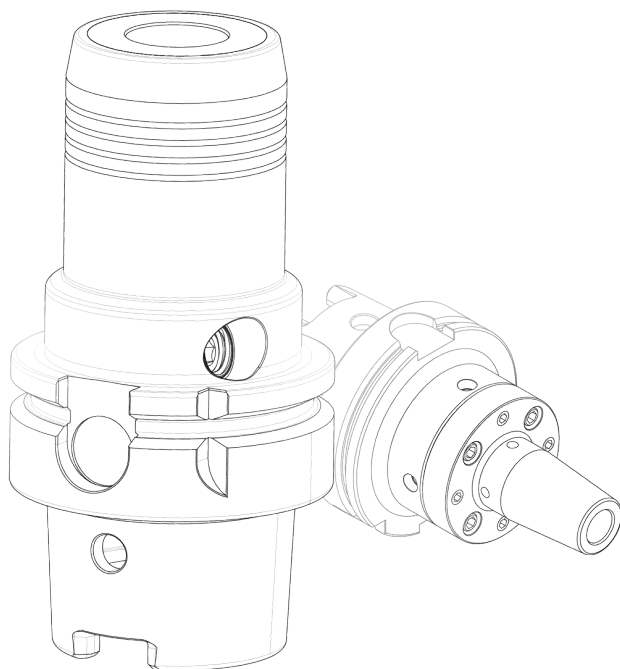
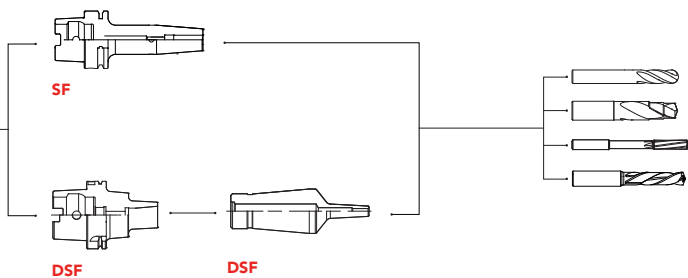


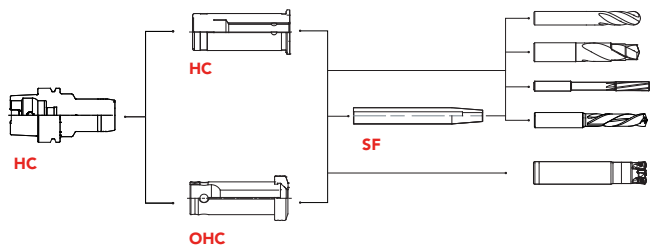




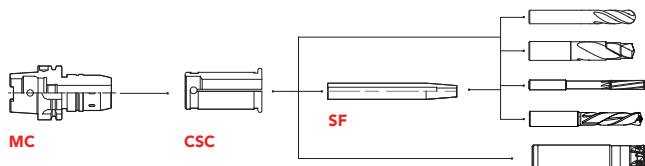
SF
Shrink-fit Holder
HSK/SK/BT



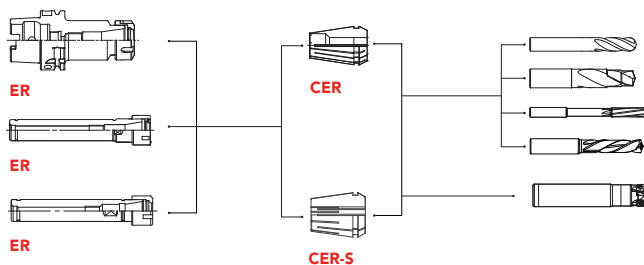
HC
Hydraulic Chuck
HSK/SK/BT



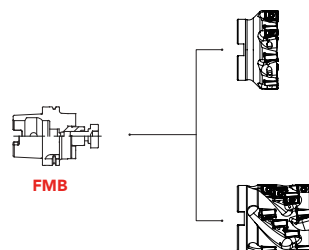
MC
Power Milling Chuck
HSK/SK/BT



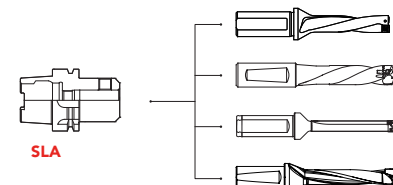
ER
Collet Chuck
HSK/SK/BT



FMB
Face Mill Arbor
HSK/SK/BT

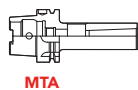


SLA
Side-lock Holder
HSK/SK/BT

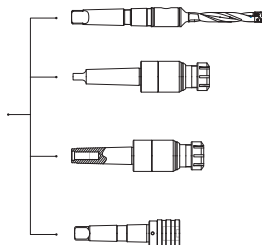




MTA/MTB
Morse Taper Adapter
HSK/SK/BT



MTA



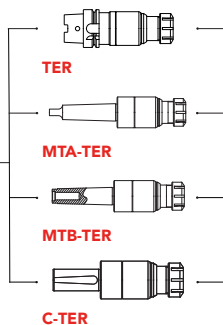
APU
Drill Chuck
HSK/SK/BT



APU



TER
Tapping Collet
HSK/BT/MTA/MTB



TER

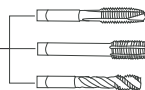
MTA-TER

MTB-TER

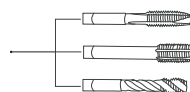
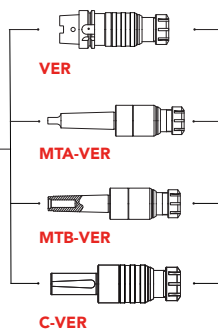
C-TER



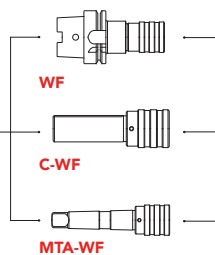
ERG



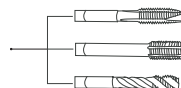
VER
Tapping Collet
HSK/BT/MTA/MTB



WF
Tapping Collet
HSK/SK/BT/MTA



TC
312/820/1433



INDEX

HSK-A-SF	1
HSK-A-DSF	4
SK-SF	5
SK-DSF	8
BT-SF	9
BT-DSF	13
SF Accessories	15
HSK-A-HC	16
SK-HC	18
BT-HC	20
HC Accessories	22
HSK-A-MC	23
SK-MC	24
BT-MC	25
MC Accessories	26
HSK-A-ER	27
SK-ER	28
BT-ER	29
ER Accessories	30
HSK-A-FMB	34
SK-FMB	35
BT-FMB	36
HSK-A-SLA	37
SK-SLA	38
BT-SLA	39
HSK-A-MTA	40
SK-MTA	40
BT-MTA	41
SK-MTB	42

BT-MTB	42
MTB Accessories	43
HSK-A-APU	44
SK-APU	44
BT-APU	45
HSK-A-TER	46
BT-TER	47
MTA-TER	48
MTB-TER	48
TER Accessories	49
HSK-A-VER	50
BT-VER	51
VER Accessories	52
MTA-VER	53
MTB-VER	53
ERG	54
HSK-WF	56
SK-WF	56
BBT-WF	57
BT-WF	57
CAT-MTA	58
WF Accessories	59
Tapping Accessories	60
Accessories	66
Touch Point Sensor	70
Precision Vise	71
58-PCS Clamping Kit	73
Precision Parallel	74



Shrink-fit Holder

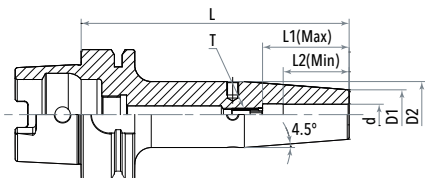
HSK-A DIN 69893-1



P66



P66



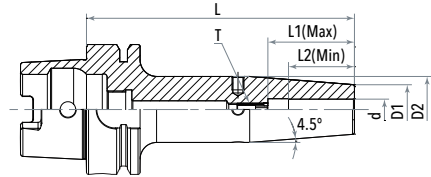
Specification	d	D1	D2	L	L1 (Max)	L2 (Min)	T	Weight
HSK50A-SF3-60	3	10	16	60	-	9	-	0.39
HSK50A-SF4-60	4	10	16	60	-	12	-	0.39
HSK50A-SF5-60	5	10	16	60	-	15	-	0.39
HSK50A-SF6-80	6	21	27	80	36	26	M050Z150-D	0.41
HSK50A-SF8-80	8	21	27	80	36	26	M050Z150-D	0.41
HSK50A-SF10-85	10	24	32	85	42	32	M060Z150-D	0.42
HSK50A-SF12-90	12	24	32	90	47	37	M060Z150-D	0.43
HSK50A-SF14-90	14	27	34	90	47	37	M060Z150-D	0.43
HSK50A-SF16-95	16	27	34	95	50	40	M080Z150-P-D	0.45
HSK63A-SF3-80	3	10	16	80	-	9	-	0.50
HSK63A-SF4-80	4	10	16	80	-	12	-	0.60
HSK63A-SF5-80	5	10	16	80	-	15	-	0.70
HSK63A-SF6-80	6	21	27	80	36	26	M050Z150-D	0.80
HSK63A-SF6-130	6	21	27	130	36	26	M050Z150-D	1.00
HSK63A-SF6-160	6	21	27	160	36	26	M050Z150-D	1.20
HSK63A-SF6-200	6	21	27	200	36	26	M050Z150-D	1.40
HSK63A-SF8-80	8	21	27	80	36	26	M050Z150-D	0.80
HSK63A-SF8-130	8	21	27	130	36	26	M050Z150-D	1.02
HSK63A-SF8-160	8	21	27	160	36	26	M050Z150-D	1.25
HSK63A-SF8-200	8	21	27	200	36	26	M050Z150-D	1.43
HSK63A-SF10-85	10	24	32	85	42	32	M060Z150-D	0.90
HSK63A-SF10-130	10	24	32	130	42	32	M060Z150-D	1.17
HSK63A-SF10-160	10	24	32	160	42	32	M060Z150-D	1.45
HSK63A-SF10-200	10	24	32	200	42	30	M060Z150-D	1.75

See next page



HSK-A

DIN 69893-1



Specification	d	D1	D2	L	L1 (Max)	L2 (Min)	T	Weight
HSK63A-SF12-90	12	24	32	90	47	37	M060Z150-D	0.92
HSK63A-SF12-130	12	24	32	130	47	37	M060Z150-D	1.15
HSK63A-SF12-160	12	24	32	160	47	37	M060Z150-D	1.55
HSK63A-SF12-200	12	24	32	200	47	37	M060Z150-D	1.92
HSK63A-SF14-90	14	27	34	90	47	37	M060Z150-D	0.95
HSK63A-SF14-130	14	27	34	130	47	37	M060Z150-D	1.18
HSK63A-SF14-160	14	27	34	160	47	37	M060Z150-D	1.60
HSK63A-SF14-200	14	27	34	200	47	37	M060Z150-D	1.98
HSK63A-SF16-95	16	27	34	95	50	40	M080Z150-P-D	1.00
HSK63A-SF16-130	16	27	34	130	50	40	M080Z150-P-D	1.21
SHSK63A-F16-160	16	27	34	160	50	40	M080Z150-P-D	1.65
HSK63A-SF16-200	16	27	34	200	50	40	M080Z150-P-D	2.05
HSK63A-SF18-95	18	33	42	95	50	40	M080Z150-P-D	1.05
HSK63A-SF18-130	18	33	42	130	50	40	M080Z150-P-D	1.25
HSK63A-SF18-160	18	33	42	160	50	40	M080Z150-P-D	1.70
HSK63A-SF18-200	18	33	42	200	50	40	M080Z150-P-D	2.10
HSK63A-SF20-100	20	33	42	100	52	42	M080Z150-P-D	1.20
HSK63A-SF20-130	20	33	42	130	52	42	M080Z150-P-D	1.49
HSK63A-SF20-160	20	33	42	160	52	42	M080Z150-P-D	1.80
HSK63A-SF20-200	20	33	42	200	52	42	M080Z150-P-D	2.20
HSK63A-SF25-115	25	44	53	115	58	48	M160Z150-P-D	1.98
HSK63A-SF25-160	25	44	53	160	58	48	M160Z150-P-D	2.10
HSK63A-SF25-200	25	44	53	200	58	48	M160Z150-P-D	2.25
HSK63A-SF32-120	32	44	53	120	58	48	M160Z150-P-D	2.10
HSK63A-SF32-160	32	44	53	160	58	48	M160Z150-P-D	2.60
HSK63A-SF32-200	32	44	53	200	58	48	M160Z150-P-D	2.80





Shrink-fit Holder

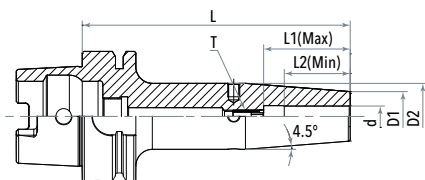
HSK-A DIN 69893-1



P66



P66



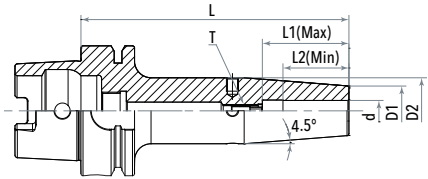
Specification	d	D1	D2	L	L1 (Max)	L2 (Min)	T	Weight
HSK100A-SF6-85	6	21	27	85	36	26	M050Z150-D	2.00
HSK100A-SF6-130	6	21	27	130	36	26	M050Z150-D	2.30
HSK100A-SF6-160	6	21	27	160	36	26	M050Z150-D	2.62
HSK100A-SF6-200	6	21	27	200	36	26	M050Z150-D	2.90
HSK100A-SF8-85	8	21	27	85	36	26	M050Z150-D	2.00
HSK100A-SF8-130	8	21	27	130	36	26	M050Z150-D	2.30
HSK100A-SF8-160	8	21	27	160	36	26	M050Z150-D	2.65
HSK100A-SF8-200	8	21	27	200	36	26	M050Z150-D	2.93
HSK100A-SF10-90	10	24	32	90	42	32	M060Z150-D	2.20
HSK100A-SF10-130	10	24	32	130	42	32	M060Z150-D	2.40
HSK100A-SF10-160	10	24	32	160	42	32	M060Z150-D	2.70
HSK100A-SF10-200	10	24	32	200	42	32	M060Z150-D	3.10
HSK100A-SF12-95	12	24	32	95	47	37	M060Z150-D	2.30
HSK100A-SF12-130	12	24	32	130	47	37	M060Z150-D	2.50
HSK100A-SF12-160	12	24	32	160	47	37	M060Z150-D	2.75
HSK100A-SF12-200	12	24	32	200	47	37	M060Z150-D	3.15
HSK100A-SF14-95	14	27	34	95	47	37	M060Z150-D	2.35
HSK100A-SF14-130	14	27	34	130	47	37	M060Z150-D	2.60
HSK100A-SF14-160	14	27	34	160	47	37	M060Z150-D	2.85
HSK100A-SF14-200	14	27	34	200	47	37	M060Z150-D	3.25
HSK100A-SF16-100	16	27	34	100	50	40	M080Z150-P-D	2.50
HSK100A-SF16-130	16	27	34	130	50	40	M080Z150-P-D	2.80
HSK100A-SF16-160	16	27	34	160	50	40	M080Z150-P-D	3.13
HSK100A-SF16-200	16	27	34	200	50	40	M080Z150-P-D	3.35
HSK100A-SF18-100	18	33	42	100	50	40	M080Z150-P-D	2.55
HSK100A-SF18-130	18	33	42	130	50	40	M080Z150-P-D	2.85

See next page



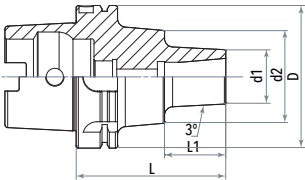


HSK-A
DIN 69893-1



Specification	d	D1	D2	L	L1 (Max)	L2 (Min)	T	Weight
HSK100A-SF18-160	18	33	42	160	50	40	M080Z150-P-D	3.21
HSK100A-SF18-200	18	33	42	200	50	40	M080Z150-P-D	3.45
HSK100A-SF20-105	20	33	42	105	52	42	M080Z150-P-D	2.60
HSK100A-SF20-130	20	33	42	130	52	42	M080Z150-P-D	2.90
HSK100A-SF20-160	20	33	42	160	52	42	M080Z150-P-D	3.25
HSK100A-SF20-200	20	33	42	200	52	42	M080Z150-P-D	3.50
HSK100A-SF25-115	25	44	53	115	58	48	M160Z150-P-D	2.80
HSK100A-SF25-160	25	44	53	160	58	48	M160Z150-P-D	3.40
HSK100A-SF25-200	25	44	53	200	58	48	M160Z150-P-D	4.50
HSK100A-SF32-120	32	44	53	120	58	48	M160Z150-P-D	3.20
HSK100A-SF32-160	32	44	53	160	58	48	M160Z150-P-D	3.60
HSK100A-SF32-200	32	44	53	200	58	48	M160Z150-P-D	4.70

HSK-A-DSF
DIN 69893-1



Specification	D	d1	d2	L	L1	Lock Screw	Position Nut	Wrench	Weight
HSK50A-DSF12-100	50	38	-	100	74	E100Z300	ZD12-1	T06-L	0.80
HSK63A-DSF12-100	63	38	-	100	74	E100Z300	ZD12-1	T06-L	1.00
HSK63A-DSF12-135	63	38	-	135	109	E100Z300	ZD12-1	T06-L	1.70
HSK100A-DSF12-105	100	38	65	105	43	E100Z300	ZD12-1	T06-L	3.40

Feature

1. Balanced: G2.5; 25,000 rpm; 2. Runout (X3D): ≤ 0.003 mm.

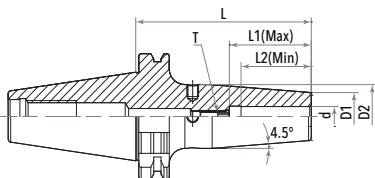


Shrink-fit Holder

SK DIN ISO 7388-1



P66



Specification	d	D1	D2	L	L1 (Max)	L2 (Min)	T	Weight
SK30-SF3-80	3	10	16	80	-	9	-	0.35
SK30-SF4-80	4	10	16	80	-	12	-	0.40
SK30-SF5-80	5	10	16	80	-	15	-	0.43
SK30-SF6-80	6	21	27	80	36	26	M050Z150-D	0.45
SK30-SF8-80	8	21	27	80	36	26	M060Z150-D	0.50
SK30-SF10-80	10	24	32	80	42	32	M060Z150-D	0.55
SK30-SF12-80	12	24	32	80	47	37	M060Z150-D	0.62
SK30-SF16-80	16	27	34	80	50	40	M080Z150-P-D	0.68
SK40-SF3-90	3	10	16	90	-	9	-	1.00
SK40-SF4-90	4	10	16	90	-	12	-	1.10
SK40-SF5-90	5	10	16	90	-	15	-	1.00
SK40-SF6-90	6	21	27	90	36	26	M050Z150-D	1.15
SK40-SF6-130	6	21	27	130	36	26	M050Z150-D	1.20
SK40-SF6-160	6	21	27	160	36	26	M050Z150-D	1.40
SK40-SF6-200	6	21	27	200	36	26	M050Z150-D	1.90
SK40-SF8-90	8	21	27	90	36	26	M060Z150-D	1.15
SK40-SF8-130	8	21	27	130	36	26	M060Z150-D	1.30
SK40-SF8-160	8	21	27	160	36	26	M060Z150-D	1.50
SK40-SF8-200	8	21	27	200	36	26	M060Z150-D	1.90
SK40-SF10-90	10	24	32	90	42	32	M060Z150-D	1.20
SK40-SF10-130	10	24	32	130	42	32	M060Z150-D	1.50
SK40-SF10-160	10	24	32	160	42	32	M060Z150-D	1.80
SK40-SF10-200	10	24	32	200	42	32	M060Z150-D	1.90
SK40-SF12-90	12	24	32	90	47	37	M080Z150-P-D	1.30
SK40-SF12-130	12	24	32	130	47	37	M080Z150-P-D	1.60
SK40-SF12-160	12	24	32	160	47	37	M080Z150-P-D	1.80
SK40-SF12-200	12	24	32	200	47	37	M080Z150-P-D	2.00

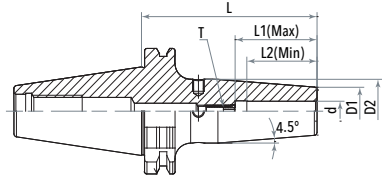
See next page

SK

DIN ISO 7388-1



P66



Specification	d	D1	D2	L	L1 (Max)	L2 (Min)	T	Weight
SK40-SF14-90	14	27	34	90	47	37	M080Z150-P-D	1.30
SK40-SF14-130	14	27	34	130	47	37	M080Z150-P-D	1.60
SK40-SF14-160	14	27	34	160	47	37	M080Z150-P-D	1.80
SK40-SF14-200	14	27	34	200	47	37	M080Z150-P-D	2.00
SK40-SF16-90	16	27	34	90	50	40	M080Z150-P-D	1.40
SK40-SF16-130	16	27	34	130	50	40	M080Z150-P-D	1.70
SK40-SF16-160	16	27	34	160	50	40	M080Z150-P-D	1.95
SK40-SF16-200	16	27	34	200	50	40	M080Z150-P-D	2.20
SK40-SF18-90	18	33	42	90	50	40	M080Z150-P-D	1.50
SK40-SF18-130	18	33	42	130	50	40	M080Z150-P-D	1.80
SK40-SF18-160	18	33	42	160	50	40	M080Z150-P-D	2.00
SK40-SF18-200	18	33	42	200	50	40	M080Z150-P-D	2.30
SK40-SF20-90	20	33	42	90	52	42	M080Z150-P-D	1.55
SK40-SF20-130	20	33	42	130	52	42	M080Z150-P-D	1.85
SK40-SF20-160	20	33	42	160	52	42	M080Z150-P-D	2.05
SK40-SF20-200	20	33	42	200	52	42	M080Z150-P-D	2.35
SK40-SF25-100	25	44	53	100	58	48	M160Z150-P-D	1.65
SK40-SF25-130	25	44	53	130	58	48	M160Z150-P-D	1.90
SK40-SF25-160	25	44	53	160	58	48	M160Z150-P-D	2.20
SK40-SF25-200	25	44	53	200	58	48	M160Z150-P-D	2.50
SK40-SF32-100	32	44	53	100	58	48	M160Z150-P-D	2.00
SK40-SF32-130	32	44	53	130	58	48	M160Z150-P-D	2.30
SK40-SF32-160	32	44	53	160	58	48	M160Z150-P-D	2.60
SK50-SF6-100	6	21	27	100	36	26	M050Z150-D	3.70
SK50-SF6-130	6	21	27	130	36	26	M050Z150-D	3.80
SK50-SF6-160	6	21	27	160	36	26	M050Z150-D	3.88
SK50-SF6-200	6	21	27	200	36	26	M050Z150-D	4.00

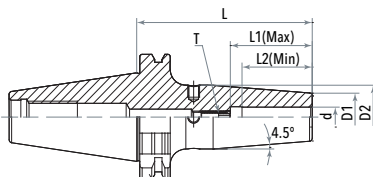


Shrink-fit Holder

SK DIN ISO 7388-1



P66



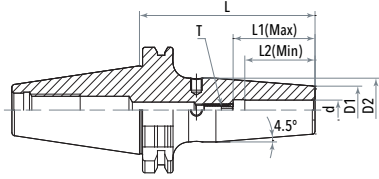
Specification	d	D1	D2	L	L1 (Max)	L2 (Min)	T	Weight
SK50-SF8-100	8	21	27	100	36	26	M060Z150-D	3.60
SK50-SF8-130	8	21	27	130	36	26	M060Z150-D	3.70
SK50-SF8-160	8	21	27	160	36	26	M060Z150-D	3.90
SK50-SF8-200	8	21	27	200	36	26	M060Z150-D	4.00
SK50-SF10-100	10	24	32	100	42	32	M060Z150-D	3.65
SK50-SF10-130	10	24	32	130	42	32	M060Z150-D	3.78
SK50-SF10-160	10	24	32	160	42	32	M060Z150-D	4.00
SK50-SF10-200	10	24	32	200	42	32	M060Z150-D	4.15
SK50-SF12-100	12	24	32	100	47	37	M080Z150-P-D	3.70
SK50-SF12-130	12	24	32	130	47	37	M080Z150-P-D	3.80
SK50-SF12-160	12	24	32	160	47	37	M080Z150-P-D	4.10
SK50-SF12-200	12	24	32	200	47	37	M080Z150-P-D	4.25
SK50-SF14-100	14	27	34	100	47	37	M080Z150-P-D	3.70
SK50-SF14-130	14	27	34	130	47	37	M080Z150-P-D	3.80
SK50-SF14-160	14	27	34	160	47	37	M080Z150-P-D	4.10
SK50-SF14-200	14	27	34	200	47	37	M080Z150-P-D	4.25
SK50-SF16-100	16	27	34	100	50	40	M080Z150-P-D	3.75
SK50-SF16-130	16	27	34	130	50	40	M080Z150-P-D	3.88
SK50-SF16-160	16	27	34	160	50	40	M080Z150-P-D	4.20
SK50-SF16-200	16	27	34	200	50	40	M080Z150-P-D	4.50
SK50-SF18-100	18	33	42	100	50	40	M080Z150-P-D	3.75
SK50-SF18-130	18	33	42	130	50	40	M080Z150-P-D	3.88
SK50-SF18-160	18	33	42	160	50	40	M080Z150-P-D	4.20
SK50-SF18-200	18	33	42	200	50	40	M080Z150-P-D	4.50
SK50-SF20-100	20	33	42	100	52	42	M080Z150-P-D	3.80
SK50-SF20-130	20	33	42	130	52	42	M080Z150-P-D	4.00
SK50-SF20-160	20	33	42	160	52	42	M080Z150-P-D	4.30

See next page



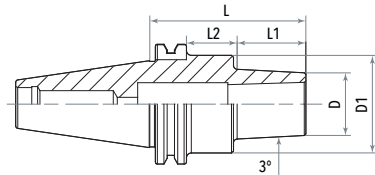


SK DIN ISO 7388-1



Specification	d	D1	D2	L	L1 (Max)	L2 (Min)	T	Weight
SK50-SF20-200	20	33	42	200	52	42	M080Z150-P-D	4.60
SK50-SF25-100	25	44	53	100	58	48	M160Z150-P-D	3.82
SK50-SF25-130	25	44	53	130	58	48	M160Z150-P-D	4.05
SK50-SF25-160	25	44	53	160	58	48	M160Z150-P-D	4.33
SK50-SF25-200	25	44	53	200	58	48	M160Z150-P-D	4.65
SK50-SF32-100	32	44	53	100	58	48	M160Z150-P-D	4.00
SK50-SF32-130	32	44	53	130	58	48	M160Z150-P-D	4.40
SK50-SF32-160	32	44	53	160	58	48	M160Z150-P-D	4.70
SK50-SF32-200	32	44	53	200	58	48	M160Z150-P-D	5.00

SK-DSF DIN ISO 7388-1



Specification	D	D1	L1	L2	L	Lock Screw	Screw Nut	Wrench	Weight
SK40-DSF12-45	38	-	18	-	50	E100Z300	ZD12-1	T06	1.08
SK40-DSF12-75	38	-	48	-	75	E100Z300	ZD12-1	T06-L	1.40
SK40-DSF12-135	41	-	108	-	135	E100Z300	ZD12-1	T06-L	2.20
SK50-DSF12-75	38	65	25	21	75	E100Z400	ZD12-1	T06-L	4.00
SK50-DSF12-105	41	65	55	21	105	E100Z700	ZD12-1	T06-L	4.40
SK50-DSF12-135	41	65	85	21	135	E100Z1000	ZD12-1	T06-L	4.70

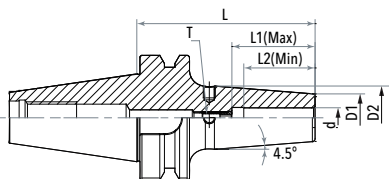
Feature

1. Balanced: G2.5; 25,000 rpm;
2. Runout (X3D): ≤ 0.003 mm.



Shrink-fit Holder

BT DIN ISO 7388-2



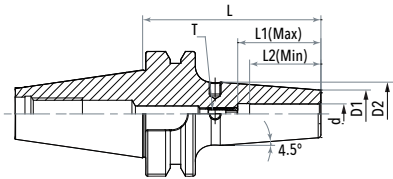
Specification	d	D1	D2	L	L1 (Max)	L2 (Min)	T	Weight
BT30-SF3-80	3	10	16	80	-	9	-	0.35
BT30-SF4-80	4	10	16	80	-	12	-	0.40
BT30-SF5-80	5	10	16	80	-	15	-	0.43
BT30-SF6-80	6	21	27	80	36	26	M050Z150-D	0.45
BT30-SF8-80	8	21	27	80	36	26	M060Z150-D	0.50
BT30-SF10-80	10	24	32	80	42	32	M060Z150-D	0.55
BT30-SF12-80	12	24	32	80	47	37	M060Z150-D	0.62
BT30-SF14-80	14	27	34	80	47	37	M060Z150-D	0.65
BT30-SF16-80	16	27	34	80	50	40	M080Z150-P-D	0.68
BT30-SF18-80	18	33	42	80	50	40	M080Z150-P-D	0.71
BT30-SF20-90	20	33	42	90	52	42	M080Z150-P-D	0.75
BT40-SF3-90	3	10	16	90	-	9	-	1.00
BT40-SF4-90	4	10	16	90	-	12	-	1.10
BT40-SF5-90	5	10	16	90	-	15	-	1.00
BT40-SF6-90	6	21	27	90	36	26	M050Z150-D	1.15
BT40-SF6-130	6	21	27	130	36	26	M050Z150-D	1.20
BT40-SF6-160	6	21	27	160	36	26	M050Z150-D	1.40
BT40-SF6-200	6	21	27	200	36	26	M050Z150-D	1.90
BT40-SF8-90	8	21	27	90	36	26	M060Z150-D	1.15
BT40-SF8-130	8	21	27	130	36	26	M060Z150-D	1.30
BT40-SF8-160	8	21	27	160	36	26	M060Z150-D	1.50
BT40-SF8-200	8	21	27	200	36	26	M060Z150-D	1.90
BT40-SF10-90	10	24	32	90	42	32	M060Z150-D	1.20
BT40-SF10-130	10	24	32	130	42	32	M060Z150-D	1.50
BT40-SF10-160	10	24	32	160	42	32	M060Z150-D	1.80
BT40-SF10-200	10	24	32	200	42	32	M060Z150-D	1.90

See next page





BT
DIN ISO 7388-2

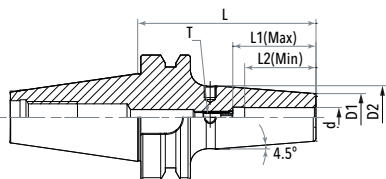


Specification	d	D1	D2	L	L1 (Max)	L2 (Min)	T	Weight
BT40-SF12-90	12	24	32	90	47	37	M080Z150-P-D	1.30
BT40-SF12-130	12	24	32	130	47	37	M080Z150-P-D	1.60
BT40-SF12-160	12	24	32	160	47	37	M080Z150-P-D	1.80
BT40-SF12-200	12	24	32	200	47	37	M080Z150-P-D	2.00
BT40-SF14-90	14	27	34	90	47	37	M080Z150-P-D	1.30
BT40-SF14-130	14	27	34	130	47	37	M080Z150-P-D	1.60
BT40-SF14-160	14	27	34	160	47	37	M080Z150-P-D	1.80
BT40-SF14-200	14	27	34	200	47	37	M080Z150-P-D	2.00
BT40-SF16-90	16	27	34	90	50	40	M080Z150-P-D	1.40
BT40-SF16-130	16	27	34	130	50	40	M080Z150-P-D	1.70
BT40-SF16-160	16	27	34	160	50	40	M080Z150-P-D	1.95
BT40-SF16-200	16	27	34	200	50	40	M080Z150-P-D	2.20
BT40-SF18-90	18	33	42	90	50	40	M080Z150-P-D	1.50
BT40-SF18-130	18	33	42	130	50	40	M080Z150-P-D	1.80
BT40-SF18-160	18	33	42	160	50	40	M080Z150-P-D	2.00
BT40-SF18-200	18	33	42	200	50	40	M080Z150-P-D	2.30
BT40-SF20-90	20	33	42	90	52	42	M080Z150-P-D	1.55
BT40-SF20-130	20	33	42	130	52	42	M080Z150-P-D	1.85
BT40-SF20-160	20	33	42	160	52	42	M080Z150-P-D	2.05
BT40-SF20-200	20	33	42	200	52	42	M080Z150-P-D	2.35
BT40-SF25-100	25	44	53	100	58	48	M160Z150-P-D	1.65
BT40-SF25-130	25	44	53	130	58	48	M160Z150-P-D	1.90
BT40-SF25-160	25	44	53	160	58	48	M160Z150-P-D	2.20
BT40-SF25-200	25	44	53	200	58	48	M160Z150-P-D	2.50
BT40-SF32-100	32	44	53	100	58	48	M160Z150-P-D	2.00
BT40-SF32-130	32	44	53	130	58	48	M160Z150-P-D	2.30
BT40-SF32-160	32	44	53	160	58	48	M160Z150-P-D	2.60



Shrink-fit Holder

BT DIN ISO 7388-2

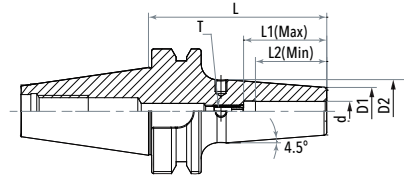


Specification	d	D1	D2	L	L1 (Max)	L2 (Min)	T	Weight
BT50-SF6-100	6	21	27	100	36	26	M050Z150-D	3.70
BT50-SF6-130	6	21	27	130	36	26	M050Z150-D	3.80
BT50-SF6-160	6	21	27	160	36	26	M050Z150-D	3.88
BT50-SF6-200	6	21	27	200	36	26	M050Z150-D	4.00
BT50-SF8-100	8	21	27	100	36	26	M060Z150-D	3.60
BT50-SF8-130	8	21	27	130	36	26	M060Z150-D	3.70
BT50-SF8-160	8	21	27	160	36	26	M060Z150-D	3.90
BT50-SF8-200	8	21	27	200	36	26	M060Z150-D	4.00
BT50-SF10-100	10	24	32	100	42	32	M060Z150-D	3.65
BT50-SF10-130	10	24	32	130	42	32	M060Z150-D	3.78
BT50-SF10-160	10	24	32	160	42	32	M060Z150-D	4.00
BT50-SF10-200	10	24	32	200	42	32	M060Z150-D	4.15
BT50-SF12-100	12	24	32	100	47	37	M080Z150-P-D	3.70
BT50-SF12-130	12	24	32	130	47	37	M080Z150-P-D	3.80
BT50-SF12-160	12	24	32	160	47	37	M080Z150-P-D	4.10
BT50-SF12-200	12	24	32	200	47	37	M080Z150-P-D	4.25
BT50-SF14-100	14	27	34	100	47	37	M080Z150-P-D	3.70
BT50-SF14-130	14	27	34	130	47	37	M080Z150-P-D	3.80
BT50-SF14-160	14	27	34	160	47	37	M080Z150-P-D	4.10
BT50-SF14-200	14	27	34	200	47	37	M080Z150-P-D	4.25
BT50-SF16-100	16	27	34	100	50	40	M080Z150-P-D	3.75
BT50-SF16-130	16	27	34	130	50	40	M080Z150-P-D	3.88
BT50-SF16-160	16	27	34	160	50	40	M080Z150-P-D	4.20
BT50-SF16-200	16	27	34	200	50	40	M080Z150-P-D	4.50
BT50-SF18-100	18	33	42	100	50	40	M080Z150-P-D	3.75
BT50-SF18-130	18	33	42	130	50	40	M080Z150-P-D	3.88
BT50-SF18-160	18	33	42	160	50	40	M080Z150-P-D	4.20

See next page

BT

DIN ISO 7388-2



Specification	d	D1	D2	L	L1 (Max)	L2 (Min)	T	Weight
BT50-SF18-200	18	33	42	200	50	40	M080Z150-P-D	4.50
BT50-SF20-100	20	33	42	100	52	42	M080Z150-P-D	3.80
BT50-SF20-130	20	33	42	130	52	42	M080Z150-P-D	4.00
BT50-SF20-160	20	33	42	160	52	42	M080Z150-P-D	4.30
BT50-SF20-200	20	33	42	200	52	42	M080Z150-P-D	4.60
BT50-SF25-100	25	44	53	100	58	48	M160Z150-P-D	3.82
BT50-SF25-130	25	44	53	130	58	48	M160Z150-P-D	4.05
BT50-SF25-160	25	44	53	160	58	48	M160Z150-P-D	4.33
BT50-SF25-200	25	44	53	200	58	48	M160Z150-P-D	4.65
BT50-SF32-100	32	44	53	100	58	48	M160Z150-P-D	4.00
BT50-SF32-130	32	44	53	130	58	48	M160Z150-P-D	4.40
BT50-SF32-160	32	44	53	160	58	48	M160Z150-P-D	4.70
BT50-SF32-200	32	44	53	200	58	48	M160Z150-P-D	5.00

Feature

1. Balanced: G2.5; 25,000 rpm;
2. Runout (X3D): ≤ 0.003 mm.

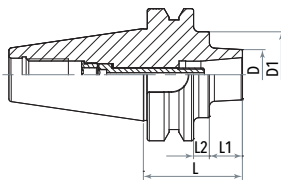


Shrink-fit Holder

BT DIN ISO 7388-2



P66



Specification	D	D1	L1	L2	L	Lock Screw	Position Nut	Wrench	Weight
BT30-DSF12-60	38	-	13	-	60	E100Z300	ZD12-1	T06	0.40
BT40-DSF12-50	38	-	18	-	50	E100Z300	ZD12-1	T06	1.10
BT40-DSF12-75	38	-	48	-	75	E100Z300	ZD12-1	T06-L	1.40
BT40-DSF12-135	41	-	108	-	135	E100Z300	ZD12-1	T06-L	2.20
BT50-DSF12-75	38	65	25	12	75	E100Z400	ZD12-1	T06-L	4.00
BT50-DSF12-105	41	65	55	12	105	E100Z700	ZD12-1	T06-L	4.40
BT50-DSF12-135	41	65	85	12	135	E100Z100	ZD12-1	T06-L	4.70

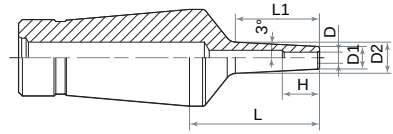
Feature

1. Balanced: G2.5; 25,000 rpm;
2. Runout (X3D): ≤ 0.003 mm.



DSF

Modular Extender



Specification	D	D1	D2	L1	L	H(Min)	H(Max)	Weight
DSF12-D3-35-1.5	3	6	8.4	22	35	10	60	0.20
DSF12-D3-55-1.5	3	6	10.5	42	55	10	80	0.20
DSF12-D3-80-1.5	3	6	13.1	67	80	10	105	0.20
DSF12-D3-110-1.5	3	6	16.2	97	110	10	135	0.20
DSF12-D3-35-2.25	3	7.5	9.9	22	35	10	60	0.20
DSF12-D3-55-2.25	3	7.5	12	42	55	10	80	0.20
DSF12-D3-80-2.25	3	7.5	14.6	67	80	10	105	0.20
DSF12-D4-35-1.5	4	7	9.4	22	35	12	60	0.20
DSF12-D4-55-1.5	4	7	11.5	42	55	12	80	0.20
DSF12-D4-80-1.5	4	7	14.1	67	80	12	105	0.20
DSF12-D4-110-1.5	4	7	17.2	97	110	12	135	0.20
DSF12-D4-35-3	4	10	12.4	22	35	12	60	0.20
DSF12-D4-55-3	4	10	14.5	42	55	12	80	0.20
DSF12-D4-80-3	4	10	17.1	67	80	12	105	0.20
DSF12-D5-35-1.5	5	8	10.4	22	35	15	60	0.20
DSF12-D5-55-1.5	5	8	12.5	42	55	15	80	0.20
DSF12-D5-80-1.5	5	8	15.1	67	80	15	105	0.20
DSF12-D5-110-1.5	5	8	18.2	97	110	15	135	0.20
DSF12-D6-35-1.5	6	9	11.4	22	35	18	60	0.20
DSF12-D6-55-1.5	6	9	13.5	42	55	18	80	0.20
DSF12-D6-80-1.5	6	9	16.1	67	80	18	105	0.20
DSF12-D6-110-1.5	6	9	19.2	97	110	18	135	0.20
DSF12-D6-35-3	6	12	14.4	22	35	18	60	0.20
DSF12-D6-55-3	6	12	16.5	42	55	18	80	0.20
DSF12-D6-80-3	6	12	19.1	67	80	18	105	0.20
DSF12-D8-35-3	8	14	16.4	22	35	25	60	0.20
DSF12-D8-55-3	8	14	18.5	42	55	25	80	0.20
DSF12-D8-80-3	8	14	21.1	67	80	25	105	0.30
DSF12-D10-35-3	10	16	18.4	22	35	30	60	0.20
DSF12-D10-55-3	10	16	20.5	42	55	30	60	0.20
DSF12-D10-80-3	10	16	23.1	67	80	30	60	0.30
DSF12-D12-35-4	12	20	22.4	22	35	30	60	0.20
DSF12-D12-55-4	12	20	24.5	42	55	30	60	0.20
DSF12-D12-80-4	12	20	25.5	-	80	30	60	0.30



Cylindrical DIN 1835-1 A



Specification	d	D2	L1 (Max)	T	Weight
C12-SF3-160	12	8	3	160	0.20
C12-SF4-160	12	8	4	160	0.21
C16-SF3-160	16	10	3	160	0.22
C16-SF4-160	16	10	4	160	0.23
C16-SF5-160	16	10	5	160	0.24
C16-SF6-160	16	10	6	160	0.25
C20-SF5-160	20	14	5	160	0.40
C20-SF6-160	20	14	6	160	0.42
C20-SF8-160	20	14	8	160	0.44
C25-SF8-160	25	20	8	160	0.60
C25-SF10-160	25	20	10	160	0.62
C25-SF12-160	25	20	12	160	0.65
C32-SF10-160	32	27	10	160	0.78
C32-SF12-160	32	27	12	160	0.81
C32-SF16-160	32	27	16	160	0.83
C32-SF20-160	32	27	20	160	0.85

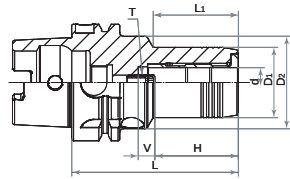
Induction Heat Machine

Specification	Heat time	Cooling	Voltage	Power
SF-3500	3-15"	Air	Single Phase 220V	3500W

Tool	Range	LxWxH	Weight (kg)
Carbide	φ3~φ25	600x500x800	41



HSK-A DIN 69893-1



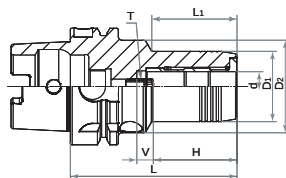
Specification	d	D1	D2	H	V	L1	L	T	Collet	Weight
HSK40A-HC6-70	6	28	34	27.5	10	28	70	M050Z150-D	-	0.45
HSK40A-HC8-70	8	30	34	27.5	10	28	70	M050Z150-D	-	0.45
HSK40A-HC10-75	10	32	34	32.5	10	34	75	M050Z150-D	-	0.50
HSK40A-HC12-80	12	34	34	37.5	10	-	80	M050Z150-D	HC12/OHC12	0.55
HSK50A-HC6-70	6	28	40	27.5	10	28	70	M050Z150-D	-	0.60
HSK50A-HC8-70	8	30	40	27.5	10	28	70	M060Z150-D	-	0.65
HSK50A-HC10-80	10	32	40	32.5	10	34	80	M060Z150-D	-	0.75
HSK50A-HC12-85	12	34	40	37.5	10	44	85	M060Z150-D	HC12/OHC12	0.75
HSK50A-HC14-90	14	36	40	37.5	10	44	90	M060Z150-D	-	0.75
HSK50A-HC16-90	16	38	60	42.5	10	30	90	M060Z150-D	-	1.05
HSK50A-HC18-90	18	41	-	42.5	10	30	90	M060Z150-D	-	0.90
HSK50A-HC20-90	20	42	-	42.5	10	30	90	M060Z150-D	HC20/OHC20	0.85
HSK63A-HC6-80	6	28	50	27.5	10	24	80	M050Z150-D	-	1.00
HSK63A-HC8-80	8	30	50	27.5	10	24	80	M060Z150-D	-	1.00
HSK63A-HC10-80	10	32	50	32.5	10	35	80	M060Z150-D	-	1.05
HSK63A-HC12-80	12	34	50	37.5	10	40	80	M060Z150-D	HC12/OHC12	1.10
HSK63A-HC14-90	14	36	50	37.5	10	40	90	M060Z150-D	-	1.15
HSK63A-HC16-90	16	38	50	42.5	10	46	90	M080Z150P-D	-	1.00
HSK63A-HC18-90	18	41	50	42.5	10	47	90	M080Z150P-D	-	1.25
HSK63A-HC20-90	20	43	50	42.5	10	48	90	M080Z150P-D	HC20/OHC20	1.25
HSK63A-HC25-120	25	57	63	51	10	59	120	M160Z150P-D	-	2.20
HSK63A-HC32-125	32	63	75	55	10	-	125	M160Z150P-D	HC32/OHC32	2.60
HSK100A-HC6-85	6	28	50	27.5	10	26	85	M050Z150-D	-	2.40
HSK100A-HC8-85	8	30	50	27.5	10	26	85	M060Z150-D	-	2.40
HSK100A-HC10-90	10	32	50	32.5	10	42	90	M060Z150-D	-	2.45
HSK100A-HC12-95	12	34	50	37.5	10	47	95	M060Z150-D	HC12/OHC12	2.55
HSK100A-HC14-100	14	36	50	37.5	10	47	100	M060Z150-D	-	2.55
HSK100A-HC16-105	16	38	50	42.5	10	53	105	M080Z150P-D	-	2.60
HSK100A-HC18-105	18	41	50	42.5	10	53	105	M080Z150P-D	-	2.65
HSK100A-HC20-105	20	43	50	42.5	10	59	105	M080Z150P-D	HC20/OHC20	2.75
HSK100A-HC25-110	25	57	63	51	10	62	110	M080Z150P-D	-	3.40
HSK100A-HC32-110	32	63	75	55	10	62	110	M080Z150P-D	HC32/OHC 32	3.60

Feature

1. For high-speed and high-precision machining;
2. Balanced: G2.5; 20,000 rpm;
3. Runout (X3D): ≤0.003 mm.



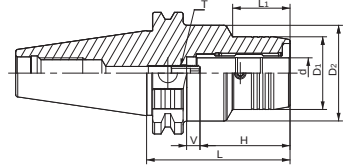
HSK-A DIN 69893-1



Specification	d	D1	D2	H	V	L1	L	T	Collet	Weight
HSK63A-HC6-150	6	28	50	27.5	10	103	150	M050Z150-D	-	1.40
HSK63A-HC6-200	6	28	50	27.5	10	103	200	M050Z150-D	-	1.60
HSK63A-HC8-150	8	30	50	27.5	10	104	150	M060Z150-D	-	1.40
HSK63A-HC8-200	8	30	50	27.5	10	104	200	M060Z150-D	-	1.60
HSK63A-HC10-150	10	32	50	32.5	10	104	150	M060Z150-D	-	1.60
HSK63A-HC10-200	10	32	50	32.5	10	104	200	M060Z150-D	-	2.20
HSK63A-HC12-150	12	34	50	37.5	10	105	150	M060Z150-D	HC12/OHC12	1.55
HSK63A-HC12-200	12	34	50	37.5	10	105	200	M060Z150-D	HC12/OHC12	2.25
HSK63A-HC14-150	14	36	50	37.5	10	105	150	M060Z150-D	-	1.65
HSK63A-HC14-200	14	36	50	37.5	10	105	200	M060Z150-D	-	2.35
HSK63A-HC16-150	16	38	50	42.5	10	106	150	M080Z150P-D	-	1.70
HSK63A-HC16-200	16	38	50	42.5	10	106	200	M080Z150P-D	-	2.40
HSK63A-HC18-150	18	41	50	42.5	10	107	150	M080Z150P-D	-	1.80
HSK63A-HC18-200	18	41	50	42.5	10	107	200	M080Z150P-D	-	2.60
HSK63A-HC20-150	20	43	50	42.5	10	108	150	M080Z150P-D	HC20/OHC20	1.90
HSK63A-HC20-200	20	43	50	42.5	10	108	200	M080Z150P-D	HC20/OHC20	2.15



SK DIN ISO 7388-1



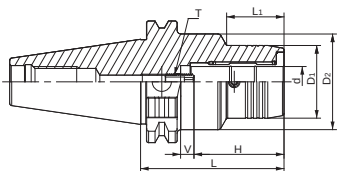
Specification	d	D1	D2	L1	L	H	V	T	Collet	Weight
SK40-HC6-65	6	28	50	23	65	27.5	10	M050Z150-D	-	1.20
SK40-HC6-80.5	6	28	50	44	80.5	27.5	10	M050Z150-D	-	1.20
SK40-HC6-110	6	28	50	44	110	27.5	10	M050Z150-D	-	1.65
SK40-HC8-65	8	30	50	23	65	27.5	10	M060Z150-D	-	1.20
SK40-HC8-80.5	8	30	50	44	80.5	27.5	10	M060Z150-D	-	1.25
SK40-HC8-110	8	30	50	44	110	27.5	10	M060Z150-D	-	1.65
SK40-HC10-65	10	32	50	23	65	32.5	10	M060Z150-D	-	1.20
SK40-HC10-80.5	10	32	50	44	80.5	32.5	10	M060Z150-D	-	1.25
SK40-HC10-110	10	32	50	44	110	32.5	10	M060Z150-D	-	1.65
SK40-HC12-65	12	34	50	23	65	37.5	10	M060Z150-D	HC12/OHC12	1.20
SK40-HC12-80.5	12	34	50	44	80.5	37.5	10	M060Z150-D	HC12/OHC12	1.30
SK40-HC12-110	12	34	50	44	110	37.5	10	M060Z150-D	HC12/OHC12	1.70
SK40-HC14-75	14	36	50	30	75	37.5	10	M060Z150-D	-	1.30
SK40-HC14-80.5	14	36	50	44	80.5	37.5	10	M060Z150-D	-	1.30
SK40-HC14-110	14	36	50	44	110	37.5	10	M060Z150-D	-	1.70
SK40-HC16-75	16	38	50	30	75	42.5	10	M080Z150P-D	-	1.30
SK40-HC16-80.5	16	38	50	48	80.5	42.5	10	M080Z150P-D	-	1.40
SK40-HC16-110	16	38	50	48	110	42.5	10	M080Z150P-D	-	1.70
SK40-HC18-75	18	41	50	30	75	42.5	10	M080Z150P-D	-	1.30
SK40-HC18-80.5	18	41	50	48	80.5	42.5	10	M080Z150P-D	-	1.40
SK40-HC18-110	18	41	50	48	135	42.5	10	M080Z150P-D	-	2.05
SK40-HC20-75	20	43	50	30	75	42.5	10	M080Z150P-D	HC20/OHC20	1.30
SK40-HC20-80.5	20	43	50	48	80.5	42.5	10	M080Z150P-D	HC20/OHC20	1.35
SK40-HC20-110	20	43	50	48	110	42.5	10	M080Z150P-D	HC20/OHC20	1.85
SK40-HC25-80.5	25	57	66	26	80.5	51	10	M160Z150P-D	-	1.75
SK40-HC32-105	32	63	80	26	105	55	10	M160Z150P-D	HC32/OHC32	1.80

See next page



Hydraulic Chuck

SK DIN ISO 7388-1



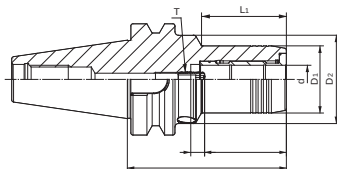
Specification	d	D1	D2	L1	L	H	V	T	Collet	Weight
SK50-HC6-90	6	28	50	44	90	27.5	10	M050Z150-D	-	3.15
SK50-HC6-150	6	28	50	44	150	27.5	10	M050Z150-D	-	3.95
SK50-HC8-90	8	30	50	44	90	27.5	10	M060Z150-D	-	3.15
SK50-HC8-150	8	30	50	44	150	27.5	10	M060Z150-D	-	3.95
SK50-HC10-90	10	32	50	44	90	32.5	10	M060Z150-D	-	3.15
SK50-HC10-150	10	32	50	44	150	32.5	10	M060Z150-D	-	3.95
SK50-HC12-90	12	34	50	44	90	37.5	10	M060Z150-D	HC12/OHC12	3.15
SK50-HC12-150	12	34	50	44	150	37.5	10	M060Z150-D	HC12/OHC12	3.95
SK50-HC14-90	14	36	50	47	90	37.5	10	M060Z150-D	-	3.20
SK50-HC14-150	14	36	50	47	150	37.5	10	M060Z150-D	-	3.90
SK50-HC16-90	16	38	50	48	90	42.5	10	M080Z150P-D	-	3.30
SK50-HC16-150	16	38	50	48	150	42.5	10	M080Z150P-D	-	3.90
SK50-HC18-90	18	41	50	48	90	42.5	10	M080Z150P-D	-	3.20
SK50-HC18-150	18	41	50	48	150	42.5	10	M080Z150P-D	-	3.90
SK50-HC20-80.5	20	43	50	44	80.5	42.5	10	M080Z150P-D	HC20/OHC20	3.10
SK50-HC20-90	20	43	50	48	90	42.5	10	M080Z150P-D	HC20/OHC20	3.30
SK50-HC20-110	20	43	50	48	110	42.5	10	M080Z150P-D	HC20/OHC20	3.60
SK50-HC20-150	20	43	50	48	150	42.5	10	M080Z150P-D	HC20/OHC20	4.00
SK50-HC25-105	25	57	-	85.9	105	51	10	M160Z150P-D	-	3.90
SK50-HC25-150	25	57	-	120.9	150	51	10	M160Z150P-D	-	4.55
SK50-HC32-105	32	63	-	95.9	105	55	10	M160Z150P-D	HC32/OHC32	4.35
SK50-HC32-150	32	63	-	120.9	150	55	10	M160Z150P-D	HC32/OHC32	5.40

Feature

1. For high-speed and high precision cutting;
2. Balanced: G2.5; 20,000 rpm;
3. Runout (X3D): ≤ 0.003 mm.



BT DIN ISO 7388-2



Specification	d	D1	D2	L	H	V	L1	T	Collet	Weight
BT30-HC6-75	6	28	45	75	27.5	10	28	M050Z150-D	-	0.70
BT30-HC8-75	8	30	45	75	27.5	10	28	M060Z150-D	-	0.70
BT30-HC10-75	10	32	45	75	32.5	10	38	M060Z150-D	-	0.75
BT30-HC12-75	12	34	45	75	37.5	10	36	M060Z150-D	HC12/OHC12	0.75
BT30-HC14-90	14	36	45	90	37.5	10	44	M060Z150-D	-	0.80
BT30-HC16-90	16	38	45	90	42.5	10	48	M080Z150P-D	-	0.90
BT30-HC18-90	18	41	45	90	42.5	10	48	M080Z150P-D	-	0.95
BT30-HC20-90	20	43	-	90	42.5	10	-	M080Z150P-D	HC20/OHC20	0.95
BT40-HC6-75	6	28	50	75	27.5	10	23	M050Z150-D	-	1.25
BT40-HC6-90	6	28	50	90	27.5	10	44	M050Z150-D	-	1.40
BT40-HC6-120	6	28	50	120	27.5	10	44	M050Z150-D	-	2.15
BT40-HC8-75	8	30	50	75	27.5	10	23	M060Z150-D	-	1.25
BT40-HC8-90	8	30	50	90	27.5	10	39	M060Z150-D	-	1.50
BT40-HC8-120	8	30	50	120	27.5	10	44	M060Z150-D	-	2.20
BT40-HC10-75	10	32	50	75	32.5	10	23	M060Z150-D	-	1.25
BT40-HC10-90	10	32	50	90	32.5	10	44	M060Z150-D	-	1.45
BT40-HC10-120	10	32	50	120	32.5	10	44	M060Z150-D	-	2.20
BT40-HC12-75	12	34	50	75	37.5	10	23	M060Z150-D	HC12/OHC12	1.25
BT40-HC12-90	12	34	50	90	37.5	10	44	M060Z150-D	HC12/OHC12	1.45
BT40-HC12-120	12	34	50	120	37.5	10	44	M060Z150-D	HC12/OHC12	2.20
BT40-HC14-75	14	36	50	75	37.5	10	23	M060Z150-D	-	1.25
BT40-HC14-90	14	36	50	90	37.5	10	44	M060Z150-D	-	1.50
BT40-HC14-150	14	36	50	150	37.5	10	44	M060Z150-D	-	2.25
BT40-HC16-75	16	38	50	75	42.5	10	23	M080Z150P-D	-	1.25
BT40-HC16-90	16	38	50	90	42.5	10	48	M080Z150P-D	-	1.50
BT40-HC16-120	16	38	50	120	42.5	10	48	M080Z150P-D	-	2.25
BT40-HC18-75	18	41	50	75	42.5	10	30	M080Z150P-D	-	1.40
BT40-HC18-90	18	41	50	90	42.5	10	48	M080Z150P-D	-	1.55
BT40-HC18-150	18	41	50	150	42.5	10	48	M080Z150P-D	-	2.30
BT40-HC20-75	20	43	50	75	42.5	10	30	M080Z150P-D	HC20/OHC20	1.40
BT40-HC20-90	20	43	50	90	42.5	10	48	M080Z150P-D	HC20/OHC20	1.55
BT40-HC20-120	20	43	50	120	42.5	10	48	M080Z150P-D	HC20/OHC20	2.30
BT40-HC25-105	25	57	50	105	51	10	73	M160Z150P-D	-	2.10
BT40-HC25-150	25	57	50	150	51	10	108	M160Z150P-D	-	2.80

See next page



Hydraulic Chuck

BT DIN ISO 7388-2



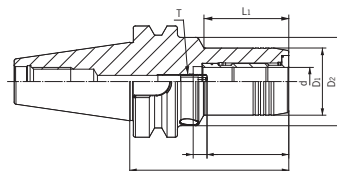
P66



P22



P22



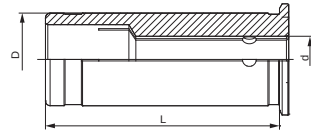
Specification	d	D1	D2	L	H	V	L1	T	Collet	Weight
BT40-HC32-105	32	57	61	105	55	10	45	M160Z150P-D	HC32/OHC32	2.05
BT40-HC32-135	32	57	61	135	55	10	78	M160Z150P-D	HC32/OHC32	2.60
BT50-HC6-105	6	28	50	105	27.5	10	32	M050Z150-D	-	3.95
BT50-HC6-120	6	28	50	120	27.5	10	44	M050Z150-D	-	4.20
BT50-HC6-150	6	28	50	150	27.5	10	44	M050Z150-D	-	4.55
BT50-HC8-105	8	30	50	105	27.5	10	32	M060Z150-D	-	3.95
BT50-HC8-120	8	30	50	120	27.5	10	40	M060Z150-D	-	4.20
BT50-HC8-150	8	30	50	150	27.5	10	44	M060Z150-D	-	4.55
BT50-HC10-105	10	32	50	105	32.5	10	32	M060Z150-D	-	3.95
BT50-HC10-120	10	32	50	120	32.5	10	44	M060Z150-D	-	4.30
BT50-HC10-150	10	32	50	150	32.5	10	44	M060Z150-D	-	4.55
BT50-HC12-105	12	34	50	105	37.5	10	32	M060Z150-D	HC12/OHC12	4.05
BT50-HC12-120	12	34	50	120	37.5	10	44	M060Z150-D	HC12/OHC12	4.35
BT50-HC12-150	12	34	50	150	37.5	10	44	M060Z150-D	HC12/OHC12	4.65
BT50-HC14-105	14	36	50	105	37.5	10	32	M060Z150-D	-	4.00
BT50-HC14-120	14	36	50	120	37.5	10	44	M060Z150-D	-	4.35
BT50-HC14-150	14	36	50	150	37.5	10	44	M060Z150-D	-	4.60
BT50-HC16-105	16	38	50	105	42.5	10	32	M080Z150P-D	-	4.00
BT50-HC16-120	16	38	50	120	42.5	10	48	M080Z150P-D	-	4.30
BT50-HC16-150	16	38	50	150	42.5	10	48	M080Z150P-D	-	4.65
BT50-HC18-105	18	41	50	105	42.5	10	32	M080Z150P-D	-	4.10
BT50-HC18-120	18	41	50	120	42.5	10	48	M080Z150P-D	-	4.30
BT50-HC18-150	18	41	50	150	42.5	10	48	M080Z150P-D	-	4.65
BT50-HC20-105	20	43	50	105	42.5	10	32	M080Z150P-D	HC20/OHC20	4.05
BT50-HC20-120	20	43	50	120	42.5	10	48	M080Z150P-D	HC20/OHC20	4.40
BT50-HC20-150	20	43	50	150	42.5	10	48	M080Z150P-D	HC20/OHC20	4.65
BT50-HC25-120	25	57	-	105	51	10	67	M160Z150P-D	-	4.55
BT50-HC25-150	25	57	-	150	51	10	112	M160Z150P-D	-	5.35
BT50-HC32-120	32	63	-	120	55	10	77	M160Z150P-D	HC32/OHC32	4.85
BT50-HC32-150	32	63	-	150	55	10	112	M160Z150P-D	HC32/OHC32	5.60

Feature

1. For high-speed and high precision cutting;
2. Balanced: G2.5; 20,000 rpm;
3. Runout (X3D): ≤ 0.003 mm.

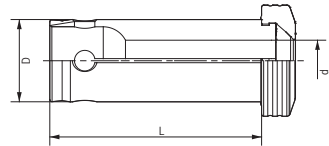


HC Flange Cooling



Specification	d	D	L	Specification	d	D	L	Specification	d	D	L
HC12-3	3	12	45	HC20-3	3	20	50.5	HC32-6	6	32	60.5
HC12-4	4	12	45	HC20-4	4	20	50.5	HC32-8	8	32	60.5
HC12-5	5	12	45	HC20-5	5	20	50.5	HC32-10	10	32	60.5
HC12-6	6	12	45	HC20-6	6	20	50.5	HC32-12	12	32	60.5
HC12-8	8	12	45	HC20-8	8	20	50.5	HC32-14	14	32	60.5
				HC20-10	10	20	50.5	HC32-16	16	32	60.5
				HC20-12	12	20	50.5	HC32-18	18	32	60.5
				HC20-14	14	20	50.5	HC32-20	20	32	60.5
				HC20-16	16	20	50.5	HC32-25	25	32	60.5

OHC Internal Cooling

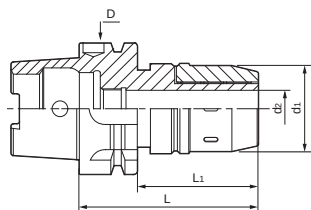


Specification	d	D	L	Specification	d	D	L	Specification	d	D	L
OHC12-3	3	12	45	OHC20-3	3	20	51	OHC32-6	6	32	64
OHC12-4	4	12	45	OHC20-4	4	20	51	OHC32-8	8	32	64
OHC12-5	5	12	45	OHC20-5	5	20	51	OHC32-10	10	32	64
OHC12-6	6	12	45	OHC20-6	6	20	51	OHC32-12	12	32	64
OHC12-8	8	12	45	OHC20-8	8	20	51	OHC32-14	14	32	64
				OHC20-10	10	20	51	OHC32-15	15	32	64
				OHC20-12	12	20	51	OHC32-16	16	32	64
				OHC20-14	14	20	51	OHC32-18	18	32	64
				OHC20-15	15	20	51	OHC32-19	19	32	64
				OHC20-16	16	20	51	OHC32-20	20	32	64
								OHC32-24	24	32	64
								OHC32-25	25	32	64



Power Milling Chuck

HSK-A DIN 69893-1



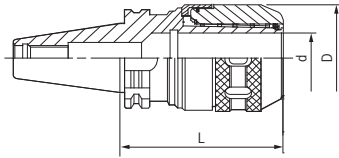
Specification	Range	D	d1	d2	L1	L	Collet	Weight
HSK63A-MC16-90	6-16	63	50	16	54	90	CSC16	1.28
HSK63A-MC20-110	6-20	63	51.5	20	84	100	CSC20	1.70
HSK63A-MC25-110	6-25	63	61	25	84	110	CSC25	1.99
HSK63A-MC32-110	6-32	63	70.5	32	84	110	CSC32	2.20
HSK100A-MC16-85	6-16	100	50	16	56	85	CSC16	2.66
HSK100A-MC20-100	6-20	100	51.5	20	76	110	CSC20	4.10
HSK100A-MC25-110	6-25	100	61	25	86	110	CSC25	3.45
HSK100A-MC32-110	6-32	100	70.5	32	76	110	CSC32	4.90
HSK100A-MC32-135	6-32	100	70.5	32	106	135	CSC32	5.80
HSK100A-MC42-115	6-42	100	86	42	86	115	CSC42	5.50

Feature

1. Balanced: G6.3; 15,000 rpm;
2. Runout (X3D): ≤ 0.01 mm.



SK DIN ISO 7388-1



Specification	Range	D	d	L	Suit collet	Weight
SK30-MC20-85	6-20	53	20	85	CSC20	1.90
SK30-MC20-100	6-20	72	20	100	CSC20	2.10
SK30-MC32-135	6-32	72	32	135	CSC32	3.00
SK40-MC20-85	6-20	53	20	85	CSC20	2.40
SK40-MC20-100	6-20	53	20	100	CSC20	2.50
SK40-MC20-135	6-20	53	20	135	CSC20	2.80
SK40-MC32-105	6-32	72	32	105	CSC32	2.80
SK40-MC32-135	6-32	72	32	135	CSC32	3.10
SK50-MC20-105	6-20	53	20	105	CSC20	4.50
SK50-MC20-150	6-20	53	20	150	CSC20	4.90
SK50-MC32-85	6-32	72	32	85	CSC32	4.50
SK50-MC32-105	6-32	72	32	105	CSC32	4.20
SK50-MC32-135	6-32	72	32	135	CSC32	4.90
SK50-MC42-110	6-42	87.5	42	110	CSC42	6.00
SK50-MC42-165	6-42	87.5	42	165	CSC42	7.40

Feature

Runout (X3D): ≤ 0.01 mm.

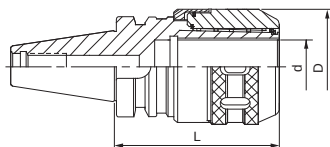
SK-MC Power Chuck Kit

Specification	Collet	PCS/SET	Weight
SK40-MC20-100-5PCS	SC20-6,8,10,12,16	5	7.30
SK40-MC32-105-7PCS	SC32-6,8,10,12,16,20,25	7	7.80
SK50-MC20-105-5PCS	SC20-6,8,10,12,16	5	7.50
SK50-MC32-110-7PCS	SC32-6,8,10,12,16,20,25	7	8.40
SK50-MC42-110-8PCS	SC42-6,8,10,12,16,20,25,32	8	11.40



Power Milling Chuck

BT DIN ISO 7388-2



Specification	Range	D	d	L	Suit collet	Weight
BT30-MC20-80	6-20	53	20	80	CSC20	1.59
BT30-MC20-100	6-20	53	20	100	CSC20	1.73
BT40-MC16-75	6-16	51.5	16	75	CSC16	1.50
BT40-MC16-110	6-16	51.5	16	110	CSC16	1.62
BT40-MC20-80	6-20	53	20	80	CSC20	1.85
BT40-MC20-100	6-20	53	20	100	CSC20	2.11
BT40-MC20-135	6-20	53	20	135	CSC20	2.65
BT40-MC25-105	6-25	62.5	25	105	CSC25	1.80
BT40-MC25-120	6-25	62.5	25	120	CSC25	2.10
BT40-MC32-105	6-32	72	32	105	CSC32	2.28
BT40-MC32-135	6-32	72	32	135	CSC32	5.44
BT50-MC16-90	6-16	51.5	16	90	CSC16S	4.21
BT50-MC16-120	6-16	51.5	16	120	CSC16	4.70
BT50-MC20-105	6-20	53	20	105	CSC20	2.87
BT50-MC20-150	6-20	53	20	150	CSC20	4.30
BT50-MC25-100	6-25	62.5	25	100	CSC25	4.57
BT50-MC25-135	6-25	62.5	25	135	CSC25	4.89
BT50-MC32-110	6-32	72	32	110	CSC32	5.44
BT50-MC32-135	6-32	72	32	135	CSC32	6.19
BT50-MC32-165	6-32	72	32	165	CSC32	6.95
BT50-MC42-115	6-42	87.5	42	115	CSC42	5.50
BT50-MC42-135	6-42	87.5	42	135	CSC42	6.43
BT50-MC42-165	6-42	87.5	42	165	CSC42	7.65

Feature

Runout (X3D): ≤0.01 mm.

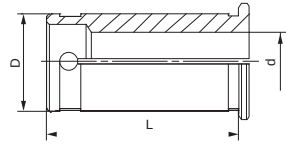
BT-MC Power Chuck Kit

Specification	Collet	PCS/SET	Weight
BT40-MC20-100-5PCS	SC20-6,8,10,12,16	5	7.30
BT40-MC32-105-7PCS	SC32-6,8,10,12,16,20,25	7	7.80
BT50-MC20-105-5PCS	SC20-6,8,10,12,16	5	7.50
BT50-MC32-110-7PCS	SC32-6,8,10,12,16,20,25	7	8.40
BT50-MC42-115-8PCS	SC42-6,8,10,12,16,20,25,32	8	11.40



CSC

Straight Collet



Specification	D	d	L	Specification	D	d	L	Specification	D	d	L	Specification	D	d	L
CSC20-4	20	4	52	CSC25-6	25	6	60	CSC32-3	32	3	66	CSC42-6	42	6	80
CSC20-6	20	6	52	CSC25-8	25	8	60	CSC32-4	32	4	66	CSC42-8	42	8	80
CSC20-8	20	8	52	CSC25-10	25	10	60	CSC32-5	32	5	66	CSC42-10	42	10	80
CSC20-10	20	10	52	CSC25-12	25	12	60	CSC32-6	32	6	66	CSC42-12	42	12	80
CSC20-12	20	12	52	CSC25-16	25	16	60	CSC32-7	32	7	66	CSC42-16	42	16	80
CSC20-15	20	15	52	CSC25-20	25	20	60	CSC32-8	32	8	66	CSC42-18	42	18	80
CSC20-16	20	16	52					CSC32-9	32	9	66	CSC42-20	42	20	80
								CSC32-10	32	10	66	CSC42-24	42	24	80
								CSC32-11	32	11	66	CSC42-25	42	25	80
								CSC32-12	32	12	66	CSC42-32	42	32	80
								CSC32-13	32	13	66				
								CSC32-14	32	14	66				
								CSC32-15	32	15	66				
								CSC32-15.6	32	15.6	66				
								CSC32-16	32	16	66				
								CSC32-17	32	17	66				
								CSC32-18	32	18	66				
								CSC32-19	32	19	66				
								CSC32-20	32	20	66				
								CSC32-21	32	21	66				
								CSC32-22	32	22	66				
								CSC32-23	32	23	66				
								CSC32-24	32	24	66				
								CSC32-25	32	25	66				

WSC

Wrench For Holder MC

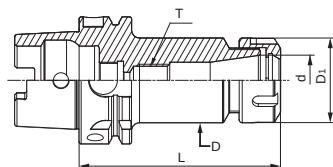


Specification	For	Weight
WSC-16	MC16	0.19
WSC-20	MC20	0.20
WSC-25	MC25	0.31
WSC-32	MC32	0.30
WSC-42	MC42	0.45



ER Collet Chuck

HSK-A DIN 69893-1



Specification	D	D1	d	L	Collet	Weight
HSK40A-ER20-80	34	34	20	80	CER20/CERS20	0.50
HSK40A-ER25-80	42	42	25	80	CER25/CERS25	0.56
HSK40A-ER32-105	50	50	32	105	CER32/CERS32	1.01
HSK50A-ER16-80	28	28	16	80	CER16/CERS16	0.54
HSK50A-ER16-100	28	28	16	100	CER16/CERS16	0.65
HSK50A-ER20-80	34	34	20	80	CER20/CERS20	0.61
HSK50A-ER20-100	34	34	20	100	CER20/CERS20	0.77
HSK50A-ER25-80	42	42	25	80	CER25/CERS25	0.75
HSK50A-ER25-100	42	42	25	100	CER25/CERS25	0.94
HSK50A-ER32-100	50	50	32	100	CER32/CERS32	1.07
HSK63A-ER16-80	28	28	16	80	CER16/CERS16	0.80
HSK63A-ER16-100	28	28	16	100	CER16/CERS16	0.91
HSK63A-ER16-150	28	28	16	150	CER16/CERS16	1.17
HSK63A-ER20-80	34	34	20	80	CER20/CERS20	0.90
HSK63A-ER20-100	34	34	20	100	CER20/CERS20	1.03
HSK63A-ER20-150	34	34	20	150	CER20/CERS20	1.42
HSK63A-ER25-80	42	42	25	80	CER25/CERS25	1.03
HSK63A-ER25-100	42	42	25	100	CER25/CERS25	1.22
HSK63A-ER25-150	42	42	25	150	CER25/CERS25	1.71
HSK63A-ER32-100	50	50	32	100	CER32/CERS32	1.41
HSK63A-ER32-150	50	50	32	150	CER32/CERS32	2.27
HSK63A-ER40-100	63	63	40	100	CER40/CERS40	1.76
HSK63A-ER40-150	63	63	40	150	CER40/CERS40	3.08
HSK100A-ER16-160	28	28	16	160	CER16/CERS16	2.52
HSK100A-ER20-100	34	34	20	100	CER20/CERS20	2.37
HSK100A-ER25-100	42	42	25	100	CER25/CERS25	2.55
HSK100A-ER32-100	50	50	32	100	CER32/CERS32	2.75
HSK100A-ER40-100	63	63	40	100	CER40/CERS40	3.19

Feature

Balanced: G6.3; 15,000 rpm.

SK

DIN ISO 7388-1



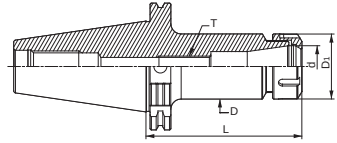
P66



P31-32



P33



Specification	D	D1	d	L	Collet	Weight
SK30-ER11-60	19	19	11	60	CER11/CERS11	0.45
SK30-ER16-70	28	28	16	70	CER16/CERS16	0.67
SK30-ER16-100	28	28	16	100	CER16/CERS16	0.80
SK30-ER20-70	34	34	20	70	CER20/CERS20	0.79
SK30-ER20-100	34	34	20	100	CER20/CERS20	0.99
SK30-ER25-70	42	42	25	70	CER25/CERS25	0.68
SK30-ER32-70	50	50	32	70	CER32/CERS32	0.72
SK40-ER11-70	19	19	11	70	CER11/CERS11	0.93
SK40-ER16-70	28	28	16	70	CER16/CERS16	0.96
SK40-ER16-100	28	28	16	100	CER16/CERS16	1.11
SK40-ER16-150	28	28	16	150	CER16/CERS16	1.33
SK40-ER20-70	34	34	20	70	CER20/CERS20	1.03
SK40-ER20-100	34	34	20	100	CER20/CERS20	1.24
SK40-ER25-70	42	42	25	70	CER25/CERS25	1.13
SK40-ER25-100	42	42	25	100	CER25/CERS25	1.41
SK40-ER25-150	42	42	25	150	CER25/CERS25	1.90
SK40-ER32-70	50	50	32	70	CER32/CERS32	1.21
SK40-ER32-100	50	50	32	100	CER32/CERS32	1.64
SK40-ER32-150	50	50	32	150	CER32/CERS32	2.34
SK40-ER40-80	63	63	40	80	CER40/CERS40	1.53
SK40-ER40-100	63	63	40	100	CER40/CERS40	1.95
SK50-ER16-100	28	28	16	100	CER16/CERS16	2.93
SK50-ER20-100	34	34	20	100	CER20/CERS20	3.07
SK50-ER25-70	42	42	25	70	CER25/CERS25	2.96
SK50-ER25-100	42	42	25	100	CER25/CERS25	3.24
SK50-ER25-150	42	42	25	150	CER25/CERS25	3.72
SK50-ER32-80	50	50	32	80	CER32/CERS32	3.10
SK50-ER32-160	50	50	32	160	CER32/CERS32	4.32
SK50-ER40-80	63	63	40	80	CER40/CERS40	3.45
SK50-ER40-160	63	63	40	160	CER40/CERS40	5.27



ER Collet Chuck

BT

DIN ISO 7388-2



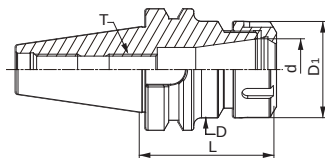
P66



P31-32



P33



Specification	D	D1	d	L	T	Weight
BT30-ER16-70	28	28	16	70	CER16/CERS16	0.52
BT30-ER16-100	28	28	16	100	CER16/CERS16	0.64
BT30-ER20-70	34	34	20	70	CER20/CERS20	0.59
BT30-ER20-100	34	34	20	100	CER20/CERS20	0.78
BT30-ER25-70	42	42	25	70	CER25/CERS25	0.67
BT30-ER25-100	42	42	25	100	CER25/CERS25	0.97
BT30-ER32-70	50	50	32	70	CER32/CERS32	0.75
BT30-ER32-100	50	50	32	100	CER32/CERS32	1.18
BT40-ER16-70	28	28	16	70	CER16/CERS16	1.10
BT40-ER16-100	28	28	16	100	CER16/CERS16	1.19
BT40-ER16-150	28	28	16	150	CER16/CERS16	1.44
BT40-ER20-70	34	34	20	70	CER20/CERS20	1.22
BT40-ER20-100	34	34	20	100	CER20/CERS20	1.33
BT40-ER20-150	34	34	20	150	CER20/CERS20	1.66
BT40-ER25-70	42	42	25	70	CER25/CERS25	1.22
BT40-ER25-100	42	42	25	100	CER25/CERS25	1.49
BT40-ER25-150	42	42	25	150	CER25/CERS25	1.97
BT40-ER32-70	50	50	32	70	CER32/CERS32	1.27
BT40-ER32-100	50	50	32	100	CER32/CERS32	1.70
BT40-ER32-150	50	50	32	150	CER32/CERS32	2.39
BT40-ER40-80	63	63	40	80	CER40/CERS40	1.66
BT40-ER40-100	63	63	40	100	CER40/CERS40	2.10
BT40-ER40-150	63	63	40	150	CER40/CERS40	3.30
BT50-ER16-70	28	28	16	70	CER16/CERS16	3.72
BT50-ER16-100	28	28	16	100	CER16/CERS16	3.85
BT50-ER20-70	34	34	20	70	CER20/CERS20	3.73
BT50-ER20-100	34	34	20	100	CER20/CERS20	3.92
BT50-ER20-150	34	34	20	150	CER20/CERS20	4.25
BT50-ER25-70	42	42	25	70	CER25/CERS25	3.75
BT50-ER25-100	42	42	25	100	CER25/CERS25	4.02
BT50-ER25-150	42	42	25	150	CER25/CERS25	4.54
BT50-ER32-80	50	50	32	80	CER32/CERS32	3.91
BT50-ER32-100	50	50	32	100	CER32/CERS32	4.07
BT50-ER32-150	50	50	32	150	CER32/CERS32	4.82
BT50-ER40-80	63	63	40	80	CER40/CERS40	4.04
BT50-ER40-100	63	63	40	100	CER40/CERS40	4.48
BT50-ER40-150	63	63	40	150	CER40/CERS40	5.51



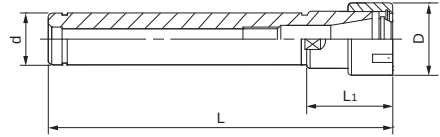
Cylindrical Standard



P31-32



P33



Specification	D	d	L1	L	Weight
C16-ER16-100	28	16	37	137	0.20
C16-ER16-150	28	16	37	187	0.25
C16-ER20-100	34	16	42	142	0.25
C20-ER16-100	28	20	37	137	0.28
C20-ER16-150	28	20	37	187	0.36
C20-ER20-100	34	20	42	142	0.30
C20-ER20-150	34	20	42	192	0.38
C20-ER25-100	42	20	46	146	0.10
C20-ER25-150	42	20	46	196	0.49
C25-ER16-100	28	25	37	137	0.41
C25-ER16-150	28	25	37	187	0.54
C25-ER20-150	34	25	42	192	0.42
C25-ER20-100	34	25	42	142	0.55
C25-ER25-100	42	25	46	146	0.45
C25-ER25-150	42	25	46	196	0.65

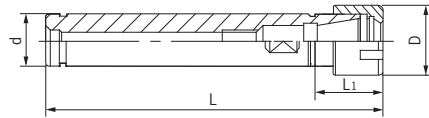
Cylindrical Mini Type



P31-32



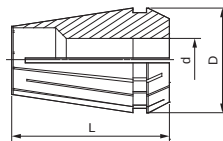
P33



Specification	D	d	L1	L	Weight
C12-ER11M-100	16	12	25	125	0.12
C12-ER11M-150	16	12	25	175	0.14
C16-ER11M-100	16	16	25	125	0.14
C16-ER11M-150	16	16	25	175	0.22
C16-ER16M-100	22	16	36	136	0.15
C16-ER16M-150	22	16	36	186	0.21
C20-ER16M-100	22	20	36	136	0.24
C20-ER16M-150	22	20	36	186	0.33
C20-ER20M-100	28	20	42	142	0.23
C20-ER20M-150	28	20	42	192	0.32
C20-ER20M-200	28	20	42	242	0.53
C25-ER20M-150	28	25	42	192	0.50



CER DIN 6499 (ISO 15488)



Unit:mm

Specification											
Order NO.	d	SET NO.	RANGE	SET NO.	RANGE	SET NO.	RANGE	SET NO.	RANGE	SET NO.	RANGE
CER11-1	1.0-0.5	CER16-1	1.0-0.5	CER20-2	2.0-1.0	CER25-2	2.0-1.0	CER32-2	2.0-1.0	CER40-3	3.0-2.0
CER11-1.5	1.5-1.0	CER16-2	2.0-1.0	CER20-3	3.0-2.0	CER25-3	3.0-2.0	CER32-3	3.0-2.0	CER40-4	4.0-3.0
CER11-2	2.0-1.5	CER16-3	3.0-2.0	CER20-4	4.0-3.0	CER25-4	4.0-3.0	CER32-4	4.0-3.0	CER40-5	5.0-4.0
CER11-2.5	2.5-2.0	CER16-4	4.0-3.0	CER20-5	5.0-4.0	CER25-5	5.0-4.0	CER32-5	5.0-4.0	CER40-6	6.0-5.0
CER11-3	3.0-2.5	CER16-5	5.0-4.0	CER20-6	6.0-5.0	CER25-6	6.0-5.0	CER32-6	6.0-5.0	CER40-7	7.0-6.0
CER11-3.5	3.5-3.0	CER16-6	6.0-5.0	CER20-7	7.0-6.0	CER25-7	7.0-6.0	CER32-7	7.0-6.0	CER40-8	8.0-7.0
CER11-4	4.0-3.5	CER16-7	7.0-6.0	CER20-8	8.0-7.0	CER25-8	8.0-7.0	CER32-8	8.0-7.0	CER40-9	9.0-8.0
CER11-4.5	4.5-4.0	CER16-8	8.0-7.0	CER20-9	9.0-8.0	CER25-9	9.0-8.0	CER32-9	9.0-8.0	CER40-10	10-9.0
CER11-5	5.0-4.5	CER16-9	9.0-8.0	CER20-10	10-9.0	CER25-10	10-9.0	CER32-10	10-9.0	CER40-11	11-10
CER11-5.5	5.5-5.0	CER16-10	10-9.0	CER20-11	11-10	CER25-11	11-10	CER32-11	11-10	CER40-12	12-11
CER11-6	6.0-5.5			CER20-12	12-11	CER25-12	12-11	CER32-12	12-11	CER40-13	13-12
CER11-6.5	6.5-6.0			CER20-13	13-12	CER25-13	13-12	CER32-13	13-12	CER40-14	14-13
CER11-7	7.0-6.5					CER25-14	14-13	CER32-14	14-13	CER40-15	15-14
						CER25-15	14-14	CER32-15	15-14	CER40-16	16-15
						CER25-16	16-15	CER32-16	16-15	CER40-17	17-16
								CER32-17	17-16	CER40-18	18-17
								CER32-18	18-17	CER40-19	19-18
								CER32-19	19-18	CER40-20	20-19
								CER32-20	20-19	CER40-21	21-20
										CER40-22	22-21
										CER40-23	23-22
										CER40-24	24-23
										CER40-25	25-24
										CER40-26	26-25

*SETCER11-13PCS is a set with a suitcase

Notes:

1. A: ≤ 0.01 mm; 2. UP: ≤ 0.005 mm

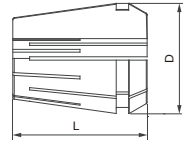
CER collets in stock with A grade.



CER-S

DIN 6499 (ISO 15488)

Internal Cooling



Unit:mm

Specification									
SET NO.	Range	SET NO.	Range	SET NO.	Range	SET NO.	Range	SET NO.	Range
CER16S-3	3.0	CER20S-3	3.0	CER25S-3	3.0	CER32S-3	3.0	CER40S-6	6.0
CER16S-4	4.0	CER20S-4	4.0	CER25S-4	4.0	CER32S-4	4.0	CER40S-7	7.0
CER16S-5	5.0	CER20S-5	5.0	CER25S-5	5.0	CER32S-5	5.0	CER40S-8	8.0
CER16S-6	6.0	CER20S-6	6.0	CER25S-6	6.0	CER32S-6	6.0	CER40S-9	9.0
CER16S-7	7.0	CER20S-7	7.0	CER25S-7	7.0	CER32S-7	7.0	CER40S-10	10.0
CER16S-8	8.0	CER20S-8	8.0	CER25S-8	8.0	CER32S-8	8.0	CER40S-11	11.0
CER16S-9	9.0	CER20S-9	9.0	CER25S-9	9.0	CER32S-9	9.0	CER40S-12	12.0
CER16S-10	10.0	CER20S-10	10.0	CER25S-10	10.0	CER32S-10	10.0	CER40S-13	13.0
		CER20S-11	11.0	CER25S-11	11.0	CER32S-11	11.0	CER40S-14	14.0
		CER20S-12	12.0	CER25S-12	12.0	CER32S-12	12.0	CER40S-15	15.0
		CER20S-13	13.0	CER25S-13	13.0	CER32S-13	13.0	CER40S-16	16.0
				CER25S-14	14.0	CER32S-14	14.0	CER40S-17	17.0
				CER25S-15	15.0	CER32S-15	15.0	CER40S-18	18.0
				CER25S-16	16.0	CER32S-16	16.0	CER40S-19	19.0
						CER32S-17	17.0	CER40S-20	20.0
						CER32S-18	18.0	CER40S-21	21.0
						CER32S-19	19.0	CER40S-22	22.0
						CER32S-20	20.0	CER40S-23	23.0
								CER40S-24	24.0
								CER40S-25	25.0
								CER40S-26	26.0

Specification	D	L
CER16S	17.0	27.5
CER20S	21.0	31.5
CER25S	26.0	34
CER32S	33.0	40
CER40S	41.0	46

*Note: ER16-8PCS-S is a set.

Spring Collet Precision

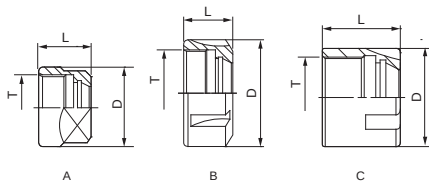
1. Standard: ≤ 0.015 mm; 2. A: ≤ 0.01 mm; 3. UP: ≤ 0.005 mm.

Remark: ER-S collets in stock with A grade.



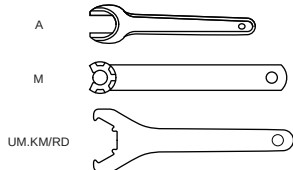
ER Accessories

ER Clamping Nut



Specification	Figure	D	L	T
CNA-ER11	A	19	12.5	M14XP0.75
CNA-ER16	A	28	17.5	M22XP1.5
CNA-ER20	A	34	19	M25XP1.5
CNU-M/RD-ER25	B	42	20	M32XP1.5
CNU-M/RD-ER32	B	50	22.5	M40XP1.5
CNU-M/RD-ER40	B	63	25.5	M50XP1.5
CNM-ER11	C	16	12	M13XP0.75
CNM-ER16	C	22	18	M19XP1.0
CNM-ER20	C	28	19	M24XP1.0
CNM-ER25	C	35	20	M30XP1.0

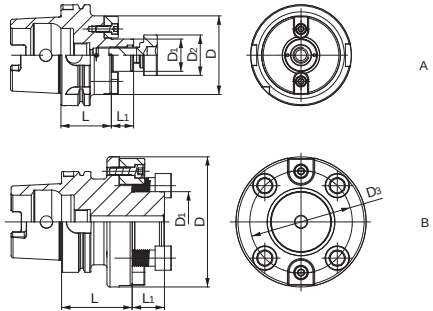
ER Wrench



Specification	Clamping nut	Weight
ER11-A	CNA-ER11	0.10
ER16-A	CNA-ER16	0.20
ER20-A	CNA-ER20	0.20
ER25-UM.KM/RD	CNU-M/RD-ER25	0.20
ER32-UM.KM/RD	CNU-M/RD-ER32	0.20
ER40-UM.KM/RD	CNU-M/RD-ER40	0.30
ER11-M	CNM-ER11	0.10
ER16-M	CNM-ER16	0.20
ER20-M	CNM-ER20	0.20
ER25-M	CNM-ER25	0.20



HSK-A DIN 69893-1

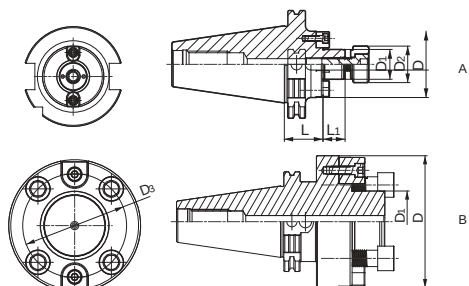


Specification	Figure	D	D1	D2	D3	L	L1	Lock Screw	Washer	Weight
HSK50A-FMB22-60	A	48	22	16	-	60	18	E100U300	-	0.90
HSK63A-FMB16-100	A	35	16	13	-	100	16	E080U300	-	1.80
HSK63A-FMB22-60	A	48	22	16	-	60	18	E100U300	-	1.00
HSK63A-FMB22-100	A	48	22	16	-	100	18	E100U300	-	1.70
HSK63A-FMB27-60	A	60	27	33	-	60	20	E120U300	FM-1	1.50
HSK63A-FMB27-100	A	60	27	33	-	100	20	E120U300	FM-1	2.30
HSK63A-FMB32-60	A	78	32	40	-	60	22	E160U350	FM-2	1.90
HSK63A-FMB40-60	A	85	40	50	-	60	25	E200Z350-50	-	2.20
HSK100A-FMB22-60	A	48	22	16	-	60	18	E100U300	-	2.30
HSK100A-FMB22-100	A	48	22	16	-	100	18	E100U300	-	3.00
HSK100A-FMB27-60	A	60	27	33	-	60	20	E120U300	FM-1	2.70
HSK100A-FMB32-60	A	60	27	33	-	60	20	E120U300	FM-1	3.60
HSK100A-FMB32-150	A	78	32	40	-	50	22	E160U350	FM-2	3.00
HSK100A-FMB32-100	A	78	32	40	-	100	22	E160U350	FM-2	4.90
HSK100A-FMB40-60	A	85	40	50	-	60	25	E200Z350-50	-	3.80
HSK100A-FMB40F-75	B	89	40	-	66.7	75	25	E120U450	-	4.60
HSK100A-FMB60F-70	B	129	60	-	101.6	70	32	E160U500	-	6.30



Face Mill Arbor

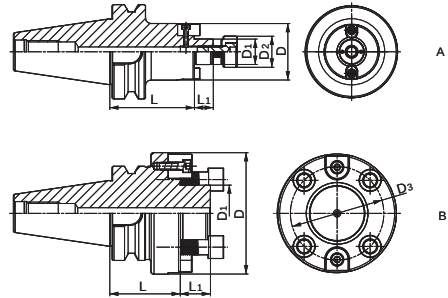
SK DIN ISO 7388-1



Specification	Figure	D	D1	D2	D3	L	L1	Lock Screw	Washer	Weight
SK30-FMB22-45	A	48	22	16	-	45	18	E100U300	-	0.70
SK30-FMB27-50	A	60	27	33	-	50	20	E120U300	FM-1	1.00
SK40-FMB22-45	A	48	22	16	-	45	18	E100U300	-	1.20
SK40-FMB22-100	A	48	22	16	-	100	18	E100U300	-	2.00
SK40-FMB27-60	A	60	27	33	-	60	20	E120U300	FM-1	1.70
SK40-FMB27-100	A	60	27	33	-	100	20	E120U300	FM-1	2.60
SK40-FMB32-60	A	78	32	40	-	60	22	E160U350	FM-2	2.30
SK40-FMB32-100	A	78	32	40	-	100	22	E160U350	FM-2	3.70
SK40-FMB40-60	A	85	40	50	-	60	25	E200Z350-50	-	2.50
SK50-FMB22-35	A	48	22	16	-	35	18	E100U300	-	2.90
SK50-FMB22-100	A	48	22	16	-	100	18	E100U300	-	3.80
SK50-FMB27-35	A	60	27	33	-	35	20	E120U300	FM-1	3.20
SK50-FMB27-100	A	60	27	33	-	100	20	E120U300	FM-1	4.50
SK50-FMB32-45	A	78	32	40	-	45	22	E160U350	FM-2	3.60
SK50-FMB32-100	A	78	32	40	-	100	22	E160U350	FM-2	5.80
SK50-FMB40-50	A	85	40	50	-	50	25	E200Z350-50	-	4.20
SK50-FMB40F-75	B	89	40	-	66.7	75	25	E120U450	-	4.60
SK50-FMB60F-70	B	129	60	-	101.6	70	32	E160U500	-	7.90



BT DIN ISO 7388-2



Specification	Figure	D	D1	D2	D3	L	L1	Lock Screw	Washer	Weight
BT30-FMB22-45	A	48	22	16	-	45	18	E100U300	-	0.74
BT30-FMB27-60	A	60	27	33	-	60	20	E120U300	FM-1	0.90
BT30-FMB32-50	A	78	32	40	-	60	22	E160U350	FM-2	1.60
BT40-FMB22-60	A	48	22	16	-	60	18	E100U300	-	1.31
BT40-FMB22-100	A	48	22	16	-	100	18	E100U300	-	2.05
BT40-FMB22-150	A	48	22	16	-	150	18	E100U300	-	2.70
BT40-FMB22-200	A	48	22	16	-	200	18	E100U300	-	3.43
BT40-FMB27-60	A	60	27	33	-	60	20	E120U300	FM-1	1.50
BT40-FMB27-100	A	60	27	33	-	100	20	E120U300	FM-1	2.70
BT40-FMB32-60	A	78	32	40	-	60	22	E160U350	FM-2	2.00
BT40-FMB32-100	A	78	32	40	-	100	22	E160U350	FM-2	3.80
BT40-FMB40-60	A	85	40	50	-	60	25	E200Z350-50	-	2.50
BT50-FMB22-45	A	48	22	16	-	45	18	E100U300	-	3.80
BT50-FMB22-100	A	48	22	16	-	100	18	E100U300	-	4.60
BT50-FMB22-150	A	48	22	16	-	150	18	E100U300	-	5.27
BT50-FMB27-60	A	60	27	33	-	60	20	E120U300	FM-1	4.10
BT50-FMB27-100	A	60	27	33	-	100	20	E120U300	FM-1	5.10
BT50-FMB27-150	A	60	27	33	-	150	20	E120U300	FM-1	6.25
BT50-FMB32-50	A	78	32	40	-	60	22	E160U350	FM-2	4.40
BT50-FMB32-100	A	78	32	40	-	100	22	E160U350	FM-2	5.79
BT50-FMB32-150	A	78	32	40	-	150	22	E160Z350-40	-	7.10
BT50-FMB40-50	A	85	40	50	-	50	25	E200Z350-50	-	4.57
BT50-FMB40-100	A	85	40	50	-	100	25	E200Z350-50	-	6.45
BT50-FMB40-75	B	89	40	-	66.7	75	25	E120U450	-	5.80



Side-lock Holder

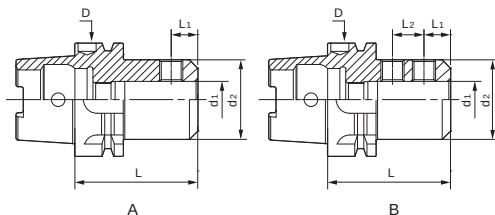
HSK-A DIN 69893-1



P66

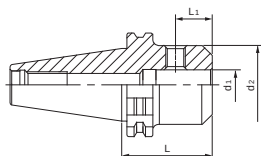


P66

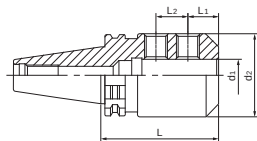


Specification	Figure	D	d1	d2	L	L1	L2	Side-lock screw	Weight
HSK50A-SLA6-65	A	50	6	25	65	18	-	M060U100	0.70
HSK50A-SLA8-65	A	50	8	28	65	18	-	M080U100	0.80
HSK50A-SLA10-65	A	50	10	35	65	20	-	M100U120	0.80
HSK50A-SLA12-80	A	50	12	41.5	80	22.5	-	M120U160	1.20
HSK50A-SLA16-80	A	50	16	18	80	24	-	M140U160	1.30
HSK50A-SLA20-80	A	50	20	52	80	25	-	M160U160	1.50
HSK63A-SLA6-65	A	63	6	25	65	18	-	M060U100	0.90
HSK63A-SLA6-100	A	63	6	25	100	18	-	M060U100	1.30
HSK63A-SLA8-65	A	63	8	28	65	18	-	M080U100	1.00
HSK63A-SLA8-100	A	63	8	28	100	18	-	M080U100	1.40
HSK63A-SLA10-65	A	63	10	35	65	20	-	M100U120	1.00
HSK63A-SLA10-100	A	63	10	35	100	20	-	M100U120	1.50
HSK63A-SLA12-80	A	63	12	42	80	22.5	-	M120U160	1.70
HSK63A-SLA12-120	A	63	12	42	120	22.5	-	M120U160	2.00
HSK63A-SLA16-80	A	63	16	48	80	24	-	M140U160	1.70
HSK63A-SLA16-120	A	63	16	48	120	24	-	M140U160	2.10
HSK63A-SLA20-80	A	63	20	52	80	25	-	M160U160	1.80
HSK63A-SLA20-100	A	63	20	52	100	25	-	M160U160	2.40
HSK63A-SLA25-110	B	63	25	65	110	24	25	M180Z200P	2.50
HSK63A-SLA25-160	B	63	25	65	160	24	25	M180Z200P	2.65
HSK63A-SLA32-110	B	63	32	72	110	24	28	M200Z200P	2.70
HSK63A-SLA32-160	B	63	32	72	160	24	28	M200Z200P	3.00
HSK100A-SLA6-80	A	100	6	25	80	18	-	M060U100	3.00
HSK100A-SLA6-130	A	100	6	25	130	18	-	M060U100	3.20
HSK100A-SLA8-80	A	100	8	28	80	18	-	M080U100	3.20
HSK100A-SLA8-130	A	100	8	28	130	18	-	M080U100	3.40
HSK100A-SLA10-80	A	100	10	35	80	20	-	M100U120	3.40
HSK100A-SLA10-130	A	100	10	35	130	20	-	M100U120	3.70
HSK100A-SLA12-80	A	100	12	42	80	22.5	-	M120U160	3.40
HSK100A-SLA12-130	A	100	12	42	130	22.5	-	M120U160	3.70
HSK100A-SLA16-100	A	100	16	48	100	24	-	M140U160	3.80
HSK100A-SLA16-160	A	100	16	48	160	24	-	M140U160	4.10
HSK100A-SLA20-100	A	100	20	52	100	25	-	M160U160	3.90
HSK100A-SLA20-160	A	100	20	52	160	25	-	M160U160	3.80
HSK100A-SLA25-100	B	100	25	65	100	24	25	M180Z200P	4.00
HSK100A-SLA25-160	B	100	25	65	160	24	25	M180Z200P	4.40
HSK100A-SLA32-100	B	100	32	72	100	24	28	M200Z200P	4.10
HSK100A-SLA32-160	B	100	32	72	160	24	28	M200Z200P	4.50

SK DIN ISO 7388-1



A



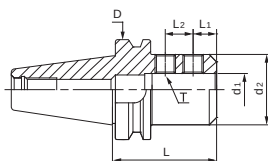
B

Specification	Figure	d1	d2	L	L1	L2	Side-lock screw	Weight
SK30-SLA6-50	A	6	25	50	18	-	M060U100	0.41
SK30-SLA8-50	A	8	28	50	18	-	M080U100	0.46
SK30-SLA10-50	A	10	35	50	20	-	M100U120	0.54
SK30-SLA12-50	A	12	42	50	22.5	-	M120U140	0.61
SK30-SLA16-63	A	16	48	63	24	-	M140U160	0.85
SK40-SLA6-50	A	6	25	50	18	-	M060U080	1.00
SK40-SLA8-50	A	8	28	50	18	-	M080U100	1.01
SK40-SLA10-50	A	10	35	50	20	-	M100U120	1.15
SK40-SLA12-63	A	12	42	63	22.5	-	M120U140	1.26
SK40-SLA16-63	A	16	48	63	24	-	M140U160	1.31
SK40-SLA20-63	A	20	52	63	25	-	M160U160	1.33
SK40-SLA25-100	B	25	65	100	24	25	M180Z200P	2.32
SK40-SLA32-100	B	32	72	100	24	28	M200Z200P	2.37
SK50-SLA6-63	A	6	25	63	18	-	M060U100	3.12
SK50-SLA8-63	A	8	28	63	18	-	M080U100	3.15
SK50-SLA10-63	A	10	35	63	20	-	M100U100	3.63
SK50-SLA12-63	A	12	42	63	22.5	-	M120U140	3.86
SK50-SLA16-63	A	16	48	63	24	-	M140U160	3.90
SK50-SLA20-63	A	20	52	63	25	-	M160U160	3.93
SK50-SLA25-100	B	25	65	100	24	25	M180Z200P	4.62
SK50-SLA32-105	B	32	72	105	24	25	M200Z200P	4.80
SK50-SLA40-110	B	40	90	110	30	32	M200Z250P	5.21
SK50-SLA42-110	B	42	90	110	30	32	M200Z250P	6.00



Side-lock Holder

BT DIN ISO 7388-2

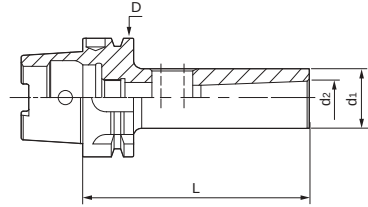


A

Specification	D	d1	d2	L	L1	L2	L3	Side-lock screw	Weight
BT30-SLA6-60	46	6	25	60	18	-	40	M060U100	0.52
BT30-SLA8-60	46	8	28	60	18	-	40	M080U100	0.55
BT30-SLA10-60	46	10	35	60	20	-	44	M100U120	0.63
BT30-SLA12-60	46	12	42	60	22.5	-	49	M120U160	0.72
BT30-SLA16-75	46	16	48	75	24	-	52	M140U160	1.00
BT30-SLA20-75	46	20	52	75	25	-	54	M160U160	1.04
BT30-SLA25-90	46	25	65	90	24	25	60	M180Z200P	1.76
BT40-SLA6-50	63	6	25	50	18	-	40	M060U080	1.06
BT40-SLA6-100	63	6	25	100	18	-	40	M060U100	1.23
BT40-SLA8-50	63	8	28	50	18	-	40	M080U100	1.07
BT40-SLA8-100	63	8	28	100	18	-	40	M080U100	1.30
BT40-SLA10-63	63	10	35	63	20	-	44	M100U120	1.21
BT40-SLA10-100	63	10	35	100	20	-	44	M100U120	1.50
BT40-SLA12-63	63	12	42	63	22.5	-	49	M120U160	1.30
BT40-SLA12-100	63	12	42	100	22.5	-	49	M120U160	1.68
BT40-SLA16-63	63	16	48	63	24	-	52	M140U160	1.35
BT40-SLA16-100	63	16	48	100	24	-	52	M140U160	1.81
BT40-SLA20-63	63	20	52	63	25	-	54	M160U160	1.43
BT40-SLA20-100	63	20	52	100	25	-	54	M160U160	1.86
BT40-SLA25-100	63	25	65	100	24	25	60	M180Z200P	2.02
BT40-SLA32-100	63	32	72	100	24	28	64	M200Z200P	2.50
BT50-SLA6-63	100	6	25	63	18	-	40	M060U100	3.75
BT50-SLA6-100	100	6	25	100	18	-	40	M060U100	4.06
BT50-SLA8-70	100	8	28	70	18	-	40	M080U100	3.75
BT50-SLA8-100	100	8	28	100	18	-	40	M080U100	4.13
BT50-SLA10-63	100	10	35	63	20	-	44	M100U120	3.81
BT50-SLA10-100	100	10	35	100	20	-	44	M100U120	4.06
BT50-SLA12-80	100	12	42	80	22.5	-	49	M120U160	4.03
BT50-SLA12-125	100	12	42	125	22.5	-	49	M120U160	4.5
BT50-SLA16-80	100	16	48	80	24	-	52	M140U160	4.08
BT50-SLA16-100	100	16	48	100	24	-	52	M140U160	4.66
BT50-SLA20-100	100	20	52	100	25	-	54	M160U160	4.08
BT50-SLA20-125	100	20	52	125	25	-	54	M160U160	4.81
BT50-SLA25-100	100	25	65	100	24	25	60	M180Z200P	7.93
BT50-SLA32-105	100	32	72	105	24	28	64	M200Z200P	5.14
BT50-SLA40-115	100	40	90	115	30	32	74	M200Z250P	6.17
BT50-SLA42-120	100	42	90	120	30	32	81	M200Z250P	6.32

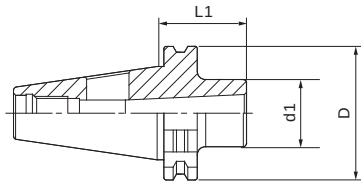


HSK-A DIN 69893-1



Specification	D	D1	D2	L	Weight
HSK50A-MTA1-100	50	25	12.065	100	1.50
HSK50A-MTA3-140	50	32	17.780	120	1.80
HSK50A-MTA2-120	50	40	23.825	140	1.90
HSK63A-MTA1-100	63	25	12.065	100	1.90
HSK63A-MTA2-120	63	32	17.780	120	2.00
HSK63A-MTA3-140	63	40	23.825	140	2.20
HSK63A-MTA4-160	63	48	31.267	160	2.50
HSK100A-MTA1-110	100	25	12.065	110	3.40
HSK100A-MTA2-120	100	32	17.780	120	3.80
HSK100A-MTA3-150	100	40	23.825	150	4.00
HSK100A-MTA4-170	100	48	31.267	170	4.60
HSK100A-MTA5-200	100	63	44.299	200	5.20

SK DIN ISO 7388-1



Specification	MT.NO	D	d1	L	Weight
SK30-MTA1-45	1	50	25	45	0.42
SK30-MTA2-50	2	50	32	50	0.50
SK30-MTA3-80	3	50	40	80	0.60
SK40-MTA1-45	1	63.55	25	45	0.95
SK40-MTA2-50	2	63.55	32	50	1.00
SK40-MTA3-70	3	63.55	40	70	1.13
SK40-MTA4-95	4	63.55	48	95	1.35
SK50-MTA1-45	1	97.50	25	45	3.59
SK50-MTA2-60	2	97.50	32	60	3.63
SK50-MTA3-65	3	97.50	40	65	3.65
SK50-MTA4-95	4	97.50	48	95	3.88
SK50-MTA5-105	5	97.50	63	105	3.74



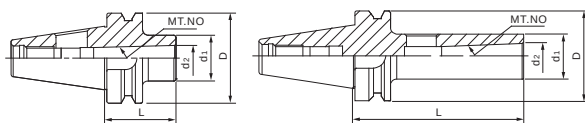
Morse Taper Adapter

BT

DIN ISO 7388-2



P66



A

B

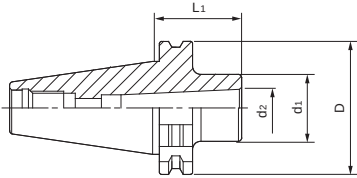
Specification	Figure	MT.NO	D	d1	d2	L	Weight
BT30-MTA1-45	A	1	46	25	12.065	45	0.55
BT30-MTA2-60	A	2	46	32	17.780	60	0.60
BT30-MTA3-80	A	3	46	40	23.825	80	0.80
BT40-MTA1-45	A	1	63	25	12.065	45	1.05
BT40-MTA1-120	B	1	63	25	12.065	120	1.28
BT40-MTA2-50	A	2	63	32	17.780	50	1.00
BT40-MTA2-120	B	2	63	32	17.780	120	1.41
BT40-MTA3-70	A	3	63	40	23.825	70	1.13
BT40-MTA3-135	B	3	63	40	23.825	135	1.75
BT40-MTA4-90	A	4	63	48	31.267	90	1.35
BT40-MTA4-165	B	4	63	48	31.267	165	2.30
BT50-MTA1-45	A	1	100	25	12.065	45	3.59
BT50-MTA1-120	B	1	100	25	12.065	120	3.88
BT50-MTA2-60	A	2	100	32	17.780	60	3.64
BT50-MTA2-135	B	2	100	32	17.780	135	4.17
BT50-MTA3-65	A	3	100	40	23.825	65	3.60
BT50-MTA3-150	B	3	100	40	23.825	150	4.40
BT50-MTA4-95	A	4	100	48	31.267	95	3.88
BT50-MTA5-105	A	5	100	63	44.399	105	3.74

Morse Taper Adapter



SK

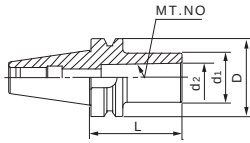
DIN ISO 7388-1



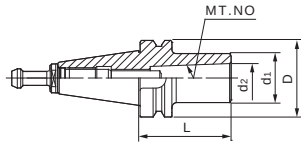
Specification	MT.NO	D	d1	d2	L	Tension screw	Range	Weight
SK30-MTB1-50	1	50	25	12.065	50	E060U250	$\varnothing 10\text{-}\varnothing 14$	0.50
SK30-MTB2-60	2	50	32	17.780	60	SK30-15-MT2	$\varnothing 16\text{-}\varnothing 22$	0.55
SK30-MTB3-75	3	50	40	23.825	75	SK30-15-MT3	$\varnothing 24\text{-}\varnothing 32$	0.65
SK40-MTB1-50	1	63.55	25	12.065	50	E060U250	$\varnothing 10\text{-}\varnothing 14$	0.95
SK40-MTB2-60	2	63.55	32	17.780	60	E100Z300-MTB	$\varnothing 16\text{-}\varnothing 22$	1.00
SK40-MTB3-70	3	63.55	40	23.825	70	SK40-15-MT3	$\varnothing 24\text{-}\varnothing 32$	1.13
SK40-MTB4-100	4	63.55	48	31.267	100	SK40-15-MT4	$\varnothing 32\text{-}\varnothing 50$	1.35
SK50-MTB1-45	1	97.50	25	12.065	45	E060U250	$\varnothing 10\text{-}\varnothing 14$	3.59
SK50-MTB2-60	2	97.50	32	17.780	60	E100U350	$\varnothing 16\text{-}\varnothing 22$	3.64
SK50-MTB3-65	3	97.50	40	23.825	65	E120U400	$\varnothing 24\text{-}\varnothing 32$	3.60
SK50-MTB4-95	4	97.50	48	31.267	92	E160Z400-MTB	$\varnothing 32\text{-}\varnothing 50$	3.88
SK50-MTB5-105	5	97.50	63	44.399	105	SK50-15-MT5	$\varnothing 55\text{-}\varnothing 60$	3.74

BT

DIN ISO 7388-2



A

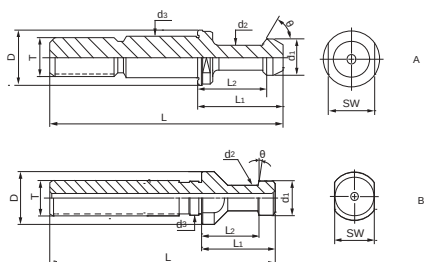


B

Specification	MT.NO	Figure	D	d1	d2	L	Tension screw	Range	Weight
BT30-MTB1-45	1	A	46	25	12.065	45	E060U250	$\varnothing 10\text{-}\varnothing 14$	0.55
BT30-MTB2-60	2	B	46	32	17.780	60	BT30-45-MT2	$\varnothing 16\text{-}\varnothing 22$	0.60
BT40-MTB1-45	1	A	63	25	12.065	45	E060U250	$\varnothing 10\text{-}\varnothing 14$	1.00
BT40-MTB2-60	2	A	63	32	17.780	60	E100Z300-MTB	$\varnothing 16\text{-}\varnothing 22$	1.02
BT40-MTB3-75	3	B	63	40	23.825	75	BT40-45-MT3	$\varnothing 24\text{-}\varnothing 32$	1.19
BT40-MTB4-90	4	B	63	48	31.367	90	BT40-45-MT4	$\varnothing 32\text{-}\varnothing 50$	1.33
BT50-MTB1-45	1	A	100	25	12.065	45	E060U250	$\varnothing 10\text{-}\varnothing 14$	3.30
BT50-MTB2-45	2	A	100	32	17.780	45	E100U350	$\varnothing 16\text{-}\varnothing 22$	3.57
BT50-MTB3-60	3	A	100	40	23.825	60	E120U400	$\varnothing 24\text{-}\varnothing 32$	3.61
BT50-MTB4-75	4	A	100	50	31.267	75	E160Z400-MTB	$\varnothing 32\text{-}\varnothing 50$	3.68
BT50-MTB5-120	5	B	100	70	44.399	120	BT50-45-MT5	$\varnothing 55\text{-}\varnothing 60$	4.10



MTB Pull Stud



Specification	Figure	D	D1	D2	D3	L1	L2	L	θ	G	SW	Weight
BT30-45-MTB2	A	16.5	11	7	12.5	23	18	105	45°	M10	13	0.07
BT40-45-MTB3	A	23	15	10	17	35	28	110	45°	M12	19	0.10
BT40-45-MTB4	A	23	15	10	17	35	28	110	45°	M16	19	0.10
BT50-45-MTB5	A	38	23	17	25	45	35	165	45°	M20	30	0.65
SK30-15-MTB2	B	17	13	9	13	24	19	105	15°	M10	14	0.07
SK40-15-MTB3	B	23	19	14	17	26	20	103	15°	M12	19	0.10
SK40-15-MTB4	B	23	19	14	17	26	20	113	15°	M16	19	0.10
SK50-15-MTB5	B	36	28	21	25	34	25	145	15°	M20	30	0.65

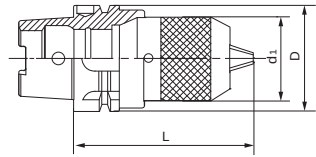
HSK-A

DIN 69893-1



P66

P66



Specification	D	d1	d2	L	Weight
HSK50A-APU8-120	50	37	8	120	1.61
HSK63A-APU13-150	63	50	13	150	2.65
HSK63A-APU16-165	63	57	16	165	3.12
HSK100A-APU13-155	100	50	13	155	4.23
HSK100A-APU16-160	100	57	16	160	4.55

Feature

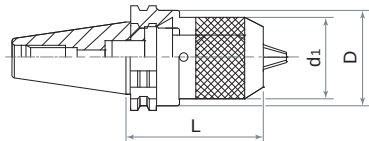
Runout (X3D): ≤ 0.05 mm.

SK

DIN ISO 7388-1



P66



Specification	D	d1	L	Range	Weight
SK30-APU8-80	50	37	80	0-8	0.72
SK30-APU13-120	50	50	120	0.3-13	1.70
SK40-APU8-75	63.55	37	75	0-8	1.36
SK40-APU13-110	63.55	50	110	0.3-13	1.76
SK40-APU16-125	63.55	57	125	3-16	2.18
SK50-APU8-75	97.50	37	75	0-8	4.10
SK50-APU13-100	97.50	50	100	0.3-13	4.50
SK50-APU16-105	97.50	57	105	3-16	4.78

Feature

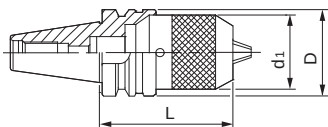
Runout (X3D): ≤ 0.05 mm.



Drill Chuck

BT

DIN ISO 7388-2



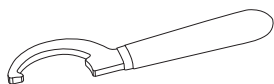
Specification	D	d1	L	Range	Weight
BT30-APU8-80	46	37	80	0-8	0.72
BT30-APU13-110	46	50	110	0.3-13	1.62
BT30-APU16-110	46	57	110	3-16	1.70
BT40-APU8-85	63	37	85	0-8	1.36
BT40-APU13-100	63	50	100	0.3-13	1.76
BT40-APU13-120	63	50	120	0.3-13	2.47
BT40-APU16-105	63	57	105	3-16	2.18
BT50-APU8-90	100	37	90	0-8	4.32
BT50-APU13-100	100	50	100	0.3-13	4.98
BT50-APU13-130	100	50	130	0.3-13	5.50
BT50-APU13-180	100	50	180	0.3-13	6.06
BT50-APU16-105	100	57	105	3-16	4.78
BT50-APU16-130	100	57	130	3-16	5.24
BT50-APU16-190	100	57	190	3-16	6.66

Feature

Runout (X3D): ≤ 0.05 mm.

WSP-APU

Wrench For Drill Chuck

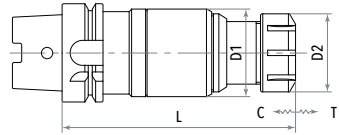


Specification	Tool holder	Weight
WSP-APU8	APU8	0.10
WSP-APU13	APU13	0.12
WSP-APU16	APU16	0.12



HSK

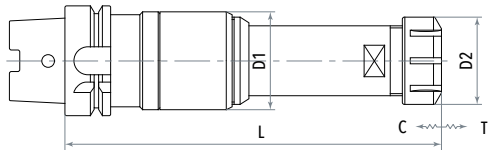
DIN 69893-1



Specification	D1	D2	L	Collet	Capacity	Adjustment	
						C	T
HSK63A-TER32-150L	56	50	150	ERG32	M3-M24	10	10
HSK100A-TER32-150L	56	50	150	ERG32	M3-M24	10	10

HSK-A

DIN 69893-1



Specification	D1	D2	L	Collet	Capacity	Adjustment	
						C	T
HSK63A-TER32-165L	56	50	165	ERG32	M3-M24	10	10
HSK63A-TER32-195L	56	50	195	ERG32	M3-M24	10	10
HSK63A-TER32-215L	56	50	215	ERG32	M3-M24	10	10
HSK63A-TER32-235L	56	50	235	ERG32	M3-M24	10	10
HSK63A-TER32-265L	56	50	265	ERG32	M3-M24	10	10
HSK100A-TER32-170L	56	50	170	ERG32	M3-M24	10	10
HSK100A-TER32-200L	56	50	200	ERG32	M3-M24	10	10
HSK100A-TER32-220L	56	50	220	ERG32	M3-M24	10	10
HSK100A-TER32-240L	56	50	240	ERG32	M3-M24	10	10
HSK100A-TER32-270L	56	50	270	ERG32	M3-M24	10	10



Tapping Chuck

BT

DIN ISO 7388-2



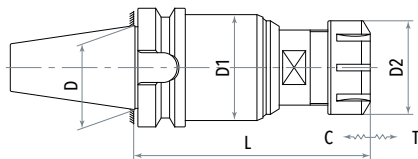
P66



P54-S5



P33



Specification	D	D1	D2	L	Collet	Capacity	Adjustment	
							C	T
BT30-TER16-110L	31.75	45	28	110	ERG16	M2-M12	8	8
BT30-TER20-110L	31.75	45	34	110	ERG20	M3-M16	8	8
BT30-TER25-110L	31.75	45	42	110	ERG25	M3-M20	8	8
BT30-TER32-140L	31.75	56	50	140	ERG32	M3-M24	10	10
BT40-TER16-100L	44.45	45	28	100	ERG16	M2-M12	8	8
BT40-TER20-100L	44.45	45	34	100	ERG20	M3-M16	8	8
BT40-TER25-100L	44.45	45	42	100	ERG25	M3-M20	8	8
BT40-TER32-115L	44.45	56	50	115	ERG32	M3-M24	10	10
BT50-TER16-120L	44.45	45	28	120	ERG16	M2-M12	8	8
BT50-TER20-120L	44.45	45	34	120	ERG20	M3-M16	8	8
BT50-TER25-120L	44.45	45	42	120	ERG25	M3-M20	8	8
BT50-TER32-130L	44.45	56	50	130	ERG32	M3-M24	10	10

BT

DIN ISO 7388-2



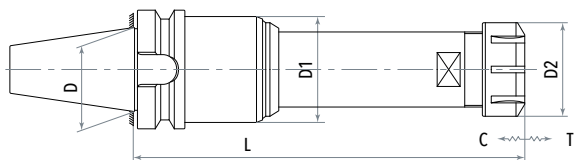
P66



P54-S5

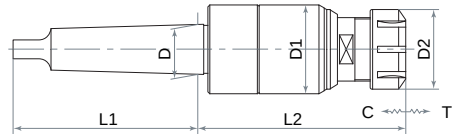


P33



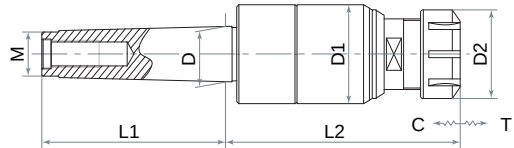
Specification	D1	D2	L	Collet	Capacity	Adjustment	
						C	T
BT40-TER32-140L	56	50	140	ERG32	M3-M24	10	10
BT40-TER32-170L	56	50	170	ERG32	M3-M24	10	10
BT40-TER32-190L	56	50	190	ERG32	M3-M24	10	10
BT40-TER32-210L	56	50	210	ERG32	M3-M24	10	10
BT40-TER32-240L	56	50	240	ERG32	M3-M24	10	10
BT50-TER32-150L	56	50	150	ERG32	M3-M24	10	10
BT50-TER32-180L	56	50	180	ERG32	M3-M24	10	10
BT50-TER32-200L	56	50	200	ERG32	M3-M24	10	10
BT50-TER32-220L	56	50	220	ERG32	M3-M24	10	10
BT50-TER32-250L	56	50	250	ERG32	M3-M24	10	10

MTA DIN 228-1 A



Specification	D	D1	D2	L1	L2	Collet	Capacity	Adjustment	
								C	T
MTA2-TER16-101L	17.78	45	28	75	101	ERG16	M2-M12	8	8
MTA2-TER20-102L	17.78	45	34	75	102	ERG20	M3-M16	8	8
MTA2-TER25-103L	17.78	45	42	75	103	ERG25	M3-M20	8	8
MTA3-TER16-101L	23.825	45	28	94	101	ERG16	M2-M12	10	10
MTA3-TER20-102L	23.825	45	34	94	102	ERG20	M3-M16	8	8
MTA3-TER25-103L	23.825	45	42	94	103	ERG25	M3-M20	8	8
MTA3-TER32-131L	23.825	56	50	94	131	ERG32	M3-M24	8	8
MTA4-TER16-103L	31.267	45	28	118	103	ERG16	M2-M12	10	10
MTA4-TER20-104L	31.267	45	34	118	104	ERG20	M3-M16	8	8
MTA4-TER25-105L	31.267	45	42	118	105	ERG25	M3-M20	8	8
MTA4-TER32-132L	31.267	56	50	118	132	ERG32	M3-M24	8	8
MTA5-TER32-132L	44.399	56	50	150	132	ERG32	M3-M24	10	10

MTB DIN 228-1 B

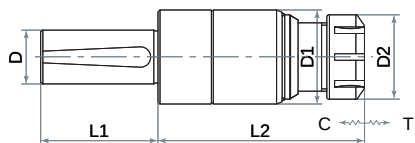


Specification	D	D1	D2	L1	L2	M	Collet	Capacity	Adjustment	
									C	T
MTB2-TER16-101L	17.78	45	28	64	101	M10	ERG16	M2-M12	8	8
MTB2-TER20-102L	17.78	45	34	64	102	M10	ERG20	M3-M16	8	8
MTB2-TER25-103L	17.78	45	42	64	103	M10	ERG25	M3-M20	8	8
MTB3-TER16-101L	23.825	45	28	81	101	M12	ERG16	M2-M12	8	8
MTB3-TER20-102L	23.825	45	34	81	102	M12	ERG20	M3-M16	8	8
MTB3-TER25-103L	23.825	45	42	81	103	M12	ERG25	M3-M20	8	8
MTB3-TER32-131L	23.825	56	50	81	131	M12	ERG32	M3-M24	10	10
MTB4-TER16-103L	31.267	45	28	103	103	M16	ERG16	M2-M12	8	8
MTB4-TER20-104L	31.267	45	34	103	104	M16	ERG20	M3-M16	8	8
MTB4-TER25-105L	31.267	45	42	103	105	M16	ERG25	M3-M20	8	8
MTB4-TER32-132L	31.267	56	50	103	132	M16	ERG32	M3-M24	10	10
MTB5-TER32-132L	44.399	56	50	130	132	M20	ERG32	M3-M24	10	10



Tapping Chuck

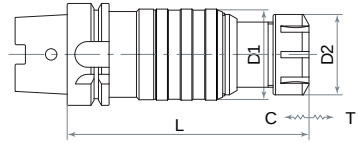
Cylindrical DIN 1835-1 A



Specification	D	D1	D2	L1	L2	Collet	Capacity	Adjustment	
								C	T
D16-TER16-98L	16	45	28	70	98	ERG16	M2-M12	8	8
D16-TER20-98L	16	45	34	70	98	ERG20	M3-M16	8	8
D16-TER25-98L	16	45	42	70	98	ERG25	M3-M20	8	8
D20-TER16-98L	20	45	28	70	98	ERG16	M2-M12	8	8
D20-TER20-98L	20	45	34	70	98	ERG20	M3-M16	8	8
D20-TER25-98L	20	45	42	70	98	ERG25	M3-M20	8	8
D20-TER32-125L	20	56	50	70	125	ERG25	M3-M20	10	10
D25-TER16-98L	25	45	28	70	98	ERG16	M2-M12	8	8
D25-TER20-98L	25	45	34	70	98	ERG20	M3-M16	8	8
D25-TER25-98L	25	45	42	70	98	ERG25	M3-M20	8	8
D25-TER32-125L	25	56	50	70	125	ERG32	M3-M24	10	10
D32-TER16-98L	32	45	28	70	98	ERG16	M2-M12	8	8
D32-TER20-98L	32	45	34	70	98	ERG20	M3-M16	8	8
D32-TER25-98L	32	45	42	70	98	ERG25	M3-M20	8	8
D32-TER32-125L	32	56	50	70	125	ERG32	M3-M24	10	10

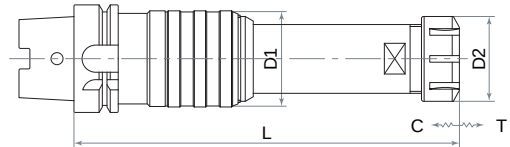


HSK DIN 69893-1



Specification	D1	D2	L	Collet	Capacity	Adjustment	
						C	T
HSK63A-VER32-150L	56	50	150	ERG32	M3-M24	0.4	10
HSK100A-VER32-150L	56	50	150	ERG32	M3-M24	0.4	10

HSK DIN 69893-1



Specification	D1	D2	L	Collet	Capacity	Adjustment	
						C	T
HSK63A-VER32-165L	56	50	165	ERG32	M3-M24	0.4	10
HSK63A-VER32-195L	56	50	195	ERG32	M3-M24	0.4	10
HSK63A-VER32-215L	56	50	215	ERG32	M3-M24	0.4	10
HSK63A-VER32-235L	56	50	235	ERG32	M3-M24	0.4	10
HSK63A-VER32-265L	56	50	265	ERG32	M3-M24	0.4	10
HSK100A-VER32-170L	56	50	170	ERG32	M3-M24	0.4	10
HSK100A-VER32-200L	56	50	200	ERG32	M3-M24	0.4	10
HSK100A-VER32-220L	56	50	220	ERG32	M3-M24	0.4	10
HSK100A-VER32-240L	56	50	240	ERG32	M3-M24	0.4	10
HSK100A-VER32-270L	56	50	270	ERG32	M3-M24	0.4	10



Tapping Chuck

BT

DIN ISO 7388-2



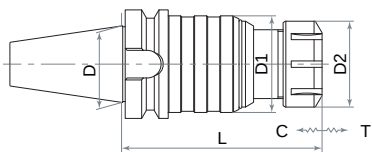
P66



P54-55



P33



Specification	D	D1	D2	L	Collet	Capacity	Adjustment	
							C	T
BT30-VER16-107L	31.75	45	28	107	ERG16	M2-M12	0.4	8
BT30-VER20-110L	31.75	45	34	110	ERG20	M3-M16	0.4	8
BT30-VER25-112L	31.75	45	42	112	ERG25	M3-M20	0.4	8
BT30-VER32-140L	31.75	56	50	140	ERG32	M3-M24	0.4	10
BT40-VER16-105L	44.45	45	28	105	ERG16	M2-M12	0.4	8
BT40-VER20-108L	44.45	45	34	108	ERG20	M3-M16	0.4	8
BT40-VER25-110L	44.45	45	42	110	ERG25	M3-M20	0.4	8
BT40-VER32-122L	44.45	56	50	122	ERG32	M3-M24	0.4	10
BT50-VER16-115L	44.45	45	28	115	ERG16	M2-M12	0.4	8
BT50-VER20-118L	44.45	45	34	118	ERG20	M3-M16	0.4	8
BT50-VER25-120L	44.45	45	42	120	ERG25	M3-M20	0.4	8
BT50-VER32-135L	44.45	56	50	135	ERG32	M3-M24	0.4	10

BT

DIN ISO 7388-2



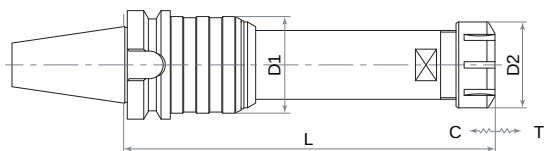
P66



P54-55



P33



Specification	D1	D2	L	Collet	Capacity	Adjustment	
						C	T
BT40-VER32-140L	56	50	140	ERG32	M3-M24	10	10
BT40-VER32-170L	56	50	170	ERG32	M3-M24	10	10
BT40-VER32-190L	56	50	190	ERG32	M3-M24	10	10
BT40-VER32-210L	56	50	210	ERG32	M3-M24	10	10
BT40-VER32-240L	56	50	240	ERG32	M3-M24	10	10
BT50-VER32-150L	56	50	150	ERG32	M3-M24	10	10
BT50-VER32-180L	56	50	180	ERG32	M3-M24	10	10
BT50-VER32-200L	56	50	200	ERG32	M3-M24	10	10
BT50-VER32-220L	56	50	220	ERG32	M3-M24	10	10
BT50-VER32-250L	56	50	250	ERG32	M3-M24	10	10

Cylindrical

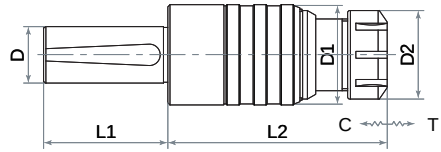
DIN 1835-1 A



P54-55



P33



Specification	D	D1	D2	L1	L2	Collet	Capacity	Adjustment	
								C	T
D16-VER16-98L	16	45	28	70	98	ERG16	M2-M12	0.4	8
D16-VER20-98L	16	45	34	70	98	ERG20	M3-M16	0.4	8
D16-VER25-98L	16	45	42	70	98	ERG25	M3-M20	0.4	8
D20-VER16-98L	20	45	28	70	98	ERG16	M2-M12	0.4	8
D20-VER20-98L	20	45	34	70	98	ERG20	M3-M16	0.4	8
D20-VER25-98L	20	45	42	70	98	ERG25	M3-M20	0.4	8
D20-VER32-125L	20	56	50	70	125	ERG25	M3-M20	0.4	10
D25-VER16-98L	25	45	28	70	98	ERG16	M2-M12	0.4	8
D25-VER20-98L	25	45	34	70	98	ERG20	M3-M16	0.4	8
D25-VER25-98L	25	45	42	70	98	ERG25	M3-M20	0.4	8
D25-VER32-125L	25	56	50	70	125	ERG32	M3-M24	0.4	10
D32-VER16-98L	32	45	28	70	98	ERG16	M2-M12	0.4	8
D32-VER20-98L	32	45	34	70	98	ERG20	M3-M16	0.4	8
D32-VER25-98L	32	45	42	70	98	ERG25	M3-M20	0.4	8
D32-VER32-125L	32	56	50	70	125	ERG32	M3-M24	0.4	10



Tapping Chuck

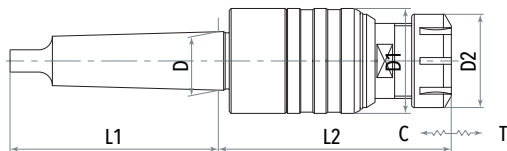
MTA DIN 228-1 A



P54-55



P33



Specification	D	D1	D2	L1	L2	Collet	Capacity	Adjustment	
								C	T
MTA2-VER16-101L	17.78	45	28	75	101	ERG16	M2-M12	0.4	8
MTA2-VER20-102L	17.78	45	34	75	102	ERG20	M3-M16	0.4	8
MTA2-VER25-103L	17.78	45	42	75	103	ERG25	M3-M20	0.4	8
MTA3-VER16-101L	23.825	45	28	94	101	ERG16	M2-M12	0.4	8
MTA3-VER20-102L	23.825	45	34	94	102	ERG20	M3-M16	0.4	8
MTA3-VER25-103L	23.825	45	42	94	103	ERG25	M3-M20	0.4	8
MTA3-VER32-131L	23.825	56	50	94	131	ERG25	M3-M20	0.4	10
MTA4-VER16-103L	31.267	45	28	118	103	ERG16	M2-M12	0.4	8
MTA4-VER20-104L	31.267	45	34	118	104	ERG20	M3-M16	0.4	8
MTA4-VER25-105L	31.267	45	42	118	105	ERG25	M3-M20	0.4	8
MTA4-VER32-132L	31.267	56	50	118	132	ERG32	M3-M24	0.4	10
MTA5-VER32-132L	44.399	56	50	150	132	ERG32	M3-M24	0.4	10

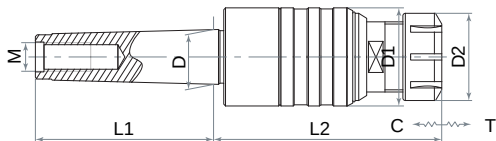
MTB DIN 228-1 B



P54-55



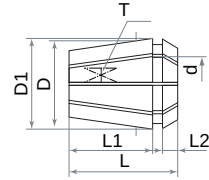
P33



Specification	D	D1	D2	L1	L2	M	Collet	Capacity	Adjustment	
									C	T
MTB2-VER16-101L	17.78	45	28	64	101	M10	ERG16	M2-M12	0.4	8
MTB2-VER20-102L	17.78	45	34	64	102	M10	ERG20	M3-M16	0.4	8
MTB2-VER25-103L	17.78	45	42	64	103	M10	ERG25	M3-M20	0.4	8
MTB3-VER16-101L	23.825	45	28	81	101	M12	ERG16	M2-M12	0.4	8
MTB3-VER20-102L	23.825	45	34	81	102	M12	ERG20	M3-M16	0.4	8
MTB3-VER25-103L	23.825	45	42	81	103	M12	ERG25	M3-M20	0.4	8
MTB3-VER32-131L	23.825	56	50	81	131	M12	ERG32	M3-M24	0.4	10
MTB4-VER16-103L	31.267	45	28	103	103	M16	ERG16	M2-M12	0.4	8
MTB4-VER20-104L	31.267	45	34	103	104	M16	ERG20	M3-M16	0.4	8
MTB4-VER25-105L	31.267	45	42	103	105	M16	ERG25	M3-M20	0.4	8
MTB4-VER32-132L	31.267	56	50	103	132	M16	ERG32	M3-M24	0.4	10
MTB5-VER32-132L	44.399	56	50	130	132	M20	ERG32	M3-M24	0.4	10



ERG Tapping Collet



Specification	D	D1	L	L1	L2	Capacity
ERG16	16.17	27.5	27.5	21.2	4	M2-M12
ERG20	20.74	31.5	31.5	24.3	4.8	M3-M16
ERG25	25.74	34	34	26.5	5	M3-M20
ERG32	32.74	40	40	31.8	5.5	M3-M24
ERG40	40.74	46	46	35.5	7	M3-M30

Specification	d (mm)	T (mm)	Specification	d (mm)	T (mm)	Specification	d (mm)	T (mm)
ISO-ERG16-M1-M2	2.5	2	JIS-ERG16-M2	3	2.5	DIN-ERG16-M1-M1.8	2.5	2.1
ISO-ERG16-M2.2-M2.5	2.8	2.24	-	-	-	DIN-ERG16-M2-M2.5	2.8	2.1
ISO-ERG16-M3	3.15	2.5	JIS-ERG16-M3	4	3.2	DIN-ERG16-M3	3.5	2.7
ISO-ERG16-M4	4	3.15	JIS-ERG16-M4	5	4	DIN-ERG16-M4	4.5	3.4
ISO-ERG16-M5	5	4	JIS-ERG16-M5	5.5	4.5	DIN-ERG16-M5	6	4.9
ISO-ERG16-M6	6.3	5	JIS-ERG16-M6	6	4.5	DIN-ERG16-M6	6	4.9
ISO-ERG16-M8	6.3	5	JIS-ERG16-M8	6.2	5	DIN-ERG16-M8	8	6.2
ISO-ERG16-M10	8	6.3	JIS-ERG16-M10	7	5.5	DIN-ERG16-M10	10	8
ISO-ERG16-M12	9	7.1	JIS-ERG16-M12	8.5	6.5	DIN-ERG16-M12	9	7
ISO-ERG20-M3	3.15	2.5	JIS-ERG20-M3	4	3.2	DIN-ERG20-M3	3.5	2.7
ISO-ERG20-M4	4	3.15	JIS-ERG20-M4	5	4	DIN-ERG20-M4	4.5	3.4
ISO-ERG20-M5	5	4	JIS-ERG20-M5	5.5	4.5	DIN-ERG20-M5	6	4.9
ISO-ERG20-M6	6.3	5	JIS-ERG20-M6	6	4.5	DIN-ERG20-M6	6	4.9
ISO-ERG20-M8	6.3	5	JIS-ERG20-M8	6.2	5	DIN-ERG20-M8	8	6.2
ISO-ERG20-M10	8	6.3	JIS-ERG20-M10	7	5.5	DIN-ERG20-M10	10	8
ISO-ERG20-M12	9	7.1	JIS-ERG20-M12	8.5	6.5	DIN-ERG20-M12	9	7
ISO-ERG20-M14	11.2	9	JIS-ERG20-M14	10.5	8	DIN-ERG20-M14	11	9
ISO-ERG20-M16	12.5	10	JIS-ERG20-M16	12.5	10	DIN-ERG20-M16	12	9
ISO-ERG25-M3	3.15	2.5	JIS-ERG25-M3	4	3.2	DIN-ERG25-M3	3.5	2.7
ISO-ERG25-M4	4	3.15	JIS-ERG25-M4	5	4	DIN-ERG25-M4	4.5	3.4
ISO-ERG25-M5	5	4	JIS-ERG25-M5	5.5	4.5	DIN-ERG25-M5	6	4.9
ISO-ERG25-M6	6.3	5	JIS-ERG25-M6	6	4.5	DIN-ERG25-M6	6	4.9
ISO-ERG25-M8	6.3	5	JIS-ERG25-M8	6.2	5	DIN-ERG25-M8	8	6.2
ISO-ERG25-M10	8	6.3	JIS-ERG25-M10	7	5.5	DIN-ERG25-M10	10	8

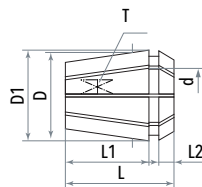
See next page



Tapping Accessories

ERG

Tapping Collet



Specification	d (mm)	T (mm)	Specification	d (mm)	T (mm)	Specification	d (mm)	T (mm)
ISO-ERG25-M12	9	7.1	JIS-ERG25-M12	8.5	6.5	DIN-ERG25-M12	9	7
ISO-ERG25-M14	11.2	9	JIS-ERG25-M14	10.5	8	DIN-ERG25-M14	11	9
ISO-ERG25-M16	12.5	10	JIS-ERG25-M16	12.5	10	DIN-ERG25-M16	12	9
ISO-ERG25-M18	14	11.2	JIS-ERG25-M18	14	11	DIN-ERG25-M18	14	11
ISO-ERG25-M20	14	11.2	JIS-ERG25-M20	15	12	DIN-ERG25-M20	16	12
ISO-ERG32-M3	3.15	2.5	JIS-ERG32-M3	4	3.2	DIN-ERG32-M3	3.5	2.7
ISO-ERG32-M4	4	3.15	JIS-ERG32-M4	5	4	DIN-ERG32-M4	4.5	3.4
ISO-ERG32-M5	5	4	JIS-ERG32-M5	5.5	4.5	DIN-ERG32-M5	6	4.9
ISO-ERG32-M6	6.3	5	JIS-ERG32-M6	6	4.5	DIN-ERG32-M6	6	4.9
ISO-ERG32-M8	6.3	5	JIS-ERG32-M8	6.2	5	DIN-ERG32-M8	8	6.2
ISO-ERG32-M10	8	6.3	JIS-ERG32-M10	7	5.5	DIN-ERG32-M10	10	8
ISO-ERG32-M12	9	7.1	JIS-ERG32-M12	8.5	6.5	DIN-ERG32-M12	9	7
ISO-ERG32-M14	11.2	9	JIS-ERG32-M14	10.5	8	DIN-ERG32-M14	11	9
ISO-ERG32-M16	12.5	10	JIS-ERG32-M16	12.5	10	DIN-ERG32-M16	12	9
ISO-ERG32-M18	14	11.2	JIS-ERG32-M18	14	11	DIN-ERG32-M18	14	11
ISO-ERG32-M20	14	11.2	JIS-ERG32-M20	15	12	DIN-ERG32-M20	16	12
ISO-ERG32-M22	16	12.5	JIS-ERG32-M22	17	13	DIN-ERG32-M22	18	14.5
ISO-ERG32-M24	18	14	JIS-ERG32-M24	19	15	DIN-ERG32-M24	18	14.5
ISO-ERG40-M3	3.15	2.5	JIS-ERG40-M3	4	3.2	DIN-ERG40-M3	3.5	2.7
ISO-ERG40-M4	4	3.15	JIS-ERG40-M4	5	4	DIN-ERG40-M4	4.5	3.4
ISO-ERG40-M5	5	4	JIS-ERG40-M5	5.5	4.5	DIN-ERG40-M5	6	4.9
ISO-ERG40-M6	6.3	5	JIS-ERG40-M6	6	4.5	DIN-ERG40-M6	6	4.9
ISO-ERG40-M8	6.3	5	JIS-ERG40-M8	6.2	5	DIN-ERG40-M8	8	6.2
ISO-ERG40-M10	8	6.3	JIS-ERG40-M10	7	5.5	DIN-ERG40-M10	10	8
ISO-ERG40-M12	9	7.1	JIS-ERG40-M12	8.5	6.5	DIN-ERG40-M12	9	7
ISO-ERG40-M14	11.2	9	JIS-ERG40-M14	10.5	8	DIN-ERG40-M14	11	9
ISO-ERG40-M16	12.5	10	JIS-ERG40-M16	12.5	10	DIN-ERG40-M16	12	9
ISO-ERG40-M18	14	11.2	JIS-ERG40-M18	14	11	DIN-ERG40-M18	14	11
ISO-ERG40-M20	14	11.2	JIS-ERG40-M20	15	12	DIN-ERG40-M20	16	12
ISO-ERG40-M22	16	12.5	JIS-ERG40-M22	17	13	DIN-ERG40-M22	18	14.5
ISO-ERG40-M24	18	14	JIS-ERG40-M24	19	15	DIN-ERG40-M24	18	14.5
ISO-ERG40-M27	20	16	JIS-ERG40-M27	20	15	DIN-ERG40-M27	20	16
ISO-ERG40-M30	20	16	JIS-ERG40-M30	23	17	DIN-ERG40-M30	22	18



HSK

DIN 69893-1



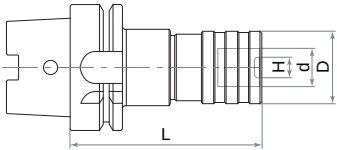
P66



P66



P59-61



Specification	D	L	d	H	Capacity	Adjustment		Collet
						C	T	
HSK63A-WF12-96L	36	96	19	10	M1-M16	5	8	TC312
HSK63A-WF20-138L	53	138	31	16	M3-M30	10	13	TC820
HSK100A-WF12-100L	36	100	19	10	M1-M16	5	8	TC312
HSK100A-WF20-140L	53	140	31	16	M3-M30	10	13	TC820

SK

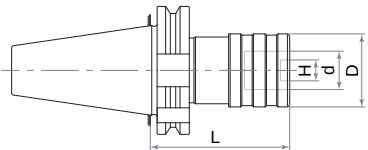
DIN ISO 7388-1



P66



P59-62

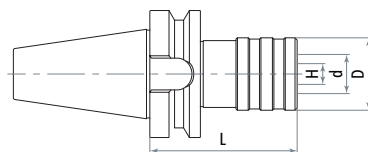


Specification	D	d	L	H	Capacity	Adjustment		Collet
						C	T	
SK30-WF12-70L	36	19	70	10	M3-M12	5	5	TC312
SK30-WF20-102L	53	31	102	16	M5-M30	12	12	TC820
SK40-WF12-65L	36	19	65	10	M3-M12	5	5	TC312
SK40-WF20-88L	53	31	88	16	M5-M30	12	12	TC820
SK40-WF33-160L	78	48	160	25	M24-M42	20	20	TC1433
SK50-WF12-65L	36	19	65	10	M3-M12	5	5	TC312
SK50-WF20-90L	53	31	90	16	M5-M30	12	12	TC820
SK50-WF33-147L	78	48	147	25	M24-M42	20	20	TC1433



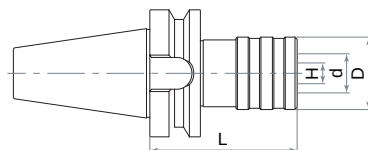
Tapping Chuck

BBT-WF DIN ISO 7388-2



Specification	D	L	d	H	Capacity	Adjustment		Collet
						C	T	
BBT40-WF12-70L	36	70	19	10	M1-M16	5	8	TC312
BBT40-WF20-96L	53	96	31	16	M3-M30	10	13	TC820
BBT50-WF12-88L	36	88	19	10	M1-M16	5	8	TC312
BBT50-WF20-106L	53	106	31	16	M3-M30	10	13	TC820

BT DIN ISO 7388-2



Specification	D	d	L	H	Capacity	Adjustment		Collet
						C	T	
BT30-WF12-69L	36	19	69	10	M3-M12	5	5	TC312
BT30-WF20-100L	53	31	100	16	M5-M30	12	12	TC820
BT40-WF12-75L	36	19	75	10	M3-M12	5	5	TC312
BT40-WF20-96L	53	31	96	16	M5-M30	12	12	TC820
BT40-WF33-158L	78	48	158	25	M24-M42	20	20	TC1433
BT50-WF12-90L	36	19	90	10	M3-M12	5	5	TC312
BT50-WF20-108L	53	31	108	16	M5-M30	12	12	TC820
BT50-WF33-145L	78	48	145	25	M24-M42	20	20	TC1433

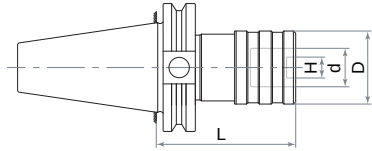
CAT-WF ASME B5.50



P66



P59-62

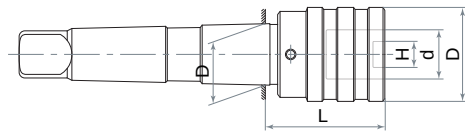


Specification	D	d	L	H	Capacity	Adjustment		Collet
						C	T	
CAT30-WF12-75L	36	19	75	10	M3-M12	5	5	TC312
CAT30-WF20-102L	53	31	102	16	M5-M30	12	12	TC820
CAT40-WF12-65L	36	19	65	10	M3-M12	5	5	TC312
CAT40-WF20-102L	53	31	102	16	M5-M30	12	12	TC820
CAT40-WF33-155L	78	48	155	25	M24-M42	20	20	TC1433
CAT50-WF12-65L	36	19	65	10	M3-M12	5	5	TC312
CAT50-WF20-88L	53	31	88	16	M5-M30	12	12	TC820
CAT50-WF33-135L	78	48	135	25	M24-M42	20	20	TC1433

MTA DIN 228-1 A



P59-61

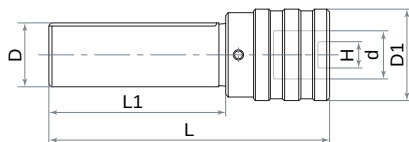


Specification	D	d	L	H	Capacity	Adjustment		Collet
						C	T	
MTA2-WF12-46L	36	19	46	10	M3-M12	5	5	TC312
MTA2-WF20-68L	53	31	68	16	M5-M30	12	12	TC820
MTA3-WF12-46L	36	19	46	10	M3-M12	5	5	TC312
MTA3-WF20-68L	53	31	68	16	M5-M30	12	12	TC820
MTA4-WF12-48L	36	19	48	10	M3-M12	5	5	TC312
MTA4-WF20-70L	53	31	70	16	M5-M30	12	12	TC820
MTA5-WF20-70L	53	31	70	16	M5-M30	12	12	TC820



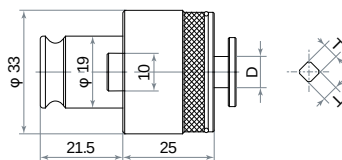
Tapping Chuck

Cylindrical DIN 1835-1 A



Specification	D	D1	d	L	L1	H	Capacity	Adjustment	
								C	T
D16-WF12-112L	16	36	19	112	70	10	M3-M12	5	5
D20-WF12-112L	20	36	19	112	70	10	M3-M12	5	5
D20-WF20-135L	20	53	31	135	70	16	M5-M30	12	12
D25-WF12-112L	25	36	19	112	70	10	M3-M12	5	5
D25-WF20-135L	25	53	31	135	70	16	M5-M30	12	12
D32-WF12-112L	32	36	19	112	70	10	M3-M12	5	5
D32-WF20-135L	32	53	31	135	70	16	M5-M30	12	12

TC312-ISO Tapping Collet



Unit:mm

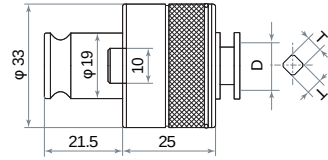
Specification	D	T
ISO-TC312-M2	2.5	2
ISO-TC312-M2.5	2.8	2.24
ISO-TC312-M3	3.15	2.5
ISO-TC312-M4	4	3.15
ISO-TC312-M5	5	4
ISO-TC312-M6	6.3	5
ISO-TC312-M8	6.3	5
ISO-TC312-M10	8	6.3
ISO-TC312-M12	9	7.1
ISO-TC312-M14	11.2	9
ISO-TC312-M16	12.5	10



TC312 JIS

Unit:mm

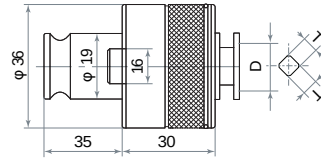
Specification	D	T
JIS-TC312-M2	3	2.5
JIS-TC312-M3	4	3.2
JIS-TC312-M4	5	4
JIS-TC312-M5	5.5	4.5
JIS-TC312-M6	6	4.5
JIS-TC312-M8	6.2	5
JIS-TC312-M10	7	5.5
JIS-TC312-M12	8.5	6.5
JIS-TC312-M14	10.5	8



TC312 DIN

Unit:mm

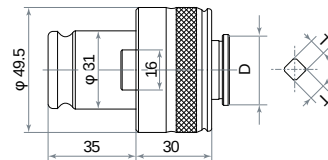
Specification	D	T	Specification	D	T
DIN371-TC312-M3	3.5	2.7	DIN371-TC312-M10	10	8
DIN371-TC312-M4	4.5	3.4	DIN376-TC312-M8	6	4.9
DIN371-TC312-M5	6	4.9	DIN376-TC312-M10	7	5.5
DIN371-TC312-M6	6	4.9	DIN376-TC312-M12	9	7
DIN371-TC312-M8	8	6.2	DIN376-TC312-M14	11	9



TC820 ISO

Unit:mm

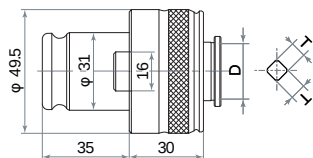
Specification	D	T	Specification	D	T
ISO-TC820-M3	3.15	2.5	ISO-TC820-M16	12.5	10
ISO-TC820-M4	4	3.15	ISO-TC820-M18	14	11.2
ISO-TC820-M5	5	4	ISO-TC820-M20	14	11.2
ISO-TC820-M6	6.3	5	ISO-TC820-M22	16	12.5
ISO-TC820-M8	6.3	5	ISO-TC820-M24	18	14
ISO-TC820-M10	8	6.3	ISO-TC820-M27	20	16
ISO-TC820-M12	9	7.1	ISO-TC820-M30	20	16
ISO-TC820-M14	11.2	9			





Tapping Accessories

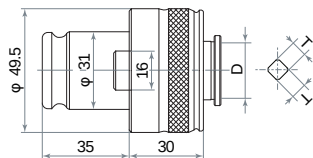
TC820 JIS



Unit:mm

Specification	D	T	Specification	D	T
JIS-TC820-M3	4	3.2	JIS-TC820-M16	12.5	10
JIS-TC820-M4	5	4	JIS-TC820-M18	14	11
JIS-TC820-M5	5.5	4.5	JIS-TC820-M20	15	12
JIS-TC820-M6	6	4.5	JIS-TC820-M22	17	13
JIS-TC820-M8	6.2	5	JIS-TC820-M24	19	15
JIS-TC820-M10	7	5.5	JIS-TC820-M27	20	15
JIS-TC820-M12	8.5	6.5	JIS-TC820-M30	23	17
JIS-TC820-M14	10.5	8			

TC820 DIN

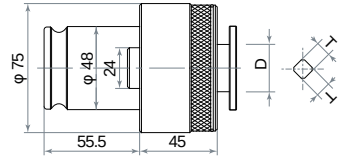


Unit:mm

Specification	D	T	Specification	D	T
DIN371-TC820-M3	3.5	2.7	DIN376-TC820-M14	11	9
DIN371-TC820-M4	4.5	3.4	DIN376-TC820-M16	12	9
DIN371-TC820-M5	6	4.9	DIN376-TC820-M18	14	11
DIN371-TC820-M6	6	4.9	DIN376-TC820-M20	16	12
DIN371-TC820-M8	8	6.2	DIN376-TC820-M22	18	14.5
DIN371-TC820-M10	10	8	DIN376-TC820-M24	18	14.5
DIN376-TC820-M8	6	4.9	DIN376-TC820-M27	20	16
DIN376-TC820-M10	7	5.5	DIN376-TC820-M30	22	18
DIN376-TC820-M12	9	7			



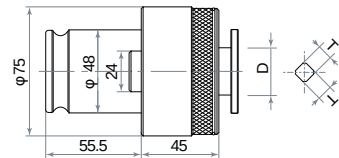
TC1433 ISO



Unit:mm

Specification	D	T	Specification	D	T
ISO-TC1433-M24	18	14	ISO-TC1433-M42	28	22.4
ISO-TC1433-M27	20	16	ISO-TC1433-M45	31.5	25
ISO-TC1433-M30	20	16	ISO-TC1433-M48	31.5	25
ISO-TC1433-M33	22.4	18	ISO-TC1433-M52	35.5	28
ISO-TC1433-M36	25	20	ISO-TC1433-M56	3.5	28
ISO-TC1433-M39	28	22.4			

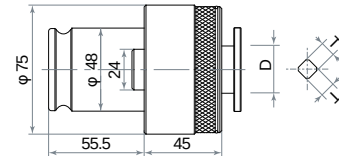
TC1433 JIS



Unit:mm

Specification	D	T	Specification	D	T
JIS-TC1433-M24	19	15	JIS-TC1433-M36	28	21
JIS-TC1433-M27	20	15	JIS-TC1433-M39	30	23
JIS-TC1433-M30	23	17	JIS-TC1433-M42	32	26
JIS-TC1433-M33	25	19	JIS-TC1433-M45	35	26

TC1433 DIN

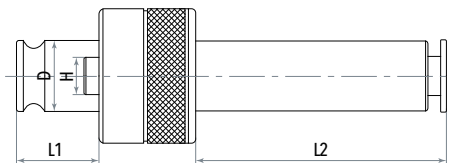


Unit:mm

Specification	D	T	Specification	D	T
DIN376-TC1433-M22	18	14.5	DIN376-TC1433-M36	28	22
DIN376-TC1433-M24	18	14.5	DIN376-TC1433-M39	32	24
DIN376-TC1433-M27	20	16	DIN376-TC1433-M42	32	24
DIN376-TC1433-M30	22	18	DIN376-TC1433-M45	36	29
DIN376-TC1433-M33	25	20	DIN376-TC1433-M48	36	29

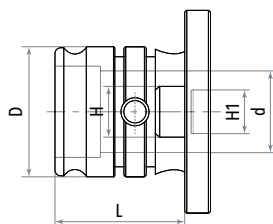


Tapping Collet Extra Length



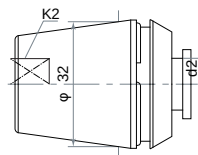
Specification	D	H	L1	L2	Capacity
TC820	31	16	35	80	M12-M30

Tapping Reducer



Specification	D	d	L	H	H1
TC820-TC312	31	19	35	16	10
TC1433-TC820	48	31	55.5	25	16

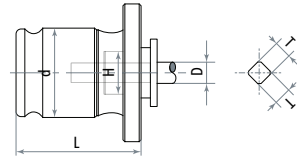
Tapping Collet Torque Protecion



Specification	d2 * K2	Capacity	Specification	d2 * K2	Capacity
ISO-TER32-M3	3.15x25	M3-M12	JIS-TER32-M3	4x3.2	M3-M12
ISO-TER32-M4	4x3.15	M3-M12	JIS-TER32-M4	5x4	M3-M12
ISO-TER32-M5	5x4	M3-M12	JIS-TER32-M5	5.5x4.5	M3-M12
ISO-TER32-M6	6.3x5	M3-M12	JIS-TER32-M6	6x4.5	M3-M12
ISO-TER32-M8	6.3x5	M3-M12	JIS-TER32-M8	6.2x5	M3-M12
ISO-TER32-M10	8x6.3	M3-M12	JIS-TER32-M10	7x5.5	M3-M12
ISO-TER32-M12	9x7.1	M3-M12	JIS-TER32-M12	8.5x6.5	M3-M12



Tapping Collet Quick change

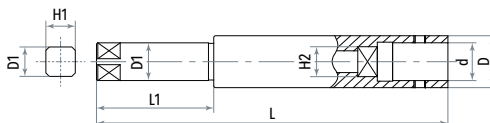


Unit:mm

Specification	Tap		Specification	Tap		DIN		
	D	T		D	T	d	H	L
ISO-TC820-M8	6.3	5	JIS-TC820-M8	6.2	5	31	16	35
ISO-TC820-M10	8	6.3	JIS-TC820-M10	7	5.5	31	16	35
ISO-TC820-M12	9	7.1	JIS-TC820-M12	8.5	6.5	31	16	35
ISO-TC820-M14	11.2	9	JIS-TC820-M14	10.5	8	31	16	35
ISO-TC820-M16	12.5	10	JIS-TC820-M16	12.5	10	31	16	35
ISO-TC820-M18	14	11.2	JIS-TC820-M18	14	11	31	16	35
ISO-TC820-M20	14	11.2	JIS-TC820-M20	15	12	31	16	35
ISO-TC820-M22	16	12.5	JIS-TC820-M22	17	13	31	16	35
ISO-TC820-M24	18	14	JIS-TC820-M24	19	15	31	16	35
ISO-TC820-M27	20	16	JIS-TC820-M27	20	15	31	16	35
ISO-TC820-M30	20	16	JIS-TC820-M30	23	17	31	16	35
ISO-TC820-M33	22.4	18	JIS-TC820-M33	25	19	31	16	35
ISO-TC820-M36	25	20	-	-	-	31	16	35
ISO-GT42-M36	25	20	-	-	-	45	20	48
ISO-GT42-M39-42	28	22.4	-	-	-	45	20	48
ISO-GT42-M45-48	31.5	25	-	-	-	45	20	48
ISO-TC1433-M36	25	20	-	-	-	48	25	55.5
ISO-TC1433-M39-42	28	22.4	-	-	-	48	25	55.5
ISO-TC1433-M45-48	31.5	25	-	-	-	48	25	55.5



Tapping Extender

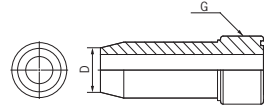


Specification	D	L	d	H2*H2	L1	D1	H1*H1
ISO-M4	10	100	4	3.15*3.15	50	6.3	5*5
ISO-M5	11	100	5	4*4	50	6.3	5*5
ISO-M6/8	12	100	6.3	5*5	50	6.3	5*5
ISO-M10	14	100	8	6.3*6.3	50	8	6.3*6.3
ISO-M12	15	100	9	7.1*7.1	50	9	7.1*7.1
ISO-M14	17	100	11.2	9*9	50	11.2	9*9
ISO-M4	10	150	4	3.15*3.15	50	6.3	5*5
ISO-M5	11	150	5	4*	50	6.3	5*5
ISO-M6/8	12	150	6.3	5*5	50	6.3	5*5
ISO-M10	14	150	8	6.3*6.3	50	8	6.3*6.3
ISO-M12	15	150	9	7.1*7.1	50	9	7.1*7.1
ISO-M14	17	150	11.2	9*9	50	11.2	9*9
ISO-M16	18	150	12.5	10*10	50	12.5	10*10
ISO-M18/20	20	150	14	11.2*11.2	50	14	11.2*11.2
ISO-M22	22	150	16	12.5*12.5	50	16	12.5*12.5
ISO-M4	10	200	4	3.15*3.15	50	6.3	5*5
ISO-M5	11	200	5	4*4	50	6.3	5*5
ISO-M6/8	12	200	6.3	5*5	50	6.3	5*5
ISO-M10	14	200	8	6.3*6.3	50	8	6.3*6.3
ISO-M12	15	200	9	7.1*7.1	50	9	7.1*7.1
ISO-M14	17	200	11.2	9*9	50	11.2	9*9
ISO-M16	18	200	12.5	10*10	50	12.5	10*10
ISO-M18/20	20	200	14	11.2*11.2	50	14	11.2*11.2
ISO-M22	22	200	16	12.5*12.5	50	16	12.5*12.5
ISO-M24	24	200	18	14*14	50	18	14*14
ISO-M27/30	26	200	20	16*16	50	20	16*16
JIS-M4	10	100	5	4*4	50	8.5	5*6.5
JIS-M5	13	100	5.5	4.5*4.5	50	12.5	10*10
JIS-M6	13	100	6	4.5*4.5	50	12.5	10*10
JIS-M8	13	100	6.2	5*5	50	12.5	10*10
JIS-M10	14	100	7	5.5*5.5	50	12.5	10*10
JIS-M12	14	100	8.5	6.5*6.5	50	12.5	10*10
JIS-M4	10	150	5	4*4	50	8.5	6.5*6.5
JIS-M5	13	150	5.5	4.5*4.5	50	12.5	10*10
JIS-M6	13	150	6	4.5*4.5	50	12.5	10*10
JIS-M8	13	150	6.2	5*5	50	12.5	10*10
JIS-M10	14	150	7	5.5*5.5	50	12.5	10*10
JIS-M12	14	150	8.5	6.5*6.5	50	12.5	10*10
JIS-M14	16	150	10.5	8*8	50	12.5	10*10
JIS-M16	18	150	12.5	10*10	50	12.5	10*10
JIS-M18	20	150	14	11*11	50	14	11*11
JIS-M4	10	200	5	4*4	50	8.5	6.5*6.5
JIS-M5	13	200	5.5	4.5*4.5	50	12.5	10*10
JIS-M6	13	200	6	4.5*4.5	50	12.5	10*10
JIS-M8	13	200	6.2	5*5	50	12.5	10*10
JIS-M10	14	200	7	5.5*5.5	50	12.5	10*10
JIS-M12	14	200	8.5	6.5*6.5	50	12.5	10*10
JIS-M14	16	200	10.5	8*8	50	12.5	10*10
JIS-M16	18	200	12.5	10*10	50	12.5	10*10
JIS-M18	20	200	14	11*11	50	14	11*11
JIS-M20	22	200	15	12*12	50	15	12*12
JIS-M22	24	200	17	13*13	50	17	13*13
JIS-M24	26	200	19	15*15	50	19	15*15



HSK-CPA

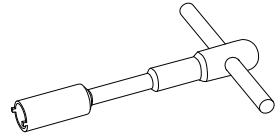
Coolant Pipe



Specification	D	G	Wrench
HSK40-CPA	8	M12X1.0P	WCPA40
HSK50-CPA	10	M16X1.0P	WCPA50
HSK63-CPA	12	M18X1.0P	WCPA63
HSK100-CPA	16	M24X1.5P	WCPA100

WCPA

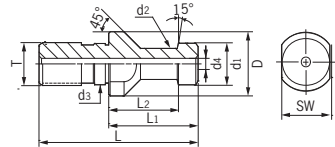
Wrench For Coolant Pipe



Specification	Tool holder	Weight
WCPA40	HSK40	0.40
WCPA50	HSK50	0.50
WCPA63	HSK63	0.60
WCPA100	HSK100	0.60

SK

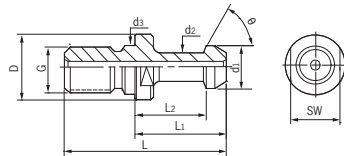
With Cooling Hole



Specification	D	d1	d2	d3	d4	L1	L2	L	SW	T	Weight
PSSK-30A	17	13	9	13	2.5	24	19	44	14	M12	0.03
PSSK-40A	23	19	14	17	7	26	20	54	19	M16	0.05
PSSK-50A	36	28	21	25	11.5	34	25	74	30	M24	0.30

BT

With Cooling Hole

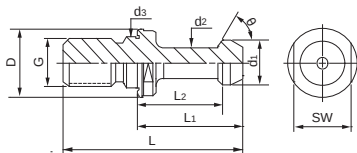


Specification	Coolant dia.	D	d1	d2	d3	L1	L2	L	θ	G	SW	Weight
PSBT40-45C	4	23	15	10	17	35	28	60	45°	M16	19	0.07
PSBT40-60C	4	23	15	10	17	35	28	60	60°	M16	19	0.07
PSBT40-90C	4	23	15	10	17	35	28	60	90°	M16	19	0.07
PSBT50-45C	6	38	23	17	25	45	35	85	45°	M24	30	0.25
PSBT50-60C	6	38	23	17	25	45	35	85	60°	M24	30	0.25
PSBT50-90C	6	38	23	17	25	45	35	85	90°	M24	30	0.25



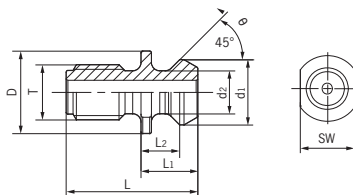
Accessories

PSBT Without Hole



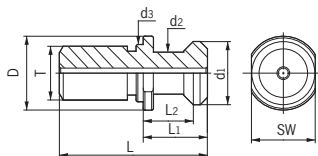
Specification	D	d1	d2	d3	L1	L2	L	θ	G	SW	Weight
PSBT30-45	16.5	11	7	12.5	23	18	43	45°	M12	13	0.03
PSBT30-60	16.5	11	7	12.5	23	18	43	60°	M12	13	0.03
PSBT40-45	23	15	10	17	35	28	60	45°	M16	19	0.07
PSBT40-60	23	15	10	17	35	28	60	60°	M16	19	0.07
PSBT40-90	23	15	10	17	35	28	60	90°	M16	19	0.07
PSBT50-45	38	23	17	25	45	35	85	45°	M24	30	0.25
PSBT50-60	38	23	17	25	45	35	85	60°	M24	30	0.25
PSBT50-90	38	23	17	25	45	35	85	90°	M24	30	0.25

CAT With Cooling Hole



Specification	Coolant dia.	D	d1	d2	L1	L2	L	T	SW	Weight
CAT40-45UC	7.1	23.8	18.8	12.4	16.2	11.2	38.1	5/8"-11UNC	19.05	0.03
CAT50-45UC	11.9	36.5	28.9	20.8	25.4	17.7	58.4	1"-8UNC	31.75	0.16

MAZAK Pull Stud



Specification	D	d1	d2	d3	L	L1	L2	SW	T	Weight
MAZAK-40	22	18.8	12.45	17	44.1	19.1	14	19	M16	0.02
MAZAK-50	37	28.96	20.83	25	65.2	25.2	17.58	30	M24	0.10



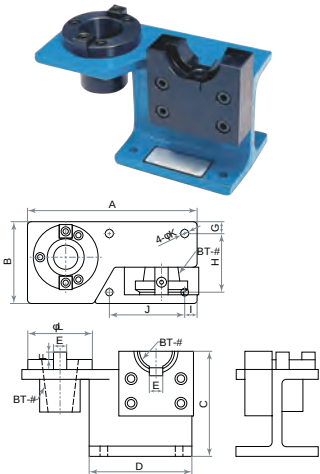
Tool Holder Locking Device

TL-BT/SK

Order No.	A	B	C	D	E	F	G	H	I	J	K	L
TL-BT30	205	99	127	124	15	10	16	71	15	91	9	78
TL-BT40	205	99	127	124	16	9	14	71	15	91	9	78
TL-BT50	282	152	203	162	25	16	22	108	25	115	9	115

Order No.	STD	Weight(KGS)
TL-BT30	ISO BT	4.1
TL-BT40	ISO BT	4.2
TL-BT50	ISO BT	11.8
TL-SK30	CAT SK DIN69871A	3.7
TL-SK40	CAT SK DIN69871A	4
TL-SK50	CAT SK DIN69871A	12.3

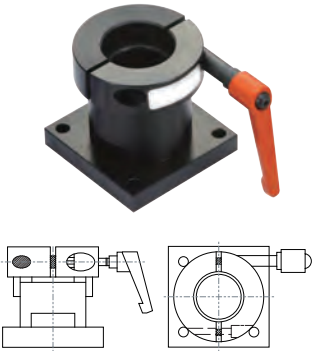
Note: The BT and SK devices are same.



Tool Holder Locking Device

TL-HSK

Order No.	STD	Weight(KGS)
TL-HSK40	DIN69896 HSK	2.5
TL-HSK50	DIN69896 HSK	3.5
TL-HAK63	DIN69896 HSK	4.5





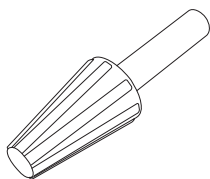
Spindle Cleaner

DIN ISO 7388-2

BT

DIN ISO 7388-1

SK

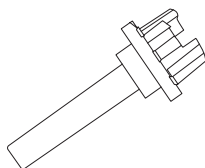


1. Easy and quick for cleaning spindle hole.
2. Plastic body, the taper wiper is made of special cotton material, will not damage the spindle.
3. The BT and SK tapers are same.
4. ECO friendly.

Order No.	Taper No.	Total Length	Weight(kg)
NTW-30	#30	162mm	0.08
NTW-40	#40	180mm	0.09
NTW-50R	#50	230mm	0.18

DIN 69893-1

HSK-A



1. Easy and quick for cleaning spindle hole.
2. Plastic body, the taper wiper is made of special cotton material, will not damage the spindle.
3. ECO friendly.

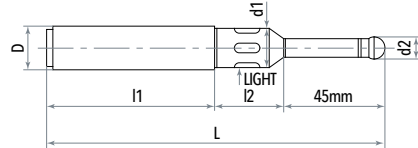
Order No.	Taper No.	Total Length	Weight(kg)
NTW-50H	HSK50	159mm	0.10
NTW-63H	HSK63	167mm	0.12



Optical Type

Without Beeper

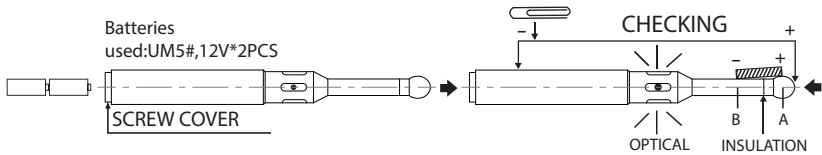
1. High sensitivity position sensor.
2. Red pilot can be seen clearly.
3. Whole travel of red pilot is sparkling, detecting also can be done during turning while spindle stops.
4. Location of end surface, outer circle dia., inner circle dia. of the workpiece for processing can be detected with full effect.
5. Devised with safety line excess, ball supported by spring, so even line excess, it will be separated easily from the base shown as the fig.
6. The precision will reach up to micrometer while the ball returns to center position.
7. Accuracy: Within 0.005mm



VPS-20/VPS-32

Unit: mm

Specification	D	d1	d2	L	l1	l2	Battery Type	Weight (kg)
VPS-20	20	18	10	157	76	33	UM-5#(SP)x2P/R1./1.5V	0.4
VPS-32	32	18	10	157	74	41	UM-5#(SP)x2P/R1./1.5V	0.7



1. Install Battery

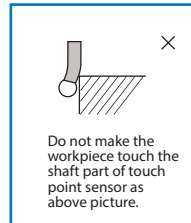
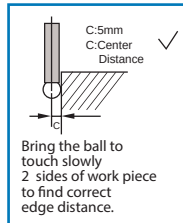
After reading the following instruction, please use touch point sensor correctly because it's a high sensitive position detector. Don't rotate the touch point sensor while using it.

2. Confirmation of Lighting

Check the lighting of red lamp by touching A-B part with a metal (clip, L-PLATE etc.)

3. Measuring Method

As soon as the ball (outside dia. 10mm) touches the work piece with the main spindle stopped, the red lamp lights on.

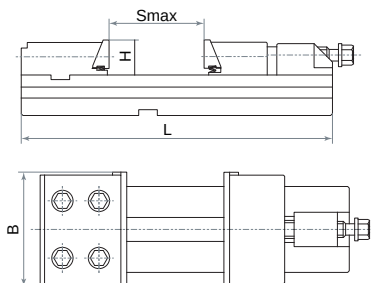


Notice: Optical edge finder is not suitable for rotation.



NT-003360

Modular Vise

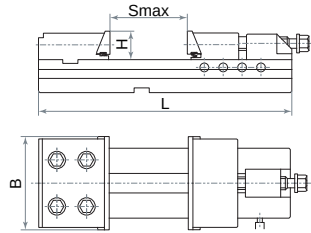


Specification	B(mm)	H(mm)	Smax(mm)	L(mm)	Clamping force(Kg)
GT100- I	100	30	100	270	3000
GT125- I	125	40	150	345	3000
GT150A- I	150	50	200	420	5000
GT150B- I	150	50	300	520	5000
GT150C- I	150	50	400	620	5000
GT175A- I	175	60	200	455	6000
GT175B- I	175	60	300	555	6000
GT175C- I	175	60	400	655	6000
GT175D- I	175	60	500	755	6000
GT175E- I	175	60	600	855	6000
GT200A- I	200	65	200	495	10000
GT200B- I	200	65	300	595	10000
GT200C- I	200	65	400	695	10000
GT200D- I	200	65	500	795	10000
GT200E- I	200	65	600	895	10000
GT300A- I	300	80	200	535	12000
GT300B- I	300	80	300	635	12000
GT300C- I	300	80	400	735	12000
GT300D- I	300	80	500	835	12000
GT300E- I	300	80	600	935	12000
GT300F- I	300	80	700	1035	12000
GT300G- I	300	80	800	1135	12000

1. Made of high quality steel, carburized to surface hardness HRC 58 ~ 62
2. Parallelism 0.005mm/100mm, squareness 0.005 mm
3. It has interchangeable base, fixed/movable jaws. It is quick to clamp and easy to operate
4. It is widely used on machining centers and other precision machines

NT-003370

Quick Action Modular Vise

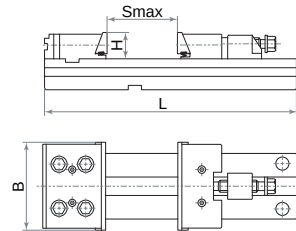


Specification	B(mm)	H(mm)	Smax(mm)	L(mm)	Clamping force(Kg)
GT125-Ⅲ	125	40	150	345	3000
GT150A-Ⅲ	150	50	200	420	5000
GT150B-Ⅲ	150	50	300	520	5000
GT175C-Ⅲ	175	60	400	655	6000

1. Made of high quality steel, carburized to surface hardness HRC 58 ~ 62
2. Parallelism 0.005mm/100 mm, squareness 0.005 mm
3. Locate position by pilot pin, adjust pin on body according to the opening size, then clamp quickly
4. It is widely used on machining centers and other precision machines

NT-003390

Horizontal Vertical Vise



Unit:mm

Specification	B	H	Smax	L
ZQ80100	100	30	100	270
ZQ80125	125	40	150	345
ZQ80150	150	50	200	420
ZQ80150A	150	50	300	520
ZQ80175	175	60	200	455
ZQ80175A	175	60	300	555
ZQ80175B	175	60	400	655
ZQ80175C	175	60	500	755
ZQ80200	200	65	200	495
ZQ80200A	200	65	300	595
ZQ80200B	200	65	400	695
ZQ80200C	200	65	500	795
ZQ80200D	200	65	600	895

1. Made of high quality steel, carburized to surface hardness HRC 58 ~ 62
2. Parallelism 0.005mm/100 mm, squareness 0.005 mm
3. Can be used in vertical and horizontal direction, to process anomalous shape workpieces.
4. It is widely used on machining centers and other precision machines



58-PCS Clamping Kit

58 PCS/SET

*Heat treated steel black oxide finish

*Block size 1" (25mm).

Set in plastic rack consists of:

24 PCS Studs

6 PCS T-Nuts

4 PCS Coupling Nuts

6 PCS Flange Nuts

6 PCS Step Clamps

12 PCS Step Blocks



Specifications

Metric Size

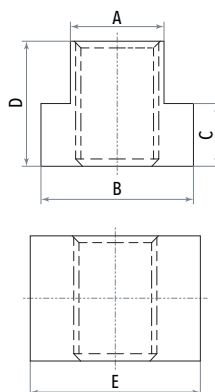
Specification	Table Slot	Stud Size	G.W.kg	Meas.CFT
CK-08	10	M8-1.25P	7.4	(C)0.8
CK-10	12	M10-1.5P	7.6	(C)0.8
CK-12A	14	M12-1.75P	9.4	(C)1.0
CK-12B	15.7	M12-1.75P	9.5	(C)1.0
CK-14	16	M14-2.0P	11.1	(C)1.5
CK-16	18	M16-2.0P	12.6	(C)1.5
CK-18	20	M18-2.0P	25.3	(C)1.6
CK-20	22	M20-2.5P	27	(C)2.0

*CK-18, CK-20, CK-206, packed in wooden or plastic tray.

Individual Parts T-slot Nut

Metric Size

Specification	Table Slot	Thread Size	A±0.3	B	C	D	E
3412M	10	M8	9	16	6	12	22
3423M	12	M10	11.5	18	7	14	22
3414M	14	M12	13.5	22	8	16	28
A3424M	16	M12	15.3	25	8	16	28
B3424M	16	M14	15.3	25	8	16	28
3415M	18	M16	17	28	11	20	32
3416M	20	M18	19.5	32	12	24	38
3417M	22	M20	21.5	35	14	28	38
3418M	28	M24	26.5	44	18	36	38





NT-003490

- 1 .Hardness: HRC55~ 62
2. Accuracy : 0.01mm
- 3 Parallelism:0.005mm



Specification	Dimensions LxWxH	Qty
PB150-1	150X10X14(16,18,20,22,24,26,28,30,32,35,40,45,50)	14x2
PB150-2	150X 8 X14(16,18,20,22,24,26,28,30,32,35,40,45,50)	14x2
PB150-3	80X4 X 14(16,18,20,22,24,26,28,30,32,35,40,45,50)	14x2
PB150-4	200 X 10 X 14(16,18,20,22,24,26,28,30,32,35,40,45, 50)	14x2

NT-003492

- 1 .Hardness: HRC55~ 62
2. Accuracy : 0.01mm
- 3 Parallelism:0.005mm



Specification	Dimensions LxWxH	Qty
PB151-1	100X4X 10(14,18,22,26,30,34,38,42,)	9x2
PB151-2	160X4X10(14,18,22,26,30,34,38,42,)	9x2
PB151-3	150X8.5X 14(16,20,24,30,32,36,40,44)	9x2
PB151-4	150X 10X14(16,20,24,30,32,36,40,44)	9x2

NT-003494

- 1 .Hardness: HRC55~ 62
2. Accuracy : 0.01mm
- 3 Parallelism:0.005mm



Specification	Dimensions LxWxH	Qty
PB153-1	125 X8 X11(16,21,26,31,36)	24x2
	125X10X13(18,23,28,33,38)	
	125X 12X 15(20,25,30,35,40)	
	125 X 14X 17(22,27,32,37,42)	
PB153-2	150 X 8 X 11(16,21,26,31,36)	24x2
	150X 10X 13(18,23,28,33,38)	
	150X 12X 15(20,25,30,35,40)	
	150 X 14X 17(22,27,32,37,42)	



Precision Parallel

NT-003496

1. Hardness: HRC55~ 62
2. Accuracy : 0.01mm
- 3 Parallelism:0.005mm



Specification	Dimensions LxWxH	Qty
PB154-1	150X8X16(18,20,22,24,26,28,30,32,34, 36,38,40,42,44,46,48,50)	18x2
PB154-2	150 X 8 X 17(19,21,23,25 ,27 ,29,31 , 33,35, 37,39,41 ,43,45,47,49,51)	18x2

NT-00350

1. Hardness: HRC55~ 62
2. Accuracy : 0.01mm
- 3 Parallelism:0.005mm



Specification	Dimensions LxWxH	Qty
PB155-1	120X10X14(16,18,20,22,24,26,28,30, 32,35,40)	12x2
PB155-2	150 X 10 X14(16,18,20,22,24,26,28,30, 32,35,40)	12x2

NT-00351

1. Hardness: HRC55~ 62
2. Accuracy : 0.01mm
- 3 Parallelism:0.005mm



Specification	Dimensions LxWxH	Qty
PB156-1	120X8X12(17,22,25,28,32,36,38)	8x2
PB156-2	160X8X12(17,22,25,28,32,36,38)	8x2
PB156-3	200X8X17(22,26,28,32,36,38,42)	8x28



WWW.NICHE-TOOL.COM



ADDRESS

ROOM 1601, NO. 399 MINHE ROAD, ZHENHAI,
NINGBO CHINA, 315202

GET IN TOUCH

PHONE: **+86 574 8659 2189**

FAX: **+86 574 8659 3892**

NTTOOLS2017@GMAIL.COM

WWW.NICHE-TOOL.COM