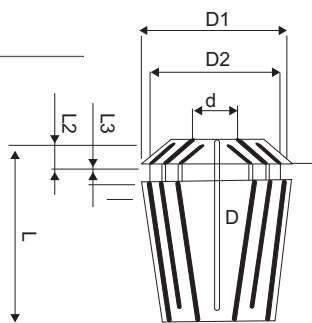




TOOLINGS & CUTTING TOOLS

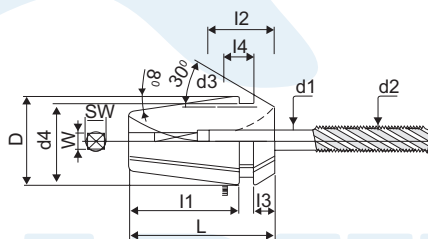
Website: www.dolphintools.co

ER Collets



Model	dl 17	D	D1	D2	L	L1	L2	L3	Collapsible capacity
ER8	1.0 - 5.0	8	8.5	6.5	13.5	2.7	1.5	1.5	0.5
ER11	1.0 - 7.0	11	11.5	9.5	18.0	3.8	2.5	2.0	0.5
ER16	1.0 - 2.5	16	17	13.8	27.5	6.26	4.0	2.7	0.5
	2.5 - 10.0	16	17	13.8	27.5	6.26	4.0	2.7	1.0
ER20	1.0 - 13.0	20	21	17.4	31.5	6.36	4.8	2.8	1.0
ER25	1.0 - 16.0	25	26	22.0	34.0	6.66	5.0	3.1	1.0
ER32	1.0 - 20.0	32	33	29.2	40.0	7.16	5.5	3.6	1.0
ER40	2.0 - 32.0	25	26	22.0	34.0	6.66	5.0	3.1	1.0

ERG Tap Collets



Model	D	D3	D4	L	L1	L3	L4	CAPACITY
ER16G	16.74	16	13.8	27.5	20.8	4.0	6.26	M3 - M10
ER20G	20.74	20	17.4	31.5	23.9	4.8	6.36	M3 - M17
ER25G	25.74	25	22	34	25.9	5.0	6.66	M3 - M22
ER32G	32.74	32	29.2	40	31.8	5.5	7.16	M3 - M27

SDC Collect



Model	RANGE	L	D
SDC 6	3-6MM	36	9.6
SDC 8	3-8MM	45	15
SDC 12	4-12MM	60	22

Oil Seal Collets



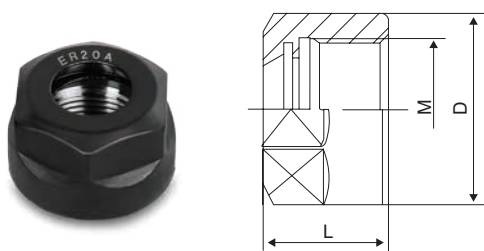
MODEL	D	D1	L	L1	RANGE
ER25	25.00	26	34	6.7	3 – 16 MM
ER32	32.00	33	40	7.2	3 – 20 MM

Straight Collets for Powermill Chuck



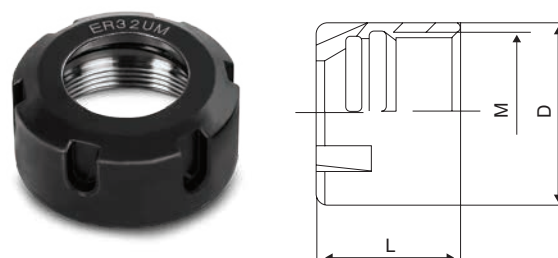
SIZE	Range	D	D2	L
C-20	3-16MM	20	25	52
C-32	6-25 MM	32	37	73

A Type (HEX) Nuts



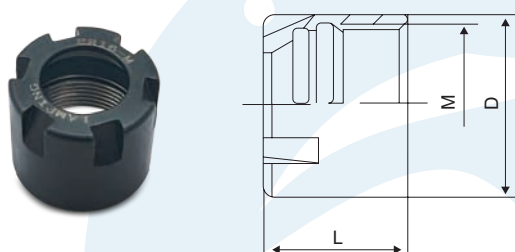
MODEL	L	D	M
ER8A	11	14	
ER11A	11.3	19	M14 X 0.75P
ER16A	17.5	28	M22 X 1.5P
ER20A	19	34	M25 X 1.5P

ER – UM Nuts



MODEL	L	D	M
ER25UM	20	42	M32 X 1.5P
ER32UM	22.5	50	M40 X 1.5P
ER40UM	25.5	63	M50 X 1.5P

ER – M Nuts



MODEL	L	D	M
ER8M	10	12	10 X 0.75P
ER11M	12	16	M13 X 0.75P
ER16M	18	22	M19 X 1.0P
ER20M	19	28	M24 X 1.0P

ER (M) – Spanners



Model of Spanners	Type of nuts
ER8M	ER8M
ER11M	ER11M
ER16M	ER16M
ER20M	ER20M

ER (A / Hex) – Spanners



Model of Spanners	Type of nuts
ER8A	ER8A
ER11A	ER11A
ER16A	ER16A
ER20A	ER20A

C – Spanners For Keyless Chucks



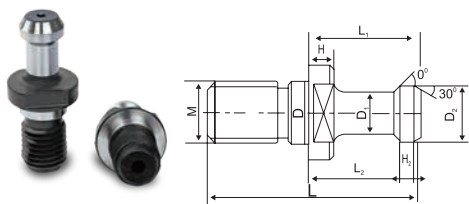
Model of Spanners	Type of Chuck
C-ER25	1/2" Light
C-ER32	1/2" Heavy
C-ER40	5/8", 3/4", Heavy
APU-13	APU-13

ER (UM) – Spanners



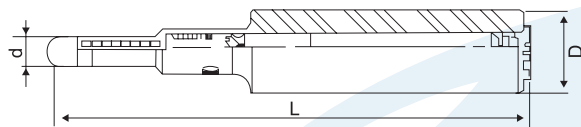
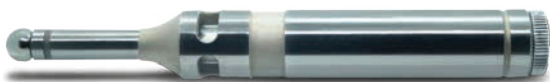
Model of Spanners	Type of nuts
ER25	ER25UM
ER32	ER32UM
ER40	ER40UM

Pull Studs – Regular / Through Coolant



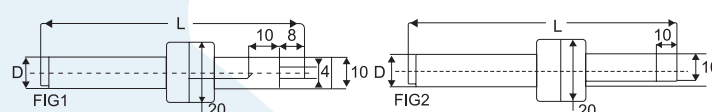
MODEL	L	L1	L2	D	D1	D2	H	H1	M	θ
BT30 (°)	43	23	18	12.5	7	11	5	2.5	M12	45 60 90
BT40 (°)	60	35	28	17	100	15	6	3	M16	45 60 90
BT50 (°)	85	45	35	25	17	23	10	5	M24	45 60 90

Edge Finders with Sound & Light



MODEL	D(mm)	L(mm)	D1(mm)	Wt.
ES-20	20	160	10	0.28

Mechanical Edge Finders (Steel/Ceramic)



MODEL	D(mm)	L1
4MM	4	90
10MM	10	83

Z – Axis Scale Zero Setters with Magnetic base



MODEL	Gross Attitude
DIAL TYPE (0.01MM)	50MM
DIGITAL (0.001 MM) IP 65 SERIES	50MM

3D-Taster / 3D Edge Fider



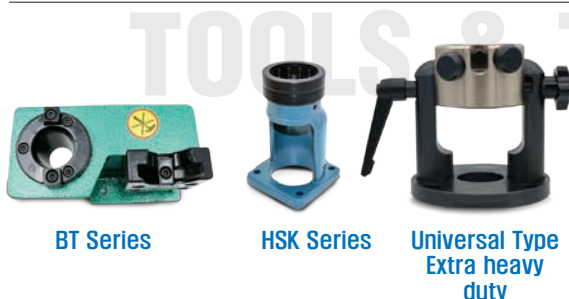
AXIS	SHANK DIA	ACCURACY	STYLUS
X, Y, Z	20 MM	0.01MM	33MM L X 4 MM DIA

Key Type Drill Chuck



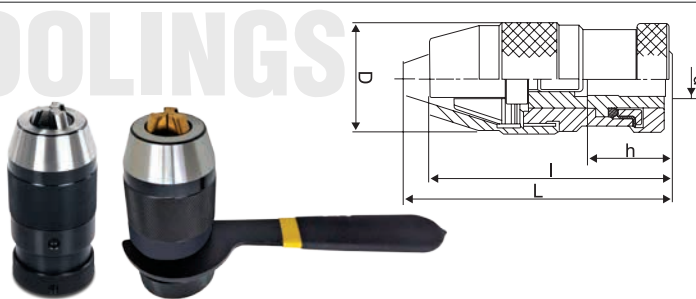
Size	Range	Taper
1/2" (13MM)	1-13MM	JT-6
3/4" (20MM)	3-20MM	JT-3

Tool Holder Devices



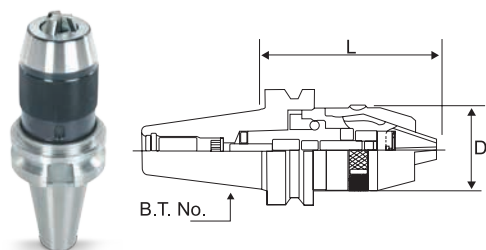
MODEL
BT-30 / 40 / 50
HSK - 50 / 63 / 100
UNIVERSAL TYPE (BT, SK, CAT, NT - 40, HSK 63)

Keyless Drill Chuck



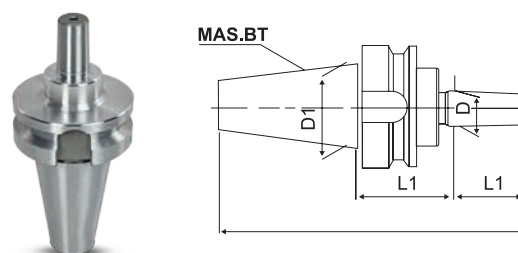
Model	Capacity	Taper	d	h	D	L	l
1/4" / 6MM	0.5-6MM	JT1	10	14.5	35	67	61
3/8" / 10MM	1-10MM	JT2	12	18.5	42	86	78
1/2" / 13MM LIGHT	1-13MM	JT6	17.17	21	44	86	76
1/2" / 13MM HEAVY	1-13MM	JT6	17.17	24	48	97	88
5/8" / 16MM	3-16MM	JT3	20.599	24	52	108	98
3/4" / 20MM	3-20MM	JT3	20.599	30.5	62	128	118

Integrated Keyless Drill Chuck



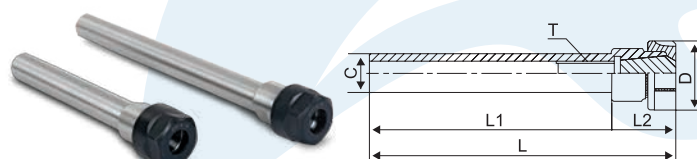
MODEL	Clamping range	D	L	
			Min	Max
BT30 - APU13	1-13MM	51.5	94	105
BT40 - APU13	1-13MM	51.5	98	109
BT40 - APU16	1-16MM	58	115	130
BT50 - APU13	1-13MM	51.5	98	109
BT50 - APU16	1-16MM	58	115	130

BT Drill Chuck Adaptor



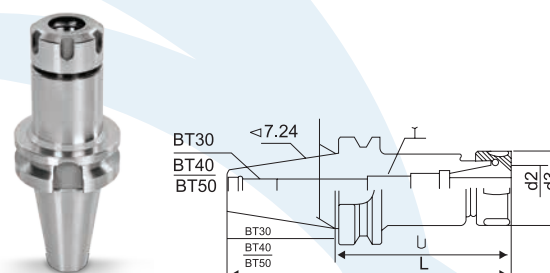
MODEL	L2	L	D	D1	M
BT40-JT6	22.225	132.6	14.199	44.45	M16

Cylindrical Collet Adaptor



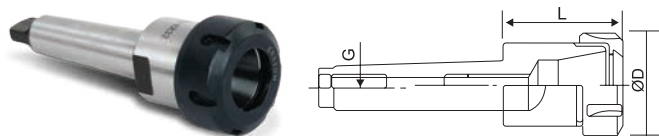
MODEL	L1	C	D
C10 - ER8 A/M - 100	100	10	12
C10 - ER11 A/M - 100	100	10	19/16
C12 - ER11 A/M - 100	100	12	19/16
C12 - ER16 A/M - 100	100	12	28/22
C16 - ER11 A/M - 100	100	16	19/16
C16 - ER16 A/M - 70/100/150	70/100/150	16	28/22
C20 - ER16 A - 70/100/150	70/100/150	20	28
C20 - ER20 A/M - 70/100/150	70/100/150	20	34/28
C20 - ER25UM - 70/100	100	20	42
C20 - ER32UM - 70/100	100	20	50
C25 - ER20 A - 70/100	100	25	34
C25 - ER25UM - 70/100/150	70/100/150	25	42
C25 - ER32UM - 100	100	25	50
C32 - ER16 A - 100	100	32	28
C32 - ER20 A - 100	100	32	28
C32 - ER25UM - 100	100	32	42
C32 - ER32UM - 70/100/150	70/100/150	32	50
C40 - ER16A - 100	100		28
C40 - ER20 A - 100	100		34
C40 - ER25UM - 100	100		42
C40 - ER32UM - 100	100	40	50
C40 - ER40UM - 100/150	100/150	40	63

BT Series ER Collet Adaptor



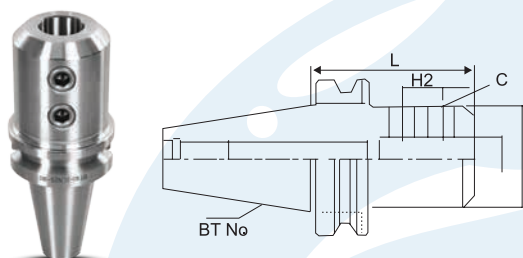
MODEL	L1	D3	D1
BT30 - ER11A - 70/100	70/100	19	31.75
BT30 - ER16A - 70/100	70/100	28	31.75
BT30 - ER20A - 70/100	70/100	34	31.75
BT30 - ER25UM - 70/100	70/100	42	31.75
BT30 - ER32UM - 70/100	70/100	50	31.75
BT30 - ER40 - 80/100	80/100	63	31.75
BT40 - ER11A - 70/100	70/100	19	44.45
BT40 - ER16A - 70/100/150	70/100/150	28	44.25
BT40 - ER20A - 70/100/150	70/100/150	34	44.45
BT40 - ER25UM - 70/100/150/200	70/100/150/200	42	44.45
BT40 - ER32UM - 70/100/150/200	70/100/150/200	50	44.45
BT40 - ER40UM - 80/100/150/200	80/100/150/200	63	44.45
BT50 - ER25UM - 100/150/200	100/150/200	42	69.85
BT50 - ER32UM - 100/150/200	100/150/200	50	69.85
BT50 - ER40UM - 100/150/200	100/150/200	63	69.85
BT50 - ER50UM - 100/150/200	100/150/200	73	80

MT Series (TANG/Draw Bolt Type) – ER Collet Holder



SHANK	ER16	ER20	ER25	ER32	ER40
MT-2	✓	✓	✓		
MT-3	✓	✓	✓	✓	✓
MT-4				✓	✓
MT-5					✓

BT – Side Lock Adaptor



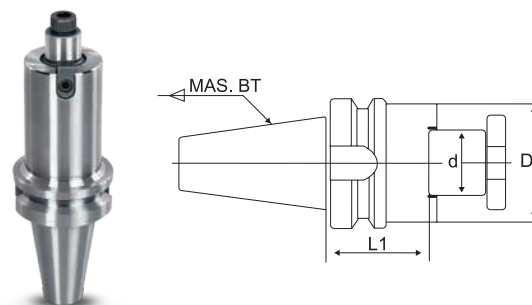
Model	L	C
BT30- SLA 16	65	50
BT30-SLA 20	70	52
BT30-SLA 25	90	65
BT40-SLA-10	60	45
BT40-SLA-12	65	45
BT40 - SLA16	65	50
BT40- SLA 20	70	52
BT40 - SLA 22	90	52
BT40 - SLA 25	90	65
BT40- SLA 32	100	72
BT40 - SLA 40	110	90
BT50 - SLA 16	65	50
BT50 - SLA 20	70	52
BT50 - SLA 25	100	65
BT50 - SLA 32	105	72
BT50 - SLA 40	110	90
BT50-SLA 50	120	100

BT Power Milling Chucks



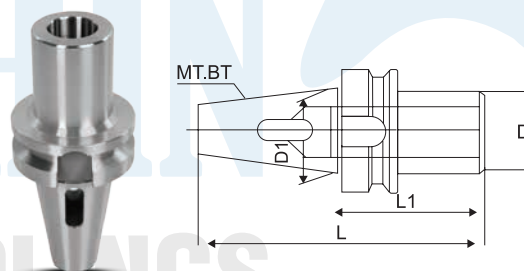
Model	L	L1
BT30 C-20-90L	110	90
BT40 C-20-90L	120	90
BT40 C-32-100L	135	100
BT50 C-32-110L	135	110

BT – Face / Shell Mill Adaptor



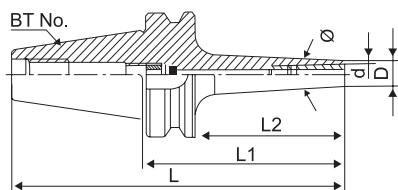
MODEL	L1	D	d
BT30-FMB22-45	45	50	22
BT30-FMB27-45	45	60	27
BT30-FMB32-60	60	78	32
BT40 - FMB16 - 60/100/150	60/ 100/150	34	16
BT40 - FMB22-60/ 100/ 150/ 200/ 250/ 300	60/ 100/150/ 200/ 250/300	48	22
BT40 - FMB27-60/ 100/150/ 200/ 250/ 300	60/ 100/ 150/ 200/ 250/300	60	27
BT40 - FMB32 - 60/100 /150	60/100/150	78	32
BT40 - FMB40 - 60/100	60/100	89	40
BT50 - FMB22 - 100/ 150/ 200/ 250/ 300/ 400	100/ 150/200/ 250/ 300/ 400	50	22
BT50 - FMB27 - 100/150/ 200/ 250/ 300	100/ 150/200/ 250/ 300	60	27
BT50 - FMB32 - 100/150	100/150	78	32
BT50 - FMB40 - 100/150	100/150	98	40
BT50- FMB60 -75	75	-	-

BT – MT (Reduction Socket) Adaptor



MODEL	L	D	D1
BT30-MT1-50	95	25	25
BT30-MT2-60	108.4	32	31.75
BT30-MT3-70	128.4	40	31.75
BT40-MT1- 50	110.4	25	25
BT40 - MT2-60	125.4	32	44.45
BT40-MT3-70	135.4	40	44.45
BT40-MT4-90	155.4	48	44.45
BT50-MT2-45	146.8	25	69.85
BT50-MT3-65	166.8	40	69.85
BT50-MT4-85	186.8	48	69.85
BT50-MT5-105	210	64	70

BT – SDC Adaptor



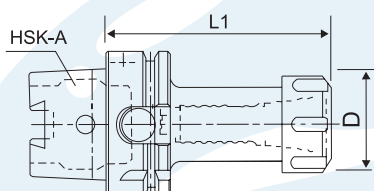
Model	L	L1	L2	θ	D	d
BT40-SDC06-120	165.4	120	73	6°	14	3-6
BT40-SDC08-120	165.4	120	73	6°	22	3-8
BT40-SDC12-120	165.4	120	73	-	34	3-12

SDC Cylindrical Adaptor



Model	D	L
C 16 - SDC 6 - 150 L	16	150
C 20 - SDC 6 - 200 L	20	200
C 16 - SDC 8 - 150 L	16	150
C 20 - SDC 8 - 200 L	20	200

HSK Series Adaptor



Model	D	L1
HSK 63A - ER25	42	80
HSK 63A - ER32	50	100
HSK 63A - ER40	63	100
HSK 63A - FMB22	48	50
HSK 63A - FMB27	58	60
HSK 63A - SLA25	90	65
HSK 63A - SLA32	100	72

R-8 (M1 TR) Adaptors



R-8 (M1 TR)
COLLETS



ER SERIES
ADAPTORS



FACE MILL
ADAPTORS



DRILL CHUCK
ADAPTORS

Model	
THREAD PITCH : 12 X 1.5 / M 12 / 7/16 UNF	
R-8 (M1 TR) COLLETS	3MM -20 MM
ER SERIES ADAPTORS	ER 16, ER20, ER25, ER32, ER40
FACE MILL ADAPTORS	22, 27, 32, 40
DRILL CHUCK ADAPTORS	JT-6

ISO (NT) Series Adaptors



INTEGRATED KEYLESS
ADAPTOR



ER SERIES
ADAPTORS



FACE MILL
ADAPTORS



JT-6
ADAPTOR



MT REDUCTION
ADAPTORS



SIDE LOCK
ADAPTORS

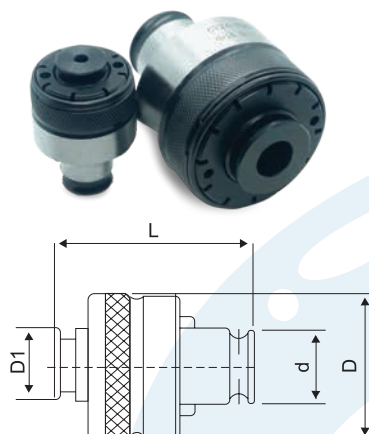
Model	
ISO (NT) 30 / 40 /50	
ER SERIES ADAPTORS	ER 16, ER20, ER25, ER32, ER40
FACE MILL ADAPTORS	22, 27, 32, 40
MT REDUCTION ADAPTORS	MT-1, 2, 3
SIDE LOCK ADAPTORS	SLA- 20, 25, 32, 40
INTEGRATED KEYLESS ADAPTOR	APU-13 / 16
JT-6 ADAPTOR	JT-6

BBT-40 Adapters (High precesion 25,000 RPM G 2.5 balanced)



MODEL	Type
BBT40	ER-16/20/25/32/40
BBT40	FMB-22/27/32
BBT40	SLA-25/32

Tapping Collets, with Auto Clutch



MODEL	SIZE	ISO SERIES		DIN	
		SHANK	SQAURE	SHANK	SQAURE
GT12: (d=19, D=38, L=54) GT24: (d=30, D=58, L=79.5) Range 3-16 mm Range 5-30 mm	M3	3.15	2.5	3.5	2.5
	M4	4	3	4.5	3.4
	M5	5	4	6	4.9
	M6	6.3	5	6	4.9
	M8	8	6.3	8	6.3
	M10	10	8	10	8
	M12	9	7.1		
	M14	11.2	9		
	M16	12.5	10		
	M18	14	11.2		
	M20	14	11.2		
	M22	16	12.5		
	M24	18	14		
	M27	20	16		
	M30	20	16		

Tapping Collets, Reducer Tapping collet Spanners

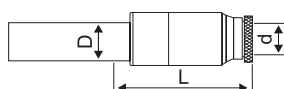


MODEL
GT24 to GT 12



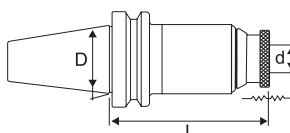
MODEL
GT-12 / GT-24

Quick Change Tapping Adaptor: Cylindrical



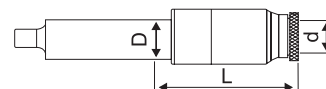
MODEL	Range	D	d	L
Q25-GT12	M3-M16	ø 25	ø 19	110
Q32-GT12	M3-M16	ø 32	ø 19	110
Q40-GT12	M3-M16	ø 40	ø 19	110
Q40-GT24	M5-M30	ø 40	ø 30	130

Quick Change Tapping Adaptor: BT Series



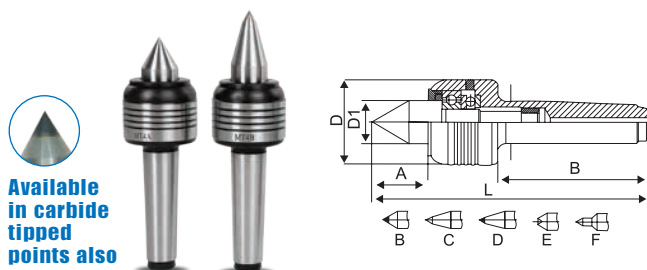
MODEL	Range	D	d	L
BT 30 GT12	M3-M16	31.75	19	110
BT40-GT12	M3-M16	44.45	19	110
BT40-GT24	M5-M30	44.45	30	130
BT50-GT12	M3-M16	69.85	19	110
BT50-GT24	M5-M30	69.85	30	130

Quick Change Tapping Adaptor: MT Series



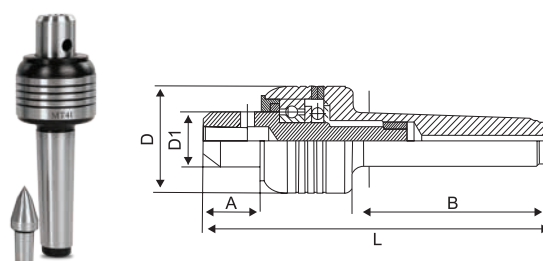
MODEL	Range	D	d	L
MT2-GT12	M3-M16	ø17.780	ø 19	110
MT3-GT12	M3-M16	ø23.825	ø 19	110
MT3-GT24	M5-M30	ø23.825	ø 30	130
MT4-GT24	M5-M30	ø31.267	ø 30	130

CNC Live Centers (Stub or extended point)



Model	A	B	D	D1	L	Max load	Max Speed	Accuracy
MT2	28	65	46	24	140	100	3500	0.01
MT3	38	81	59	28	170	250	3000	0.015
MT4	45	102	64	31	198	400	2500	0.015
MT5	52	130	78	44	245	700	2000	0.02

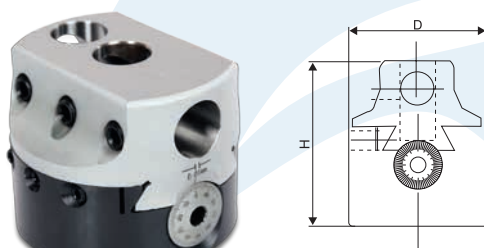
CNC Interchangeable Points Live Centers



Model	A	B	D	D1	L	Max load	Max Speed	Accuracy
MT2	27	65	46	24	140	100	3500	0.01
MT3	32	81	59	28	170	250	3000	0.015
MT4	34.5	102	64	31	198	400	2500	0.015
MT5	44	130	78	44	245	700	2000	0.02

Supplied with one Spare Point + One Drift

F1 Rough Boring Heads



MODEL	D	H	MAX OFFSET	BORING BARDIA	MIN RADUATION	DIAL OF BORING
F1-12mm	50MM	63	16mm	12mm	0.01mm	10-125mm
F1-18	75MM	80	25mm	18mm	0.01mm	12-225mm
F1-25mm	100MM	88	41mm	25mm	0.01mm	15-630mm

F1 Rough Boring Heads Shanks



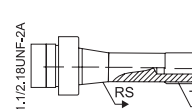
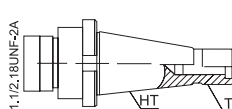
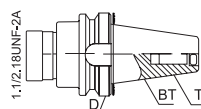
BT-30 / BT-40 / BT-50



ISO-30 / ISO-40



R8 (MNTR)



MODEL	T	L	THREAD
BT30 / BT40 / BT50	M16 - 2.0P	102	1.1/2"X18
NT (ISO)30	M12 - 1.75P	102	1.1/2"X18
NT (ISO) 40	M16 - 2.0P	135	1.1/2"X18
R8	M12 / 12 X 1.5/ 7/16 - 20UNF	132.5	1.1/2"X18

Fine Boring Head Set BT40-Range 8-280mm (0.01mm)

Spare Shank for Fine Boring Head: BT 50 Taper



Model	Boring Range	Min Graduation	Max Offset	Weight
NBH2084	8-280MM	0.01MM /	28.0MM	3.0

Boring Cutter	Boring Range	DM	Insert	Bolt	Wrench	Weight
BJ2208-32	8 - 11	32	TBGT060102L	SB-1STR-M2	T6	0.095
BJ2010-40	10 - 13	40				0.095
BJ2012-53	12 - 17	53	TBGH090202L	SB-2STR-M2.5	T8	0.12
BJ2016-68	16 - 21	68				0.16
BJ2020-83	20 - 130	83	TPGH110302L	SB-3STR-M3	T8	0.22
BJ2025-96	25 - 135	96				0.34
BJ2030-115	30 - 140	115				0.54
BJ20-20	120 - 280	84 + BT bar				0.23

Fine Boring Head Set BT40- Range 8-204mm (0.005mm)



BORING CUTTER	BORING RANGE	DM	INSERT	SCREW	WRENCH
SBJ 1608	8-38.	32	TBGH 0601 L	M2	T-6
SBJ 1612	12-42.	53	TBGH0902 L	M2.5	T-8
SBJ 1620	20-50.	83	TBGH1103 L	M3	T-10
SBJ 1645	45-75	90	TBGH1103 L	M3	T-10
NO.1	74-103	-	TBGH1103 L	M2	T-6
NO.2	99-128	-	TBGH1103 L	M2	T-6
NO.3	124-153	-	TBGH1103 L	M2	T-6
NO.4	147-176	-	TBGH1103 L	M2	T-6
NO.5	172-203	-	TBGH1103 L	M2	T-6

Model	Accuracy	Boring Range	Adjustment Precision	Adjust the Stroke
NBH2084S	≤ 0.005MM	Ø 8- Ø 280MM	Ø 0.005MM	Ø 30.00MM

Spare Shank for Fine Boring Head: BT 50 Taper



Clamping Kits



Model	Table Slot	Stud Sizes
M10	12	10-1.5P
M12	14	12-1.75P
M14	16	14-2.0P
M16	18	16-2.0P

Kit Includes
24 PC: STUDS
6 PC :T-NUTS
4 PC : COUPLING NUTS
6 PC : FLANGE NUTS
6 PC : STEP CLAMPS
12PC : STEP BLOCKS

CNC Tooling Trolleys



Spare Cups

MODEL	
BT40 / BT50 / HSK63	35 SLOTS

Lock Down Machine Vices



Jaw Width	Max Open	Jaw Height	Weight
6"	160MM	45	34KG
6"	200MM	50	46KG
6" Swivel Base	160MM	45	37KG
6" Swivel Base	200MM	50	51KG

Hydraulic Vice



Jaw Width	Opening	H	Max Clamp Force	Weight
6"	200MM	48	4500 KGF	45KG
6"	300MM	52	4500 KGF	60 KG

Tool Holder Tray



Suitable to hold
Endmills / Drills /
Collets, etc.

Model	
62 holes	DIA : 6 - 42 MM

CNC Scrap Cleaner Fan



Works as a fan to dust off
burrs from the machine bed
within seconds

CNC SPINDLE CLEANER



CNC Spindle Cleaner	
BT 30 / BT 40 / BT 50	HSK 63 / HSK 100

Solid Carbide Endmill

4/2 Flat, Ball, Corner Radius



DIA	FL	OAL	SHANK
1	3	50	3 / 4
1.5	3	50	3 / 4
2	4	50	3 / 4
2.5	4	50	3 / 4
3	10	50	3 / 4
3.5	14	50	4
4	14	50	4
4.5	16	50	5
5	16	50	5
5.5	19	50	6
6	19	50	6
7	20	63	8
8	20	63	8

Available in inches too

DIA	FL	OAL	SHANK
9	25	70	10
10	25	70	10
11	25	75	12
12	25	75	12
13	30	90	14
14	30	90	14
15	32	90	16
16	32	90	16
18	32	90	18
20	40	100	20
22	40	100	22
25	40	100	25

Solid Carbide Long Endmill



DIA	FL	OAL	SHANK
3	25	75	3
3	40	100	3
4	25	75	4
4	40	100	4
5	25	75	5
5	40	100	5
6	25	75	6
6	40	100	6
6	75	150	6

DIA	FL	OAL	SHANK
8	40	100	8
8	75	150	8
8	75	200	8
10	40	100	10
10	75	150	10
10	75	200	10
12	40	100	12
12	75	150	12
12	75	200	12
16	75	150	16
16	75	200	16
20	75	150	20
20	75	200	20
25	75	150	25

Solid Carbide Endmill: Flat / Ball High Performance for 50-55 HRC Hardness Material



DIA	FL	OAL	SHANK
1	3	50	4
1.5	4	50	4
2	6	50	4
2.5	6	50	4
3	10	50	4
4	14	50	4
5	16	50	5
6	19	50	6
6	40	100	6
8	20	63	8
8	40	100	8
10	25	70	10
10	40	100	10
12	25	75	12
12	40	100	12

Solid Carbide Endmill: 3 Fluted High Heilx (For Alluminium)



DIA	FLUTE	TOTAL	SHANK
3	10	50	3
4	14	50	4
5	16	50	5
6	19	50	6
8	20	63	8
10	25	70	10
12	25	75	12

Solid Carbide Roughing Endmill:



DIA	FLUTE	TOTAL	SHANK
6	15	50	6
8	20	60	8
10	25	75	10
12	30	75	12
16	45	100	16

Solid Carbide Reamer



DIA	FL	OAL
3	25	60
4	25	60
5	25	60
6	25	60
7	30	75
8	30	75
10	30	75
12	30	75

Solid Carbide Centre Drill



PILOT DIA	BODY DIA	TOTAL L
1.25	3	35
1.6	4	50
2	5	50
2.5	6.3	60
3.15	8	60
4	10	65
5	12.5	70

Solid Carbide 2 Fluted Ball Nose Uncoated Endmill



DIA	FL	OAL
4	20	50
5	20	50
6	20	50
8	25	60

Solid Carbide Single Fluted Endmill



DIA	FL	OAL
3	6	38
4	12	50
5	14	50
6	16	50
8	20	60

Solid Carbide Drills



DIA	FL	OAL
0.8	12	34
0.9	12	34
1	12	34
1.1	18	40
1.2	18	40
1.3	18	40
1.4	18	40
1.5	18	40
1.6	18	40
1.8	18	40
2	24	49
2.1	30	57
2.2	30	57
2.3	30	57
2.4	30	57
2.5	30	57
2.6	35	65
2.7	35	65
2.8	35	65
2.9	35	65
3	35	65
3.1	35	65
3.2	35	65
3.3	35	65
3.4	35	65
3.5	35	65
3.6	35	65
3.7	35	65
3.8	35	65
4.0	35	65
4.1	40	75
4.2	40	75

DIA	FL	OAL
4.3	40	75
4.4	40	75
4.5	40	75
4.6	40	75
4.7	40	75
4.8	40	75
4.9	40	75
5.0	40	75
5.1	40	75
5.2	40	75
5.3	40	75
5.4	40	75
5.5	40	75
5.6	40	75
5.7	40	75
5.8	40	75
5.9	40	75
6.0	40	75
6.1	60	100
6.2	60	100
6.3	60	100
6.4	60	100
6.5	60	100
6.6	60	100
6.7	60	100
6.8	60	100
6.9	60	100
7	60	100
7.1	60	100
7.2	60	100
7.3	60	100
7.4	60	100

DIA	FL	OAL
7.5	60	100
7.6	60	100
7.7	60	100
7.8	60	100
7.9	60	100
8	60	110
8.1	60	110
8.2	60	110
8.3	60	110
8.4	60	110
8.5	60	110
8.6	60	110
8.7	60	110
8.8	60	110
8.9	60	110
9	60	110
9.5	60	110
10	65	110
10.2	65	110
10.5	65	110
10.8	65	110
11	65	110
11.5	65	110
12	65	110
12.5	60	110
13	60	110
14	60	110
15	60	110
16	60	110
18	60	110
20	60	110

U Drills (Dx3 and Dx4)

Dimension in (mm)



Cat No.	U DRILLS (D x 2) Size			U DRILLS (D x 3) Size		U DRILLS (D x 4) Size		Insert	Clamp Screw	Wrench
	D	L	d	L	d	L	d			
SP 10 - C20	10	20	20.0	30	20.0	-	-	SPMT 04 02 04	M2.2	T6
SP 10.5 - C20	10.5	21		31.5						
SP 11.0 - C20	11	22		33						
SP 11.5 - C20	11.5	23		34.5						
SP 12.5 - C20	12.5	25.0		37.5		20.0				
SP 13.0 - C20	13.0	26.0	39.0	50.0						
SP 13.5 - C20	13.5	27.0	40.5	52.0						
SP 14.0 - C25	14.0	28.0	25.0	42.0	25.0	56.0	25.0	SPMG 05 02 04	M2.5 x 5.5	T6
SP 14.5 - C25	14.5	29.0		43.5		58.0				
SP 15.0 - C25	15.0	30.0		45.0		60.0				
SP 15.5 - C25	15.5	31.0		46.5		62.0				
SP 16.0 - C25	16.0	32.0		48.0		64.0				
SP 16.5 - C25	16.5	33.0		49.5		66.0				
SP 17.0 - C25	17.0	34.0		51.0		68.0				
SP 17.5 - C25	17.5	35.0		52.5		70.0				
SP 18.0 - C25	18.0	36.0		54.0		72.0				
SP 18.5 - C25	18.5	37.0		55.5		74.0				
SP 19.0 - C25	19.0	38.0	25.0	57.0	25.0	76.0	25.0	SPMG 06 02 04	M2.5 X 5.5	T7
SP 19.5 - C25	19.5	39.0		58.5		78.0				
SP 20.0 - C25	20.0	40.0		60.0		80.0				
SP 20.5 - C25	20.5	41.0		61.5		82.0				
SP 21.0 - C32	21.0	42.0		63.0		84.0				
SP 21.5 - C25	21.5	43.0		64.5		86.0				
SP 22.0 - C25	22.0	44.0		66.0		88.0				
SP 22.5 - C25	22.5	45.0		67.5		90.0				
SP 23.0 - C25	23.0	46.0		69.0		92.0				
SP 23.5 - C25	23.5	47.0		70.5		94.0				
SP 24.0 - C25	24.0	48.0	25.0	72.0	25.0	96.0	25.0	SPMG 07 T3 08	M2.5 X 8.0	T8
SP 24.5 - C25	24.5	49.0		73.5		98.0				
SP 25.0 - C32	25.0	50.0		75.0		100.0				
SP 25.5 - C32	25.5	51.0		76.5		102.0				
SP 26.0 - C32	26.0	52.0		78.0		104.0				
SP 26.5 - C32	26.5	53.0		79.5		106.0				
SP 27.0 - C32	27.0	54.0		81.0		108.0				
SP 27.5 - C32	27.5	55.0		82.5		110.0				
SP 28.0 - C32	28.0	56.0		84.0		112.0				
SP 28.5 - C32	28.5	57.0		85.5		114.0				
SP 29.0 - C32	29.0	58.0	32.0	87.0	32.0	116.0	32.0	SPMG 09 04 08	M3.5 x 9.0	T15
SP 29.5 - C32	29.5	59.0		88.5		118.0				
SP 30.0 - C32	30.0	60.0		90.0		120.0				
SP 30.5 - C32	30.5			91.5		122.0				
SP 31.0 - C32	31.0			93.0		124.0				
SP 31.5 - C32	31.5	32.0		94.5		126.0				
SP 32.0 - C32	32.0			96.0		128.0				
SP 32.5 - C32	32.5			97.5		130.0				
SP 33.0 - C32	33.0			99.0		132.0				
SP 33.5 - C32	33.5			100.5		134.0				
SP 34.0 - C32	34.0		40.0	102.0	40.0	136.0	40.0	SPMG 11 04 08	M4.0 x 10.0	T15
SP 35.0 - C32	35.0			105.0		140.0				
SP 36.0 - C32	36.0			108.0		144.0				
SP 37.0 - C32	37.0			111.0		148.0				
SP 38.0 - C32	38.0			114.0		152.0				
SP 39.0 - C32	39.0			117.0		156.0				
SP 40.0 - C32	40.0			120.0		160.0				
SP 41.0 - C32	41.0			123.0		164.0				
SP 42.0 - C32	42.0			126.0		168.0				
SP 43.0 - C40	43.0			40.0		129.0		40.0	172.0	40.0
SP 44.0 - C40	44.0		132.0		176.0					
SP 45.0 - C40	45.0		135.0		180.0					
SP 46.0 - C40	46.0		138.0		184.0					
SP 47.0 - C40	47.0		141.0		188.0					
SP 48.0 - C40	48.0		144.0		192.0					
SP 49.0 - C40	49.0		147.0		196.0					
SP 50.0 - C40	50.0		150.0		200.0					

Indexable Face Mill Cutters



RPMT Radius



APMT 90°

DIA	BORE	Z	INSERT		KEY	SCREW
			APMT	RPMT		
50	22	4	1604	1204	T-15	M 4 X 10
52	22	4	-	1204	T-15	M 4 X 10
63	22	5	1604	1204	T-15	M 4 X 10
80	27	6	1604	1204	T-15	M 4 X 10
100	32	6	1604	1204	T-15	M 4 X 10
125	40	6	1604	1204	T-15	M 4 X 10
160	40	9	1604	1204	T-15	M 4 X 10
200	60	12	1604	1204	T-15	M 4 X 10
250	60	12	1604	1204	T-15	M 4 X 10

Indexable Counter Sink Tool 90°



RANGE	SHANK DIA	Z	INSERT
8-25MM	20MM	1	TCMT16
20-40 MM	20MM	2	TCMT16

Indexable Facemill 3/4" △ TPKN



DIA	BORE	Z
63	22	4
80	27	5
100	32	5
125	40	6
160	40	7
200	60	9

Indexable Endmill R-390

DIA	LENGTH	BORE
50MM	-	22
16MM	150MM	-
20MM	150MM	-
25MM	150MM	-

Indexable Endmill JDMT-1003

DIA	LENGTH
16MM	150MM
20MM	150MM
25MM	200MM

Indexable End Mill Cutters



RPMT Radius



APMT 90°

DIA	LENGTH	SHANK	Z	INSERT				KEY
				APMT	SCREW	RPMT	SCREW	
10	120	10	1	1135	M-2.5X6	-	-	T-8
12	130	12	1	1135	M-2.5X6	0802	M-3X8	T-8
16	150	16	2	1135	M-2.5X6	0802	M-3X8	T-8
16	200	16	2	1135	M-2.5X6	0802	M-3X8	T-8
20	150	20	2	1135	M-2.5X6	0802	M-3X8	T-8
20	200	20	2	1135	M-2.5X6	0802	M-3X8	T-8
25	150	25	2	1604	M-4X10	1003	M-3.5X8	T-15
25	200	25	2	1604	M-4X10	1003	M-3.5X8	T-15
25	250	25	2	1604	M-4X10	1003	M-3.5X8	T-15
32	250	32	2	1604	M-4X10	1204	M-4X10	T-15
32	300	32	2	1604	M-4X10	1204	M-4X10	T-15
40	250	40	3	1604	M-4X10	1204	M-4X10	T-15
40	300	40	3	1604	M-4X10	1204	M-4X10	T-15

HSS Endmill Cutter (M2 / M42)

2/4/6 Fluted Flat and Ball Nose

M-2 TIN Coated with centre cut



M-42 Cobalt with centre cut

Dimension in (mm)

DIA	SHANK DIA	CUTTING LENGTH	TOTAL LENGTH
2	4	7	52
2.5	4	7	52
3	4	8	52
4	4	8	52
5	5	13	57
6	6	13	57
7	8	19	63
8	8	19	63
9	10	22	72
10	10	22	72
11	12	26	83
12	12	26	83
13	12	26	83
14	12	26	83
15	12	26	83
16	16	32	92
17	16	32	92
18	16	32	92
19	16	32	92
20	20	38	104
21	20	38	104
22	20	38	104
23	20	38	104
24	20	45	121
25	25	45	121

Available in Long and Extra Long Series

Dimension in (inch)

DIA	SHANK DIA	CUTTING LENGTH	TOTAL LENGTH
1/8"	1/4"	5/16"	2"
5/32"	1/4"	3/8"	2"
3/16"	1/4"	1/2"	2.1/4"
7/32"	1/4"	1/2"	2.1/4"
1/4"	1/4"	1/2"	2.1/4"
5/16"	3/8"	3/4"	2.1/2"
7/16"	1/2"	1"	3.1/4"
1/2"	1/2"	1"	3.1/4"
5/8"	5/8"	1.1/4"	3.1/4"
3/4"	5/8"	1.1/2"	3.1/2"
1"	3/4"	1.3/4"	3.3/4"

HSS Centre Drill (M2 / M35)

A Type

R Type



Dimension in (inch)

SIZE	PILOT DIA	BODY DIA	STANDARD LENGTH	Long Series	EXTRA LONG SERIES
BS-1	3/64"	1/8"	1.1/2"	100MM	
BS-2	1/16"	3/16"	1.3/4"	100MM	
BS-3	3/32"	1/4"	2"	100MM	
BS-4	1/8"	5/16"	2.1/4"	100MM	150MM
BS-5	3/16"	7/16"	2.1/2"	100MM	150MM
BS-6	1/4"	5/8"	3"	100MM	150MM

Dimension in (mm)

SIZE	PILOT DIA	BODY DIA	STANDARD LENGTH	Long Series	EXTRA LONG SERIES
2X5	2	5	42	100MM	
2.5X6.3	2.5	6.3	47	100MM	
3.15X8	3.15	8	52	100MM	
4X10	4	10	59	100MM	150MM
5X12.5	5	12.5	66	100MM	150MM
4X14B	4	14	70		

HSS Single Fluted Endmill: M-42 Cobalt



Dimension in (inch)

DIA	FLUTE	TOTAL LENGTH	SHANK
6	20	64	6
6	25	100	6
8	20	76	8
8	25	100	8
10	25	76	10
10	35	100	10

Tap Drill Combined (1/4" Hex Shank)



DIA

M3

M4

M5

M6

M8

M10

Hand & Short Machine Taps: HSS and Carbide

Hand Taps-
METRIC/INCHES:
Coarse and
fine pitch



Spiral Point (SPPT):
M2/HSS-CO



Spiral Fluted-HSS-CO:
METRIC/UNC/UNF/BSP/NPT



Roll Form Taps
(For Aluminium)



Solid Carbide Taps



HSS E Cobalt High Performance Drills

Jobber Series (HSS E)

Ground Finish (IS: 5101/DIN : 338)



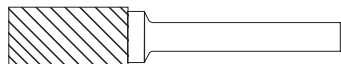
Dia in mm	Flute Length	Overall Length	Dia in mm	Flute Length	Overall Length	Dia in mm	Flute Length	Overall Length
1	12	34	4.7	47	80	8.5	75	117
1.5	18	40	4.75 (3/16")	52	86	8.6	81	125
1.60 (1/16")	20	43	4.8	52	86	8.7	81	125
1.8	22	46	4.9	52	86	8.75 (11/32")	81	125
2.00 (5/64")	24	49	5	52	86	8.8	81	125
2.1	24	49	5.8	57	93	8.9	81	125
2.2	27	53	5.9	57	93	9	81	125
2.3	27	53	6.00 (15/64")	57	93	9.10 (23/64")	81	125
2.4	30	57	6.1	63	101	9.2	81	125
2.5	30	57	6.2	63	101	9.3	81	125
2.6	30	57	6.3	63	101	9.3	81	125
2.7	33	61	6.40 (1/4")	63	101	9.4	81	125
2.78 (7/64")	33	61	6.5	63	101	9.5	81	125
2.8	33	61	6.6	63	101	9.60 (3/8")	87	133
2.9	33	61	6.7	63	101	9.7	87	133
3	33	61	6.75 (17/64")	69	109	9.8	87	133
3.1	36	65	6.8	69	109	9.9	87	133
3.20 (1/8")	36	65	6.9	69	109	10.00 (25/64")	87	133
3.3	36	65	7	69	109	10.2	87	133
3.4	39	70	7.1	69	109	10.25 (13/32")	87	133
3.5	39	70	7.20 (9/32")	69	109	10.5	87	133
3.60 (9/64")	39	70	7.3	69	109	10.8	94	142
3.7	39	70	7.4	69	109	11	94	142
3.8	43	75	7.5	69	109	11.10 (7/16")	94	142
3.9	43	75	7.60 (19/64")	75	117	11.50 (29/64")	94	142
4.00 (5/32")	43	75	7.7	75	117	12	101	151
4.1	43	75	7.8	75	117	12.5	101	151
4.2	43	75	7.9	75	117	12.70 (1/2")	101	151
4.3	47	80	8.00 (5/16")	75	117	13	101	151
4.37 (11/64")	47	80	8.1	75	117			
4.4	47	80	8.2	75	117			
4.5	47	80	8.3	75	117			
4.6	47	80	8.40 (21/64")	75	117			

Tungsten Carbide Rotary Burrs



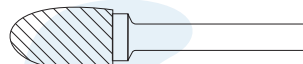
➤ Cross / Diamond Cut

Cylindrical



STANDARD CUT	CROSS/DIA-MOND CUT	HEAD DIA	EDGE LENGTH	SHANK DIA
C-1	C-1 D	4	14	6
C-2	C-2 D	6	15	6
C-3	C-3 D	8	19	6
C-4	C-4 D	10	20	6
C-5	C-5 D	12	20	6
C-6	C-6 D	16	25	6
MC-1		3	15	3

Tree Radius



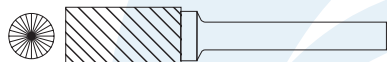
STANDARD CUT	CROSS/DIA-MOND CUT	HEAD DIA	EDGE LENGTH	SHANK DIA
TB-1	TB-1 D	6	15	6
TB-2	TB-2 D	10	20	6
TB-3	TB-3 D	12	25	6

Conical



STANDARD CUT	CROSS/DIA-MOND CUT	HEAD DIA	EDGE LENGTH	SHANK DIA
A-1	A-1 D	6	20	6
A-2	A-2 D	10	20	6
A-3	A-3 D	12	25	6
MA-1		3	10	3

Cylindrical End Cut



STANDARD CUT	CROSS/DIA-MOND CUT	HEAD DIA	EDGE LENGTH	SHANK DIA
CE-3	CE-3 D	8	19	6
CE-4	CE-4 D	10	20	6
CE-5	CE-5 D	12	20	6

Cone Shape Radius



STANDARD CUT	CROSS/DIA-MOND CUT	HEAD DIA	EDGE LENGTH	SHANK DIA
K-1	K-1 D	10	20	6
K-2	K-2 D	12	20	6
MK-1		3	10	3

Cylindrical Ball



STANDARD CUT	CROSS/DIA-MOND CUT	HEAD DIA	EDGE LENGTH	SHANK DIA
B-1	B-1 D	6	15	6
B-2	B-2 D	8	20	6
B-3	B-3 D	10	20	6
B-4	B-4 D	12	20	6
B-5	B-5 D	16	25	6
MB-1		3	15	3

Ball



STANDARD CUT	CROSS/DIA-MOND CUT	HEAD DIA	SHANK DIA
S-1	S-1 D	6	6
S-2	S-2 D	8	6
S-3	S-3 D	10	6
S-4	S-4 D	12	6

Tree Pointed



STANDARD CUT	CROSS/DIA-MOND CUT	HEAD DIA	EDGE LENGTH	SHANK DIA
T-1	T-1 D	6	20	6
T-2	T-2 D	10	20	6
T-3	T-3 D	12	25	6
T-4	T-4 D	16	30	6
MT-1		3	15	3

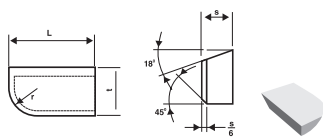
Flame



STANDARD CUT	CROSS/DIA-MOND CUT	HEAD DIA	EDGE LENGTH	SHANK DIA
F-4	F-4D	12	24	6

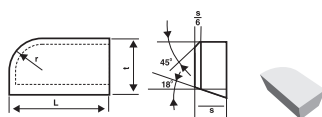
MCC BRAZED CARBIDE TIPS

A Type



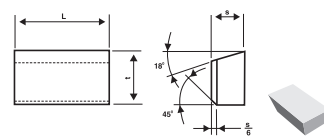
Type	L	t	s	r
A12	12	8	5	5
A16	16	10	6	6
A20	20	12	7	7
A25	25	14	8	8
A32	32	18	10	10

B Type



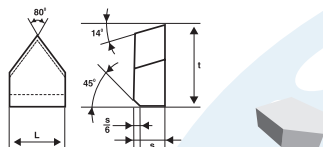
Type	L	t	s	r
B12	12	8	5	5
B16	16	10	6	6
B20	20	12	7	7
B25	25	14	8	8
B32	32	18	10	10

C Type



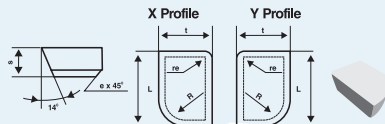
Type	L	t	s
C12	12	8	5
C16	16	10	6
C20	20	12	7
C25	25	14	8
C32	32	18	10

E Type



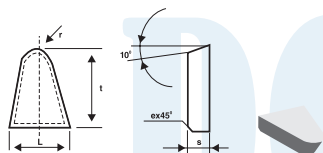
Type	L	t	s
E10	10	18	5
E12	12	20	6
E16	16	22	7
E20	20	25	8
E25	25	28	9

A4 Type



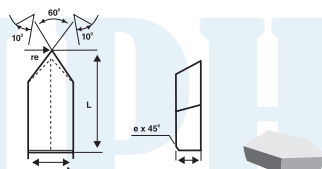
Type	L	t	s	R	e	re	Profile
A409	16	10	5.5	10	0.8	1	X
A410	16	10	5.5	10	0.8	1	Y
A411	20	12	7	12.5	0.8	1	X
A412	20	12	7	12.5	0.8	1	Y
A413	25	15	8.5	16	0.8	1	X
A414	25	15	8.5	16	0.8	1	Y

G Type



Type	L	t	s	r
G12	12	17	5	2.5
G16	16	20	6	3.5
G20	20	24	6	4.5
G25	25	28	8	6
G30	30	34	10	8

C1 Type



Type	L	t	s	re	e
C103	16	6	4	0.5	0.8
C105	20	8	5	0.5	0.8
C107	22	10	6	0.5	0.8
C109	25	12	7	0.8	0.8

Tolerance for the related dimension

[L, t, s, R, e, re]	mm
≤ 6	± 0.2
> 6 ~ 12	± 0.3
> 12 ~ 25	± 0.4
> 25 ~ 40	± 0.60
> 40 ~ 55	± 0.70
> 55	± 1.00

Tolerance for the flanks

dim	tol.	dim	tol.
≤ 6	0 -0.5	>14~18	0 -1
> 6~10	0 -0.6	>18~24	0 -1.2
> 10~14	0 -0.8	>24~30	0 -1.6

Tolerance for flatness

dim	tol.	dim	tol.
≤ 18	≤ 0.15	>30~45	≤ 0.25
>18~20	≤ 0.20	>45	≤ 0.40

Tolerance for angle

dim	tol.	dim	tol.
≤ 30°	± 1°	>30°	± 2°

Density g/cm²: 14.5 - 14.9 | Min. bending strength N/cm²: 2580 | Min. Hardness HEA: 89.5

Recognition Application: For semi-finishing of cast iron, non-ferrous metals and their alloys, and non-metallic materials at medium cutting speed.

Annular Core Cutter

One Touch Shank

HSS E Cobalt
Cutting Depth 50 mm

Carbide Tipped
Cutting Depth 50 mm

Adaptor
MT-3 (14-60 mm)

Conversion Shank
Weldon to One Touch



Counter Sink (3 Fluted) 90° Straight Shank



DIA	SHANK DIA	TOTAL LENGTH
8	6	50
10	6	50
12	8	56
16	10	60
20	10	65
25	10	70
31	12	70
40	16	80

HSS Counter Bore (Parallel Shank)



SIZE	PILOT DIA	CUTTER DIA	SHANK DIA	LENGTH
5	5.2	8.9	6	80
6	6.2	10.4	8	80
8	8.2	13.4	10	100
10	10.3	16.8	12	100
12	12.3	18.8	12	100

Shank Type Radius Cutter



RADIUS	DIA	SHANK DIA	TOTAL LENGTH
R-2	10	10	60
R-3	12	12	60
R-4	14	12	65
R-5	16	12	65
R-6	20	16	70
R-8	24	20	80
R-10	28	25	85

Step Drill



Straight / Spiral

SIZE
4-20MM
4-32MM

Authorised Distributor