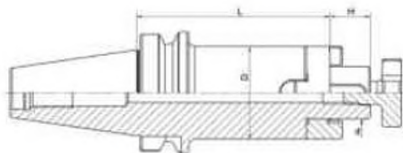




Taper and Flange Face Dual Contact System Advantages:

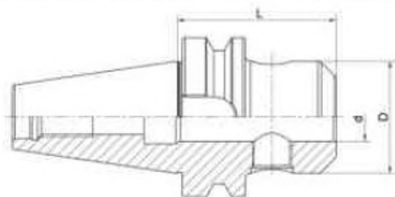
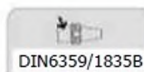
- * Improve tool holder stability when high speed working.
- * Improve workpiece surface finish.
- * Improve working dimension accuracy.
- * Improve ATC repeatability.
- * Improve the roundness when boring operation.
- * Extend cutting tool life.

Combi Shell Mill Holder



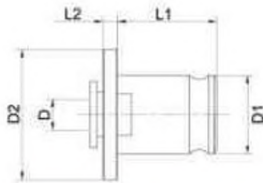
Size	d	D	H	L
BT50-SEMC16-70	16	32	17	70
BT50-SEMC22-70	22	40	19	70
BT50-SEMC27-70	27	48	21	70
BT50-SEMC32-70	32	58	24	70
BT50-SEMC40-70	40	70	27	70
BT50-SEMC16-100	16	32	17	100
BT50-SEMC22-100	22	40	19	100
BT50-SEMC27-100	27	48	21	100
BT50-SEMC32-100	32	58	24	100
BT50-SEMC40-100	40	70	27	100
BT50-SEMC16-160	16	32	17	160
BT50-SEMC22-160	22	40	19	160
BT50-SEMC27-160	27	48	21	160
BT50-SEMC32-160	32	58	24	160
BT50-SEMC40-160	40	70	27	160

End Mill Holder Weldon



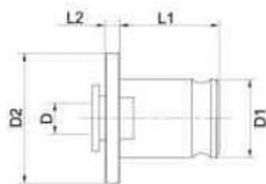
Size	d	D	L
BT40-SLA6-160	6	25	160
BT40-SLA8-160	8	28	160
BT40-SLA10-160	10	35	160
BT40-SLA12-160	12	42	160
BT40-SLA14-160	14	44	160
BT40-SLA16-160	16	48	160
BT40-SLA18-160	18	50	160
BT40-SLA20-160	20	52	160
BT40-SLA25-160	25	65	160
BT40-SLA32-160	32	72	160
BT40-SLA40-160	40	80	160
BT50-SLA6-63	6	25	63
BT50-SLA8-63	8	28	63
BT50-SLA10-63	10	35	63
BT50-SLA12-80	12	42	80
BT50-SLA14-80	14	44	80
BT50-SLA16-80	16	48	80
BT50-SLA18-80	18	50	80
BT50-SLA20-80	20	52	80
BT50-SLA25-100	25	65	100
BT50-SLA32-105	32	72	105
BT50-SLA40-110	40	80	110
BT50-SLA6-160	6	25	160
BT50-SLA8-160	8	28	160
BT50-SLA10-160	10	35	160
BT50-SLA12-160	12	42	160
BT50-SLA14-160	14	44	160
BT50-SLA16-160	16	48	160
BT50-SLA18-160	18	50	160
BT50-SLA20-160	20	52	160
BT50-SLA25-160	25	65	160
BT50-SLA32-160	32	72	160
BT50-SLA40-160	40	80	160

Tapping Collet without Clutch



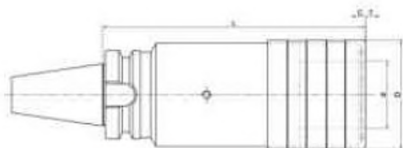
Size	Collet	M	D	□	D1	D2	L1	L2
FE1 M2(2.8x2.1)	FE 1	M2	2.8	2.1	19	30	21.5	7
FE1 M3(3.5x2.7)	FE 1	M3	3.5	2.7	19	30	21.5	7
FE1 M4(5x4)	FE 1	M4	5	4	19	30	21.5	7
FE1 M4(4.5x3.4)	FE 1	M4	4.5	3.4	19	30	21.5	7
FE1 M6(6x4.9)	FE 1	M6	6	4.9	19	30	21.5	7
FE1 M8(8x6.2)	FE 1	M8	8	6.2	19	30	21.5	7
FE1 M10(10x8)	FE 1	M10	10	8	19	30	21.5	7
FE1 M10(7x5.5)	FE 1	M10	7	5.5	19	30	21.5	7
FE1 M12(9x7)	FE 1	M12	9	7	19	30	21.5	7
FE2 M8(6x4.9)	FE 2	M8	6		31	48	35	11
FE2 M8(8x6.2)	FE 2	M8	8	6.2	31	48	35	11
FE2 M10(10x8)	FE 2	M10	10	8	31	48	35	11
FE2 M10(7x5.5)	FE 2	M10	7	5.5	31	48	35	11
FE2 M12(9x7.1)	FE 2	M12	9	7.1	31	48	35	11
FE2 M14(11x9)	FE 2	M14	11	9	31	48	35	11
FE2 M16(12x9)	FE 2	M16	12	9	31	48	35	11
FE2 M18(14x11)	FE 2	M18	14	11	31	48	35	11
FE2 M20(16x12)	FE 2	M20	16	12	31	48	35	11

Tapping Collet without Clutch



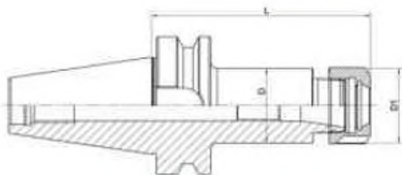
Size	Collet	M	D	□	D1	D2	L1	L2
FE3 M14(11x9)	FE 3	M14	11	9	48	70	55.5	13.5
FE3 M16(12x9)	FE 3	M16	12	9	48	70	55.5	13.5
FE3 M18(14x11)	FE 3	M18	14	11	48	70	55.5	13.5
FE3 M20(16x12)	FE 3	M20	16	12	48	70	55.5	13.5
FE3 M24(18x14.5)	FE 3	M24	18	14.5	48	70	55.5	13.5
FE3 M27(20x16)	FE 3	M27	20	16	48	70	55.5	13.5
FE3 M30(22x18)	FE 3	M30	22	18	48	70	55.5	13.5
FE3 M33(25x20)	FE 3	M33	25	20	48	70	55.5	13.5
FE3 M36(28x22)	FE 3	M36	28	22	48	70	55.5	13.5

Quick Change Tapping Chuck with Length Compensation

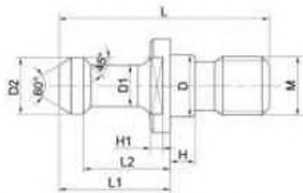


Size	Collet Size	d	D	L	T	C
BT30-TC312-70	1	19	38	70	7.5	7.5
BT30-TC820-95	2	31	54	95	12.5	12.5
BT40-TC312-65	1	19	38	65	7.5	7.5
BT40-TC820-93	2	31	53	93	12.5	12.5
BT40-TC1433-166	3	48	78	166	22	22
BT50-TC312-100	1	19	38	100	7.5	7.5
BT50-TC820-100	2	31	53	100	12.5	12.5
BT50-TC1433-142	3	48	78	142	22	22

ER Collet Chuck with UM Nut



Size	D	L	Capacity
BT50-ER16UM-70	28	70	1-10
BT50-ER20UM-70	34	70	1-13
BT50-ER25-70	42	70	2-16
BT50-ER32-70	50	70	2-20
BT50-ER40-80	63	80	3-26
BT50-ER16UM-100	28	100	1-10
BT50-ER20UM-100	34	100	1-13
BT50-ER25-100	42	100	2-16
BT50-ER32-100	50	100	2-20
BT50-ER40-100	63	100	3-26
BT50-ER16UM-160	28	160	1-10
BT50-ER20UM-160	34	160	1-13
BT50-ER25-160	42	160	2-16
BT50-ER32-160	50	160	2-20
BT50-ER40-160	63	160	3-26
BT50-ER32-200	50	200	2-20
BT50-ER40-200	63	200	3-26



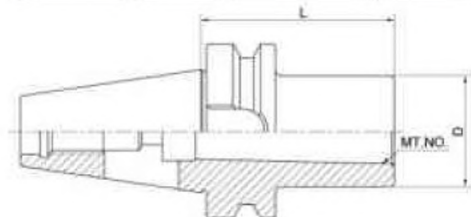
Size	D	D1	D2	M	L	L1	L2	H	H1	Ø
BT30-45	12.5	7	11	M12	43	23	18	4	3.5	45
BT40-45	17	10	15	M16	60	35	28	5	4	45
BT50-45	25	17	23	M24	85	45	35	8	8	45
BT30C-45	12.5	7	11	M12	43	23	18	4	3.5	45
BT40C-45	17	10	15	M16	60	35	28	5	4	45
BT50C-45	25	17	23	M24	85	45	35	8	8	45
BT30CO-45	12.5	7	11	M12	43	23	18	4	3.5	45
BT40CO-45	17	10	15	M16	60	35	28	5	4	45
BT50CO-45	25	17	23	M24	85	45	35	8	8	45

C: Through Hole

O: with O-Ring

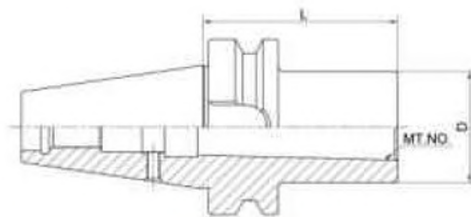
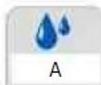
Other sizes can be made by request.

Morse Taper Adapter with Tang

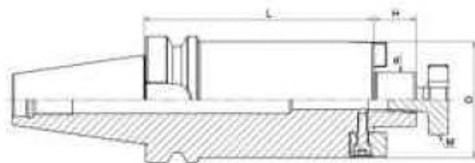


Size	MT.NO.	D	L
BT30-MTA1-45	1	25	45
BT30-MTA2-60	2	32	60
BT30-MTA3-75	3	40	75
BT40-MTA1-50	1	25	50
BT40-MTA2-50	2	32	50
BT40-MTA3-70	3	40	70
BT40-MTA4-95	4	48	95
BT50-MTA1-45	1	25	45
BT50-MTA2-60	2	32	60
BT50-MTA3-65	3	40	65
BT50-MTA4-95	4	48	95
BT50-MTA5-120	5	63	120

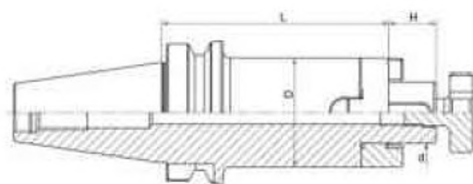
Morse Taper Adapter with Drawbar



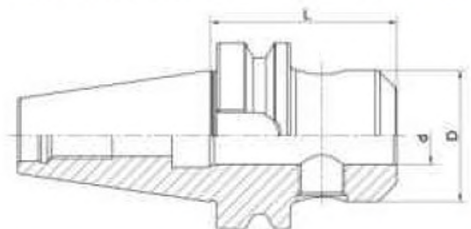
Size	MT.NO.	D	L
BT40-MTB1-50	1	25	50
BT40-MTB2-50	2	32	50
BT40-MTB3-70	3	40	70
BT40-MTB4-95	4	48	95
BT50-MTB1-45	1	25	45
BT50-MTB2-60	2	32	60
BT50-MTB3-65	3	40	65
BT50-MTB4-70	4	48	70
BT50-MTB5-120	5	63	120



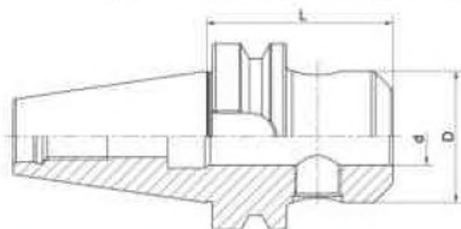
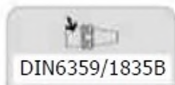
Size	d	L	D	H	M
BT30-FMB16-40	16	40	38	17	M8
BT30-FMB22-40	22	40	48	19	M10
BT30-FMB27-40	27	40	58	21	M12
BT30-FMB32-50	32	50	78	24	M16
BT40-FMB16-40	16	40	38	17	M8
BT40-FMB22-40	22	40	48	19	M10
BT40-FMB27-40	27	40	58	21	M12
BT40-FMB32-50	32	50	78	24	M16
BT40-FMB40-50	40	50	88	27	M20
BT40-FMB16-100	16	100	38	17	M8
BT40-FMB22-100	22	100	48	19	M10
BT40-FMB27-100	27	100	58	21	M12
BT40-FMB32-100	32	100	78	24	M16
BT40-FMB40-100	40	100	88	27	M20
BT40-FMB16-150	16	150	38	17	M8
BT40-FMB22-150	22	150	48	19	M10
BT40-FMB27-150	27	150	58	21	M12
BT40-FMB32-150	32	150	78	24	M16
BT40-FMB40-150	40	150	88	27	M20
BT40-FMB22-200	22	200	48	19	M10
BT40-FMB27-200	27	200	58	21	M12
BT40-FMB32-200	32	200	78	24	M16
BT40-FMB40-200	40	200	88	27	M20



Size	d	D	H	L
BT30-SEMC16-45	16	32	17	45
BT30-SEMC22-47	22	40	19	47
BT30-SEMC27-49	27	48	21	49
BT40-SEMC16-55	16	32	17	55
BT40-SEMC22-55	22	40	19	55
BT40-SEMC27-55	27	48	21	55
BT40-SEMC32-60	32	58	24	60
BT40-SEMC40-60	40	70	27	60
BT40-SEMC16-100	16	32	17	100
BT40-SEMC22-100	22	40	19	100
BT40-SEMC27-100	27	48	21	100
BT40-SEMC32-100	32	58	24	100
BT40-SEMC40-100	40	70	27	100
BT40-SEMC16-160	16	32	17	160
BT40-SEMC22-160	22	40	19	160
BT40-SEMC27-160	27	48	21	160
BT40-SEMC32-160	32	58	24	160
BT40-SEMC40-160	40	70	27	160

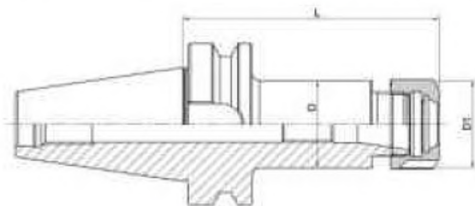
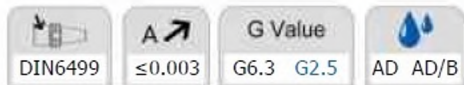


Size	d	D	L
BT30-SLA6-50	6	25	50
BT30-SLA8-50	8	28	50
BT30-SLA10-50	10	35	50
BT30-SLA12-50	12	42	50
BT30-SLA14-50	14	44	50
BT30-SLA16-63	16	48	63
BT30-SLA18-63	18	50	63
BT30-SLA20-63	20	52	63
BT40-SLA6-50	6	25	50
BT40-SLA8-50	8	28	50
BT40-SLA10-63	10	35	63
BT40-SLA12-63	12	42	63
BT40-SLA14-63	14	44	63
BT40-SLA16-63	16	48	63
BT40-SLA18-63	18	50	63
BT40-SLA20-63	20	52	63
BT40-SLA25-90	25	65	90
BT40-SLA32-100	32	72	100
BT40-SLA40-120	40	80	120
BT40-SLA6-100	6	25	100
BT40-SLA8-100	8	28	100
BT40-SLA10-100	10	35	100
BT40-SLA12-100	12	42	100
BT40-SLA14-100	14	44	100
BT40-SLA16-100	16	48	100
BT40-SLA18-100	18	50	100
BT40-SLA20-100	20	52	100



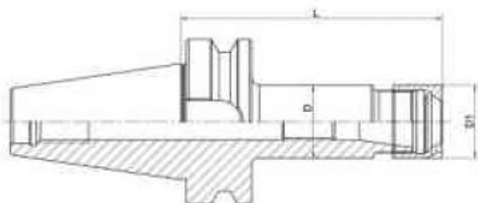
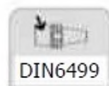
Size	d	D	L
BT40-SLA6-160	6	25	160
BT40-SLA8-160	8	28	160
BT40-SLA10-160	10	35	160
BT40-SLA12-160	12	42	160
BT40-SLA14-160	14	44	160
BT40-SLA16-160	16	48	160
BT40-SLA18-160	18	50	160
BT40-SLA20-160	20	52	160
BT40-SLA25-160	25	65	160
BT40-SLA32-160	32	72	160
BT40-SLA40-160	40	80	160

ER Collet Chuck with UM Nut



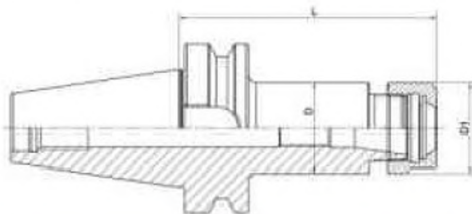
Size	D	L	Capacity
BT30-ER16UM-70	28	70	1-10
BT30-ER20UM-70	34	70	1-13
BT30-ER25-70	42	70	2-16
BT30-ER32-70	50	70	2-20
BT30-ER40-80	50	80	3-26
BT30-ER16UM-100	28	100	1-10
BT30-ER20UM-100	34	100	1-13
BT30-ER25-100	42	100	2-16
BT30-ER32-100	50	100	2-20
BT40-ER16UM-63	28	63	1-10
BT40-ER20UM-70	34	70	1-13
BT40-ER25-70	42	70	2-16
BT40-ER32-70	50	70	2-20
BT40-ER40-80	50	80	3-26
BT40-ER16UM-100	28	100	1-10
BT40-ER20UM-100	34	100	1-13
BT40-ER25-100	42	100	2-16
BT40-ER32-100	50	100	2-20
BT40-ER40-100	50	100	3-26
BT40-ER16UM-160	28	160	1-10
BT40-ER20UM-160	34	160	1-13
BT40-ER25-160	42	160	2-16
BT40-ER32-160	50	160	2-20
BT40-ER40-160	50	160	3-26

ER Collet Chuck with Mini Nut



Size	D	L	Capacity
BT40-ER8M-77T	12	77	77
BT40-ER11M-70	16	70	70
BT40-ER16M-70	22	70	70
BT40-ER20M-70	28	70	70
BT40-ER25M-70	35	70	70
BT40-ER8M-100T	12	100	100
BT40-ER11M-100	16	100	100
BT40-ER16M-100	22	100	100
BT40-ER20M-100	28	100	100
BT40-ER25M-100	35	100	100
BT40-ER11M-160T	16	160	160
BT40-ER16M-160T	22	160	160
BT40-ER20M-160	28	160	160
BT40-ER25M-160	35	160	160

ER Collet Chuck with Hex Nut



Size	D	L	Capacity
BT30-ER16A-60	28	60	1-10
BT30-ER20A-60	34	60	1-13
BT30-ER16A-100	28	100	1-10
BT30-ER20A-100	34	100	1-13
BT40-ER16A-60	28	60	1-10
BT40-ER20A-70	34	70	1-13
BT40-ER25A-70	42	70	2-16
BT40-ER16A-100	28	100	1-10
BT40-ER20A-100	34	100	1-13
BT40-ER25A-100	42	100	2-16
BT40-ER16A-150	28	150	1-10
BT40-ER20A-150	34	150	1-13
BT40-ER25A-150	42	150	2-16
BT40-ER16A-200T	28	200	1-10
BT40-ER20A-200	36	200	1-13
BT40-ER25A-200	42	200	2-16