5            |            | 44   | 50 | 245 | 285 | 219 | 80  |                                                                                   |                                                                                   |                                                                                   |
| M4800-D21-W12 | W47-50-5D       | 47.5       | 47   | 50 | 260 | 305 | 225 | 80  | K20-26                                                                            |                                                                                   |                                                                                   |
| M4900-D22-W12 |                 | 47.5       | 47   | 50 | 260 | 305 | 225 | 80  |                                                                                   |                                                                                   |                                                                                   |
| M5000-D23-W12 |                 | 47.5       | 47   | 50 | 260 | 305 | 225 | 80  |                                                                                   |                                                                                   |                                                                                   |
| M5080-D24-W12 | W50-50-5D       | 50.3       | 49.8 | 50 | 275 | 315 | 240 | 80  |                                                                                   |                                                                                   |                                                                                   |
| M5100-D24-W12 |                 | 50.3       | 49.8 | 50 | 275 | 315 | 240 | 80  |                                                                                   |                                                                                   |                                                                                   |
| M5200-D25-W12 |                 | 50.3       | 49.8 | 50 | 275 | 315 | 240 | 80  |                                                                                   |                                                                                   |                                                                                   |
| M5300-D26-W12 |                 | 50.3       | 49.8 | 50 | 275 | 315 | 240 | 80  |                                                                                   |                                                                                   |                                                                                   |
| M5398-D27-W12 | W53-50-5D       | 53.4       | 53   | 50 | 280 | 320 | 245 | 80  |                                                                                   |                                                                                   |                                                                                   |
| M5400-D27-W12 |                 | 53.4       | 53   | 50 | 280 | 320 | 245 | 80  |                                                                                   |                                                                                   |                                                                                   |
| M5500-D28-W12 |                 | 53.4       | 53   | 50 | 280 | 320 | 245 | 80  |                                                                                   |                                                                                   |                                                                                   |



## KCNM...5D Modular Drilling Tools

Large Diameter | Modular Head | Drilling Depth 5XD



Unit: mm

| Specification   | Drilling Dia. | Centre Drill | Side Insert |
|-----------------|---------------|--------------|-------------|
| P5600-D20-W15   | 56.00         | MD-200-P     | WO**1503    |
| P5700-D21-W15   | 57.00         | MD-210-P     | WO**1503    |
| P5800-D22-W15   | 58.00         | MD-220-P     | WO**1503    |
| P5900-D23-W15   | 59.00         | MD-230-P     | WO**1503    |
| P6000-D24-W15   | 60.00         | MD-240-P     | WO**1503    |
| P6100-D25-W15   | 61.00         | MD-250-P     | WO**1503    |
| P6200-D26-W15   | 62.00         | MD-260-P     | WO**1503    |
| P6300-D27-W15   | 63.00         | MD-270-P     | WO**1503    |
| P6400-D28-W15   | 64.00         | MD-280-P     | WO**1503    |
| P6500-ICN29-W15 | 65.00         | ICN-290-P    | WO**1503    |
| P6600-ICN30-W15 | 66.00         | ICN-300-P    | WO**1503    |
| P6700-ICN31-W15 | 67.00         | ICN-310-P    | WO**1503    |
| P6800-ICN32-W15 | 68.00         | ICN-320-P    | WO**1503    |
| P6900-ICN33-W15 | 69.00         | ICN-330-P    | WO**1503    |
| P7000-ICN34-W15 | 70.00         | ICN-340-P    | WO**1503    |
| P7100-ICN35-W15 | 71.00         | ICN-350-P    | WO**1503    |
| P7200-ICN36-W15 | 72.00         | ICN-360-P    | WO**1503    |
| P7300-ICN37-W15 | 73.00         | ICN-370-P    | WO**1503    |
| P7400-ICN38-W15 | 74.00         | ICN-380-P    | WO**1503    |
| P7500-ICN39-W15 | 75.00         | ICN-390-P    | WO**1503    |
| P7600-ICN40-W15 | 76.00         | ICN-400-P    | WO**1503    |
| P7700-ICN41-W15 | 77.00         | ICN-410-P    | WO**1503    |
| P7800-ICN42-W15 | 78.00         | ICN-420-P    | WO**1503    |
| P7900-ICN43-W15 | 79.00         | ICN-430-P    | WO**1503    |
| P8000-ICN44-W15 | 80.00         | ICN-440-P    | WO**1503    |

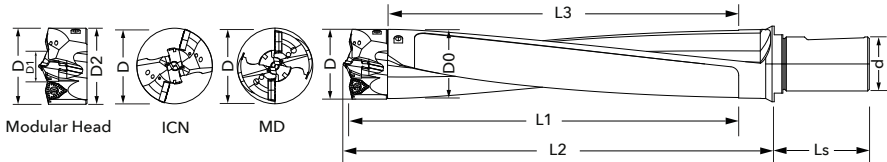
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# KCNM...5D Modular Drilling Tools

Large Diameter | Modular Head | Drilling Depth 5XD



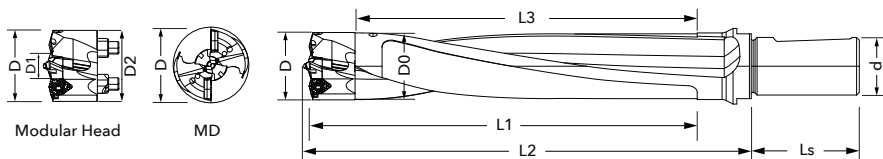
Unit: mm

| Specification   | Drilling Holder | Dimensions |    |    |     |     |     |     | Accessories                                                                       |                                                                                   |                                                                                   |        |
|-----------------|-----------------|------------|----|----|-----|-----|-----|-----|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|--------|
|                 |                 | D2         | D0 | d  | L1  | L2  | L3  | Ls  |  |  |  |        |
| P5600-D20-W15   | B53-50-5D       | 55         | 53 | 50 | 321 | 321 | 287 | 80  | K20-26                                                                            | KCNM050100                                                                        | T20                                                                               |        |
| P5700-D21-W15   |                 | 56         | 53 | 50 | 321 | 321 | 287 | 80  |                                                                                   |                                                                                   |                                                                                   |        |
| P5800-D22-W15   |                 | 57         | 53 | 50 | 321 | 321 | 287 | 80  |                                                                                   |                                                                                   |                                                                                   |        |
| P5900-D23-W15   | B58-50-5D       | 58         | 58 | 50 | 359 | 359 | 325 | 80  |                                                                                   |                                                                                   |                                                                                   |        |
| P6000-D24-W15   |                 | 59         | 58 | 50 | 359 | 359 | 325 | 80  |                                                                                   |                                                                                   |                                                                                   |        |
| P6100-D25-W15   |                 | 60         | 58 | 50 | 359 | 359 | 325 | 80  |                                                                                   |                                                                                   |                                                                                   |        |
| P6200-D26-W15   |                 | 61         | 58 | 50 | 359 | 359 | 325 | 80  |                                                                                   |                                                                                   |                                                                                   |        |
| P6300-D27-W15   |                 | 62         | 58 | 50 | 359 | 359 | 325 | 80  |                                                                                   |                                                                                   |                                                                                   |        |
| P6400-D28-W15   |                 | 63         | 58 | 50 | 359 | 359 | 325 | 80  |                                                                                   |                                                                                   |                                                                                   |        |
| P6500-ICN29-W15 |                 | B64-50-5D  | 64 | 64 | 50  | 385 | 385 | 350 | 80                                                                                |                                                                                   |                                                                                   |        |
| P6600-ICN30-W15 | 65              |            | 64 | 50 | 385 | 385 | 350 | 80  |                                                                                   |                                                                                   |                                                                                   |        |
| P6700-ICN31-W15 | 66              |            | 64 | 50 | 385 | 385 | 350 | 80  |                                                                                   |                                                                                   |                                                                                   |        |
| P6800-ICN32-W15 | 67              |            | 64 | 50 | 385 | 385 | 350 | 80  |                                                                                   |                                                                                   |                                                                                   |        |
| P6900-ICN33-W15 | 68              |            | 64 | 50 | 385 | 385 | 350 | 80  |                                                                                   |                                                                                   |                                                                                   |        |
| P7000-ICN34-W15 | 69              |            | 64 | 50 | 385 | 385 | 350 | 80  |                                                                                   |                                                                                   |                                                                                   |        |
| P7100-ICN35-W15 | 70              |            | 64 | 50 | 385 | 385 | 350 | 80  |                                                                                   |                                                                                   |                                                                                   |        |
| P7200-ICN36-W15 | B71-50-5D       | 71         | 71 | 50 | 445 | 445 | 405 | 80  | K27-32                                                                            |                                                                                   |                                                                                   | K33-38 |
| P7300-ICN37-W15 |                 | 72         | 71 | 50 | 445 | 445 | 405 | 80  |                                                                                   |                                                                                   |                                                                                   |        |
| P7400-ICN38-W15 |                 | 73         | 71 | 50 | 445 | 445 | 405 | 80  |                                                                                   |                                                                                   |                                                                                   |        |
| P7500-ICN39-W15 |                 | 74         | 71 | 50 | 445 | 445 | 405 | 80  | K39-45                                                                            |                                                                                   |                                                                                   |        |
| P7600-ICN40-W15 |                 | 75         | 71 | 50 | 445 | 445 | 405 | 80  |                                                                                   |                                                                                   |                                                                                   |        |
| P7700-ICN41-W15 |                 | 76         | 71 | 50 | 445 | 445 | 405 | 80  |                                                                                   |                                                                                   |                                                                                   |        |
| P7800-ICN42-W15 |                 | 77         | 71 | 50 | 445 | 445 | 405 | 80  |                                                                                   |                                                                                   |                                                                                   |        |
| P7900-ICN43-W15 |                 | 78         | 71 | 50 | 445 | 445 | 405 | 80  |                                                                                   |                                                                                   |                                                                                   |        |
| P8000-ICN44-W15 |                 | 79         | 71 | 50 | 445 | 445 | 405 | 80  |                                                                                   |                                                                                   |                                                                                   |        |



## KCNM...6D Modular Drilling Tools

Large Diameter | Modular Head | Drilling Depth 6XD



Unit: mm

| Specification | Drilling Dia. | Centre Drill | Side Insert |
|---------------|---------------|--------------|-------------|
| M2800-D14-A04 | 28.00         | MD-140-P     | AO**0403    |
| M2858-D15-A04 | 28.58         | MD-150-P     | AO**0403    |
| M2900-D16-A04 | 29.00         | MD-160-P     | AO**0403    |
| M2936-D16-A04 | 29.36         | MD-160-P     | AO**0403    |
| M3000-D16-A04 | 30.00         | MD-160-P     | AO**0403    |
| M3018-D18-A04 | 30.18         | MD-180-P     | AO**0403    |
| M3096-D18-A04 | 30.96         | MD-180-P     | AO**0403    |
| M3100-D18-A04 | 31.00         | MD-180-P     | AO**0403    |
| M3175-D15-W08 | 31.75         | MD-150-P     | WO**0803    |
| M3200-D15-W08 | 32.00         | MD-150-P     | WO**0803    |
| M3300-D16-W08 | 33.00         | MD-160-P     | WO**0803    |
| M3320-D16-W08 | 33.20         | MD-160-P     | WO**0803    |
| M3335-D16-W08 | 33.35         | MD-160-P     | WO**0803    |
| M3400-D18-W08 | 34.00         | MD-180-P     | WO**0803    |
| M3493-D18-W08 | 34.93         | MD-180-P     | WO**0803    |
| M3500-D18-W08 | 35.00         | MD-180-P     | WO**0803    |
| M3600-D18-W08 | 36.00         | MD-180-P     | WO**0803    |
| M3653-D19-W08 | 36.53         | MD-190-P     | WO**0803    |
| M3700-D16-W10 | 37.00         | MD-160-P     | WO**1003    |
| M3750-D16-W10 | 37.50         | MD-160-P     | WO**1003    |

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WOMT...W... page 109

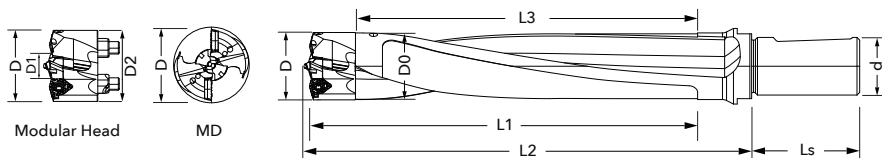
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# KCNM...6D Modular Drilling Tools



Large Diameter | Modular Head | Drilling Depth 6XD



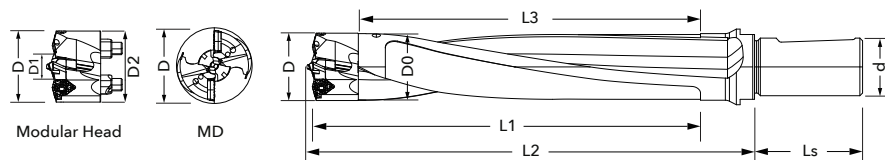
Unit: mm

| Specification | Drilling Holder | Dimensions |       |    |     |     |     |     | Accessories                                                                       |                                                                                   |                                                                                   |
|---------------|-----------------|------------|-------|----|-----|-----|-----|-----|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
|               |                 | D2         | D0    | d  | L1  | L2  | L3  | Ls  |  |  |  |
| M2800-D14-A04 | W27-32-6D       | 27.5       | 27    | 32 | 180 | 220 | 160 | 60  | K14-16.9                                                                          | KCNM025080                                                                        | T9                                                                                |
| M2858-D15-A04 |                 | 27.5       | 27    | 32 | 180 | 220 | 160 | 60  |                                                                                   |                                                                                   |                                                                                   |
| M2900-D16-A04 |                 | 27.5       | 27    | 32 | 180 | 220 | 160 | 60  |                                                                                   |                                                                                   |                                                                                   |
| M2936-D16-A04 |                 | 27.5       | 27    | 32 | 180 | 220 | 160 | 60  |                                                                                   |                                                                                   |                                                                                   |
| M3000-D16-A04 | W29-32-6D       | 29.5       | 29    | 32 | 195 | 233 | 175 | 60  | K17-19.9                                                                          | KCNM025080                                                                        | T9                                                                                |
| M3018-D18-A04 |                 | 29.5       | 29    | 32 | 195 | 233 | 175 | 60  |                                                                                   |                                                                                   |                                                                                   |
| M3096-D18-A04 |                 | 29.5       | 29    | 32 | 195 | 233 | 175 | 60  |                                                                                   |                                                                                   |                                                                                   |
| M3100-D18-A04 |                 | 29.5       | 29    | 32 | 195 | 233 | 175 | 60  |                                                                                   |                                                                                   |                                                                                   |
| M3175-D15-W08 | W31-32-6D       | 31.25      | 30.75 | 32 | 211 | 246 | 189 | 60  | K14-16.9                                                                          | KCNM030080                                                                        | T10                                                                               |
| M3200-D15-W08 |                 | 31.25      | 30.75 | 32 | 211 | 246 | 189 | 60  |                                                                                   |                                                                                   |                                                                                   |
| M3300-D16-W08 |                 | 31.25      | 30.75 | 32 | 211 | 246 | 189 | 60  |                                                                                   |                                                                                   |                                                                                   |
| M3320-D16-W08 |                 | 31.25      | 30.75 | 32 | 211 | 246 | 189 | 60  |                                                                                   |                                                                                   |                                                                                   |
| M3335-D16-W08 |                 | 31.25      | 30.75 | 32 | 211 | 246 | 189 | 60  |                                                                                   |                                                                                   |                                                                                   |
| M3400-D18-W08 |                 | 31.25      | 30.75 | 32 | 211 | 246 | 189 | 60  |                                                                                   |                                                                                   |                                                                                   |
| M3493-D18-W08 |                 | 31.25      | 30.75 | 32 | 211 | 246 | 189 | 60  |                                                                                   |                                                                                   |                                                                                   |
| M3500-D18-W08 | W34-32-6D       | 34.5       | 34    | 32 | 227 | 265 | 205 | 60  | K17-19.9                                                                          | KCNM040120                                                                        | T15                                                                               |
| M3600-D18-W08 |                 | 34.5       | 34    | 32 | 227 | 265 | 205 | 60  |                                                                                   |                                                                                   |                                                                                   |
| M3653-D19-W08 |                 | 34.5       | 34    | 32 | 227 | 265 | 205 | 60  |                                                                                   |                                                                                   |                                                                                   |
| M3700-D16-W10 |                 | 34.5       | 34    | 32 | 227 | 265 | 205 | 60  |                                                                                   |                                                                                   |                                                                                   |
| M3750-D16-W10 |                 |            | 34.5  | 34 | 32  | 227 | 265 | 205 | 60                                                                                | K14-16.9                                                                          |                                                                                   |



## KCNM...6D Modular Drilling Tools

Large Diameter | Modular Head | Drilling Depth 6XD



Unit: mm

| Specification | Drilling Dia. | Centre Drill | Side Insert |
|---------------|---------------|--------------|-------------|
| M3800-D16-W10 | 38.00         | MD-160-P     | WO**1003    |
| M3810-D16-W10 | 38.10         | MD-160-P     | WO**1003    |
| M3900-D18-W10 | 39.00         | MD-180-P     | WO**1003    |
| M3920-D18-W10 | 39.20         | MD-180-P     | WO**1003    |
| M3970-D18-W10 | 39.70         | MD-180-P     | WO**1003    |
| M4000-D18-W10 | 40.00         | MD-180-P     | WO**1003    |
| M4100-D19-W10 | 41.00         | MD-190-P     | WO**1003    |
| M4128-D19-W10 | 41.28         | MD-190-P     | WO**1003    |
| M4200-D19-W10 | 42.00         | MD-190-P     | WO**1204    |
| M4300-D16-W12 | 43.00         | MD-160-P     | WO**1204    |
| M4400-D18-W12 | 44.00         | MD-180-P     | WO**1204    |
| M4445-D18-W12 | 44.45         | MD-180-P     | WO**1204    |
| M4500-D18-W12 | 45.00         | MD-180-P     | WO**1204    |
| M4600-D19-W12 | 46.00         | MD-190-P     | WO**1204    |
| M4700-D20-W12 | 47.00         | MD-200-P     | WO**1204    |
| M4763-D21-W12 | 47.63         | MD-210-P     | WO**1204    |
| M4800-D21-W12 | 48.00         | MD-210-P     | WO**1204    |
| M4900-D22-W12 | 49.00         | MD-220-P     | WO**1204    |
| M5000-D23-W12 | 50.00         | MD-230-P     | WO**1204    |
| M5080-D24-W12 | 50.80         | MD-240-P     | WO**1204    |
| M5100-D24-W12 | 51.00         | MD-240-P     | WO**1204    |
| M5200-D25-W12 | 52.00         | MD-250-P     | WO**1204    |
| M5300-D26-W12 | 53.00         | MD-260-P     | WO**1204    |
| M5398-D27-W12 | 53.98         | MD-270-P     | WO**1204    |
| M5400-D27-W12 | 54.00         | MD-270-P     | WO**1204    |
| M5500-D28-W12 | 55.00         | MD-280-P     | WO**1204    |

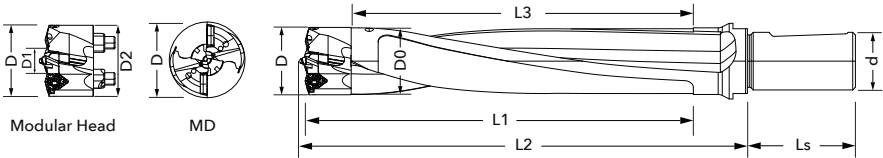
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# KCNM...6D Modular Drilling Tools

Large Diameter | Modular Head | Drilling Depth 6XD



Unit: mm

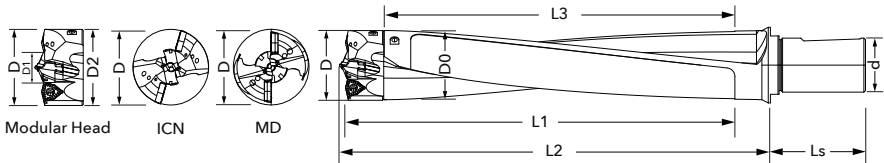
| Specification | Drilling Holder | Dimensions |      |    |     |     |     |    | Accessories                                                                       |                                                                                   |                                                                                   |
|---------------|-----------------|------------|------|----|-----|-----|-----|----|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
|               |                 | D2         | D0   | d  | L1  | L2  | L3  | Ls |  |  |  |
| M3800-D16-W10 | W37-32-6D       | 37.5       | 37   | 32 | 255 | 290 | 230 | 60 | K14-16.9                                                                          | KCNM040120                                                                        | T15                                                                               |
| M3810-D16-W10 |                 | 37.5       | 37   | 32 | 255 | 290 | 230 | 60 |                                                                                   |                                                                                   |                                                                                   |
| M3900-D18-W10 |                 | 37.5       | 37   | 32 | 255 | 290 | 230 | 60 |                                                                                   |                                                                                   |                                                                                   |
| M3920-D18-W10 |                 | 37.5       | 37   | 32 | 255 | 290 | 230 | 60 |                                                                                   |                                                                                   |                                                                                   |
| M3970-D18-W10 |                 | 37.5       | 37   | 32 | 255 | 290 | 230 | 60 |                                                                                   |                                                                                   |                                                                                   |
| M4000-D18-W10 | W39-50-6D       | 39.5       | 39   | 50 | 257 | 305 | 232 | 60 | K17-20                                                                            |                                                                                   |                                                                                   |
| M4100-D19-W10 |                 | 39.5       | 39   | 50 | 257 | 305 | 232 | 60 |                                                                                   |                                                                                   |                                                                                   |
| M4128-D19-W10 |                 | 39.5       | 39   | 50 | 257 | 305 | 232 | 60 |                                                                                   |                                                                                   |                                                                                   |
| M4200-D19-W10 | W41-50-6D       | 41.5       | 41   | 50 | 275 | 320 | 250 | 80 | K14-16.9                                                                          |                                                                                   |                                                                                   |
| M4300-D16-W12 |                 | 41.5       | 41   | 50 | 275 | 320 | 250 | 80 |                                                                                   |                                                                                   |                                                                                   |
| M4400-D18-W12 |                 | 41.5       | 41   | 50 | 275 | 320 | 250 | 80 |                                                                                   |                                                                                   |                                                                                   |
| M4445-D18-W12 |                 | 41.5       | 41   | 50 | 275 | 320 | 250 | 80 |                                                                                   |                                                                                   |                                                                                   |
| M4500-D18-W12 | W44-50-6D       | 44.5       | 44   | 50 | 295 | 350 | 269 | 80 | K17-19.9                                                                          |                                                                                   |                                                                                   |
| M4600-D19-W12 |                 | 44.5       | 44   | 50 | 295 | 350 | 269 | 80 |                                                                                   |                                                                                   |                                                                                   |
| M4700-D20-W12 |                 | 44.5       | 44   | 50 | 295 | 350 | 269 | 80 |                                                                                   |                                                                                   |                                                                                   |
| M4763-D21-W12 |                 | 44.5       | 44   | 50 | 295 | 350 | 269 | 80 |                                                                                   |                                                                                   |                                                                                   |
| M4800-D21-W12 | W47-50-6D       | 47.5       | 47   | 50 | 310 | 350 | 275 | 80 | K20-26                                                                            |                                                                                   |                                                                                   |
| M4900-D22-W12 |                 | 47.5       | 47   | 50 | 310 | 350 | 275 | 80 |                                                                                   |                                                                                   |                                                                                   |
| M5000-D23-W12 |                 | 47.5       | 47   | 50 | 310 | 350 | 275 | 80 |                                                                                   |                                                                                   |                                                                                   |
| M5080-D24-W12 | W50-50-6D       | 50.3       | 49.8 | 50 | 330 | 370 | 295 | 80 |                                                                                   |                                                                                   |                                                                                   |
| M5100-D24-W12 |                 | 50.3       | 49.8 | 50 | 330 | 370 | 295 | 80 |                                                                                   |                                                                                   |                                                                                   |
| M5200-D25-W12 |                 | 50.3       | 49.8 | 50 | 330 | 370 | 295 | 80 |                                                                                   |                                                                                   |                                                                                   |
| M5300-D26-W12 |                 | 50.3       | 49.8 | 50 | 330 | 370 | 295 | 80 |                                                                                   |                                                                                   |                                                                                   |
| M5398-D27-W12 | W53-50-6D       | 53.4       | 53   | 50 | 340 | 380 | 305 | 80 |                                                                                   |                                                                                   |                                                                                   |
| M5400-D27-W12 |                 | 53.4       | 53   | 50 | 340 | 380 | 305 | 80 |                                                                                   |                                                                                   |                                                                                   |
| M5500-D28-W12 |                 | 53.4       | 53   | 50 | 340 | 380 | 305 | 80 |                                                                                   |                                                                                   |                                                                                   |



## KCNM...6D Modular Drilling Tools



Large Diameter | Modular Head | Drilling Depth 6XD



Unit: mm

| Specification   | Drilling Dia. | Centre Drill | Side Insert |
|-----------------|---------------|--------------|-------------|
| P5600-D20-W15   | 56.00         | MD-200-P     | WO**1503    |
| P5700-D21-W15   | 57.00         | MD-210-P     | WO**1503    |
| P5800-D22-W15   | 58.00         | MD-220-P     | WO**1503    |
| P5900-D23-W15   | 59.00         | MD-230-P     | WO**1503    |
| P6000-D24-W15   | 60.00         | MD-240-P     | WO**1503    |
| P6100-D25-W15   | 61.00         | MD-250-P     | WO**1503    |
| P6200-D26-W15   | 62.00         | MD-260-P     | WO**1503    |
| P6300-D27-W15   | 63.00         | MD-270-P     | WO**1503    |
| P6400-D28-W15   | 64.00         | MD-280-P     | WO**1503    |
| P6500-ICN29-W15 | 65.00         | ICN-290-P    | WO**1503    |
| P6600-ICN30-W15 | 66.00         | ICN-300-P    | WO**1503    |
| P6700-ICN31-W15 | 67.00         | ICN-310-P    | WO**1503    |
| P6800-ICN32-W15 | 68.00         | ICN-320-P    | WO**1503    |
| P6900-ICN33-W15 | 69.00         | ICN-330-P    | WO**1503    |
| P7000-ICN34-W15 | 70.00         | ICN-340-P    | WO**1503    |
| P7100-ICN35-W15 | 71.00         | ICN-350-P    | WO**1503    |
| P7200-ICN36-W15 | 72.00         | ICN-360-P    | WO**1503    |
| P7300-ICN37-W15 | 73.00         | ICN-370-P    | WO**1503    |
| P7400-ICN38-W15 | 74.00         | ICN-380-P    | WO**1503    |
| P7500-ICN39-W15 | 75.00         | ICN-390-P    | WO**1503    |
| P7600-ICN40-W15 | 76.00         | ICN-400-P    | WO**1503    |
| P7700-ICN41-W15 | 77.00         | ICN-410-P    | WO**1503    |
| P7800-ICN42-W15 | 78.00         | ICN-420-P    | WO**1503    |
| P7900-ICN43-W15 | 79.00         | ICN-430-P    | WO**1503    |
| P8000-ICN44-W15 | 80.00         | ICN-440-P    | WO**1503    |

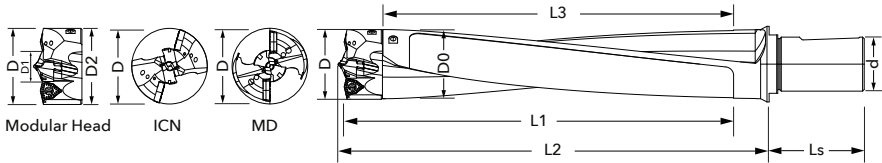
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MD.....\* page 110

# KCNM...6D Modular Drilling Tools

Large Diameter | Modular Head | Drilling Depth 6XD



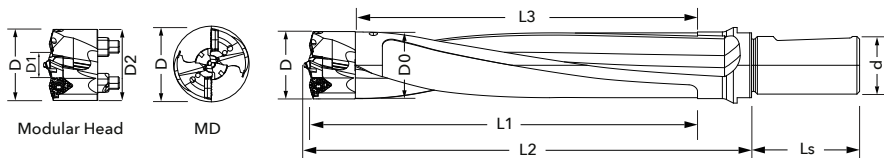
Unit: mm

| Specification   | Drilling Holder | Dimensions |    |    |     |     |     |     | Accessories                                                                       |                                                                                   |                                                                                   |
|-----------------|-----------------|------------|----|----|-----|-----|-----|-----|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
|                 |                 | D2         | D0 | d  | L1  | L2  | L3  | Ls  |  |  |  |
| P5600-D20-W15   | B53-50-6D       | 55         | 53 | 50 | 374 | 397 | 340 | 80  | K20-26                                                                            | KCNM050100                                                                        | T20                                                                               |
| P5700-D21-W15   |                 | 56         | 53 | 50 | 374 | 397 | 340 | 80  |                                                                                   |                                                                                   |                                                                                   |
| P5800-D22-W15   |                 | 57         | 53 | 50 | 374 | 397 | 340 | 80  |                                                                                   |                                                                                   |                                                                                   |
| P5900-D23-W15   | B58-50-6D       | 58         | 58 | 50 | 422 | 450 | 388 | 80  |                                                                                   |                                                                                   |                                                                                   |
| P6000-D24-W15   |                 | 59         | 58 | 50 | 422 | 450 | 325 | 80  |                                                                                   |                                                                                   |                                                                                   |
| P6100-D25-W15   |                 | 60         | 58 | 50 | 422 | 450 | 325 | 80  |                                                                                   |                                                                                   |                                                                                   |
| P6200-D26-W15   |                 | 61         | 58 | 50 | 422 | 450 | 325 | 80  |                                                                                   |                                                                                   |                                                                                   |
| P6300-D27-W15   |                 | 62         | 58 | 50 | 422 | 450 | 325 | 80  |                                                                                   |                                                                                   |                                                                                   |
| P6400-D28-W15   |                 | 63         | 58 | 50 | 422 | 450 | 325 | 80  |                                                                                   |                                                                                   |                                                                                   |
|                 |                 | B64-50-6D  | 64 | 64 | 50  | 431 | 454 | 396 | 80                                                                                |                                                                                   |                                                                                   |
| P6500-ICN29-W15 | 65              |            | 64 | 50 | 431 | 454 | 396 | 80  |                                                                                   |                                                                                   |                                                                                   |
| P6600-ICN30-W15 | 66              |            | 64 | 50 | 431 | 454 | 396 | 80  |                                                                                   |                                                                                   |                                                                                   |
| P6700-ICN31-W15 | 67              |            | 64 | 50 | 431 | 454 | 396 | 80  |                                                                                   |                                                                                   |                                                                                   |
| P6800-ICN32-W15 | 68              |            | 64 | 50 | 431 | 454 | 396 | 80  |                                                                                   |                                                                                   |                                                                                   |
| P6900-ICN33-W15 | 69              |            | 64 | 50 | 431 | 454 | 396 | 80  |                                                                                   |                                                                                   |                                                                                   |
| P7000-ICN34-W15 | 70              |            | 64 | 50 | 431 | 454 | 396 | 80  |                                                                                   |                                                                                   |                                                                                   |
| P7100-ICN35-W15 | B71-50-6D       | 71         | 71 | 50 | 525 | 465 | 485 | 80  | K33-38                                                                            |                                                                                   |                                                                                   |
| P7200-ICN36-W15 |                 | 72         | 71 | 50 | 525 | 465 | 485 | 80  |                                                                                   |                                                                                   |                                                                                   |
| P7300-ICN37-W15 |                 | 73         | 71 | 50 | 525 | 465 | 485 | 80  |                                                                                   |                                                                                   |                                                                                   |
| P7400-ICN38-W15 |                 | 74         | 71 | 50 | 525 | 465 | 485 | 80  |                                                                                   |                                                                                   |                                                                                   |
| P7500-ICN39-W15 |                 | 75         | 71 | 50 | 525 | 465 | 485 | 80  |                                                                                   |                                                                                   |                                                                                   |
| P7600-ICN40-W15 |                 | 76         | 71 | 50 | 525 | 465 | 485 | 80  |                                                                                   |                                                                                   |                                                                                   |
| P7700-ICN41-W15 |                 | 77         | 71 | 50 | 525 | 465 | 485 | 80  |                                                                                   |                                                                                   |                                                                                   |
| P7800-ICN42-W15 |                 | 78         | 71 | 50 | 525 | 465 | 485 | 80  |                                                                                   |                                                                                   |                                                                                   |
| P7900-ICN43-W15 |                 | 79         | 71 | 50 | 525 | 465 | 485 | 80  |                                                                                   |                                                                                   |                                                                                   |
| P8000-ICN44-W15 |                 |            |    |    |     |     |     |     |                                                                                   | K39-45                                                                            |                                                                                   |



## KCNM...7D Modular Drilling Tools

Large Diameter | Modular Head | Drilling Depth 7XD



Unit: mm

| Specification | Drilling Dia. | Centre Drill | Side Insert |
|---------------|---------------|--------------|-------------|
| M2800-D14-A04 | 28.00         | MD-140-P     | AO**0403    |
| M2858-D15-A04 | 28.58         | MD-150-P     | AO**0403    |
| M2900-D16-A04 | 29.00         | MD-160-P     | AO**0403    |
| M2936-D16-A04 | 29.36         | MD-160-P     | AO**0403    |
| M3000-D16-A04 | 30.00         | MD-160-P     | AO**0403    |
| M3018-D18-A04 | 30.18         | MD-180-P     | AO**0403    |
| M3096-D18-A04 | 30.96         | MD-180-P     | AO**0403    |
| M3100-D18-A04 | 31.00         | MD-180-P     | AO**0403    |
| M3175-D15-W08 | 31.75         | MD-150-P     | WO**0803    |
| M3200-D15-W08 | 32.00         | MD-150-P     | WO**0803    |
| M3300-D16-W08 | 33.00         | MD-160-P     | WO**0803    |
| M3320-D16-W08 | 33.20         | MD-160-P     | WO**0803    |
| M3335-D16-W08 | 33.35         | MD-160-P     | WO**0803    |
| M3400-D18-W08 | 34.00         | MD-180-P     | WO**0803    |
| M3493-D18-W08 | 34.93         | MD-180-P     | WO**0803    |
| M3500-D18-W08 | 35.00         | MD-180-P     | WO**0803    |
| M3600-D18-W08 | 36.00         | MD-180-P     | WO**0803    |
| M3653-D19-W08 | 36.53         | MD-190-P     | WO**0803    |
| M3700-D16-W10 | 37.00         | MD-160-P     | WO**1003    |
| M3750-D16-W10 | 37.50         | MD-160-P     | WO**1003    |

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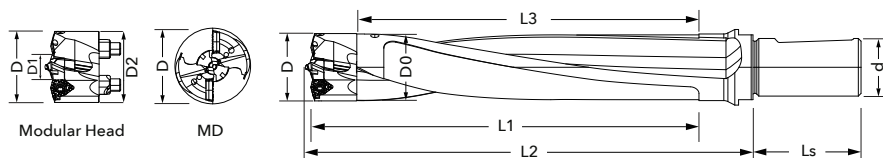
AOMT... page 109

WOMT...W... page 109

MD.....\* page 110

# KCNM...7D Modular Drilling Tools

Large Diameter | Modular Head | Drilling Depth 7XD



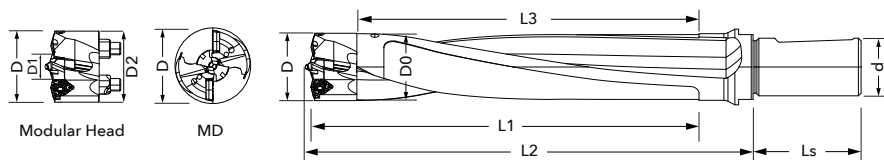
Unit: mm

| Specification | Drilling Holder | Dimensions |       |    |     |     |     |    | Accessories                                                                       |                                                                                   |                                                                                   |
|---------------|-----------------|------------|-------|----|-----|-----|-----|----|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
|               |                 | D2         | D0    | d  | L1  | L2  | L3  | Ls |  |  |  |
| M2800-D14-A04 | W27-32-7D       | 27.5       | 27    | 32 | 215 | 255 | 195 | 60 | K14-16.9                                                                          | KCNM025080                                                                        | T9                                                                                |
| M2858-D15-A04 |                 | 27.5       | 27    | 32 | 215 | 255 | 195 | 60 |                                                                                   |                                                                                   |                                                                                   |
| M2900-D16-A04 |                 | 27.5       | 27    | 32 | 215 | 255 | 195 | 60 |                                                                                   |                                                                                   |                                                                                   |
| M2936-D16-A04 |                 | 27.5       | 27    | 32 | 215 | 255 | 195 | 60 |                                                                                   |                                                                                   |                                                                                   |
| M3000-D16-A04 | W29-32-7D       | 29.5       | 29    | 32 | 220 | 258 | 200 | 60 | K17-19.9                                                                          |                                                                                   |                                                                                   |
| M3018-D18-A04 |                 | 29.5       | 29    | 32 | 220 | 258 | 200 | 60 |                                                                                   |                                                                                   |                                                                                   |
| M3096-D18-A04 |                 | 29.5       | 29    | 32 | 220 | 258 | 200 | 60 |                                                                                   |                                                                                   |                                                                                   |
| M3100-D18-A04 |                 | 29.5       | 29    | 32 | 220 | 258 | 200 | 60 |                                                                                   |                                                                                   |                                                                                   |
| M3175-D15-W08 | W31-32-7D       | 31.25      | 30.75 | 32 | 251 | 286 | 229 | 60 | K14-16.9                                                                          | KCNM030100                                                                        | T10                                                                               |
| M3200-D15-W08 |                 | 31.25      | 30.75 | 32 | 251 | 286 | 229 | 60 |                                                                                   |                                                                                   |                                                                                   |
| M3300-D16-W08 |                 | 31.25      | 30.75 | 32 | 251 | 286 | 229 | 60 |                                                                                   |                                                                                   |                                                                                   |
| M3320-D16-W08 |                 | 31.25      | 30.75 | 32 | 251 | 286 | 229 | 60 |                                                                                   |                                                                                   |                                                                                   |
| M3335-D16-W08 |                 | 31.25      | 30.75 | 32 | 251 | 286 | 229 | 60 |                                                                                   |                                                                                   |                                                                                   |
| M3400-D18-W08 |                 | 31.25      | 30.75 | 32 | 251 | 286 | 229 | 60 |                                                                                   |                                                                                   |                                                                                   |
| M3493-D18-W08 |                 | 31.25      | 30.75 | 32 | 251 | 286 | 229 | 60 |                                                                                   |                                                                                   |                                                                                   |
| M3500-D18-W08 | W34-32-7D       | 34.5       | 34    | 32 | 272 | 308 | 250 | 60 | K17-19.9                                                                          | KCNM040120                                                                        | T15                                                                               |
| M3600-D18-W08 |                 | 34.5       | 34    | 32 | 272 | 308 | 250 | 60 |                                                                                   |                                                                                   |                                                                                   |
| M3653-D19-W08 |                 | 34.5       | 34    | 32 | 272 | 308 | 250 | 60 |                                                                                   |                                                                                   |                                                                                   |
| M3700-D16-W10 |                 | 34.5       | 34    | 32 | 272 | 308 | 250 | 60 | K14-16.9                                                                          |                                                                                   |                                                                                   |
| M3750-D16-W10 |                 | 34.5       | 34    | 32 | 272 | 308 | 250 | 60 |                                                                                   |                                                                                   |                                                                                   |



## KCNM...7D Modular Drilling Tools

Large Diameter | Modular Head | Drilling Depth 7XD



Unit: mm

| Specification | Drilling Dia. | Centre Drill | Side Insert |
|---------------|---------------|--------------|-------------|
| M3800-D16-W10 | 38.00         | MD-160-P     | WO**1003    |
| M3810-D16-W10 | 38.10         | MD-160-P     | WO**1003    |
| M3900-D18-W10 | 39.00         | MD-180-P     | WO**1003    |
| M3920-D18-W10 | 39.20         | MD-180-P     | WO**1003    |
| M3970-D18-W10 | 39.70         | MD-180-P     | WO**1003    |
| M4000-D18-W10 | 40.00         | MD-180-P     | WO**1003    |
| M4100-D19-W10 | 41.00         | MD-190-P     | WO**1003    |
| M4128-D19-W10 | 41.28         | MD-190-P     | WO**1003    |
| M4200-D19-W10 | 42.00         | MD-190-P     | WO**1204    |
| M4300-D16-W12 | 43.00         | MD-160-P     | WO**1204    |
| M4400-D18-W12 | 44.00         | MD-180-P     | WO**1204    |
| M4445-D18-W12 | 44.45         | MD-180-P     | WO**1204    |
| M4500-D18-W12 | 45.00         | MD-180-P     | WO**1204    |
| M4600-D19-W12 | 46.00         | MD-190-P     | WO**1204    |
| M4700-D20-W12 | 47.00         | MD-200-P     | WO**1204    |
| M4763-D21-W12 | 47.63         | MD-210-P     | WO**1204    |
| M4800-D21-W12 | 48.00         | MD-210-P     | WO**1204    |
| M4900-D22-W12 | 49.00         | MD-220-P     | WO**1204    |
| M5000-D23-W12 | 50.00         | MD-230-P     | WO**1204    |
| M5080-D24-W12 | 50.80         | MD-240-P     | WO**1204    |
| M5100-D24-W12 | 51.00         | MD-240-P     | WO**1204    |
| M5200-D25-W12 | 52.00         | MD-250-P     | WO**1204    |
| M5300-D26-W12 | 53.00         | MD-260-P     | WO**1204    |
| M5398-D27-W12 | 53.98         | MD-270-P     | WO**1204    |
| M5400-D27-W12 | 54.00         | MD-270-P     | WO**1204    |
| M5500-D28-W12 | 55.00         | MD-280-P     | WO**1204    |

Insert pages :

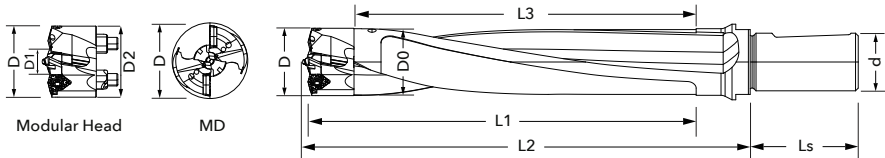
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MD.....\* page 110



# KCNM...7D Modular Drilling Tools

Large Diameter | Modular Head | Drilling Depth 7XD



Unit: mm

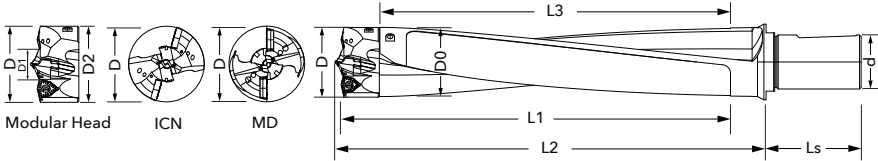
| Specification | Drilling Holder | Dimensions |      |    |     |     |     |    | Accessories                                                                       |                                                                                   |                                                                                   |
|---------------|-----------------|------------|------|----|-----|-----|-----|----|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
|               |                 | D2         | D0   | d  | L1  | L2  | L3  | Ls |  |  |  |
| M3800-D16-W10 | W37-32-7D       | 37.5       | 37   | 32 | 295 | 329 | 270 | 60 | K14-16.9                                                                          | KCNM040120                                                                        | T15                                                                               |
| M3810-D16-W10 |                 | 37.5       | 37   | 32 | 295 | 329 | 270 | 60 |                                                                                   |                                                                                   |                                                                                   |
| M3900-D18-W10 |                 | 37.5       | 37   | 32 | 295 | 329 | 270 | 60 | K17-20                                                                            |                                                                                   |                                                                                   |
| M3920-D18-W10 |                 | 37.5       | 37   | 32 | 295 | 329 | 270 | 60 |                                                                                   |                                                                                   |                                                                                   |
| M3970-D18-W10 |                 | 37.5       | 37   | 32 | 295 | 329 | 270 | 60 |                                                                                   |                                                                                   |                                                                                   |
| M4000-D18-W10 | W39-50-7D       | 39.5       | 39   | 50 | 300 | 343 | 275 | 60 |                                                                                   |                                                                                   |                                                                                   |
| M4100-D19-W10 |                 | 39.5       | 39   | 50 | 300 | 343 | 275 | 60 |                                                                                   |                                                                                   |                                                                                   |
| M4128-D19-W10 |                 | 39.5       | 39   | 50 | 300 | 343 | 275 | 60 |                                                                                   |                                                                                   |                                                                                   |
| M4200-D19-W10 | W41-50-7D       | 41.5       | 41   | 50 | 320 | 360 | 295 | 80 | K14-16.9                                                                          |                                                                                   |                                                                                   |
| M4300-D16-W12 |                 | 41.5       | 41   | 50 | 320 | 360 | 295 | 80 |                                                                                   |                                                                                   |                                                                                   |
| M4400-D18-W12 |                 | 41.5       | 41   | 50 | 320 | 360 | 295 | 80 | K17-19.9                                                                          |                                                                                   |                                                                                   |
| M4445-D18-W12 |                 | 41.5       | 41   | 50 | 320 | 360 | 295 | 80 |                                                                                   |                                                                                   |                                                                                   |
| M4500-D18-W12 | W44-50-7D       | 44.5       | 44   | 50 | 346 | 390 | 320 | 80 |                                                                                   |                                                                                   |                                                                                   |
| M4600-D19-W12 |                 | 44.5       | 44   | 50 | 346 | 390 | 320 | 80 |                                                                                   |                                                                                   |                                                                                   |
| M4700-D20-W12 |                 | 44.5       | 44   | 50 | 346 | 390 | 320 | 80 |                                                                                   |                                                                                   |                                                                                   |
| M4763-D21-W12 |                 | 44.5       | 44   | 50 | 346 | 390 | 320 | 80 |                                                                                   |                                                                                   |                                                                                   |
| M4800-D21-W12 | W47-50-7D       | 47.5       | 47   | 50 | 360 | 400 | 325 | 80 | K20-26                                                                            |                                                                                   |                                                                                   |
| M4900-D22-W12 |                 | 47.5       | 47   | 50 | 360 | 400 | 325 | 80 |                                                                                   |                                                                                   |                                                                                   |
| M5000-D23-W12 |                 | 47.5       | 47   | 50 | 360 | 400 | 325 | 80 |                                                                                   |                                                                                   |                                                                                   |
| M5080-D24-W12 | W50-50-7D       | 50.3       | 49.8 | 50 | 375 | 415 | 340 | 80 |                                                                                   |                                                                                   |                                                                                   |
| M5100-D24-W12 |                 | 50.3       | 49.8 | 50 | 375 | 415 | 340 | 80 |                                                                                   |                                                                                   |                                                                                   |
| M5200-D25-W12 |                 | 50.3       | 49.8 | 50 | 375 | 415 | 340 | 80 |                                                                                   |                                                                                   |                                                                                   |
| M5300-D26-W12 |                 | 50.3       | 49.8 | 50 | 375 | 415 | 340 | 80 |                                                                                   |                                                                                   |                                                                                   |
| M5398-D27-W12 | W53-50-7D       | 53.4       | 53   | 50 | 385 | 425 | 350 | 80 |                                                                                   |                                                                                   |                                                                                   |
| M5400-D27-W12 |                 | 53.4       | 53   | 50 | 385 | 425 | 350 | 80 |                                                                                   |                                                                                   |                                                                                   |
| M5500-D28-W12 |                 | 53.4       | 53   | 50 | 385 | 425 | 350 | 80 |                                                                                   |                                                                                   |                                                                                   |



## KCNM...7D Modular Drilling Tools



Large Diameter | Modular Head | Drilling Depth 7XD



Unit: mm

| Specification   | Drilling Dia. | Centre Drill | Side Insert |
|-----------------|---------------|--------------|-------------|
| P5600-D20-W15   | 56.00         | MD-200-P     | WO**1503    |
| P5700-D21-W15   | 57.00         | MD-210-P     | WO**1503    |
| P5800-D22-W15   | 58.00         | MD-220-P     | WO**1503    |
| P5900-D23-W15   | 59.00         | MD-230-P     | WO**1503    |
| P6000-D24-W15   | 60.00         | MD-240-P     | WO**1503    |
| P6100-D25-W15   | 61.00         | MD-250-P     | WO**1503    |
| P6200-D26-W15   | 62.00         | MD-260-P     | WO**1503    |
| P6300-D27-W15   | 63.00         | MD-270-P     | WO**1503    |
| P6400-D28-W15   | 64.00         | MD-280-P     | WO**1503    |
| P6500-ICN29-W15 | 65.00         | ICN-290-P    | WO**1503    |
| P6600-ICN30-W15 | 66.00         | ICN-300-P    | WO**1503    |
| P6700-ICN31-W15 | 67.00         | ICN-310-P    | WO**1503    |
| P6800-ICN32-W15 | 68.00         | ICN-320-P    | WO**1503    |
| P6900-ICN33-W15 | 69.00         | ICN-330-P    | WO**1503    |
| P7000-ICN34-W15 | 70.00         | ICN-340-P    | WO**1503    |
| P7100-ICN35-W15 | 71.00         | ICN-350-P    | WO**1503    |
| P7200-ICN36-W15 | 72.00         | ICN-360-P    | WO**1503    |
| P7300-ICN37-W15 | 73.00         | ICN-370-P    | WO**1503    |
| P7400-ICN38-W15 | 74.00         | ICN-380-P    | WO**1503    |
| P7500-ICN39-W15 | 75.00         | ICN-390-P    | WO**1503    |
| P7600-ICN40-W15 | 76.00         | ICN-400-P    | WO**1503    |
| P7700-ICN41-W15 | 77.00         | ICN-410-P    | WO**1503    |
| P7800-ICN42-W15 | 78.00         | ICN-420-P    | WO**1503    |
| P7900-ICN43-W15 | 79.00         | ICN-430-P    | WO**1503    |
| P8000-ICN44-W15 | 80.00         | ICN-440-P    | WO**1503    |

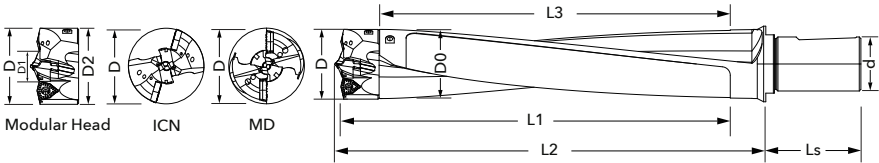
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## KCNM...7D Modular Drilling Tools

Large Diameter | Modular Head | Drilling Depth 7XD



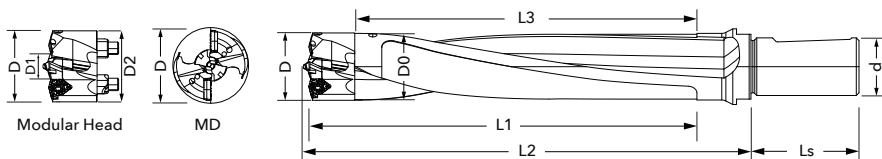
Unit: mm

| Specification   | Drilling Holder | Dimensions |    |    |     |     |     |     | Accessories                                                                       |                                                                                   |                                                                                   |
|-----------------|-----------------|------------|----|----|-----|-----|-----|-----|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
|                 |                 | D2         | D0 | d  | L1  | L2  | L3  | Ls  |  |  |  |
| P5600-D20-W15   | B53-50-7D       | 55         | 53 | 50 | 429 | 452 | 395 | 80  |                                                                                   | KCNM050100                                                                        | T20                                                                               |
| P5700-D21-W15   |                 | 56         | 53 | 50 | 429 | 452 | 395 | 80  |                                                                                   |                                                                                   |                                                                                   |
| P5800-D22-W15   |                 | 57         | 53 | 50 | 429 | 452 | 395 | 80  |                                                                                   |                                                                                   |                                                                                   |
| P5900-D23-W15   | B58-50-7D       | 58         | 58 | 50 | 486 | 514 | 452 | 80  | K20-26                                                                            |                                                                                   |                                                                                   |
| P6000-D24-W15   |                 | 59         | 58 | 50 | 486 | 514 | 452 | 80  |                                                                                   |                                                                                   |                                                                                   |
| P6100-D25-W15   |                 | 60         | 58 | 50 | 486 | 514 | 452 | 80  |                                                                                   |                                                                                   |                                                                                   |
| P6200-D26-W15   |                 | 61         | 58 | 50 | 486 | 514 | 452 | 80  |                                                                                   |                                                                                   |                                                                                   |
| P6300-D27-W15   |                 | 62         | 58 | 50 | 486 | 514 | 452 | 80  |                                                                                   |                                                                                   |                                                                                   |
| P6400-D28-W15   |                 | 63         | 58 | 50 | 486 | 514 | 452 | 80  |                                                                                   |                                                                                   |                                                                                   |
| P6500-ICN29-W15 |                 | B64-50-7D  | 64 | 64 | 50  | 525 | 548 | 490 | 80                                                                                |                                                                                   |                                                                                   |
| P6600-ICN30-W15 | 65              |            | 64 | 50 | 525 | 548 | 490 | 80  |                                                                                   |                                                                                   |                                                                                   |
| P6700-ICN31-W15 | 66              |            | 64 | 50 | 525 | 548 | 490 | 80  |                                                                                   |                                                                                   |                                                                                   |
| P6800-ICN32-W15 | 67              |            | 64 | 50 | 525 | 548 | 490 | 80  |                                                                                   |                                                                                   |                                                                                   |
| P6900-ICN33-W15 | 68              |            | 64 | 50 | 525 | 548 | 490 | 80  |                                                                                   |                                                                                   |                                                                                   |
| P7000-ICN34-W15 | 69              |            | 64 | 50 | 525 | 548 | 490 | 80  |                                                                                   |                                                                                   |                                                                                   |
| P7100-ICN35-W15 | 70              |            | 64 | 50 | 525 | 548 | 480 | 80  | K33-38                                                                            |                                                                                   |                                                                                   |
| P7200-ICN36-W15 | B71-50-7D       | 71         | 71 | 50 | 605 | 625 | 565 | 80  |                                                                                   |                                                                                   |                                                                                   |
| P7300-ICN37-W15 |                 | 72         | 71 | 50 | 605 | 625 | 565 | 80  |                                                                                   |                                                                                   |                                                                                   |
| P7400-ICN38-W15 |                 | 73         | 71 | 50 | 605 | 625 | 565 | 80  |                                                                                   |                                                                                   |                                                                                   |
| P7500-ICN39-W15 |                 | 74         | 71 | 50 | 605 | 625 | 565 | 80  |                                                                                   |                                                                                   |                                                                                   |
| P7600-ICN40-W15 |                 | 75         | 71 | 50 | 605 | 625 | 565 | 80  |                                                                                   |                                                                                   |                                                                                   |
| P7700-ICN41-W15 |                 | 76         | 71 | 50 | 605 | 625 | 565 | 80  |                                                                                   |                                                                                   |                                                                                   |
| P7800-ICN42-W15 |                 | 77         | 71 | 50 | 605 | 625 | 565 | 80  |                                                                                   |                                                                                   |                                                                                   |
| P7900-ICN43-W15 |                 | 78         | 71 | 50 | 605 | 625 | 565 | 80  |                                                                                   |                                                                                   |                                                                                   |
| P8000-ICN44-W15 |                 | 79         | 71 | 50 | 605 | 625 | 565 | 80  |                                                                                   |                                                                                   |                                                                                   |
|                 |                 |            |    |    |     |     |     |     |                                                                                   | K39-45                                                                            |                                                                                   |



## KCNM...8D Modular Drilling Tools

Large Diameter | Modular Head | Drilling Depth 8XD



Unit: mm

| Specification | Drilling Dia. | Centre Drill | Side Insert |
|---------------|---------------|--------------|-------------|
| M2800-D14-A04 | 28.00         | MD-140-P     | AO**0403    |
| M2858-D15-A04 | 28.58         | MD-150-P     | AO**0403    |
| M2900-D16-A04 | 29.00         | MD-160-P     | AO**0403    |
| M2936-D16-A04 | 29.36         | MD-160-P     | AO**0403    |
| M3000-D16-A04 | 30.00         | MD-160-P     | AO**0403    |
| M3018-D18-A04 | 30.18         | MD-180-P     | AO**0403    |
| M3096-D18-A04 | 30.96         | MD-180-P     | AO**0403    |
| M3100-D18-A04 | 31.00         | MD-180-P     | AO**0403    |
| M3175-D15-W08 | 31.75         | MD-150-P     | WO**0803    |
| M3200-D15-W08 | 32.00         | MD-150-P     | WO**0803    |
| M3300-D16-W08 | 33.00         | MD-160-P     | WO**0803    |
| M3320-D16-W08 | 33.20         | MD-160-P     | WO**0803    |
| M3335-D16-W08 | 33.35         | MD-160-P     | WO**0803    |
| M3400-D18-W08 | 34.00         | MD-180-P     | WO**0803    |
| M3493-D18-W08 | 34.93         | MD-180-P     | WO**0803    |
| M3500-D18-W08 | 35.00         | MD-180-P     | WO**0803    |
| M3600-D18-W08 | 36.00         | MD-180-P     | WO**0803    |
| M3653-D19-W08 | 36.53         | MD-190-P     | WO**0803    |
| M3700-D16-W10 | 37.00         | MD-160-P     | WO**1003    |
| M3750-D16-W10 | 37.50         | MD-160-P     | WO**1003    |

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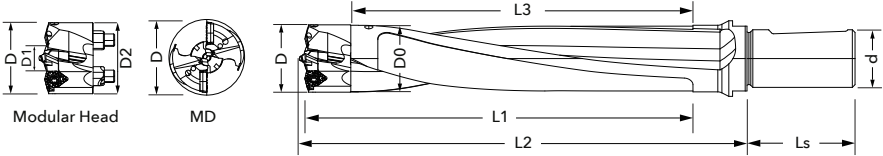
AOMT... page 109

WOMT...W... page 109

MD.....\* page 110

# KCNM...8D Modular Drilling Tools

Large Diameter | Modular Head | Drilling Depth 8XD



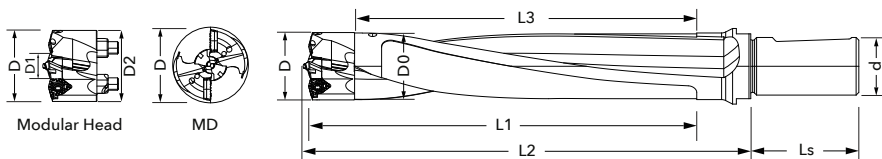
Unit: mm

| Specification | Drilling Holder | Dimensions |       |    |     |     |     |    | Accessories                                                                       |                                                                                   |                                                                                   |
|---------------|-----------------|------------|-------|----|-----|-----|-----|----|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
|               |                 | D2         | D0    | d  | L1  | L2  | L3  | Ls |  |  |  |
| M2800-D14-A04 | W27-32-8D       | 27.5       | 27    | 32 | 245 | 285 | 225 | 60 | K14-16.9                                                                          | KCNM025080                                                                        | T9                                                                                |
| M2858-D15-A04 |                 | 27.5       | 27    | 32 | 245 | 285 | 225 | 60 |                                                                                   |                                                                                   |                                                                                   |
| M2900-D16-A04 |                 | 27.5       | 27    | 32 | 245 | 285 | 225 | 60 |                                                                                   |                                                                                   |                                                                                   |
| M2936-D16-A04 |                 | 27.5       | 27    | 32 | 245 | 285 | 225 | 60 |                                                                                   |                                                                                   |                                                                                   |
| M3000-D16-A04 | W29-32-8D       | 29.5       | 29    | 32 | 250 | 288 | 230 | 60 | K17-19.9                                                                          |                                                                                   |                                                                                   |
| M3018-D18-A04 |                 | 29.5       | 29    | 32 | 250 | 288 | 230 | 60 |                                                                                   |                                                                                   |                                                                                   |
| M3096-D18-A04 |                 | 29.5       | 29    | 32 | 250 | 288 | 230 | 60 |                                                                                   |                                                                                   |                                                                                   |
| M3100-D18-A04 |                 | 29.5       | 29    | 32 | 250 | 288 | 230 | 60 |                                                                                   |                                                                                   |                                                                                   |
| M3175-D15-W08 | W31-32-8D       | 31.25      | 30.75 | 32 | 279 | 314 | 257 | 60 | K14-16.9                                                                          | KCNM030100                                                                        | T10                                                                               |
| M3200-D15-W08 |                 | 31.25      | 30.75 | 32 | 279 | 314 | 257 | 60 |                                                                                   |                                                                                   |                                                                                   |
| M3300-D16-W08 |                 | 31.25      | 30.75 | 32 | 279 | 314 | 257 | 60 |                                                                                   |                                                                                   |                                                                                   |
| M3320-D16-W08 |                 | 31.25      | 30.75 | 32 | 279 | 314 | 257 | 60 |                                                                                   |                                                                                   |                                                                                   |
| M3335-D16-W08 |                 | 31.25      | 30.75 | 32 | 279 | 314 | 257 | 60 |                                                                                   |                                                                                   |                                                                                   |
| M3400-D18-W08 |                 | 31.25      | 30.75 | 32 | 279 | 314 | 257 | 60 |                                                                                   |                                                                                   |                                                                                   |
| M3493-D18-W08 |                 | 31.25      | 30.75 | 32 | 279 | 314 | 257 | 60 |                                                                                   |                                                                                   |                                                                                   |
| M3500-D18-W08 | W34-32-8D       | 34.5       | 34    | 32 | 312 | 348 | 290 | 60 | K17-19.9                                                                          |                                                                                   |                                                                                   |
| M3600-D18-W08 |                 | 34.5       | 34    | 32 | 312 | 348 | 290 | 60 |                                                                                   |                                                                                   |                                                                                   |
| M3653-D19-W08 |                 | 34.5       | 34    | 32 | 312 | 348 | 290 | 60 |                                                                                   |                                                                                   |                                                                                   |
| M3700-D16-W10 |                 | 34.5       | 34    | 32 | 312 | 348 | 290 | 60 | K14-16.9                                                                          | KCNM040120                                                                        | T15                                                                               |
| M3750-D16-W10 |                 | 34.5       | 34    | 32 | 312 | 348 | 290 | 60 |                                                                                   |                                                                                   |                                                                                   |



## KCNM...8D Modular Drilling Tools

Large Diameter | Modular Head | Drilling Depth 8XD



Unit: mm

| Specification | Drilling Dia. | Centre Drill | Side Insert |
|---------------|---------------|--------------|-------------|
| M3800-D16-W10 | 38.00         | MD-160-P     | WO**1003    |
| M3810-D16-W10 | 38.10         | MD-160-P     | WO**1003    |
| M3900-D18-W10 | 39.00         | MD-180-P     | WO**1003    |
| M3920-D18-W10 | 39.20         | MD-180-P     | WO**1003    |
| M3970-D18-W10 | 39.70         | MD-180-P     | WO**1003    |
| M4000-D18-W10 | 40.00         | MD-180-P     | WO**1003    |
| M4100-D19-W10 | 41.00         | MD-190-P     | WO**1003    |
| M4128-D19-W10 | 41.28         | MD-190-P     | WO**1003    |
| M4200-D19-W10 | 42.00         | MD-190-P     | WO**1204    |
| M4300-D16-W12 | 43.00         | MD-160-P     | WO**1204    |
| M4400-D18-W12 | 44.00         | MD-180-P     | WO**1204    |
| M4445-D18-W12 | 44.45         | MD-180-P     | WO**1204    |
| M4500-D18-W12 | 45.00         | MD-180-P     | WO**1204    |
| M4600-D19-W12 | 46.00         | MD-190-P     | WO**1204    |
| M4700-D20-W12 | 47.00         | MD-200-P     | WO**1204    |
| M4763-D21-W12 | 47.63         | MD-210-P     | WO**1204    |
| M4800-D21-W12 | 48.00         | MD-210-P     | WO**1204    |
| M4900-D22-W12 | 49.00         | MD-220-P     | WO**1204    |
| M5000-D23-W12 | 50.00         | MD-230-P     | WO**1204    |
| M5080-D24-W12 | 50.80         | MD-240-P     | WO**1204    |
| M5100-D24-W12 | 51.00         | MD-240-P     | WO**1204    |
| M5200-D25-W12 | 52.00         | MD-250-P     | WO**1204    |
| M5300-D26-W12 | 53.00         | MD-260-P     | WO**1204    |
| M5398-D27-W12 | 53.98         | MD-270-P     | WO**1204    |
| M5400-D27-W12 | 54.00         | MD-270-P     | WO**1204    |
| M5500-D28-W12 | 55.00         | MD-280-P     | WO**1204    |

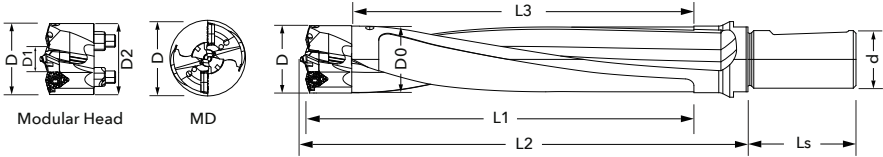
Insert pages :

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## KCNM...8D Modular Drilling Tools

Large Diameter | Modular Head | Drilling Depth 8XD



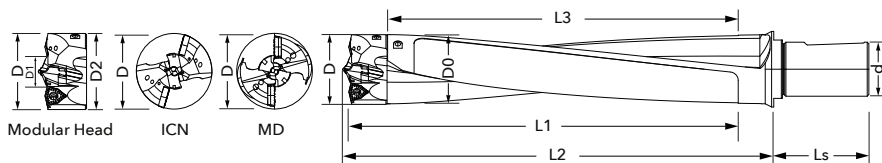
Unit: mm

| Specification | Drilling Holder | Dimensions |      |    |     |     |     |    | Accessories                                                                       |                                                                                   |                                                                                   |
|---------------|-----------------|------------|------|----|-----|-----|-----|----|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
|               |                 | D2         | D0   | d  | L1  | L2  | L3  | Ls |  |  |  |
| M3800-D16-W10 | W37-32-8D       | 37.5       | 37   | 32 | 335 | 366 | 310 | 60 | K14-16.9                                                                          | KCNM040120                                                                        | T15                                                                               |
| M3810-D16-W10 |                 | 37.5       | 37   | 32 | 335 | 366 | 310 | 60 |                                                                                   |                                                                                   |                                                                                   |
| M3900-D18-W10 |                 | 37.5       | 37   | 32 | 335 | 366 | 310 | 60 |                                                                                   |                                                                                   |                                                                                   |
| M3920-D18-W10 |                 | 37.5       | 37   | 32 | 335 | 366 | 310 | 60 |                                                                                   |                                                                                   |                                                                                   |
| M3970-D18-W10 |                 | 37.5       | 37   | 32 | 335 | 366 | 310 | 60 |                                                                                   |                                                                                   |                                                                                   |
| M4000-D18-W10 | W39-50-8D       | 39.5       | 39   | 50 | 345 | 395 | 320 | 60 | K17-20                                                                            |                                                                                   |                                                                                   |
| M4100-D19-W10 |                 | 39.5       | 39   | 50 | 345 | 395 | 320 | 60 |                                                                                   |                                                                                   |                                                                                   |
| M4128-D19-W10 |                 | 39.5       | 39   | 50 | 345 | 395 | 320 | 60 |                                                                                   |                                                                                   |                                                                                   |
| M4200-D19-W10 | W41-50-8D       | 41.5       | 41   | 50 | 365 | 405 | 340 | 80 | K14-16.9                                                                          |                                                                                   |                                                                                   |
| M4300-D16-W12 |                 | 41.5       | 41   | 50 | 365 | 405 | 340 | 80 |                                                                                   |                                                                                   |                                                                                   |
| M4400-D18-W12 |                 | 41.5       | 41   | 50 | 365 | 405 | 340 | 80 |                                                                                   |                                                                                   |                                                                                   |
| M4445-D18-W12 |                 | 41.5       | 41   | 50 | 365 | 405 | 340 | 80 |                                                                                   |                                                                                   |                                                                                   |
| M4500-D18-W12 | W44-50-8D       | 44.5       | 44   | 50 | 390 | 435 | 364 | 80 | K17-19.9                                                                          |                                                                                   |                                                                                   |
| M4600-D19-W12 |                 | 44.5       | 44   | 50 | 390 | 435 | 364 | 80 |                                                                                   |                                                                                   |                                                                                   |
| M4700-D20-W12 |                 | 44.5       | 44   | 50 | 390 | 435 | 364 | 80 |                                                                                   |                                                                                   |                                                                                   |
| M4763-D21-W12 |                 | 44.5       | 44   | 50 | 390 | 435 | 364 | 80 |                                                                                   |                                                                                   |                                                                                   |
| M4800-D21-W12 | W47-50-8D       | 47.5       | 47   | 50 | 410 | 450 | 375 | 80 | K20-26                                                                            |                                                                                   |                                                                                   |
| M4900-D22-W12 |                 | 47.5       | 47   | 50 | 410 | 450 | 375 | 80 |                                                                                   |                                                                                   |                                                                                   |
| M5000-D23-W12 |                 | 47.5       | 47   | 50 | 410 | 450 | 375 | 80 |                                                                                   |                                                                                   |                                                                                   |
| M5080-D24-W12 | W50-50-8D       | 50.3       | 49.8 | 50 | 425 | 465 | 390 | 80 |                                                                                   |                                                                                   |                                                                                   |
| M5100-D24-W12 |                 | 50.3       | 49.8 | 50 | 425 | 465 | 390 | 80 |                                                                                   |                                                                                   |                                                                                   |
| M5200-D25-W12 |                 | 50.3       | 49.8 | 50 | 425 | 465 | 390 | 80 |                                                                                   |                                                                                   |                                                                                   |
| M5300-D26-W12 |                 | 50.3       | 49.8 | 50 | 425 | 465 | 390 | 80 |                                                                                   |                                                                                   |                                                                                   |
| M5398-D27-W12 | W53-50-8D       | 53.4       | 53   | 50 | 440 | 480 | 405 | 80 |                                                                                   |                                                                                   |                                                                                   |
| M5400-D27-W12 |                 | 53.4       | 53   | 50 | 440 | 480 | 405 | 80 |                                                                                   |                                                                                   |                                                                                   |
| M5500-D28-W12 |                 | 53.4       | 53   | 50 | 440 | 480 | 405 | 80 |                                                                                   |                                                                                   |                                                                                   |



## KCNM...8D Modular Drilling Tools

Large Diameter | Modular Head | Drilling Depth 8XD



Unit: mm

| Specification   | Drilling Dia. | Centre Drill | Side Insert |
|-----------------|---------------|--------------|-------------|
| P5600-D20-W15   | 56.00         | MD-200-P     | WO**1503    |
| P5700-D21-W15   | 57.00         | MD-210-P     | WO**1503    |
| P5800-D22-W15   | 58.00         | MD-220-P     | WO**1503    |
| P5900-D23-W15   | 59.00         | MD-230-P     | WO**1503    |
| P6000-D24-W15   | 60.00         | MD-240-P     | WO**1503    |
| P6100-D25-W15   | 61.00         | MD-250-P     | WO**1503    |
| P6200-D26-W15   | 62.00         | MD-260-P     | WO**1503    |
| P6300-D27-W15   | 63.00         | MD-270-P     | WO**1503    |
| P6400-D28-W15   | 64.00         | MD-280-P     | WO**1503    |
| P6500-ICN29-W15 | 65.00         | ICN-290-P    | WO**1503    |
| P6600-ICN30-W15 | 66.00         | ICN-300-P    | WO**1503    |
| P6700-ICN31-W15 | 67.00         | ICN-310-P    | WO**1503    |
| P6800-ICN32-W15 | 68.00         | ICN-320-P    | WO**1503    |
| P6900-ICN33-W15 | 69.00         | ICN-330-P    | WO**1503    |
| P7000-ICN34-W15 | 70.00         | ICN-340-P    | WO**1503    |
| P7100-ICN35-W15 | 71.00         | ICN-350-P    | WO**1503    |
| P7200-ICN36-W15 | 72.00         | ICN-360-P    | WO**1503    |
| P7300-ICN37-W15 | 73.00         | ICN-370-P    | WO**1503    |
| P7400-ICN38-W15 | 74.00         | ICN-380-P    | WO**1503    |
| P7500-ICN39-W15 | 75.00         | ICN-390-P    | WO**1503    |
| P7600-ICN40-W15 | 76.00         | ICN-400-P    | WO**1503    |
| P7700-ICN41-W15 | 77.00         | ICN-410-P    | WO**1503    |
| P7800-ICN42-W15 | 78.00         | ICN-420-P    | WO**1503    |
| P7900-ICN43-W15 | 79.00         | ICN-430-P    | WO**1503    |
| P8000-ICN44-W15 | 80.00         | ICN-440-P    | WO**1503    |

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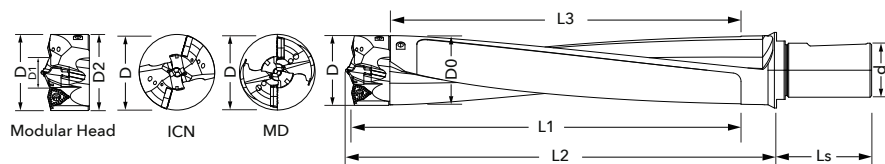
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# KCNM...8D Modular Drilling Tools

Large Diameter | Modular Head | Drilling Depth 8XD



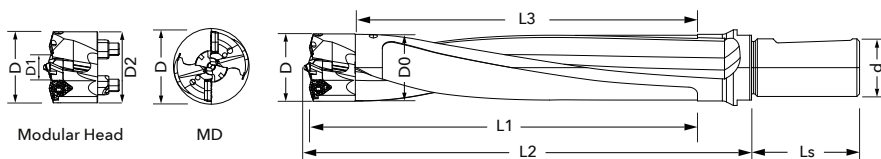
Unit: mm

| Specification   | Drilling Holder | Dimensions |    |    |     |     |     |     | Accessories                                                                       |                                                                                   |                                                                                   |
|-----------------|-----------------|------------|----|----|-----|-----|-----|-----|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
|                 |                 | D2         | D0 | d  | L1  | L2  | L3  | Ls  |  |  |  |
| P5600-D20-W15   | B53-50-8D       | 55         | 53 | 50 | 499 | 522 | 465 | 80  | K20-26                                                                            | KCNM050100                                                                        | T20                                                                               |
| P5700-D21-W15   |                 | 56         | 53 | 50 | 499 | 522 | 465 | 80  |                                                                                   |                                                                                   |                                                                                   |
| P5800-D22-W15   |                 | 57         | 53 | 50 | 499 | 522 | 465 | 80  |                                                                                   |                                                                                   |                                                                                   |
| P5900-D23-W15   | B58-50-8D       | 58         | 58 | 50 | 548 | 576 | 514 | 80  |                                                                                   |                                                                                   |                                                                                   |
| P6000-D24-W15   |                 | 59         | 58 | 50 | 548 | 576 | 514 | 80  |                                                                                   |                                                                                   |                                                                                   |
| P6100-D25-W15   |                 | 60         | 58 | 50 | 548 | 576 | 514 | 80  |                                                                                   |                                                                                   |                                                                                   |
| P6200-D26-W15   |                 | 61         | 58 | 50 | 548 | 576 | 514 | 80  |                                                                                   |                                                                                   |                                                                                   |
| P6300-D27-W15   |                 | 62         | 58 | 50 | 548 | 576 | 514 | 80  |                                                                                   |                                                                                   |                                                                                   |
| P6400-D28-W15   |                 | 63         | 58 | 50 | 548 | 576 | 514 | 80  |                                                                                   |                                                                                   |                                                                                   |
| P6500-ICN29-W15 |                 | B64-50-8D  | 64 | 64 | 50  | 595 | 618 | 560 | 80                                                                                |                                                                                   |                                                                                   |
| P6600-ICN30-W15 | 65              |            | 64 | 50 | 595 | 618 | 560 | 80  |                                                                                   |                                                                                   |                                                                                   |
| P6700-ICN31-W15 | 66              |            | 64 | 50 | 595 | 618 | 560 | 80  |                                                                                   |                                                                                   |                                                                                   |
| P6800-ICN32-W15 | 67              |            | 64 | 50 | 595 | 618 | 560 | 80  |                                                                                   |                                                                                   |                                                                                   |
| P6900-ICN33-W15 | 68              |            | 64 | 50 | 595 | 618 | 560 | 80  |                                                                                   |                                                                                   |                                                                                   |
| P7000-ICN34-W15 | 69              |            | 64 | 50 | 595 | 618 | 560 | 80  |                                                                                   |                                                                                   |                                                                                   |
| P7100-ICN35-W15 | 70              |            | 64 | 50 | 595 | 618 | 560 | 80  |                                                                                   |                                                                                   |                                                                                   |
| P7200-ICN36-W15 | B71-50-8D       | 71         | 71 | 50 | 685 | 705 | 645 | 80  | K33-38                                                                            |                                                                                   |                                                                                   |
| P7300-ICN37-W15 |                 | 72         | 71 | 50 | 685 | 705 | 645 | 80  |                                                                                   |                                                                                   |                                                                                   |
| P7400-ICN38-W15 |                 | 73         | 71 | 50 | 685 | 705 | 645 | 80  |                                                                                   |                                                                                   |                                                                                   |
| P7500-ICN39-W15 |                 | 74         | 71 | 50 | 685 | 705 | 645 | 80  |                                                                                   |                                                                                   |                                                                                   |
| P7600-ICN40-W15 |                 | 75         | 71 | 50 | 685 | 705 | 645 | 80  | K39-45                                                                            |                                                                                   |                                                                                   |
| P7700-ICN41-W15 |                 | 76         | 71 | 50 | 685 | 705 | 645 | 80  |                                                                                   |                                                                                   |                                                                                   |
| P7800-ICN42-W15 |                 | 77         | 71 | 50 | 685 | 705 | 645 | 80  |                                                                                   |                                                                                   |                                                                                   |
| P7900-ICN43-W15 |                 | 78         | 71 | 50 | 685 | 705 | 645 | 80  |                                                                                   |                                                                                   |                                                                                   |
| P8000-ICN44-W15 |                 | 79         | 71 | 50 | 685 | 705 | 645 | 80  |                                                                                   |                                                                                   |                                                                                   |



## KCNM...10D Modular Drilling Tools

Large Diameter | Modular Head | Drilling Depth 10XD



Unit: mm

| Specification | Drilling Dia. | Centre Drill | Side Insert |
|---------------|---------------|--------------|-------------|
| M2800-D14-A04 | 28.00         | MD-140-P     | AO**0403    |
| M2858-D15-A04 | 28.58         | MD-150-P     | AO**0403    |
| M2900-D16-A04 | 29.00         | MD-160-P     | AO**0403    |
| M2936-D16-A04 | 29.36         | MD-160-P     | AO**0403    |
| M3000-D16-A04 | 30.00         | MD-160-P     | AO**0403    |
| M3018-D18-A04 | 30.18         | MD-180-P     | AO**0403    |
| M3096-D18-A04 | 30.96         | MD-180-P     | AO**0403    |
| M3100-D18-A04 | 31.00         | MD-180-P     | AO**0403    |
| M3175-D15-W08 | 31.75         | MD-150-P     | WO**0803    |
| M3200-D15-W08 | 32.00         | MD-150-P     | WO**0803    |
| M3300-D16-W08 | 33.00         | MD-160-P     | WO**0803    |
| M3320-D16-W08 | 33.20         | MD-160-P     | WO**0803    |
| M3335-D16-W08 | 33.35         | MD-160-P     | WO**0803    |
| M3400-D18-W08 | 34.00         | MD-180-P     | WO**0803    |
| M3493-D18-W08 | 34.93         | MD-180-P     | WO**0803    |
| M3500-D18-W08 | 35.00         | MD-180-P     | WO**0803    |
| M3600-D18-W08 | 36.00         | MD-180-P     | WO**0803    |
| M3653-D19-W08 | 36.53         | MD-190-P     | WO**0803    |
| M3700-D16-W10 | 37.00         | MD-160-P     | WO**1003    |
| M3750-D16-W10 | 37.50         | MD-160-P     | WO**1003    |

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AOMT... page 109

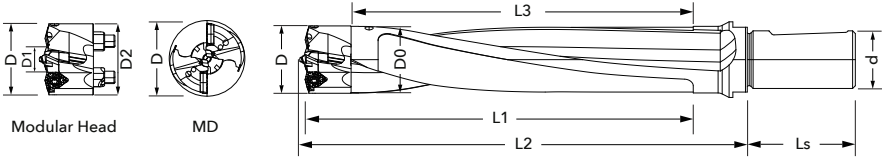
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## KCNM...10D Modular Drilling Tools

Large Diameter | Modular Head | Drilling Depth 10XD



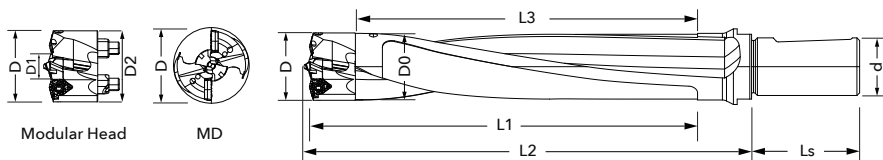
Unit: mm

| Specification | Drilling Holder | Dimensions |       |    |     |     |     |    | Accessories                                                                       |                                                                                   |                                                                                   |
|---------------|-----------------|------------|-------|----|-----|-----|-----|----|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
|               |                 | D2         | D0    | d  | L1  | L2  | L3  | Ls |  |  |  |
| M2800-D14-A04 | W27-32-10D      | 27.5       | 27    | 32 | 300 | 340 | 280 | 60 | K14-16.9                                                                          | KCNM025080                                                                        | T9                                                                                |
| M2858-D15-A04 |                 | 27.5       | 27    | 32 | 300 | 340 | 280 | 60 |                                                                                   |                                                                                   |                                                                                   |
| M2900-D16-A04 |                 | 27.5       | 27    | 32 | 300 | 340 | 280 | 60 |                                                                                   |                                                                                   |                                                                                   |
| M2936-D16-A04 |                 | 27.5       | 27    | 32 | 300 | 340 | 280 | 60 |                                                                                   |                                                                                   |                                                                                   |
| M3000-D16-A04 | W29-32-10D      | 29.5       | 29    | 32 | 310 | 348 | 290 | 60 | K17-19.9                                                                          |                                                                                   |                                                                                   |
| M3018-D18-A04 |                 | 29.5       | 29    | 32 | 310 | 348 | 290 | 60 |                                                                                   |                                                                                   |                                                                                   |
| M3096-D18-A04 |                 | 29.5       | 29    | 32 | 310 | 348 | 290 | 60 |                                                                                   |                                                                                   |                                                                                   |
| M3100-D18-A04 |                 | 29.5       | 29    | 32 | 310 | 348 | 290 | 60 |                                                                                   |                                                                                   |                                                                                   |
| M3175-D15-W08 | W31-32-10D      | 31.25      | 30.75 | 32 | 349 | 384 | 327 | 60 | K14-16.9                                                                          | KCNM030100                                                                        | T10                                                                               |
| M3200-D15-W08 |                 | 31.25      | 30.75 | 32 | 349 | 384 | 327 | 60 |                                                                                   |                                                                                   |                                                                                   |
| M3300-D16-W08 |                 | 31.25      | 30.75 | 32 | 349 | 384 | 327 | 60 |                                                                                   |                                                                                   |                                                                                   |
| M3320-D16-W08 |                 | 31.25      | 30.75 | 32 | 349 | 384 | 327 | 60 |                                                                                   |                                                                                   |                                                                                   |
| M3335-D16-W08 |                 | 31.25      | 30.75 | 32 | 349 | 384 | 327 | 60 |                                                                                   |                                                                                   |                                                                                   |
| M3400-D18-W08 |                 | 31.25      | 30.75 | 32 | 349 | 384 | 327 | 60 |                                                                                   |                                                                                   |                                                                                   |
| M3493-D18-W08 |                 | 31.25      | 30.75 | 32 | 349 | 384 | 327 | 60 |                                                                                   |                                                                                   |                                                                                   |
| M3500-D18-W08 | W34-32-10D      | 34.5       | 34    | 32 | 382 | 418 | 360 | 60 | K17-19.9                                                                          | KCNM040120                                                                        | T15                                                                               |
| M3600-D18-W08 |                 | 34.5       | 34    | 32 | 382 | 418 | 360 | 60 |                                                                                   |                                                                                   |                                                                                   |
| M3653-D19-W08 |                 | 34.5       | 34    | 32 | 382 | 418 | 360 | 60 |                                                                                   |                                                                                   |                                                                                   |
| M3700-D16-W10 |                 | 34.5       | 34    | 32 | 382 | 418 | 360 | 60 | K14-16.9                                                                          |                                                                                   |                                                                                   |
| M3750-D16-W10 |                 | 34.5       | 34    | 32 | 382 | 418 | 360 | 60 |                                                                                   |                                                                                   |                                                                                   |



## KCNM...10D Modular Drilling Tools

Large Diameter | Modular Head | Drilling Depth 10XD



Unit: mm

| Specification | Drilling Dia. | Centre Drill | Side Insert |
|---------------|---------------|--------------|-------------|
| M3800-D16-W10 | 38.00         | MD-160-P     | WO**1003    |
| M3810-D16-W10 | 38.10         | MD-160-P     | WO**1003    |
| M3900-D18-W10 | 39.00         | MD-180-P     | WO**1003    |
| M3920-D18-W10 | 39.20         | MD-180-P     | WO**1003    |
| M3970-D18-W10 | 39.70         | MD-180-P     | WO**1003    |
| M4000-D18-W10 | 40.00         | MD-180-P     | WO**1003    |
| M4100-D19-W10 | 41.00         | MD-190-P     | WO**1003    |
| M4128-D19-W10 | 41.28         | MD-190-P     | WO**1003    |
| M4200-D19-W10 | 42.00         | MD-190-P     | WO**1204    |
| M4300-D16-W12 | 43.00         | MD-160-P     | WO**1204    |
| M4400-D18-W12 | 44.00         | MD-180-P     | WO**1204    |
| M4445-D18-W12 | 44.45         | MD-180-P     | WO**1204    |
| M4500-D18-W12 | 45.00         | MD-180-P     | WO**1204    |
| M4600-D19-W12 | 46.00         | MD-190-P     | WO**1204    |
| M4700-D20-W12 | 47.00         | MD-200-P     | WO**1204    |
| M4763-D21-W12 | 47.63         | MD-210-P     | WO**1204    |
| M4800-D21-W12 | 48.00         | MD-210-P     | WO**1204    |
| M4900-D22-W12 | 49.00         | MD-220-P     | WO**1204    |
| M5000-D23-W12 | 50.00         | MD-230-P     | WO**1204    |
| M5080-D24-W12 | 50.80         | MD-240-P     | WO**1204    |
| M5100-D24-W12 | 51.00         | MD-240-P     | WO**1204    |
| M5200-D25-W12 | 52.00         | MD-250-P     | WO**1204    |
| M5300-D26-W12 | 53.00         | MD-260-P     | WO**1204    |
| M5398-D27-W12 | 53.98         | MD-270-P     | WO**1204    |
| M5400-D27-W12 | 54.00         | MD-270-P     | WO**1204    |
| M5500-D28-W12 | 55.00         | MD-280-P     | WO**1204    |

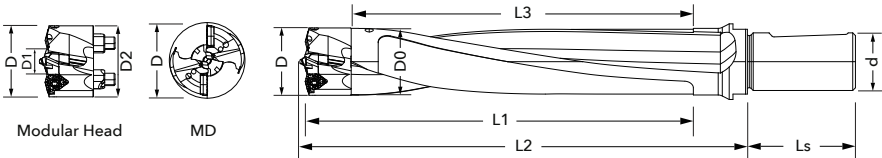
Insert pages :

WOMT...W... page 109

MD.....\* page 110

## KCNM...10D Modular Drilling Tools

Large Diameter | Modular Head | Drilling Depth 10XD



Unit: mm

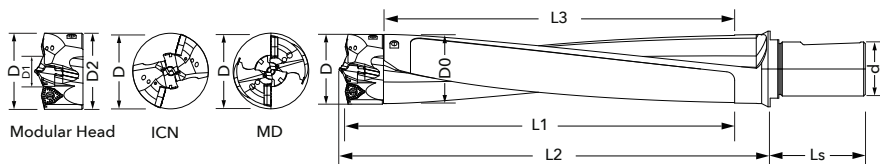
| Specification | Drilling Holder | Dimensions |      |    |     |     |     |     | Accessories                                                                       |                                                                                   |                                                                                   |
|---------------|-----------------|------------|------|----|-----|-----|-----|-----|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
|               |                 | D2         | D0   | d  | L1  | L2  | L3  | Ls  |  |  |  |
| M3800-D16-W10 | W37-32-10D      | 37.5       | 37   | 32 | 412 | 443 | 387 | 60  | K14-16.9                                                                          | KCNM040120                                                                        | T15                                                                               |
| M3810-D16-W10 |                 | 37.5       | 37   | 32 | 412 | 443 | 387 | 60  |                                                                                   |                                                                                   |                                                                                   |
| M3900-D18-W10 |                 | 37.5       | 37   | 32 | 412 | 443 | 387 | 60  |                                                                                   |                                                                                   |                                                                                   |
| M3920-D18-W10 |                 | 37.5       | 37   | 32 | 412 | 443 | 387 | 60  |                                                                                   |                                                                                   |                                                                                   |
| M3970-D18-W10 |                 | 37.5       | 37   | 32 | 412 | 443 | 387 | 60  |                                                                                   |                                                                                   |                                                                                   |
| M4000-D18-W10 | W39-50-10D      | 39.5       | 39   | 50 | 425 | 480 | 400 | 60  | K17-20                                                                            |                                                                                   |                                                                                   |
| M4100-D19-W10 |                 | 39.5       | 39   | 50 | 425 | 480 | 400 | 60  |                                                                                   |                                                                                   |                                                                                   |
| M4128-D19-W10 |                 | 39.5       | 39   | 50 | 425 | 480 | 400 | 60  |                                                                                   |                                                                                   |                                                                                   |
| M4200-D19-W10 | W41-50-10D      | 41.5       | 41   | 50 | 455 | 500 | 430 | 80  | K14-16.9                                                                          |                                                                                   |                                                                                   |
| M4300-D16-W12 |                 | 41.5       | 41   | 50 | 455 | 500 | 430 | 80  |                                                                                   |                                                                                   |                                                                                   |
| M4400-D18-W12 |                 | 41.5       | 41   | 50 | 455 | 500 | 430 | 80  |                                                                                   |                                                                                   |                                                                                   |
| M4445-D18-W12 |                 | 41.5       | 41   | 50 | 455 | 500 | 430 | 80  | K17-19.9                                                                          |                                                                                   |                                                                                   |
| M4500-D18-W12 |                 | W44-50-10D | 44.5 | 44 | 50  | 485 | 530 | 459 |                                                                                   |                                                                                   |                                                                                   |
| M4600-D19-W12 | 44.5            |            | 44   | 50 | 485 | 530 | 459 | 80  |                                                                                   |                                                                                   |                                                                                   |
| M4700-D20-W12 | 44.5            |            | 44   | 50 | 485 | 530 | 459 | 80  |                                                                                   |                                                                                   |                                                                                   |
| M4763-D21-W12 | 44.5            |            | 44   | 50 | 485 | 530 | 459 | 80  |                                                                                   |                                                                                   |                                                                                   |
| M4800-D21-W12 | W47-50-10D      |            | 47.5 | 47 | 50  | 510 | 550 | 475 | 80                                                                                |                                                                                   |                                                                                   |
| M4900-D22-W12 |                 | 47.5       | 47   | 50 | 510 | 550 | 475 | 80  |                                                                                   |                                                                                   |                                                                                   |
| M5000-D23-W12 |                 | 47.5       | 47   | 50 | 510 | 550 | 475 | 80  |                                                                                   |                                                                                   |                                                                                   |
| M5080-D24-W12 | W50-50-10D      | 50.3       | 49.8 | 50 | 530 | 570 | 495 | 80  | K20-26                                                                            |                                                                                   |                                                                                   |
| M5100-D24-W12 |                 | 50.3       | 49.8 | 50 | 530 | 570 | 495 | 80  |                                                                                   |                                                                                   |                                                                                   |
| M5200-D25-W12 |                 | 50.3       | 49.8 | 50 | 530 | 570 | 495 | 80  |                                                                                   |                                                                                   |                                                                                   |
| M5300-D26-W12 |                 | 50.3       | 49.8 | 50 | 530 | 570 | 495 | 80  |                                                                                   |                                                                                   |                                                                                   |
| M5398-D27-W12 |                 | W53-50-10D | 53.4 | 53 | 50  | 550 | 590 | 515 |                                                                                   |                                                                                   |                                                                                   |
| M5400-D27-W12 | 53.4            |            | 53   | 50 | 550 | 590 | 515 | 80  |                                                                                   |                                                                                   |                                                                                   |
| M5500-D28-W12 | 53.4            |            | 53   | 50 | 550 | 590 | 515 | 80  |                                                                                   |                                                                                   |                                                                                   |



## KCNM...10D Modular Drilling Tools



Large Diameter | Modular Head | Drilling Depth 10XD



Unit: mm

| Specification   | Drilling Dia. | Centre Drill | Side Insert |
|-----------------|---------------|--------------|-------------|
| P5600-D20-W15   | 56.00         | MD-200-P     | WO**1503    |
| P5700-D21-W15   | 57.00         | MD-210-P     | WO**1503    |
| P5800-D22-W15   | 58.00         | MD-220-P     | WO**1503    |
| P5900-D23-W15   | 59.00         | MD-230-P     | WO**1503    |
| P6000-D24-W15   | 60.00         | MD-240-P     | WO**1503    |
| P6100-D25-W15   | 61.00         | MD-250-P     | WO**1503    |
| P6200-D26-W15   | 62.00         | MD-260-P     | WO**1503    |
| P6300-D27-W15   | 63.00         | MD-270-P     | WO**1503    |
| P6400-D28-W15   | 64.00         | MD-280-P     | WO**1503    |
| P6500-ICN29-W15 | 65.00         | ICN-290-P    | WO**1503    |
| P6600-ICN30-W15 | 66.00         | ICN-300-P    | WO**1503    |
| P6700-ICN31-W15 | 67.00         | ICN-310-P    | WO**1503    |
| P6800-ICN32-W15 | 68.00         | ICN-320-P    | WO**1503    |
| P6900-ICN33-W15 | 69.00         | ICN-330-P    | WO**1503    |
| P7000-ICN34-W15 | 70.00         | ICN-340-P    | WO**1503    |
| P7100-ICN35-W15 | 71.00         | ICN-350-P    | WO**1503    |
| P7200-ICN36-W15 | 72.00         | ICN-360-P    | WO**1503    |
| P7300-ICN37-W15 | 73.00         | ICN-370-P    | WO**1503    |
| P7400-ICN38-W15 | 74.00         | ICN-380-P    | WO**1503    |
| P7500-ICN39-W15 | 75.00         | ICN-390-P    | WO**1503    |
| P7600-ICN40-W15 | 76.00         | ICN-400-P    | WO**1503    |
| P7700-ICN41-W15 | 77.00         | ICN-410-P    | WO**1503    |
| P7800-ICN42-W15 | 78.00         | ICN-420-P    | WO**1503    |
| P7900-ICN43-W15 | 79.00         | ICN-430-P    | WO**1503    |
| P8000-ICN44-W15 | 80.00         | ICN-440-P    | WO**1503    |

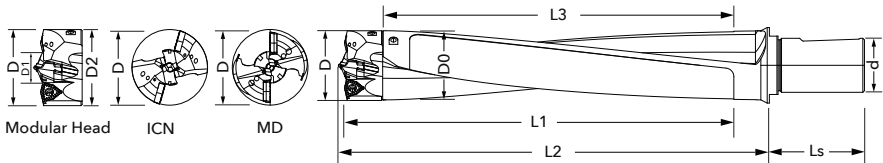
Insert pages :

WOMT...W... page 109

MD.....\* page 110

# KCNM...10D Modular Drilling Tools

Large Diameter | Modular Head | Drilling Depth 10XD



Unit: mm

| Specification   | Drilling Holder | Dimensions |    |    |     |     |     |    | Accessories                                                                       |                                                                                   |                                                                                   |
|-----------------|-----------------|------------|----|----|-----|-----|-----|----|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
|                 |                 | D2         | D0 | d  | L1  | L2  | L3  | Ls |  |  |  |
| P5600-D20-W15   | B53-50-10D      | 55         | 53 | 50 | 619 | 642 | 585 | 80 | K20-26                                                                            | KCNM050100                                                                        | T20                                                                               |
| P5700-D21-W15   |                 | 56         | 53 | 50 | 619 | 642 | 585 | 80 |                                                                                   |                                                                                   |                                                                                   |
| P5800-D22-W15   |                 | 57         | 53 | 50 | 619 | 642 | 585 | 80 |                                                                                   |                                                                                   |                                                                                   |
| P5900-D23-W15   | B58-50-10D      | 58         | 58 | 50 | 674 | 576 | 640 | 80 |                                                                                   |                                                                                   |                                                                                   |
| P6000-D24-W15   |                 | 59         | 58 | 50 | 674 | 576 | 640 | 80 |                                                                                   |                                                                                   |                                                                                   |
| P6100-D25-W15   |                 | 60         | 58 | 50 | 674 | 576 | 640 | 80 |                                                                                   |                                                                                   |                                                                                   |
| P6200-D26-W15   |                 | 61         | 58 | 50 | 674 | 576 | 640 | 80 |                                                                                   |                                                                                   |                                                                                   |
| P6300-D27-W15   |                 | 62         | 58 | 50 | 674 | 576 | 640 | 80 |                                                                                   |                                                                                   |                                                                                   |
| P6400-D28-W15   |                 | 63         | 58 | 50 | 674 | 576 | 640 | 80 |                                                                                   |                                                                                   |                                                                                   |
| P6500-ICN29-W15 | B64-50-10D      | 64         | 64 | 50 | 745 | 768 | 710 | 80 | K27-32                                                                            |                                                                                   |                                                                                   |
| P6600-ICN30-W15 |                 | 65         | 64 | 50 | 745 | 768 | 710 | 80 |                                                                                   |                                                                                   |                                                                                   |
| P6700-ICN31-W15 |                 | 66         | 64 | 50 | 745 | 768 | 710 | 80 |                                                                                   |                                                                                   |                                                                                   |
| P6800-ICN32-W15 |                 | 67         | 64 | 50 | 745 | 768 | 710 | 80 | K33-38                                                                            |                                                                                   |                                                                                   |
| P6900-ICN33-W15 |                 | 68         | 64 | 50 | 745 | 768 | 710 | 80 |                                                                                   |                                                                                   |                                                                                   |
| P7000-ICN34-W15 |                 | 69         | 64 | 50 | 745 | 768 | 710 | 80 |                                                                                   |                                                                                   |                                                                                   |
| P7100-ICN35-W15 |                 | 70         | 64 | 50 | 745 | 768 | 710 | 80 |                                                                                   |                                                                                   |                                                                                   |
| P7200-ICN36-W15 | B71-50-10D      | 71         | 71 | 50 | 845 | 865 | 805 | 80 | K39-45                                                                            |                                                                                   |                                                                                   |
| P7300-ICN37-W15 |                 | 72         | 71 | 50 | 845 | 865 | 805 | 80 |                                                                                   |                                                                                   |                                                                                   |
| P7400-ICN38-W15 |                 | 73         | 71 | 50 | 845 | 865 | 805 | 80 |                                                                                   |                                                                                   |                                                                                   |
| P7500-ICN39-W15 |                 | 74         | 71 | 50 | 845 | 865 | 805 | 80 | K39-45                                                                            |                                                                                   |                                                                                   |
| P7600-ICN40-W15 |                 | 75         | 71 | 50 | 845 | 865 | 805 | 80 |                                                                                   |                                                                                   |                                                                                   |
| P7700-ICN41-W15 |                 | 76         | 71 | 50 | 845 | 865 | 805 | 80 |                                                                                   |                                                                                   |                                                                                   |
| P7800-ICN42-W15 |                 | 77         | 71 | 50 | 845 | 865 | 805 | 80 |                                                                                   |                                                                                   |                                                                                   |
| P7900-ICN43-W15 |                 | 78         | 71 | 50 | 845 | 865 | 805 | 80 |                                                                                   |                                                                                   |                                                                                   |
| P8000-ICN44-W15 |                 | 79         | 71 | 50 | 845 | 865 | 805 | 80 |                                                                                   |                                                                                   |                                                                                   |

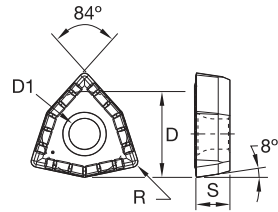


### WOMT...W...

Grade overview

NP5330

-First choice in normal conditions in ISO P and K



Unit: mm

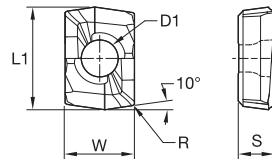
| Specification     | Dimensions |     |     |      |
|-------------------|------------|-----|-----|------|
|                   | D          | D1  | R   | S    |
| WOMT080308-W5-D33 | 8          | 3.4 | 0.8 | 3.75 |
| WOMT100308-W5-D39 | 10         | 4.4 | 0.8 | 3.75 |
| WOMT120408-W5-D42 | 12         | 4.4 | 0.8 | 4.75 |
| WOMT150508-W5-D55 | 15         | 5.5 | 0.8 | 5.25 |
| WOMT080308-W6-D33 | 8          | 3.4 | 0.8 | 3.75 |
| WOMT100308-W6-D39 | 10         | 4.4 | 0.8 | 3.75 |
| WOMT120408-W6-D42 | 12         | 4.4 | 0.8 | 4.75 |
| WOMT150508-W6-D55 | 15         | 5.5 | 0.8 | 5.25 |
| WOMT080308-W7-D33 | 8          | 3.4 | 0.8 | 3.75 |
| WOMT100308-W7-D39 | 10         | 4.4 | 0.8 | 3.75 |
| WOMT120408-W7-D42 | 12         | 4.4 | 0.8 | 4.75 |
| WOMT150508-W7-D55 | 15         | 5.5 | 0.8 | 5.25 |

### AOMT...

Grade overview

NP5330

-First choice in normal conditions in ISO P and K



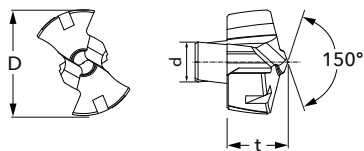
Unit: mm

| Specification | Dimensions |       |      |     |      |
|---------------|------------|-------|------|-----|------|
|               | W          | L1    | D1   | R   | S    |
| AOMT040304    | 7.26       | 10.76 | 2.85 | 0.4 | 3.79 |



## MD.....\*

**Centre Drill  
For CombiHead ICN/KCN**

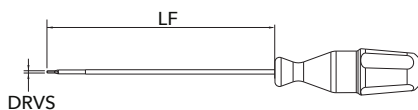


Unit: mm

| Specification | Dimensions |    |      |
|---------------|------------|----|------|
|               | D          | d  | t    |
| MD-140.*      | 14         | 6  | 8.1  |
| MD-150.*      | 15         | 6  | 8.7  |
| MD-160.*      | 16         | 8  | 8.8  |
| MD-170.*      | 17         | 8  | 9.9  |
| MD-180.*      | 18         | 8  | 10.5 |
| MD-190.*      | 19         | 8  | 11.0 |
| MD-200.*      | 20         | 8  | 11.6 |
| MD-210.*      | 21         | 8  | 12.1 |
| MD-220.*      | 22         | 10 | 12.7 |
| MD-230.*      | 23         | 10 | 13.3 |
| MD-240.*      | 24         | 12 | 13.9 |
| MD-250.*      | 25         | 12 | 14.5 |
| MD-260.*      | 26         | 12 | 14.5 |
| MD-270.*      | 27         | 12 | 15.5 |
| MD-280.*      | 28         | 12 | 15.5 |



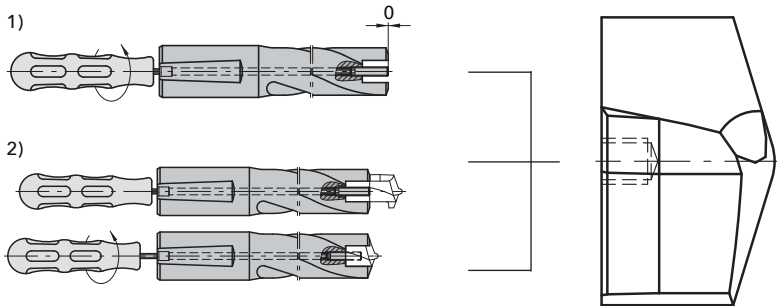
### Wrench for KCN Drills



Unit: mm

| Specification | DRVS  | LF  |
|---------------|-------|-----|
| 1.5mm X 185   | 1.5mm | 185 |
| 1.5mm X 225   | 1.5mm | 225 |
| 1.5mm X 297   | 1.5mm | 297 |
| 1.5mm X 351   | 1.5mm | 351 |
| 2mm X 210     | 2mm   | 210 |
| 2mm X 260     | 2mm   | 260 |
| 2mm X 343     | 2mm   | 343 |
| 2mm X 405     | 2mm   | 405 |
| 2.5mm X 240   | 2.5mm | 240 |
| 2.5mm X 295   | 2.5mm | 295 |
| 2.5mm X 393   | 2.5mm | 393 |
| 2.5mm X 459   | 2.5mm | 459 |
| 3mm X 265     | 3mm   | 265 |
| 3mm X 330     | 3mm   | 330 |
| 3mm X 439     | 3mm   | 439 |
| 3mm X 513     | 3mm   | 513 |
| T5 X 156      | T5    | 156 |
| T5 X 188      | T5    | 188 |
| T5 X 290      | T5    | 290 |
| T6 X 156      | T6    | 156 |
| T6 X 188      | T6    | 188 |
| T6 X 290      | T6    | 290 |

## Mounting the KCN Drill Head



### Inserts (<32mm) without Connector Pin

- 1) Use the screwdriver to set the threaded pin:
  - for inserts up to  $\varnothing$  32mm, flush with the drill face.
  - for inserts bigger  $\varnothing$  32mm, set 2mm below the drill face.
- 2) Tighten the insert using the screwdriver to fit securely in the insert seat.

To change the insert, turn the clamping screw anti-clockwise until the insert is released.

### Repair of Damaged Threaded Pin

In the event that the central threaded pin becomes damaged, it can be removed after severing it in the tool body. To do this, drill beneath the insert seat in the tool body. The insert and threaded pin can then be removed.

NOTE: For inserts without a connector pin, avoid jamming during mounting through precise positioning.



## Material Groups

## Recommended Machining Conditions

| Material Group | Vargus No. | Heat Treatment | Vc[m/min] |      |      | Metric System (F mm/r) |             |             |             |
|----------------|------------|----------------|-----------|------|------|------------------------|-------------|-------------|-------------|
|                |            |                | min.      | init | max. | 28.00-31.74            | 31.75-35.99 | 36.00-44.99 | 45.00-55.00 |
| P              | 2          | S              | 90        | 190  | 230  | 0.160-0.280            | 0.160-0.280 | 0.200-0.360 | 0.200-0.400 |
|                |            | U              | 71        | 130  | 170  | 0.160-0.280            | 0.160-0.280 | 0.200-0.360 | 0.200-0.400 |
|                |            | I              | 50        | 80   | 110  | 0.160-0.280            | 0.160-0.280 | 0.200-0.320 | 0.200-0.400 |
|                | 3          | S              | 90        | 180  | 230  | 0.160-0.280            | 0.160-0.280 | 0.200-0.320 | 0.200-0.400 |
|                |            | U              | 70        | 120  | 170  | 0.160-0.280            | 0.160-0.280 | 0.200-0.320 | 0.200-0.400 |
|                |            | I              | 50        | 70   | 106  | 0.160-0.280            | 0.160-0.280 | 0.200-0.320 | 0.200-0.400 |
|                | 4          | S              | 90        | 140  | 220  | 0.160-0.280            | 0.160-0.280 | 0.200-0.320 | 0.200-0.400 |
|                |            | U              | 70        | 110  | 160  | 0.160-0.280            | 0.160-0.280 | 0.200-0.320 | 0.200-0.400 |
|                |            | I              | 50        | 80   | 110  | 0.160-0.280            | 0.160-0.280 | 0.200-0.320 | 0.200-0.400 |
|                | 5          | S              | 90        | 130  | 210  | 0.160-0.280            | 0.160-0.280 | 0.200-0.320 | 0.200-0.400 |
|                |            | U              | 70        | 100  | 150  | 0.160-0.280            | 0.160-0.280 | 0.200-0.320 | 0.200-0.400 |
|                |            | I              | 50        | 70   | 100  | 0.160-0.280            | 0.160-0.280 | 0.200-0.320 | 0.200-0.400 |
|                | 6          | S              | 90        | 90   | 180  | 0.160-0.280            | 0.160-0.280 | 0.200-0.320 | 0.200-0.400 |
|                |            | U              | 75        | 75   | 120  | 0.160-0.280            | 0.160-0.280 | 0.200-0.320 | 0.200-0.400 |
|                |            | I              | 60        | 60   | 100  | 0.160-0.280            | 0.160-0.280 | 0.200-0.320 | 0.200-0.400 |
| M              | 1          | S              | 110       | 110  | 135  | 0.130-0.250            | 0.130-0.250 | 0.160-0.280 | 0.160-0.320 |
|                |            | U              | 70        | 70   | 90   | 0.130-0.250            | 0.130-0.250 | 0.160-0.280 | 0.160-0.320 |
|                |            | I              | 50        | 50   | 65   | 0.130-0.250            | 0.130-0.250 | 0.160-0.280 | 0.160-0.320 |
|                | 2          | S              | 100       | 100  | 135  | 0.130-0.250            | 0.130-0.250 | 0.160-0.280 | 0.160-0.320 |
|                |            | U              | 60        | 60   | 90   | 0.130-0.250            | 0.130-0.250 | 0.160-0.280 | 0.160-0.320 |
|                |            | I              | 50        | 50   | 65   | 0.130-0.250            | 0.130-0.250 | 0.160-0.280 | 0.160-0.320 |
|                | 3          | S              | 90        | 90   | 135  | 0.130-0.250            | 0.130-0.250 | 0.160-0.280 | 0.160-0.320 |
|                |            | U              | 60        | 60   | 90   | 0.130-0.250            | 0.130-0.250 | 0.160-0.280 | 0.160-0.320 |
|                |            | I              | 40        | 40   | 65   | 0.130-0.250            | 0.130-0.250 | 0.160-0.280 | 0.160-0.320 |



## Material Groups

## Recommended Machining Conditions

| Material Group | Vargus No. | Heat Treatment | Vc[m/min] |      |      | Metric System<br>(F mm/r) |             |             |             |
|----------------|------------|----------------|-----------|------|------|---------------------------|-------------|-------------|-------------|
|                |            |                | min.      | init | max. | 28.00-31.74               | 31.75-35.99 | 36.00-44.99 | 45.00-55.00 |
| <b>K</b>       | 1          | S              | 170       | 170  | 230  | 0.180-0.300               | 0.180-0.300 | 0.216-0.360 | 0.240-0.420 |
|                |            | U              | 120       | 120  | 160  | 0.180-0.300               | 0.180-0.300 | 0.216-0.360 | 0.240-0.420 |
|                |            | I              | 70        | 70   | 90   | 0.180-0.300               | 0.180-0.300 | 0.216-0.360 | 0.240-0.420 |
|                | 2          | S              | 160       | 160  | 220  | 0.180-0.300               | 0.180-0.300 | 0.216-0.360 | 0.240-0.420 |
|                |            | U              | 110       | 110  | 160  | 0.180-0.300               | 0.180-0.300 | 0.216-0.360 | 0.240-0.420 |
|                |            | I              | 70        | 70   | 100  | 0.180-0.300               | 0.180-0.300 | 0.216-0.360 | 0.240-0.420 |
|                | 3          | S              | 150       | 150  | 210  | 0.180-0.300               | 0.180-0.300 | 0.216-0.360 | 0.240-0.420 |
|                |            | U              | 100       | 100  | 150  | 0.180-0.300               | 0.180-0.300 | 0.216-0.360 | 0.240-0.420 |
|                |            | I              | 60        | 60   | 90   | 0.180-0.300               | 0.180-0.300 | 0.216-0.360 | 0.240-0.420 |
| <b>N</b>       | 1          | S              | 240       | 240  | 360  | 0.120-0.200               | 0.120-0.200 | 0.144-0.280 | 0.160-0.320 |
|                |            | U              | 160       | 160  | 240  | 0.120-0.200               | 0.120-0.200 | 0.144-0.280 | 0.160-0.320 |
|                |            | I              | 100       | 100  | 160  | 0.120-0.200               | 0.120-0.200 | 0.144-0.280 | 0.160-0.320 |
|                | 2          | S              | 220       | 220  | 360  | 0.120-0.200               | 0.120-0.200 | 0.144-0.280 | 0.160-0.320 |
|                |            | U              | 150       | 150  | 240  | 0.120-0.200               | 0.120-0.200 | 0.144-0.280 | 0.160-0.320 |
|                |            | I              | 100       | 100  | 160  | 0.120-0.200               | 0.120-0.200 | 0.144-0.280 | 0.160-0.320 |
|                | 3          | S              | 200       | 200  | 360  | 0.120-0.200               | 0.120-0.200 | 0.144-0.280 | 0.160-0.320 |
|                |            | U              | 140       | 140  | 240  | 0.120-0.200               | 0.120-0.200 | 0.144-0.280 | 0.160-0.320 |
|                |            | I              | 90        | 90   | 160  | 0.120-0.200               | 0.120-0.200 | 0.144-0.280 | 0.160-0.320 |
|                | 4          | S              | 220       | 220  | 260  | 0.120-0.200               | 0.120-0.200 | 0.144-0.280 | 0.160-0.320 |
|                |            | U              | 140       | 140  | 170  | 0.120-0.200               | 0.120-0.200 | 0.144-0.280 | 0.160-0.320 |
|                |            | I              | 90        | 90   | 110  | 0.120-0.200               | 0.120-0.200 | 0.144-0.280 | 0.160-0.320 |



## Material Groups

## Recommended Machining Conditions

| Material Group | Vargus No. | Condition | Cutting Speed – vc Range – m/min |                |      |      | Feed Rate (fz) by Diameter |             |             |             |             |
|----------------|------------|-----------|----------------------------------|----------------|------|------|----------------------------|-------------|-------------|-------------|-------------|
|                |            |           | min.                             | Starting Value | max. | Ø    | 28.00-31,74                | 31,74-35,99 | 36,00-44,99 | 45,00-55,99 | 56,00-80,00 |
| <b>P</b>       | 1          | S         | 115                              | 235            | 290  | mm/r | 0,130-0,250                | 0,130-0,250 | 0,160-0,280 | 0,160-0,320 | 0,200-0,360 |
|                |            | U         | 90                               | 160            | 215  | mm/r | 0,130-0,250                | 0,130-0,250 | 0,160-0,280 | 0,160-0,320 | 0,200-0,360 |
|                |            | I         | 65                               | 100            | 140  | mm/r | 0,130-0,250                | 0,130-0,250 | 0,160-0,280 | 0,160-0,320 | 0,200-0,360 |
|                | 2          | S         | 90                               | 190            | 230  | mm/r | 0,160-0,280                | 0,160-0,280 | 0,200-0,360 | 0,200-0,400 | 0,200-0,450 |
|                |            | U         | 71                               | 130            | 170  | mm/r | 0,160-0,280                | 0,160-0,280 | 0,200-0,360 | 0,200-0,400 | 0,200-0,450 |
|                |            | I         | 50                               | 80             | 110  | mm/r | 0,160-0,280                | 0,160-0,280 | 0,200-0,320 | 0,200-0,400 | 0,200-0,450 |
|                | 3          | S         | 90                               | 180            | 230  | mm/r | 0,160-0,280                | 0,160-0,280 | 0,200-0,320 | 0,200-0,400 | 0,200-0,450 |
|                |            | U         | 70                               | 120            | 170  | mm/r | 0,160-0,280                | 0,160-0,280 | 0,200-0,320 | 0,200-0,400 | 0,200-0,450 |
|                |            | I         | 50                               | 70             | 106  | mm/r | 0,160-0,280                | 0,160-0,280 | 0,200-0,320 | 0,200-0,400 | 0,200-0,450 |
|                | 4          | S         | 90                               | 140            | 220  | mm/r | 0,160-0,280                | 0,160-0,280 | 0,200-0,320 | 0,200-0,400 | 0,200-0,450 |
|                |            | U         | 70                               | 110            | 160  | mm/r | 0,160-0,280                | 0,160-0,280 | 0,200-0,320 | 0,200-0,400 | 0,200-0,450 |
|                |            | I         | 50                               | 80             | 110  | mm/r | 0,160-0,280                | 0,160-0,280 | 0,200-0,320 | 0,200-0,400 | 0,200-0,450 |
|                | 5          | S         | 90                               | 130            | 210  | mm/r | 0,160-0,280                | 0,160-0,280 | 0,200-0,320 | 0,200-0,400 | 0,200-0,450 |
|                |            | U         | 70                               | 100            | 150  | mm/r | 0,160-0,280                | 0,160-0,280 | 0,200-0,320 | 0,200-0,400 | 0,200-0,450 |
|                |            | I         | 50                               | 70             | 100  | mm/r | 0,160-0,280                | 0,160-0,280 | 0,200-0,320 | 0,200-0,400 | 0,200-0,450 |
|                | 6          | S         | 70                               | 90             | 180  | mm/r | 0,160-0,280                | 0,160-0,280 | 0,200-0,320 | 0,200-0,400 | 0,200-0,450 |
|                |            | U         | 50                               | 75             | 120  | mm/r | 0,160-0,280                | 0,160-0,280 | 0,200-0,320 | 0,200-0,400 | 0,200-0,450 |
|                |            | I         | 40                               | 60             | 100  | mm/r | 0,160-0,280                | 0,160-0,280 | 0,200-0,320 | 0,200-0,400 | 0,200-0,450 |
| <b>M</b>       | 1          | S         | 60                               | 110            | 135  | mm/r | 0,130-0,250                | 0,130-0,250 | 0,160-0,280 | 0,160-0,320 | 0,200-0,360 |
|                |            | U         | 40                               | 70             | 90   | mm/r | 0,130-0,250                | 0,130-0,250 | 0,160-0,280 | 0,160-0,320 | 0,200-0,360 |
|                |            | I         | 30                               | 50             | 65   | mm/r | 0,130-0,250                | 0,130-0,250 | 0,160-0,280 | 0,160-0,320 | 0,200-0,360 |
|                | 2          | S         | 60                               | 100            | 135  | mm/r | 0,130-0,250                | 0,130-0,250 | 0,160-0,280 | 0,160-0,320 | 0,200-0,360 |
|                |            | U         | 40                               | 60             | 90   | mm/r | 0,130-0,250                | 0,130-0,250 | 0,160-0,280 | 0,160-0,320 | 0,200-0,360 |
|                |            | I         | 30                               | 50             | 65   | mm/r | 0,130-0,250                | 0,130-0,250 | 0,160-0,280 | 0,160-0,320 | 0,200-0,360 |
|                | 3          | S         | 50                               | 90             | 135  | mm/r | 0,130-0,250                | 0,130-0,250 | 0,160-0,280 | 0,160-0,320 | 0,200-0,360 |
|                |            | U         | 40                               | 60             | 90   | mm/r | 0,130-0,250                | 0,130-0,250 | 0,160-0,280 | 0,160-0,320 | 0,200-0,360 |
|                |            | I         | 25                               | 40             | 65   | mm/r | 0,130-0,250                | 0,130-0,250 | 0,160-0,280 | 0,160-0,320 | 0,200-0,360 |



## Material Groups

## Recommended Machining Conditions

| Material Group | Vargus No. | Condition | Cutting Speed – vc Range – m/min |                |      |      | Feed Rate (fz) by Diameter |             |             |             |             |
|----------------|------------|-----------|----------------------------------|----------------|------|------|----------------------------|-------------|-------------|-------------|-------------|
|                |            |           | min.                             | Starting Value | max. | Ø    | 28.00–31,74                | 31,74–35,99 | 36,00–44,99 | 45,00–55,99 | 56,00–80,00 |
| <b>K</b>       | 1          | S         | 90                               | 170            | 230  | mm/r | 0,180–0,300                | 0,180–0,300 | 0,216–0,360 | 0,240–0,420 | 0,300–0,480 |
|                |            | U         | 60                               | 120            | 160  | mm/r | 0,180–0,300                | 0,180–0,300 | 0,216–0,360 | 0,240–0,420 | 0,300–0,480 |
|                |            | I         | 40                               | 70             | 90   | mm/r | 0,180–0,300                | 0,180–0,300 | 0,216–0,360 | 0,240–0,420 | 0,300–0,480 |
|                | 2          | S         | 90                               | 160            | 220  | mm/r | 0,180–0,300                | 0,180–0,300 | 0,216–0,360 | 0,240–0,420 | 0,300–0,480 |
|                |            | U         | 60                               | 110            | 160  | mm/r | 0,180–0,300                | 0,180–0,300 | 0,216–0,360 | 0,240–0,420 | 0,300–0,480 |
|                |            | I         | 40                               | 70             | 100  | mm/r | 0,180–0,300                | 0,180–0,300 | 0,216–0,360 | 0,240–0,420 | 0,300–0,480 |
|                | 3          | S         | 90                               | 150            | 210  | mm/r | 0,180–0,300                | 0,180–0,300 | 0,216–0,360 | 0,240–0,420 | 0,300–0,480 |
|                |            | U         | 60                               | 100            | 150  | mm/r | 0,180–0,300                | 0,180–0,300 | 0,216–0,360 | 0,240–0,420 | 0,300–0,480 |
|                |            | I         | 35                               | 60             | 90   | mm/r | 0,180–0,300                | 0,180–0,300 | 0,216–0,360 | 0,240–0,420 | 0,300–0,480 |
| <b>N</b>       | 1          | S         | 150                              | 240            | 360  | mm/r | 0,120–0,200                | 0,120–0,200 | 0,144–0,280 | 0,160–0,320 | 0,200–0,400 |
|                |            | U         | 100                              | 160            | 240  | mm/r | 0,120–0,200                | 0,120–0,200 | 0,144–0,280 | 0,160–0,320 | 0,200–0,400 |
|                |            | I         | 60                               | 100            | 160  | mm/r | 0,120–0,200                | 0,120–0,200 | 0,144–0,280 | 0,160–0,320 | 0,200–0,400 |
|                | 2          | S         | 150                              | 220            | 360  | mm/r | 0,120–0,200                | 0,120–0,200 | 0,144–0,280 | 0,160–0,320 | 0,200–0,400 |
|                |            | U         | 100                              | 150            | 240  | mm/r | 0,120–0,200                | 0,120–0,200 | 0,144–0,280 | 0,160–0,320 | 0,200–0,400 |
|                |            | I         | 60                               | 100            | 160  | mm/r | 0,120–0,200                | 0,120–0,200 | 0,144–0,280 | 0,160–0,320 | 0,200–0,400 |
|                | 3          | S         | 150                              | 200            | 360  | mm/r | 0,120–0,200                | 0,120–0,200 | 0,144–0,280 | 0,160–0,320 | 0,200–0,400 |
|                |            | U         | 100                              | 140            | 240  | mm/r | 0,120–0,200                | 0,120–0,200 | 0,144–0,280 | 0,160–0,320 | 0,200–0,400 |
|                |            | I         | 60                               | 90             | 160  | mm/r | 0,120–0,200                | 0,120–0,200 | 0,144–0,280 | 0,160–0,320 | 0,200–0,400 |
|                | 4          | S         | 150                              | 200            | 360  | mm/r | 0,120–0,200                | 0,120–0,200 | 0,144–0,280 | 0,160–0,320 | 0,200–0,400 |
|                |            | U         | 100                              | 140            | 240  | mm/r | 0,120–0,200                | 0,120–0,200 | 0,144–0,280 | 0,160–0,320 | 0,200–0,400 |
|                |            | I         | 60                               | 90             | 160  | mm/r | 0,120–0,200                | 0,120–0,200 | 0,144–0,280 | 0,160–0,320 | 0,200–0,400 |
|                | 5          | S         | 150                              | 200            | 360  | mm/r | 0,120–0,200                | 0,120–0,200 | 0,144–0,280 | 0,160–0,320 | 0,200–0,400 |
|                |            | U         | 100                              | 140            | 240  | mm/r | 0,120–0,200                | 0,120–0,200 | 0,144–0,280 | 0,160–0,320 | 0,200–0,400 |
|                |            | I         | 60                               | 90             | 160  | mm/r | 0,120–0,200                | 0,120–0,200 | 0,144–0,280 | 0,160–0,320 | 0,200–0,400 |
|                | 6          | S         | 150                              | 200            | 360  | mm/r | 0,120–0,200                | 0,120–0,200 | 0,144–0,280 | 0,160–0,320 | 0,200–0,400 |
|                |            | U         | 100                              | 140            | 240  | mm/r | 0,120–0,200                | 0,120–0,200 | 0,144–0,280 | 0,160–0,320 | 0,200–0,400 |
|                |            | I         | 60                               | 90             | 160  | mm/r | 0,120–0,200                | 0,120–0,200 | 0,144–0,280 | 0,160–0,320 | 0,200–0,400 |



## Material Groups

## Recommended Machining Conditions

| Material Group | Vargus No. | Condition | Cutting Speed – vc Range – m/min |                |      |      | Feed Rate (fz) by Diameter |             |             |             |             |
|----------------|------------|-----------|----------------------------------|----------------|------|------|----------------------------|-------------|-------------|-------------|-------------|
|                |            |           | min.                             | Starting Value | max. | Ø    | 28,00–31,74                | 31,74–35,99 | 36,00–44,99 | 45,00–55,99 | 56,00–80,00 |
| N              | 7          | S         | 110                              | 220            | 260  | mm/r | 0,120–0,200                | 0,120–0,200 | 0,144–0,280 | 0,160–0,320 | 0,200–0,400 |
|                |            | U         | 70                               | 140            | 170  | mm/r | 0,120–0,200                | 0,120–0,200 | 0,144–0,280 | 0,160–0,320 | 0,200–0,400 |
|                |            | I         | 45                               | 90             | 110  | mm/r | 0,120–0,200                | 0,120–0,200 | 0,144–0,280 | 0,160–0,320 | 0,200–0,400 |
| S              | 1          | S         | 25                               | 50             | 75   | mm/r | 0,130–0,250                | 0,130–0,250 | 0,160–0,280 | 0,160–0,320 | 0,200–0,360 |
|                |            | U         | 20                               | 40             | 60   | mm/r | 0,130–0,250                | 0,130–0,250 | 0,160–0,280 | 0,160–0,320 | 0,200–0,360 |
|                |            | I         | 15                               | 30             | 50   | mm/r | 0,130–0,250                | 0,130–0,250 | 0,160–0,280 | 0,160–0,320 | 0,200–0,360 |
|                | 2          | S         | 20                               | 40             | 60   | mm/r | 0,130–0,250                | 0,130–0,250 | 0,160–0,280 | 0,160–0,320 | 0,200–0,360 |
|                |            | U         | 15                               | 30             | 45   | mm/r | 0,130–0,250                | 0,130–0,250 | 0,160–0,280 | 0,160–0,320 | 0,200–0,360 |
|                |            | I         | 12                               | 25             | 35   | mm/r | 0,130–0,250                | 0,130–0,250 | 0,160–0,280 | 0,160–0,320 | 0,200–0,360 |
|                | 3          | S         | 20                               | 40             | 60   | mm/r | 0,130–0,250                | 0,130–0,250 | 0,160–0,280 | 0,160–0,320 | 0,200–0,360 |
|                |            | U         | 15                               | 30             | 45   | mm/r | 0,130–0,250                | 0,130–0,250 | 0,160–0,280 | 0,160–0,320 | 0,200–0,360 |
|                |            | I         | 12                               | 25             | 40   | mm/r | 0,130–0,250                | 0,130–0,250 | 0,160–0,280 | 0,160–0,320 | 0,200–0,360 |
|                | 4          | S         | 20                               | 40             | 60   | mm/r | 0,130–0,250                | 0,130–0,250 | 0,160–0,280 | 0,160–0,320 | 0,200–0,360 |
|                |            | U         | 15                               | 30             | 45   | mm/r | 0,130–0,250                | 0,130–0,250 | 0,160–0,280 | 0,160–0,320 | 0,200–0,360 |
|                |            | I         | 12                               | 25             | 40   | mm/r | 0,130–0,250                | 0,130–0,250 | 0,160–0,280 | 0,160–0,320 | 0,200–0,360 |





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