

ИНСТРУМЕНТАЛЬНАЯ ОСНАСТКА

ВРАЩАЮЩИЙСЯ ИНСТРУМЕНТ

ОБЩИЙ КАТАЛОГ - 2020

В свете растущих требований к скорости и качеству обработки металлов резанием, все большее значение приобретает правильный и технически грамотный выбор системы крепления.

Закрепление металлорежущего инструмента оказывает существенное влияние на его эксплуатационные характеристики в течение всего процесса резания.

Российская компания ООО «Триумф-тех», являясь официальным представителем и коммерческим партнером ведущих мировых производителей металлорежущего инструмента, специализируется на комплексной поставке станочной и инструментальной оснастки, металлорежущего и вспомогательного инструмента.

За основу при подборе инструментальной оснастки берется точность, модульность и гибкость, стабильность и время смены инструмента, простота применения и использования.

Основные направления деятельности:

- Подбор и поставка стандартной оснастки и металлорежущего инструмента
- Проектирование и поставка специальной оснастки и инструмента
- Подбор и поставка мерительного, термоусадочного, балансировочного оборудования и приборов

Основным преимуществом и миссией компании является предоставление комплексных решений по оснащению и переоснащению производства, грамотный и технически обоснованный подбор инструмента и оснастки, что позволяет значительно экономить средства предприятия и снижает себестоимость конечного продукта.

СОДЕРЖАНИЕ

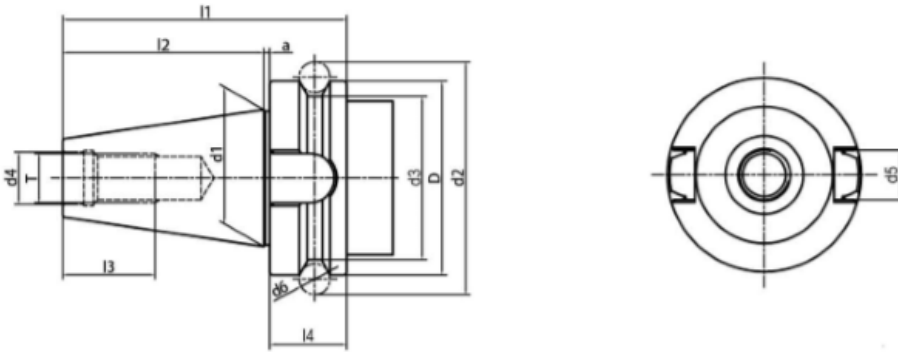
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BT JIS 6339. Оправки BT ...	3-27
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NT DIN2080. Оправки DIN2080...	51-62
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ИНСТРУМЕНТАЛЬНАЯ ОСНАСТКА

ВРАЩАЮЩИЙСЯ ИНСТРУМЕНТ

Стандарт хвостовика BT JIS 6339



Size	D	d1	d2	d3	d4	d5	d6	l1	l2	l3	l4	d	T
BT30	46	31.75	56.144	38	12.5	16.1	8	70.4	48.4	24	20	2	M12*1.75
BT40	63	44.45	75.679	53	17	16.	10	92.4	65.4	30	25	2	M16*2.0
BT50	100	69.85	119.019	85	25	25.7	15	139.8	101.8	45	35	3	M24*3.0

Taper standard: JIS B 6339

Material: Alloyed case hardened steel

Surface Treatment: Blackening and Bright

Taper tolerance: <AT3

Hardness: HRC 58-62

Carbon depth: 0.8±0.2mm

Surface Roughness: Ra<0.005mm

Balancing: G6.3/15000; G2.5/25000

Cooling: AD; AD/B can be made by request.



ИНСТРУМЕНТАЛЬНАЯ ОСНАСТКА

ВРАЩАЮЩИЙСЯ ИНСТРУМЕНТ

Цанговый Патрон ER DIN6499 с гайкой UM

Runout: 0.003 mm

Cooling: AD;

AD/B can be made by request.

Balancing: G6.3/15000 RPM;

Balancing G2.5 can be made by request.

Usage: for clamping tools with straight shank in collets DIN 6499.



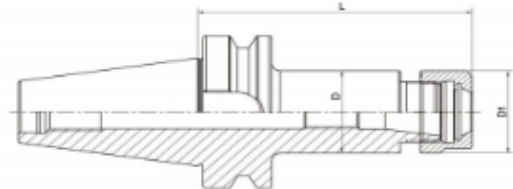
Size	D	L	Capacity
BT30-ER16UM-70	28	70	1-10
BT30-ER25-70	42	70	2-16
BT30-ER32-70	50	70	2-20
BT30-ER40-80	63	80	3-26
BT30-ER16UM-100	28	100	1-10
BT30-ER25-100	42	100	2-16
BT30-ER32-100	50	100	2-20
BT40-ER16UM-63	28	63	1-10
BT40-ER20UM-70	35	70	1-13
BT40-ER25-70	42	70	2-16
BT40-ER32-70	50	70	2-20
BT40-ER40-80	63	80	3-26
BT40-ER16UM-100	28	100	1-10
BT40-ER25-100	42	100	2-16
BT40-ER32-100	50	100	2-20
BT40-ER40-100	63	100	3-26
BT40-ER16UM-160	28	160	1-10
BT40-ER25-160	42	160	2-16
BT40-ER32-160	50	160	2-20
BT40-ER40-160	63	160	3-26
Size	D	L	Capacity
BT50-ER16UM-70	28	70	1-10
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	1-13
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	1-13
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

ИНСТРУМЕНТАЛЬНАЯ ОСНАСТКА

ВРАЩАЮЩИЙСЯ ИНСТРУМЕНТ Цанговый Патрон ER JIS B 6399

TOOL HOLDER JIS B 6399

ER Collet Chuck with Hex Nut



Size	D	L	Capacity
BT50-ER16A-100	28	100	1-10
BT50-ER16-125	28	125	1-10
BT50-ER16-150	28	150	1-10
BT50-ER16-200	28	200	1-10
BT50-ER25-150	42	150	2-16
BT50-ER25-200	42	200	2-16
BT50-ER32-130	50	130	2-20
BT50-ER32-150	50	150	2-20
BT50-ER40-150	63	150	3-26

ИНСТРУМЕНТАЛЬНАЯ ОСНАСТКА

ВРАЩАЮЩИЙСЯ ИНСТРУМЕНТ

Цанговый Патрон ER DIN6499 с гайкой MINI

Runout: 0.003 mm

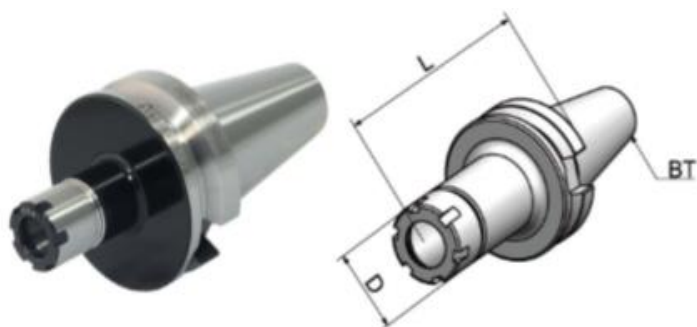
Cooling: AD;

AD/B can be made by request.

Balancing: G6.3/15000 RPM;

Balancing G2.5 can be made by request.

Usage: for clamping tools with straight shank in collets DIN 6499.



Size	D	L	Capacity
BT40-ER11M-70	16	70	1-7
BT40-ER16M-70	22	70	1-10
BT40-ER20M-70	28	70	1-13
BT40-ER25M-70	35	70	2-16
BT40-ER11M-100	16	100	1-7
BT40-ER16M-100	22	100	1-10
BT40-ER20M-100	28	100	1-13
BT40-ER25M-100	35	100	2-16
BT40-ER11M-160	16	160	1-7
BT40-ER16M-160	22	160	1-10
BT40-ER20M-160	28	160	1-13
BT40-ER25M-160	35	160	2-16
BT50-ER16M-100	22	100	1-10
BT50-ER20M-100	28	100	1-13
BT50-ER25M-100	35	100	2-16
BT50-ER16M-160	22	160	1-10
BT50-ER20M-160	28	160	1-13
BT50-ER25M-160	35	160	2-16

ИНСТРУМЕНТАЛЬНАЯ ОСНАСТКА

ВРАЩАЮЩИЙСЯ ИНСТРУМЕНТ

Цанговый Патрон ER DIN6499 с шестигранной гайкой

Runout: 0.003 mm

Cooling: AD;

AD/B can be made by request.

Balancing: G6.3/15000 RPM;

Balancing G2.5 can be made by request.

Usage: for clamping tools with straight shank in collets DIN 6499.



Size	D	L	Capacity
BT30-ER16A-60	28	60	1-10
BT30-ER20A-60	36	60	1-13
BT30-ER16A-100	28	100	1-10
BT30-ER20A-100	36	100	1-13
BT40-ER16A-60	28	60	1-10
BT40-ER20A-70	36	70	1-13
BT40-ER16A-100	28	100	1-10
BT40-ER20A-100	36	100	1-13
BT40-ER16A-150	28	150	1-10
BT40-ER20A-150	36	150	1-13
BT50-ER16A-70	28	70	1-10
BT50-ER20A-70	36	70	1-13
BT50-ER16A-100	28	100	1-10
BT50-ER20A-100	36	100	1-13
BT50-ER16A-150	28	150	1-10
BT50-ER20A-150	36	150	1-13

ИНСТРУМЕНТАЛЬНАЯ ОСНАСТКА

ВРАЩАЮЩИЙСЯ ИНСТРУМЕНТ

Силовой Патрон

Runout: 0.01 mm

Cooling: AD

Balancing: Non-Balance;

Balancing G6.3 can be made by request.

Usage: for clamping tools with straight collets or clamping same diameter cutting tools directly.

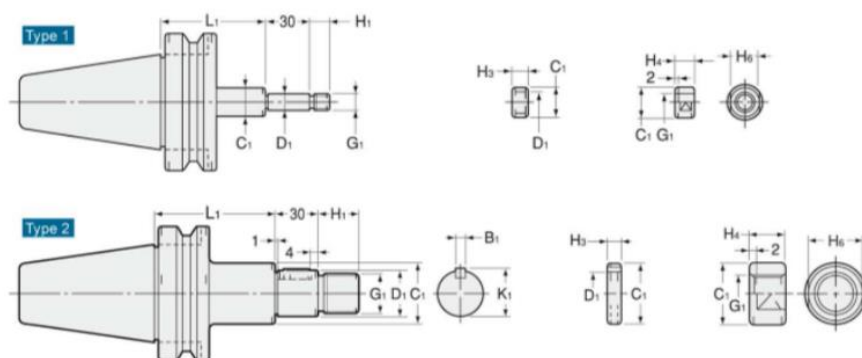


Size	d	D	L	Capacity
BT30-HC20-80	25	59	80	3-16; 20
BT30-HC25-90	25	59	90	3-20; 25
BT30-HC32-110	32	70	110	3-25; 32
BT40-HC20-90	20	50	90	3-16; 20
BT40-HC25-100	25	59	100	3-20; 25
BT40-HC32-90	32	70	90	3-25; 32
BT40-HC32-105	32	70	105	3-25; 32
BT40-HC42-130	42	99	130	3-32; 42
BT50-HC20-105	20	50	105	3-16; 20
BT50-HC25-105	25	59	105	3-20; 25
BT50-HC32-110	32	70	110	3-25; 32
BT50-HC32-165	32	70	165	3-25; 32
BT50-HC42-110	42	99	110	3-32; 42
BT50-HC42-165	42	99	165	3-32; 42



ИНСТРУМЕНТАЛЬНАЯ ОСНАСТКА

ВРАЩАЮЩИЙСЯ ИНСТРУМЕНТ Патрон для Дисковых фрез



Size	Type	D1	L1	C1	G1	H1	B1	K1	H4	H6	Cutter Dia.
BT30-SCA13-75	1	13	75	20	M12 X 1.25	15	-	-	12	17	50
BT30-SCA16-75	2	16	75	26	M14 X 1.5	16	4	17.2	13	22	50 - 63
BT30-SCA22-75	2	22	75	34	M20 X 1.5	21	6	23.6	18	30	60 - 125
BT40-SCA13-60	1	13	60	20	M12 X 1.25	15	-	-	12	17	50
BT40-SCA13-90	1	13	90	20	M12 X 1.25	15	-	-	12	17	50
BT40-SCA16-75	2	16	75	26	M14 X 1.5	16	4	17.2	13	22	50 - 63
BT40-SCA16-105	2	16	105	26	M14 X 1.5	16	4	17.2	13	22	50 - 63
BT40-SCA22-75	2	22	75	34	M20 X 1.5	21	6	23.6	18	30	60 - 125
BT40-SCA22-120	2	22	120	34	M20 X 1.5	21	6	23.6	18	30	60 - 125
BT40-SCA27-75	2	27	75	40	M24 X 2	25	7	29	21	32	75 - 100
BT40-SCA27-120	2	27	120	40	M24 X 2	25	7	29	21	32	75 - 100
BT40-SCA32-90	2	32	90	46	M30 X 2	30	8	34	26	41	100 - 250
BT50-SCA13-75	1	13	75	20	M12 X 1.25	15	-	-	12	17	50
BT50-SCA13-105	1	13	105	20	M12 X 1.25	15	-	-	12	17	50
BT50-SCA16-90	2	16	90	26	M14 X 1.5	16	4	17.2	13	22	50 - 63
BT50-SCA16-120	2	16	120	26	M14 X 1.5	16	4	17.2	13	22	50 - 63
BT50-SCA22-90	2	22	90	34	M20 X 1.5	21	6	23.6	18	30	60 - 125
BT50-SCA22-135	2	22	135	34	M20 X 1.5	21	6	23.6	18	30	60 - 125
BT50-SCA27-90	2	27	90	40	M24 X 2	25	7	29	21	32	75 - 100
BT50-SCA27-135	2	27	135	40	M24 X 2	25	7	29	21	32	75 - 100
BT50-SCA32-90	2	32	90	46	M30 X 2	30	8	34	26	41	100 - 250
BT50-SCA32-135	2	32	135	46	M30 X 2	30	8	34	26	41	100 - 250
BT50-SCA40-90	2	40	90	55	M36 X 3	36	10	42.5	31	46	150 - 315
BT50-SCA40-135	2	40	135	55	M36 X 3	36	10	42.5	31	46	150 - 315

Биение: 0.005мм

В набор включены кольца: 3, 5, 7, 8, 10, 12мм/1шт каждого

ИНСТРУМЕНТАЛЬНАЯ ОСНАСТКА

ВРАЩАЮЩИЙСЯ ИНСТРУМЕНТ Патрон для Торцевых фрез

Runout: 0.005 mm

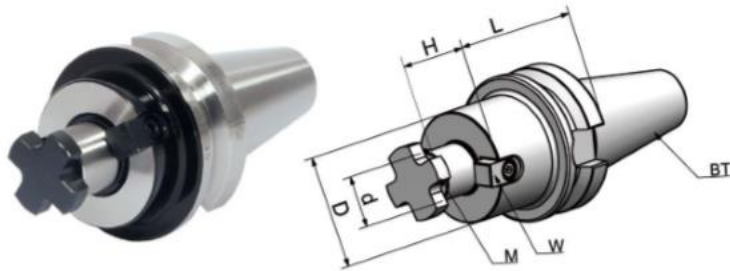
Cooling: Central Coolant;

AD and AD/B can be made by request.

Balancing: G6.3/15000 RPM

Balancing G2.5 can be made by request.

Usage: for holding tools like shell mill cutters.



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	M12
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

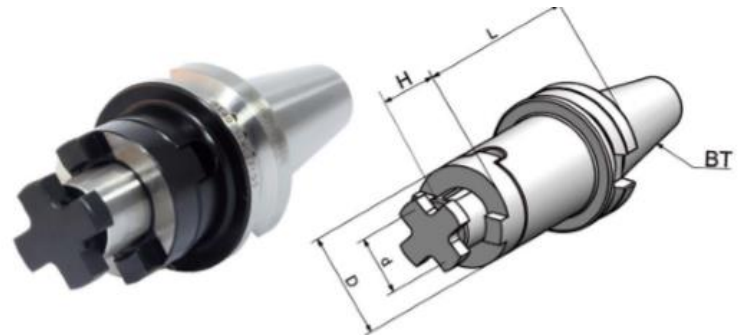
Size	d	L	D	H	M
BT50-FMB16-40	16	40	38	17	M8
BT50-FMB22-40	22	40	48	19	M10
BT50-FMB27-40	27	40	58	21	M12
BT50-FMB32-50	32	50	78	24	M16
BT50-FMB40-50	40	50	88	27	M20
BT50-FMB60-75	60	75	138	25	M30
BT50-FMB16-100	16	100	38	17	M8
BT50-FMB22-100	22	100	48	19	M10
BT50-FMB27-100	27	100	58	21	M12
BT50-FMB32-100	32	100	78	24	M16
BT50-FMB22-150	22	150	48	19	M10
BT50-FMB27-150	27	150	58	21	M12
BT50-FMB32-150	32	150	78	24	M16

ИНСТРУМЕНТАЛЬНАЯ ОСНАСТКА

ВРАЩАЮЩИЙСЯ ИНСТРУМЕНТ

Патрон для Торцевых фрез Combi со съемным кольцом

Runout: 0.005 mm
Cooling: Central Coolant;
 AD and AD/B can be made by request.
Balancing: G6.3/15000 RPM
Usage: for holding tools like shell mill cutters and angular milling cutters.



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
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

ИНСТРУМЕНТАЛЬНАЯ ОСНАСТКА

ВРАЩАЮЩИЙСЯ ИНСТРУМЕНТ

Патрон для Концевых фрез DIN6359/1835B (Weldon)

Runout: 0.005 mm

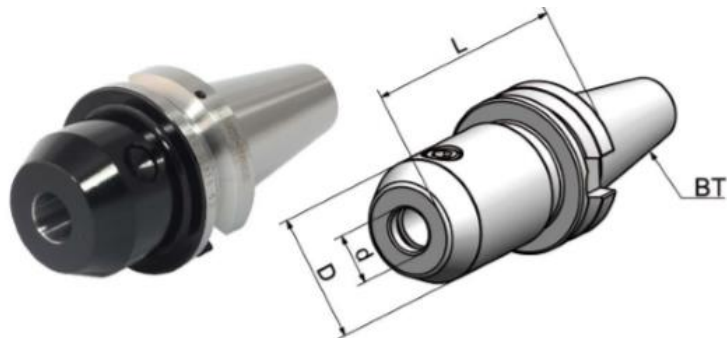
Bore Tolerance: H5

Cooling: AD;

AD/B can be made by request.

Balancing: G6.3/15000 RPM

Usage: for clamping tools with straight shank and inclined flat DIN1835-B.



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

ИНСТРУМЕНТАЛЬНАЯ ОСНАСТКА

ВРАЩАЮЩИЙСЯ ИНСТРУМЕНТ

Патрон для Концевых фрез DIN6359/1835B (Weldon)

Runout: 0.005 mm
Bore Tolerance: H5
Cooling: AD;
 AD/B can be made by request.
Balancing: G6.3/15000 RPM
Usage: for clamping tools with straight shank and inclined flat DIN1835-B.



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-SLA12-100	12	42	100
BT50-SLA14-100	14	44	100
BT50-SLA16-100	16	48	100
BT50-SLA20-100	20	52	100
BT50-SLA40-115	40	80	115
BT50-SLA50-125	50	98	125

ИНСТРУМЕНТАЛЬНАЯ ОСНАСТКА

ВРАЩАЮЩИЙСЯ ИНСТРУМЕНТ

Патрон для Концевых фрез DIN6359/1835B (Weldon) с каналами для подвода СОЖ

Runout: 0.005 mm

Bore Tolerance: H5

Cooling: AD;

AD/B can be made by request.

Balancing: G6.3/15000 RPM

Usage: for clamping tools with straight shank and inclined flat DIN1835-B.



Size	d	D	L
BT40-SLA06-50K	6	25	50
BT40-SLA08-50K	8	28	50
BT40-SLA10-63K	10	35	63
BT40-SLA12-63K	12	42	63
BT40-SLA14-63K	14	44	63
BT40-SLA16-63K	16	48	63
BT40-SLA18-63K	18	50	63
BT40-SLA20-63K	20	52	63
BT40-SLA25-90K	25	65	90
BT40-SLA32-100K	32	72	100
BT40-SLA40-120K	40	80	120
BT50-SLA6-63K	6	25	63
BT50-SLA8-63K	8	28	63
BT50-SLA10-63K	10	35	63
BT50-SLA12-80K	12	42	80
BT50-SLA14-80K	14	44	80
BT50-SLA16-80K	16	48	80
BT50-SLA18-80K	18	50	80
BT50-SLA20-80K	20	52	80
BT50-SLA25-100K	25	65	100
BT50-SLA32-105K	32	72	105
BT50-SLA40-110K	40	80	110



ИНСТРУМЕНТАЛЬНАЯ ОСНАСТКА

ВРАЩАЮЩИЙСЯ ИНСТРУМЕНТ

Патрон с Конусом Морзе и хвостовиком DIN6383

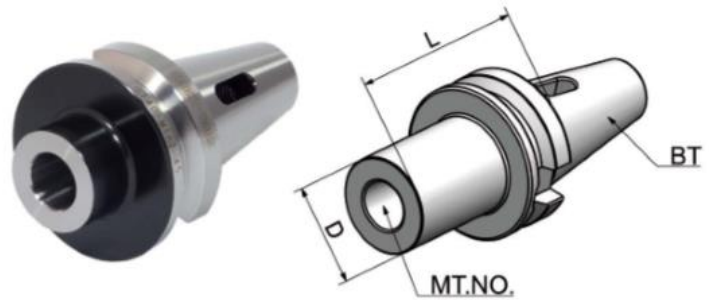
Runout: 0.005 mm

Cooling: AD;

AD/B can be made by request.

Balancing: G6.3/15000 RPM

Usage: for holding tools with Morse taper shank and tang according to DIN 228-1 form B.



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
BT50-MTA4-75	4	48	75
BT50-MTA3-45	3	40	45
BT50-MTA2-50	2	32	50



ИНСТРУМЕНТАЛЬНАЯ ОСНАСТКА

ВРАЩАЮЩИЙСЯ ИНСТРУМЕНТ

Патрон с Конусом Морзе и затяжным Винтом DIN6364

Runout: 0.005 mm

Cooling: A

Balancing: G6.3/15000 RPM

Usage: for clamping tools with Morse taper shank and thread according to DIN 228-1 form A.



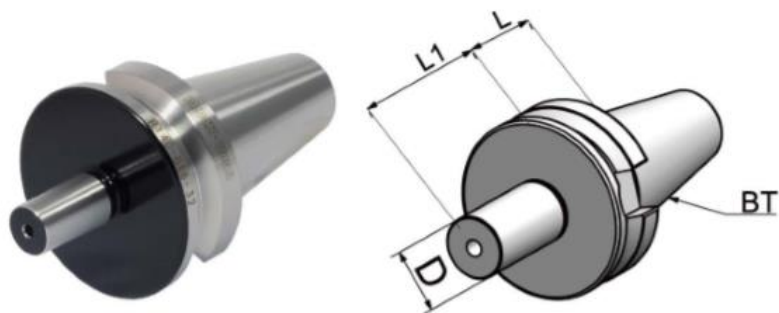
Size	MT.NO.	D	L
BT40-MTB1-50	1	25	50
BT40-MTB2-50	2	32	50
BT40-MTB3-70	3	40	70
BT40-MTB4-95	4	48	95
BT50-MTB1-45	1	25	45
BT50-MTB2-60	2	32	60
BT50-MTB3-65	3	40	65
BT50-MTB4-70	4	48	70
BT50-MTB5-120	5	63	120
BT50-MTB5-105	5	63	105



ИНСТРУМЕНТАЛЬНАЯ ОСНАСТКА

ВРАЩАЮЩИЙСЯ ИНСТРУМЕНТ Сверлильный Патрон DIN238

Runout: 0.005 mm
Cooling: A
Balancing: G6.3/15000 RPM
Usage: for mounting drill chucks.



Size	D	L	L1
BT30-B12	B12	25	18.5
BT30-B16	B16	25	24
BT40-B12	B12	32	18.5
BT40-B16	B16	32	24
BT40-B18	B18	32	32
BT40-B22	B22	32	40.5
BT50-B16	B16	45	24
BT50-B18	B18	45	32
BT50-B22	B22	45	40.5



ИНСТРУМЕНТАЛЬНАЯ ОСНАСТКА

ВРАЩАЮЩИЙСЯ ИНСТРУМЕНТ Сверлильный Патрон АРУ

Runout: 0.08 mm

Cooling: A; Central cooling is unavailable.

Balancing: Non-Balance

Usage: for clamping tools with straight shank.



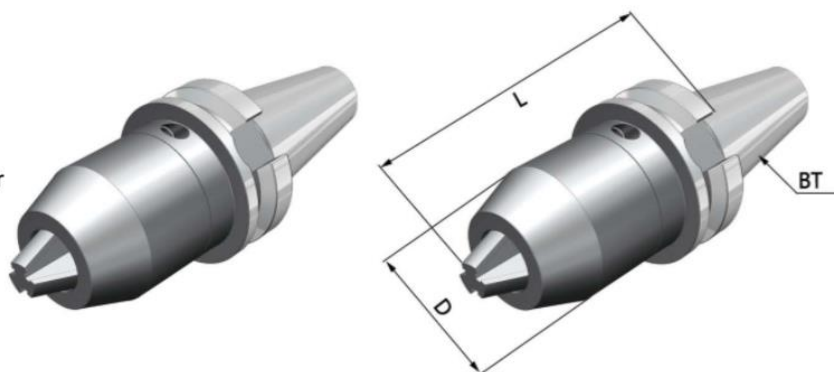
Size	D	L		Capacity
BT30-APU08-80	36	80	85	1-8
BT30-APU13-110	48	110	120	1-13
BT40-APU08-85	36	85	90	1-8
BT40-APU13-105	48	105	115	1-13
BT40-APU16-110	53	110	120.6	3-16
BT50-APU08-90	36	90	100	1-8
BT50-APU13-105	48	105	115	1-13
BT50-APU16-115	53	115	125.6	3-16



ИНСТРУМЕНТАЛЬНАЯ ОСНАСТКА
ВРАЩАЮЩИЙСЯ ИНСТРУМЕНТ
Прецизионный Сверлильный Патрон

Advantages:

- 1) Runout: 0.03 mm;
- 2) Internal cooling;
- 3) Worm and gear design for better clamping force;
- 4) Use a hex key to lock easily.



Size	D	L	Capacity
BT30-CPU10-72	38	72	0.5-10
BT40-CPU10-77	38	77	0.5-10
BT40-CPU16-88	50	88	1-16
BT50-CPU16-99	50	99	1-16

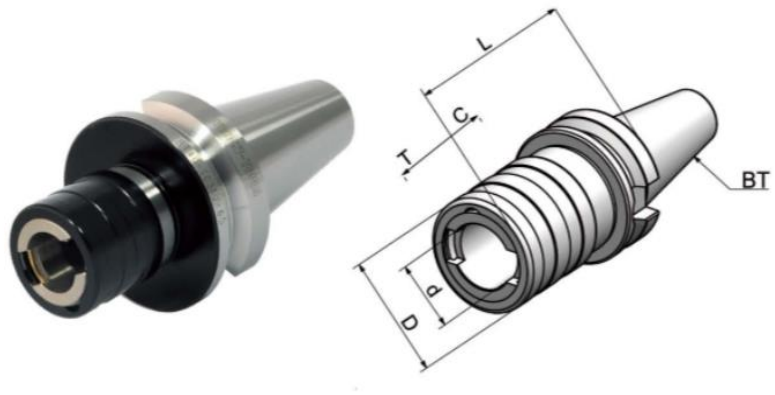


ИНСТРУМЕНТАЛЬНАЯ ОСНАСТКА

ВРАЩАЮЩИЙСЯ ИНСТРУМЕНТ

Резьбонарезной Патрон с Быстросъемным компенсирующим механизмом

Usage: for tapping preferably.
Axial length compensation on
tension and pressure.



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



ИНСТРУМЕНТАЛЬНАЯ ОСНАСТКА

ВРАЩАЮЩИЙСЯ ИНСТРУМЕНТ Термоусадочный Патрон

Runout: 0.003 mm
Blancing: G2.5/25000 RPM
Usage: Working with induction shrink machine for mounting straight shank tools.



Size	d	D	D1	L	L1	L2
BT30-SF3-80	3	15	20	80	10	-
BT30-SF4-80	4	15	20	80	20	5
BT30-SF5-80	5	15	20	80	20	5
BT30-SF6-80	6	20	27	80	36	10
BT30-SF8-80	8	20	27	80	36	10
BT30-SF10-90	10	24	32	90	41	10
BT30-SF12-90	12	24	32	90	47	10
BT30-SF14-90	14	27	34	90	47	10
BT30-SF16-90	16	27	34	90	50	10
BT30-SF18-90	18	33	42	90	50	10
BT30-SF20-90	20	33	42	90	52	10
BT40-SF3-80	3	15	20	80	10	-
BT40-SF4-80	4	15	20	80	20	5
BT40-SF5-80	5	15	20	80	20	5
BT40-SF6-90	6	20	27	90	36	10
BT40-SF8-90	8	20	27	90	36	10
BT40-SF10-90	10	24	32	90	41	10
BT40-SF12-90	12	24	32	90	47	10
BT40-SF14-90	14	27	34	90	47	10
BT40-SF16-90	16	27	34	90	50	10
BT40-SF18-90	18	33	42	90	50	10
BT40-SF20-90	20	33	42	90	52	10
BT40-SF25-100	25	44	53	100	58	10
BT40-SF32-100	32	44	53	100	62	10

ИНСТРУМЕНТАЛЬНАЯ ОСНАСТКА

ВРАЩАЮЩИЙСЯ ИНСТРУМЕНТ Термоусадочный Патрон

Runout: 0.003 mm

Blancing: G2.5/25000 RPM

Usage: Working with induction shrink machine for mounting straight shank tools.



Size	d	D	D1	L	L1	L2
BT40-SF6-120	6	20	27	120	36	10
BT40-SF8-120	8	20	27	120	36	10
BT40-SF10-120	10	24	32	120	41	10
BT40-SF12-120	12	24	32	120	47	10
BT40-SF14-120	14	27	34	120	47	10
BT40-SF16-120	16	27	34	120	50	10
BT40-SF18-120	18	33	42	120	50	10
BT40-SF20-120	20	33	42	120	52	10
BT40-SF25-120	25	44	53	120	58	10
BT40-SF6-160	6	20	27	160	36	10
BT40-SF8-160	8	20	27	160	36	10
BT40-SF10-160	10	24	32	160	41	10
BT40-SF12-160	12	24	32	160	47	10
BT40-SF14-160	14	27	34	160	47	10
BT40-SF16-160	16	27	34	160	50	10
BT40-SF18-160	18	33	42	160	50	10
BT40-SF20-160	20	33	42	160	52	10
BT40-SF25-160	25	44	53	160	58	10
BT40-SF32-160	32	44	53	160	62	10

ИНСТРУМЕНТАЛЬНАЯ ОСНАСТКА

ВРАЩАЮЩИЙСЯ ИНСТРУМЕНТ Термоусадочный Патрон

Runout: 0.003 mm
Blancing: G2.5/25000 RPM
Usage: Working with induction shrink machine for mounting straight shank tools.



Size	d	D	D1	L	L1	L2
BT50-SF4-100	4	15	20	100	20	5
BT50-SF5-100	5	15	20	100	20	5
BT50-SF6-100	6	20	27	100	36	10
BT50-SF8-100	8	20	27	100	36	10
BT50-SF10-100	10	24	32	100	41	10
BT50-SF12-100	12	24	32	100	47	10
BT50-SF14-100	14	27	34	100	47	10
BT50-SF16-100	16	27	34	100	50	10
BT50-SF18-100	18	33	42	100	50	10
BT50-SF20-100	20	33	42	100	52	10
BT50-SF25-120	25	44	53	120	58	10
BT50-SF32-120	32	44	53	120	62	10
BT50-SF6-160	6	20	27	160	36	10
BT50-SF8-160	8	20	27	160	36	10
BT50-SF10-160	10	24	32	160	41	10
BT50-SF12-160	12	24	32	160	47	10
BT50-SF14-160	14	27	34	160	47	10
BT50-SF16-160	16	27	34	160	50	10
BT50-SF18-160	18	33	42	160	50	10
BT50-SF20-160	20	33	42	160	52	10
BT50-SF25-160	25	44	53	160	58	10
BT50-SF32-160	32	44	53	160	62	10

ИНСТРУМЕНТАЛЬНАЯ ОСНАСТКА

ВРАЦАЮЩИЙСЯ ИНСТРУМЕНТ

Патрон со сменной фрезерной навинчиваемой головкой

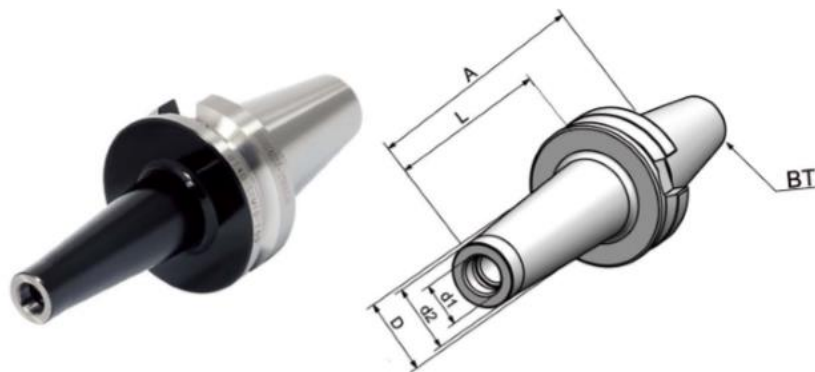
Runout: 0.005 mm

Cooling: AD;

AD/B can be made by request.

Balancing: G6.3/15000 RPM;

Usage: for mounting screw-in cutters with thread.



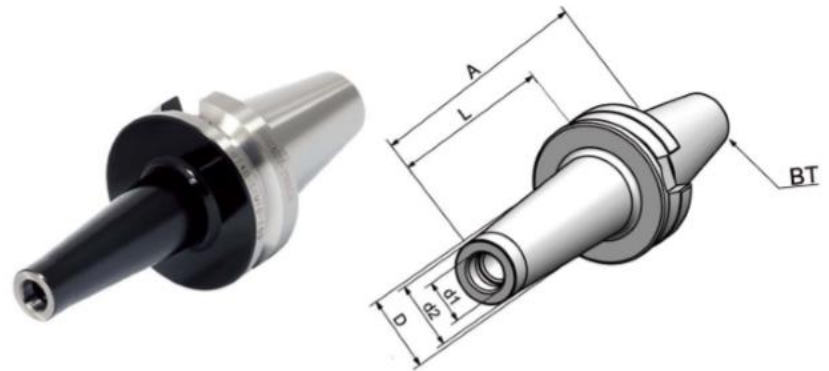
Size	M	d1	d2	A	L	D
BT40-SOM08-52 L=25	8	8.5	14.5	52	25	15
BT40-SOM08-77 L=50	8	8.5	14.5	77	50	23
BT40-SOM08-102 L=75	8	8.5	14.5	102	75	23
BT40-SOM08-127 L=100	8	8.5	14.5	127	100	25
BT40-SOM10-32 L=5	10	10.5	18	32	5	18
BT40-SOM10-52 L=25	10	10.5	18	52	25	20
BT40-SOM10-77 L=50	10	10.5	18	77	50	23
BT40-SOM10-102 L=75	10	10.5	18	102	75	28
BT40-SOM10-127 L=100	10	10.5	18	127	100	32
BT40-SOM10-177 L=150	10	10.5	18	177	150	36.5
BT40-SOM12-32 L=5	12	12.5	21	32	5	21
BT40-SOM12-52 L=25	12	12.5	21	52	25	24
BT40-SOM12-77 L=50	12	12.5	21	77	50	24
BT40-SOM12-102 L=75	12	12.5	21	102	75	31
BT40-SOM12-127 L=100	12	12.5	21	127	100	31
BT40-SOM12-152 L=125	12	12.5	21	152	125	36
BT40-SOM12-177 L=150	12	12.5	21	177	150	38
BT40-SOM16-32 L=5	16	17	29	32	5	29
BT40-SOM16-52 L=25	16	17	29	52	25	29
BT40-SOM16-77 L=50	16	17	29	77	50	34
BT40-SOM16-102 L=75	16	17	29	102	75	34
BT40-SOM16-127 L=100	16	17	29	127	100	36
BT40-SOM16-152 L=125	16	17	29	152	125	40
BT40-SOM16-177 L=150	16	17	29	177	150	42.5

ИНСТРУМЕНТАЛЬНАЯ ОСНАСТКА

ВРАЩАЮЩИЙСЯ ИНСТРУМЕНТ

Патрон со сменной фрезерной навинчиваемой головкой

Runout: 0.005 mm
Cooling: AD;
AD/B can be made by request.
Balancing: G6.3/15000 RPM;
Usage: for mounting screw-in cutters with thread.



Size	M	d1	d2	A	L	D
BT50-SOM08-88 L=50	8	8.5	14.5	88	50	23
BT50-SOM08-138 L=100	8	8.5	14.5	138	100	25
BT50-SOM08-188 L=150	8	8.5	14.5	188	150	30
BT50-SOM10-88 L=50	10	10.5	18	88	50	23
BT50-SOM10-138 L=100	10	10.5	18	138	100	32
BT50-SOM10-188 L=150	10	10.5	18	188	150	36.5
BT50-SOM12-88 L=50	12	12.5	21	88	50	24
BT50-SOM12-138 L=100	12	12.5	21	138	100	33
BT50-SOM12-188 L=150	12	12.5	21	188	150	40
BT50-SOM16-88 L=50	16	17	29	88	50	34
BT50-SOM16-138 L=100	16	17	29	138	100	36
BT50-SOM16-188 L=150	16	17	29	188	150	42.5



ИНСТРУМЕНТАЛЬНАЯ ОСНАСТКА

ВРАЩАЮЩИЙСЯ ИНСТРУМЕНТ

Патрон со сменной фрезерной навинчиваемой головкой

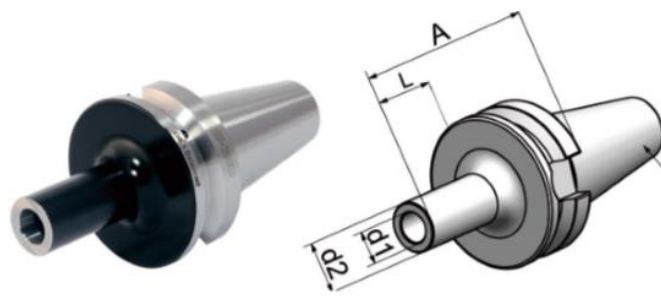
Runout: 0.005 mm

Cooling: AD;

AD/B can be made by request.

Balancing: G6.3/15000 RPM;

Usage: for mounting screw-in cutters with thread.



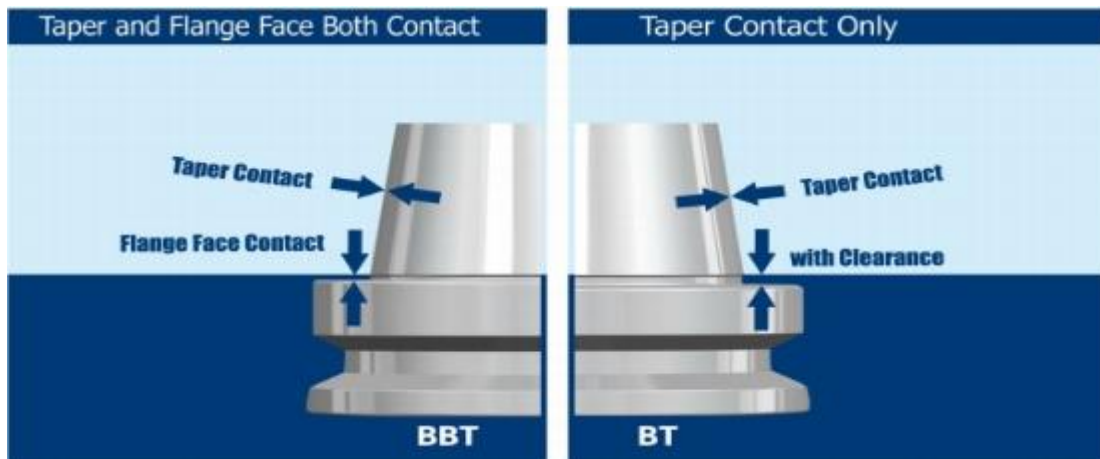
Size	M	d1	d2	A	L
BT40-M10-102 L=75	10	10.5	18	102	75
BT40-M10-127 L=100	10	10.5	18	127	100
BT40-M10-177 L=150	10	10.5	18	177	150
BT40-M12-108 L=75	12	12.5	21	108	75
BT40-M12-127 L=100	12	12.5	21	127	100
BT40-M12-152 L=125	12	12.5	21	152	125
BT40-M12-177 L=150	12	12.5	21	177	150
BT40-M16-102 L=75	16	17	29	102	75
BT40-M16-127 L=100	16	17	29	127	100
BT40-M16-152 L=125	16	17	29	152	125
BT40-M16-177 L=150	16	17	29	177	150
BT50-M10-138 L=100	10	10.5	18	138	100
BT50-M10-188 L=150	10	10.5	18	188	150
BT50-M12-138 L=100	12	12.5	21	138	100
BT50-M12-188 L=150	12	12.5	21	188	150
BT50-M16-138 L=100	16	17	29	138	100
BT50-M16-188 L=150	16	17	29	188	150



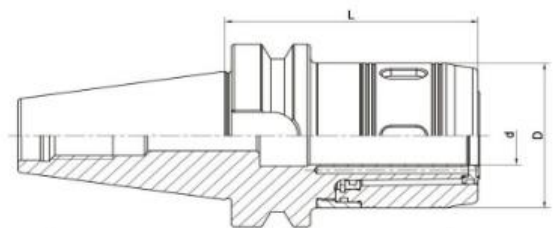
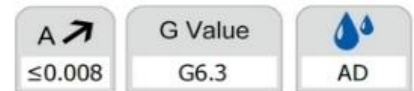
ИНСТРУМЕНТАЛЬНАЯ ОСНАСТКА

ВРАЩАЮЩИЙСЯ ИНСТРУМЕНТ

Патрон с двойным контактом по фланцу и конусу 7:24

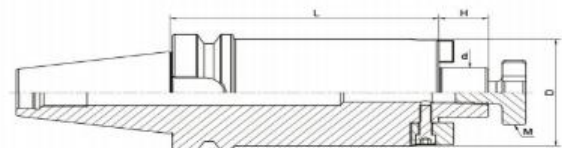


Power Milling Chuck



Size	d	D	L	Capacity
BBT50-HC20-105	20	50	105	3-16;20
BBT50-HC32-110	32	70	110	3-25;32

Face Mill Holder

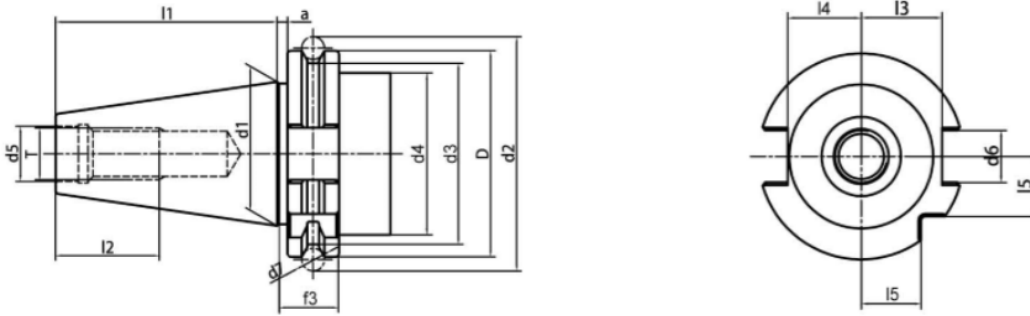


Size	d	L	D	H	M
BBT 50-FMB16-75 AD	16	75	38	17	M8
BBT 50-FMB16-120 AD	16	120	38	17	M8
BBT 50-FMB22-75 AD	22	75	48	19	M10
BBT 50-FMB22-120 AD	22	120	48	19	M10
BBT 50-FMB27-60 AD	27	60	58	21	M12
BBT 50-FMB27-105 AD	27	105	58	21	M12
BBT 50-FMB32-60 AD	32	60	78	24	M16
BBT 50-FMB40-60 AD	40	60	88	27	M20

ИНСТРУМЕНТАЛЬНАЯ ОСНАСТКА

ВРАЩАЮЩИЙСЯ ИНСТРУМЕНТ

Стандарт хвостовика SK DIN69871



Size	D	d1	d2	d3	d4	d5	d6	d7	l1	l2	l3	l4	l5	e1	e2
SK30	50	31.75	59.3	44.3	45	13	16.1	7	47.8	24	18.8	16.3	15	21	5
SK40	63.55	44.45	72.3	56.25	50	17	16.1	7	58.4	32	25	22.7	18.5	27	5
SK50	97.5	69.85	107.36	91.25	80	25	25.7	7	101.8	47	37.7	35.5	30	42	7

Taper standard: DIN 69871

Material: Alloyed case hardened steel

Surface Treatment: Blackening and Bright

Taper tolerance: <AT3

Hardness: HRC 58-62

Carbon depth: 0.8±0.2mm

Surface Roughness: Ra<0.005mm

Balancing: G6.3/15000; G2.5/25000

Cooling: AD; AD/B can be made by request.



ИНСТРУМЕНТАЛЬНАЯ ОСНАСТКА

ВРАЩАЮЩИЙСЯ ИНСТРУМЕНТ

Цанговый Патрон DIN69871 ER DIN6499 с гайкой UM

Runout: 0.003 mm

Cooling: AD;

AD/B can be made by request.

Balancing: G6.3/15000 RPM;

Balancing G2.5 can be made by request.

Usage: for clamping tools with straight shank in collets DIN 6499.



Size	D	L	Capacity
SK30-ER16UM-70	32	70	1-10
SK30-ER20UM-70	35	70	1-13
SK30-ER25-70	42	70	2-16
SK30-ER32-70	50	70	2-20
SK30-ER40-70	63	70	3-26
SK30-ER16UM-100	32	100	1-10
SK30-ER20UM-100	35	100	1-13
SK30-ER25-100	42	100	2-16
SK30-ER32-100	50	100	2-20
SK40-ER16UM-63	32	63	1-10
SK40-ER20UM-70	35	70	1-13
SK40-ER25-60	42	60	2-16
SK40-ER32-70	50	70	2-20
SK40-ER40-80	63	80	3-26
SK40-ER16UM-100	32	100	1-10
SK40-ER20UM-100	35	100	1-13
SK40-ER25-100	42	100	2-16
SK40-ER32-100	50	100	2-20
SK40-ER40-100	63	100	3-26
SK40-ER16UM-160	32	160	1-10
SK40-ER20UM-160	32	160	1-13
SK40-ER25-160	42	160	2-16
SK40-ER32-160	50	160	2-20
SK40-ER40-160	63	160	3-26

ИНСТРУМЕНТАЛЬНАЯ ОСНАСТКА

ВРАЩАЮЩИЙСЯ ИНСТРУМЕНТ

Цанговый Патрон DIN69871 ER DIN6499 с гайкой UM

Runout: 0.003 mm

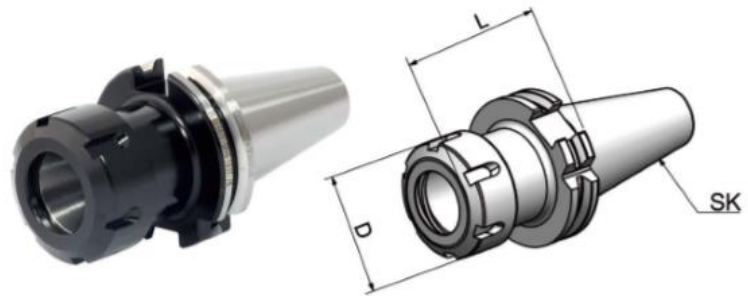
Cooling: AD;

AD/B can be made by request.

Balancing: G6.3/15000 RPM;

Balancing G2.5 can be made by request.

Usage: for clamping tools with straight shank in collets DIN 6499.



Size	D	L	Capacity
SK50-ER16UM-70	32	70	1-10
SK50-ER20UM-70	35	70	1-13
SK50-ER25-60	42	60	2-16
SK50-ER32-70	50	70	2-20
SK50-ER40-70	63	70	3-26
SK50-ER16UM-100	32	100	1-10
SK50-ER20UM-100	35	100	1-13
SK50-ER25-100	42	100	2-16
SK50-ER32-100	50	100	2-20
SK50-ER40-100	63	100	3-26
SK50-ER16UM-160	32	160	1-10
SK50-ER20UM-160	35	160	1-13
SK50-ER25-160	42	100	2-16
SK50-ER32-160	50	160	2-20
SK50-ER40-160	63	160	3-26
SK50-ER16-160	16	160	1-10
SK50-ER25-150	25	150	2-16
SK50-ER32-150	32	150	2-20
SK50-ER40-150	40	150	3-26

Цанговый Патрон DIN69871 ER DIN6499 с гайкой MINI

Runout: 0.003 mm

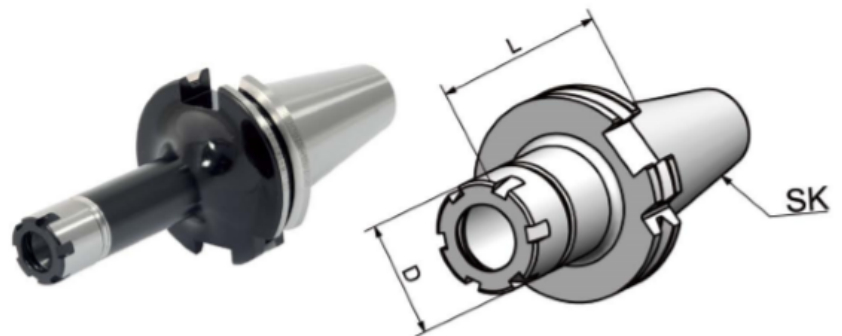
Cooling: AD;

AD/B can be made by request.

Balancing: G6.3/15000 RPM;

Balancing G2.5 can be made by request.

Usage: for clamping tools with straight shank in collets DIN 6499.



Size	D	L	Capacity
SK40-ER11M-70	16	70	1-7
SK40-ER11M-100	16	100	1-7
SK40-ER11M-160	16	160	1-7
SK40-ER16M-70	22	70	1-10
SK40-ER16M-100	22	100	1-10
SK40-ER16M-130	22	130	1-10
SK40-ER16M-160	22	160	1-10
SK40-ER25M-70	35	70	2-16
SK40-ER25M-100	35	100	2-16
SK40-ER25M-160	35	160	2-16
SK50-ER16M-70	22	70	1-10
SK50-ER16M-100	22	100	1-10
SK50-ER16M-160	22	160	1-10
SK50-ER25M-70	35	70	2-16
SK50-ER25M-100	35	100	2-16
SK50-ER25M-160	35	160	2-16

Цанговый Патрон DIN69871 ER DIN6499 с шестигранной гайкой

Runout: 0.003 mm

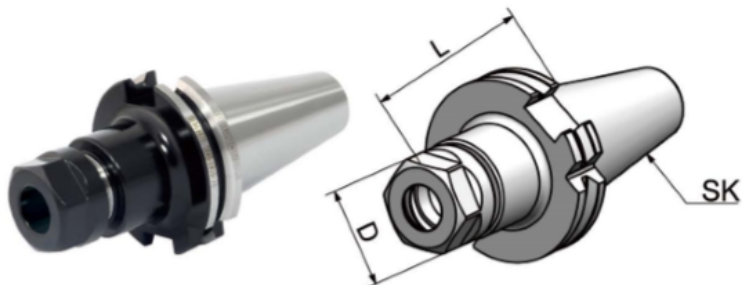
Cooling: AD;

AD/B can be made by request.

Balancing: G6.3/15000 RPM;

Balancing G2.5 can be made by request.

Usage: for clamping tools with straight shank in collets DIN 6499.



Size	D	L	Capacity
SK30-ER16A-60	28	60	1-10
SK30-ER20A-60	34	60	1-13
SK40-ER16A-60	28	60	1-10
SK40-ER20A-70	34	70	1-13
SK40-ER16A-100	28	100	1-10
SK40-ER20A-100	34	100	1-13
SK50-ER16A-70	28	70	1-10
SK50-ER20A-70	34	70	1-13
SK50-ER16A-100	28	100	1-10
SK50-ER20A-100	34	100	1-13
SK50-ER16A-160	28	160	1-10
SK50-ER20A-160	34	160	1-13



ИНСТРУМЕНТАЛЬНАЯ ОСНАСТКА

ВРАЩАЮЩИЙСЯ ИНСТРУМЕНТ Силовой Патрон DIN69871

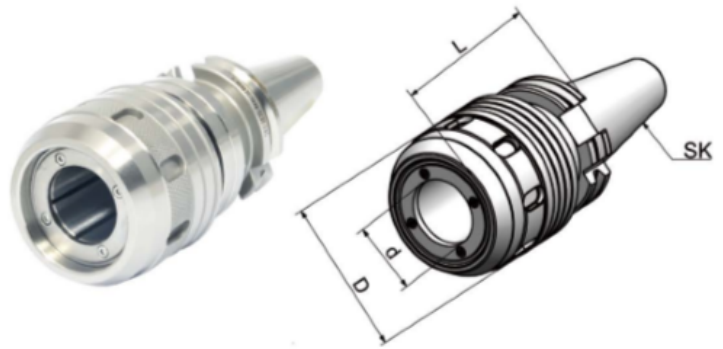
Runout: 0.01 mm

Cooling: AD

Balancing: Non-Balance;

Balancing G6.3 can be made by request.

Usage: for clamping tools with straight collets or clamping same diameter cutting tools directly.



Size	d	D	L	Capacity
SK40-HC20-85	20	50	85	3-16; 20
SK40-HC20-135	20	50	135	3-16; 20
SK40-HC32-105	32	70	105	3-25; 32
SK40-HC32-135	32	70	135	3-25; 32
SK50-HC20-105	20	50	105	3-16; 20
SK50-HC20-150	20	50	150	3-16; 20
SK50-HC32-110	32	70	110	3-25; 32
SK50-HC32-135	32	70	135	3-25; 32
SK50-HC42-110	42	99	110	3-32; 42



ИНСТРУМЕНТАЛЬНАЯ ОСНАСТКА

ВРАЩАЮЩИЙСЯ ИНСТРУМЕНТ

Патрон DIN69871 для Торцевых фрез DIN6357

Runout: 0.005 mm

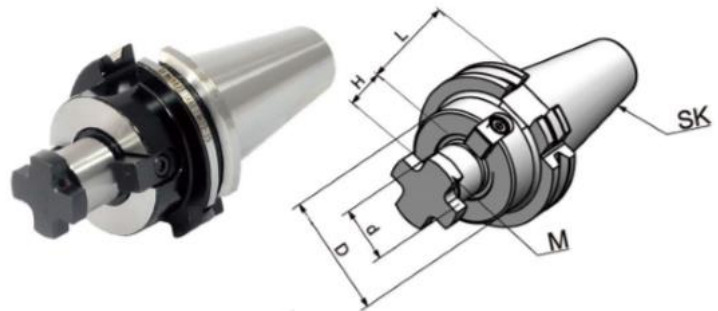
Cooling: Central Coolant

AD and AD/B can be made by request.

Balancing: G6.3/15000 RPM

Balancing G2.5 can be made by request.

Usage: for holding tools like shell mill cutters.



Size	d	D	L	H	M
SK30-FMB16-40	16	38	40	17	M8
SK30-FMB22-40	22	48	40	19	M10
SK30-FMB27-50	27	58	50	21	M12
SK30-FMB32-50	32	78	50	24	M16
SK40-FMB16-35	16	38	35	17	M8
SK40-FMB22-35	22	48	35	19	M10
SK40-FMB27-40	27	58	40	21	M12
SK40-FMB32-50	32	78	50	24	M16
SK40-FMB40-50	40	88	50	27	M20
SK40-FMB16-100	16	38	100	17	M8
SK40-FMB22-100	22	48	100	19	M10
SK40-FMB27-100	27	58	100	21	M12
SK40-FMB32-100	32	78	100	24	M16
SK40-FMB40-100	40	88	100	27	M20
SK40-FMB16-160	16	38	160	17	M8
SK40-FMB22-160	22	48	160	19	M10
SK40-FMB27-160	27	58	160	21	M12
SK40-FMB32-160	32	78	160	24	M16
SK40-FMB40-160	40	88	160	27	M20



ИНСТРУМЕНТАЛЬНАЯ ОСНАСТКА

ВРАЩАЮЩИЙСЯ ИНСТРУМЕНТ

Патрон DIN69871 для Торцевых фрез DIN6357

Runout: 0.005 mm

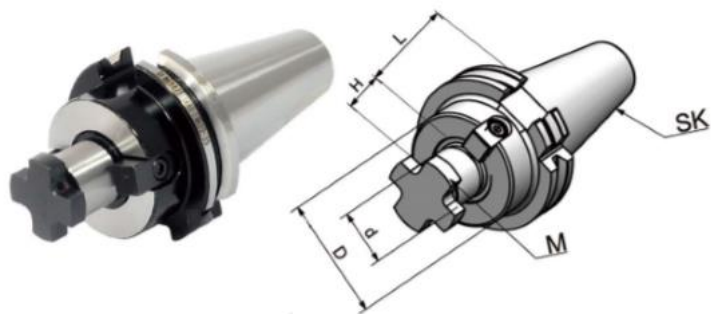
Cooling: Central Coolant

AD and AD/B can be made by request.

Balancing: G6.3/15000 RPM

Balancing G2.5 can be made by request.

Usage: for holding tools like shell mill cutters.



Size	d	D	L	H	M
SK50-FMB16-45	16	38	45	17	M8
SK50-FMB22-45	22	48	45	19	M10
SK50-FMB27-45	27	58	45	21	M12
SK50-FMB32-55	32	78	55	24	M16
SK50-FMB40-55	40	88	55	27	M20
SK50-FMB16-100	16	38	100	17	M8
SK50-FMB22-100	22	48	100	19	M10
SK50-FMB27-100	27	58	100	21	M12
SK50-FMB32-100	32	78	100	24	M16
SK50-FMB40-100	40	88	100	27	M20
SK50-FMB16-160	16	38	160	17	M8
SK50-FMB22-160	22	48	160	19	M10
SK50-FMB27-160	27	58	160	21	M12
SK50-FMB32-160	32	78	160	24	M16
SK50-FMB40-160	40	88	160	27	M20



ИНСТРУМЕНТАЛЬНАЯ ОСНАСТКА

ВРАЩАЮЩИЙСЯ ИНСТРУМЕНТ

Патрон DIN69871 для Торцевых фрез Combi со съемным кольцом DIN6358

Runout: 0.005 mm

Cooling: Central Coolant

AD and AD/B can be made by request.

Balancing: G6.3/15000 RPM

Usage: for holding tools like shell mill cutters and angular milling cutters.



Size	d	D	l	L
SK30-SEMC16-50	16	32	17	50
SK30-SEMC22-50	22	40	19	50
SK30-SEMC27-55	27	48	21	55
SK30-SEMC32-60	32	58	24	60
SK40-SEMC16-55	16	32	17	55
SK40-SEMC22-55	22	40	19	55
SK40-SEMC27-55	27	48	21	55
SK40-SEMC32-60	32	58	24	60
SK40-SEMC40-60	40	70	27	60
SK40-SEMC16-100	16	32	17	100
SK40-SEMC22-100	22	40	19	100
SK40-SEMC27-100	27	48	21	100
SK40-SEMC32-100	32	58	24	100
SK40-SEMC40-100	40	70	27	100
SK50-SEMC16-55	16	32	17	55
SK50-SEMC22-55	22	40	19	55
SK50-SEMC27-55	27	48	21	55
SK50-SEMC32-55	32	58	24	55
SK50-SEMC40-55	40	70	27	55
SK50-SEMC16-100	16	32	17	100
SK50-SEMC22-100	22	40	19	100
SK50-SEMC27-100	27	48	21	100
SK50-SEMC32-100	32	58	24	100
SK50-SEMC40-100	40	70	27	100

ИНСТРУМЕНТАЛЬНАЯ ОСНАСТКА

ВРАЩАЮЩИЙСЯ ИНСТРУМЕНТ

Патрон DIN69871 для Концевых фрез DIN6359/1835B (Weldon)

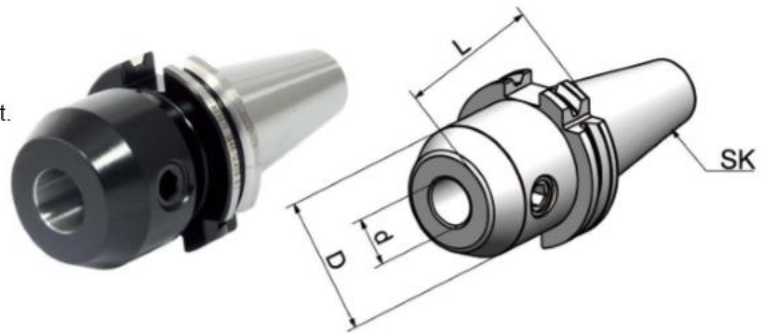
Runout: 0.005 mm

Bore Tolerance: H5

Cooling: AD AD/B can be made by request.

Balancing: G6.3/15000 RPM

Usage: for clamping tools with straight shank and inclined flat DIN1835-B.



Size	d	D	L
SK30-SLA6-50	6	25	50
SK30-SLA8-50	8	28	50
SK30-SLA10-50	10	35	50
SK30-SLA12-50	12	42	50
SK30-SLA14-63	14	44	63
SK30-SLA16-63	16	48	63
SK30-SLA18-63	18	50	63
SK30-SLA20-63	20	52	63
SK40-SLA6-50	6	25	50
SK40-SLA8-50	8	28	50
SK40-SLA10-50	10	35	50
SK40-SLA12-50	12	42	50
SK40-SLA14-50	14	44	50
SK40-SLA16-63	16	48	63
SK40-SLA18-63	18	50	63
SK40-SLA20-63	20	52	63
SK40-SLA25-100	25	65	100
SK40-SLA32-100	32	72	100
SK40-SLA40-120	40	80	120
SK40-SLA6-100	6	25	100
SK40-SLA8-100	8	28	100
SK40-SLA10-100	10	35	100
SK40-SLA12-100	12	42	100
SK40-SLA14-100	14	44	100
SK40-SLA16-100	16	48	100
SK40-SLA18-100	18	50	100
SK40-SLA20-100	20	52	100

ИНСТРУМЕНТАЛЬНАЯ ОСНАСТКА

ВРАЩАЮЩИЙСЯ ИНСТРУМЕНТ

Патрон DIN69871 для Концевых фрез DIN6359/1835B (Weldon)

Runout: 0.005 mm
Bore Tolerance: H5
Cooling: AD AD/B can be made by request.
Balancing: G6.3/15000 RPM
Usage: for clamping tools with straight shank and inclined flat DIN1835-B.



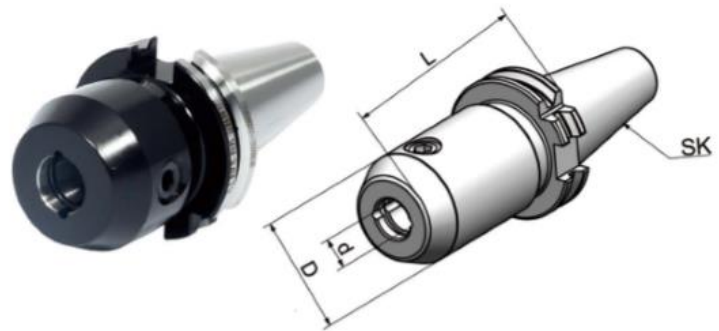
Size	d	D	L
SK40-SLA6-160	6	25	160
SK40-SLA8-160	8	28	160
SK40-SLA10-160	10	35	160
SK40-SLA12-160	12	42	160
SK40-SLA14-160	14	44	160
SK40-SLA16-160	16	48	160
SK40-SLA18-160	18	50	160
SK40-SLA20-160	20	52	160
SK40-SLA25-160	25	65	160
SK40-SLA32-160	32	72	160
SK40-SLA40-160	40	80	160
SK50-SLA6-63	6	25	63
SK50-SLA8-63	8	28	63
SK50-SLA10-63	10	35	63
SK50-SLA12-63	12	42	63
SK50-SLA14-63	14	44	63
SK50-SLA16-63	16	48	63
SK50-SLA18-63	18	50	63
SK50-SLA20-63	20	52	63
SK50-SLA25-80	25	65	80
SK50-SLA32-100	32	72	100
SK50-SLA40-100	40	80	100
SK50-SLA50-125	50	100	125

ИНСТРУМЕНТАЛЬНАЯ ОСНАСТКА

ВРАЩАЮЩИЙСЯ ИНСТРУМЕНТ

Патрон DIN69871 для Концевых фрез DIN6359/1835B (Weldon) с каналами для подвода СОЖ

Runout: 0.005 mm
Bore Tolerance: H5
Cooling: AD;
AD/B can be made by request.
Balancing: G6.3/15000 RPM
Usage: for clamping tools with straight shank and inclined flat DIN1835-B.



Size	d	D	L
SK40-SLA6-50K	6	25	50
SK40-SLA8-50K	8	28	50
SK40-SLA10-50K	10	35	50
SK40-SLA12-50K	12	42	50
SK40-SLA14-50K	14	44	50
SK40-SLA16-63K	16	48	63
SK40-SLA18-63K	18	50	63
SK40-SLA20-63K	20	52	63
SK40-SLA25-100K	25	65	100
SK40-SLA32-100K	32	72	100
SK40-SLA40-120K	40	80	120
SK40-SLA6-100K	6	25	100
SK40-SLA8-100K	8	28	100
SK40-SLA10-100K	10	35	100
SK40-SLA12-100K	12	42	100
SK40-SLA14-100K	14	44	100
SK40-SLA16-100K	16	48	100
SK40-SLA18-100K	18	50	100
SK40-SLA20-100K	20	52	100

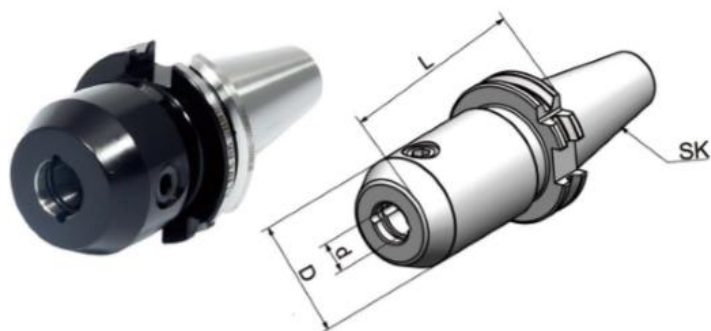


ИНСТРУМЕНТАЛЬНАЯ ОСНАСТКА

ВРАЩАЮЩИЙСЯ ИНСТРУМЕНТ

Патрон DIN69871 для Концевых фрез DIN6359/1835B (Weldon) с каналами для подвода СОЖ

Runout: 0.005 mm
Bore Tolerance: H5
Cooling: AD;
 AD/B can be made by request.
Balancing: G6.3/15000 RPM
Usage: for clamping tools with straight
 shank and inclined flat DIN1835-B.



Size	d	D	L
SK50-SLA6-63K	6	25	63
SK50-SLA8-63K	8	28	63
SK50-SLA10-63K	10	35	63
SK50-SLA12-63K	12	42	63
SK50-SLA16-63K	16	48	63
SK50-SLA18-63K	18	50	63
SK50-SLA20-63K	20	52	63
SK50-SLA25-80K	25	65	80
SK50-SLA32-100K	32	72	100
SK50-SLA40-100K	40	90	100
SK50-SLA6-100K	6	25	100
SK50-SLA8-100K	8	28	100
SK50-SLA10-100K	10	35	100
SK50-SLA12-100K	12	42	100
SK50-SLA14-100K	14	44	100
SK50-SLA16-100K	16	48	100
SK50-SLA18-100K	18	50	100
SK50-SLA20-100K	20	52	100
SK50-SLA25-120K	25	65	120

ИНСТРУМЕНТАЛЬНАЯ ОСНАСТКА

ВРАЩАЮЩИЙСЯ ИНСТРУМЕНТ

Патрон DIN69871 с Конусом Морзе и хвостовиком DIN6383

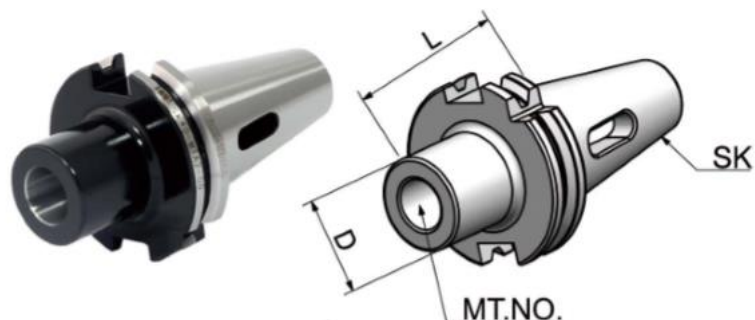
Runout: 0.005 mm

Cooling: AD;

AD/B can be made by request.

Balancing: G6.3/15000 RPM

Usage: for holding tools with Morse taper shank and tang according to DIN 228-1 form B.



Size	MT. NO.	D	L
SK30-MTA1-50	1	25	50
SK30-MTA2-50	2	32	50
SK30-MTA3-75	3	40	75
SK40-MTA1-50	1	25	50
SK40-MTA2-50	2	32	50
SK40-MTA3-70	3	40	70
SK40-MTA4-95	4	48	95
SK50-MTA1-45	1	25	45
SK50-MTA2-60	2	32	60
SK50-MTA3-65	3	40	65
SK50-MTA4-95	4	48	95
SK50-MTA5-105	5	63	105



ИНСТРУМЕНТАЛЬНАЯ ОСНАСТКА

ВРАЩАЮЩИЙСЯ ИНСТРУМЕНТ

Патрон DIN69871 с Конусом Морзе и затяжным Винтом DIN6364

Runout: 0.005 mm

Cooling: A

Balancing: G6.3/15000 RPM

Usage: for clamping tools with Morse taper shank and thread according to DIN 228-1 form A.



Size	MT. NO.	D	L	M
SK40-MTB1-50	1	25	50	M6
SK40-MTB2-50	2	32	50	M10
SK40-MTB3-70	3	40	70	M12
SK40-MTB4-95	4	48	95	M16
SK50-MTB1-45	1	25	45	M6
SK50-MTB2-60	2	32	60	M10
SK50-MTB3-65	3	40	65	M12
SK50-MTB4-70	4	48	70	M16
SK50-MTB5-100	5	63	100	M20
SK50-MTB4-95	4	48	95	M16
SK50-MTB5-105	5	63	105	M20



Сверлильный Патрон APU DIN69871

Runout: 0.005 mm
Cooling: A
Balancing: G6.3/15000 RPM
Usage: for mounting drill chucks.

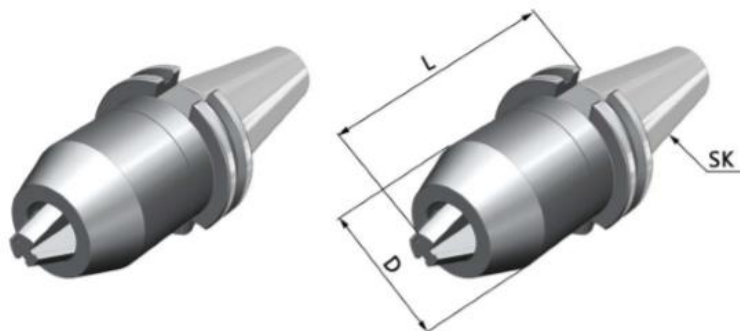


Size	D	L	I	Capacity
SK30-APU8-80	38	80	85	1-8
SK30-APU13-120	48	120	130	1-13
SK30-APU16-130	53	130	140.6	3-16
SK40-APU8-75	38	75	80	1-8
SK40-APU13-100	48	100	110	1-13
SK40-APU16-110	53	110	120.6	3-16
SK50-APU8-75	38	75	80	1-8
SK50-APU13-100	48	100	110	1-13
SK50-APU16-105	53	105	115.6	3-16

Прецизионный Сверлильный Патрон DIN69871

Advantages:

- 1) Runout: 0.03 mm;
- 2) Internal cooling;
- 3) Worm and gear design for better clamping force;
- 4) Use a hex key to lock easily.

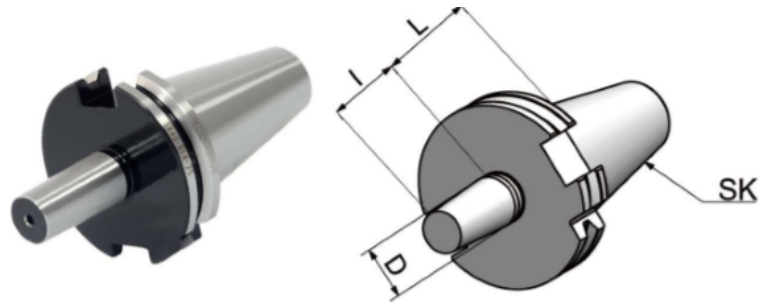


Size	D	L	Capacity
SK30-CPU10-69	38	69	0.5-10
SK40-CPU10-69	38	69	0.5-10
SK40-CPU16-80	50	80	1-16
SK50-CPU16-80	50	80	1-16



Сверлильный Патрон DIN69871 с DIN238

Runout: 0.005 mm
Cooling: A
Balancing: G6.3/15000 RPM
Usage: for mounting drill chucks.



Size	D	I	L
SK30-B12	B12	18.5	25
SK30-B16	B16	24	25
SK40-B12	B12	18.5	25
SK40-B16	B16	24	25
SK40-B18	B18	32	35
SK50-B12	B12	18.5	25
SK50-B16	B16	24	25
SK50-B18	B18	32	35



Резьбонарезной Патрон DIN69871 с Быстросъемным компенсирующим механизмом

Usage: for tapping preferably.
Axial length compensation on tension and pressure.



Size	Collet Size	D	d	L	T	C
SK30-TC312-65	1	36	19	65	7.5	7.5
SK30-TC820-99	2	54	31	99	12.5	12.5
SK40-TC312-59	1	36	19	59	7.5	7.5
SK40-TC820-97	2	54	31	97	12.5	12.5
SK40-TC1433-156	3	78	48	156	22	22
SK50-TC312-63	1	36	19	63	7.5	7.5
SK50-TC820-97	2	54	31	97	12.5	12.5
SK50-TC1433-140	3	78	48	140	22	22

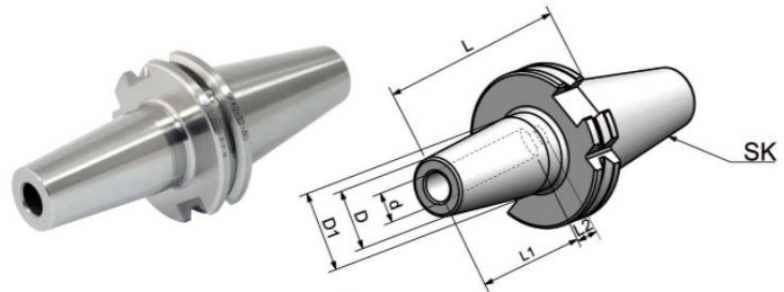


Термоусадочный Патрон DIN69871

Runout: 0.003 mm

Blancing: G2.5/25000 RPM

Usage: Working with induction shrink machine for mounting straight shank tools.



Size	d	L	D	D1	L1	L2
SK30-SF3-80	3	80	15	20	10	-
SK30-SF4-80	4	80	15	20	20	5
SK30-SF5-80	5	80	15	20	20	5
SK30-SF6-80	6	80	20	27	36	10
SK30-SF8-80	8	80	20	27	36	10
SK30-SF10-100	10	100	24	32	41	10
SK30-SF12-100	12	100	24	32	47	10
SK30-SF14-100	14	100	27	34	47	10
SK30-SF16-100	16	100	27	34	50	10
SK30-SF18-100	18	100	33	42	50	10
SK30-SF20-100	20	100	33	42	52	10

SK40-SF3-80	3	80	15	20	10	-
SK40-SF4-80	4	80	15	20	20	5
SK40-SF5-80	5	80	15	20	20	5
SK40-SF6-80	6	80	20	27	36	10
SK40-SF8-80	8	80	20	27	36	10
SK40-SF10-80	10	80	24	32	41	10
SK40-SF12-80	12	80	24	32	47	10
SK40-SF14-80	14	80	27	34	47	10
SK40-SF16-80	16	80	27	34	50	10
SK40-SF18-80	18	80	33	42	50	10
SK40-SF20-80	20	80	33	42	52	10
SK40-SF25-100	25	100	44	53	58	10
SK40-SF32-100	32	100	44	53	62	10

ИНСТРУМЕНТАЛЬНАЯ ОСНАСТКА

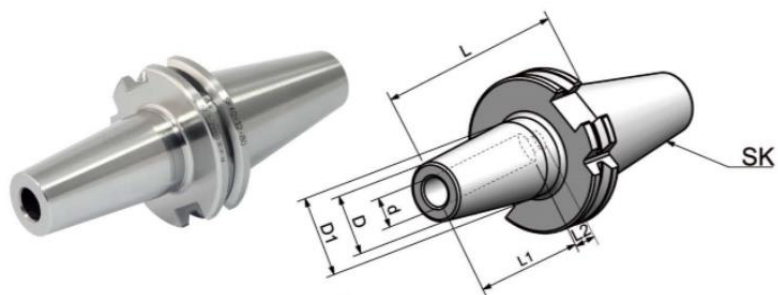
ВРАЩАЮЩИЙСЯ ИНСТРУМЕНТ

Термоусадочный Патрон DIN69871

Runout: 0.003 mm

Blancing: G2.5/25000 RPM

Usage: Working with induction shrink machine for mounting straight shank tools.



Size	d	L	D	D1	L1	L2
SK50-SF3-80	3	80	15	20	10	-
SK50-SF4-80	4	80	15	20	20	5
SK50-SF5-80	5	80	15	20	20	5
SK50-SF6-80	6	80	20	27	36	10
SK50-SF8-80	8	80	20	27	36	10
SK50-SF10-80	10	80	24	32	41	10
SK50-SF12-80	12	80	24	32	47	10
SK50-SF14-80	14	80	27	34	47	10
SK50-SF16-80	16	80	27	34	50	10
SK50-SF18-80	18	80	33	42	50	10
SK50-SF20-80	20	80	33	42	52	10
SK50-SF25-100	25	100	44	53	58	10
SK50-SF32-100	32	100	44	53	62	10



ИНСТРУМЕНТАЛЬНАЯ ОСНАСТКА

ВРАЩАЮЩИЙСЯ ИНСТРУМЕНТ

Патрон DIN69871 со сменной фрезерной навинчиваемой головкой

Runout: 0.005 mm

Cooling: AD;

AD/B can be made by request.

Balancing: G6.3/15000 RPM;

Usage: for mounting screw-in cutters with thread.



Size	M	d1	d2	A	L	D
SK40-SOM08-44 L=25	8	8.5	14.5	44	25	15
SK40-SOM08-69 L=50	8	8.5	14.5	69	50	23
SK40-SOM08-94 L=75	8	8.5	14.5	94	75	23
SK40-SOM08-119 L=100	8	8.5	14.5	119	100	25
SK40-SOM10-24 L=5	10	10.5	18	24	5	18
SK40-SOM10-44 L=25	10	10.5	18	44	25	20
SK40-SOM10-69 L=50	10	10.5	18	69	50	23
SK40-SOM10-94 L=75	10	10.5	18	94	75	28
SK40-SOM10-119 L=100	10	10.5	18	119	100	32
SK40-SOM10-169 L=150	10	10.5	18	169	150	36.5
SK40-SOM12-24 L=5	12	12.5	21	24	5	21
SK40-SOM12-44 L=25	12	12.5	21	44	25	24
SK40-SOM12-69 L=50	12	12.5	21	69	50	24
SK40-SOM12-94 L=75	12	12.5	21	94	75	31
SK40-SOM12-119 L=100	12	12.5	21	119	100	33
SK40-SOM12-144 L=125	12	12.5	21	144	125	36
SK40-SOM12-169 L=150	12	12.5	21	169	150	40
SK40-SOM16-24 L=5	16	17	29	24	5	29
SK40-SOM16-44 L=25	16	17	29	44	25	29
SK40-SOM16-69 L=50	16	17	29	69	50	34
SK40-SOM16-94 L=75	16	17	29	94	75	34
SK40-SOM16-119 L=100	16	17	29	119	100	36
SK40-SOM16-144 L=125	16	17	29	144	125	40
SK40-SOM16-169 L=150	16	17	29	169	150	42.5

ИНСТРУМЕНТАЛЬНАЯ ОСНАСТКА

ВРАЩАЮЩИЙСЯ ИНСТРУМЕНТ

Патрон DIN69871 со сменной фрезерной навинчиваемой головкой

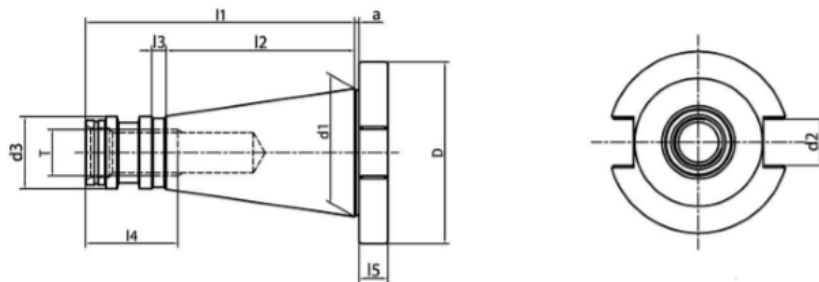
Runout: 0.005 mm
Cooling: AD;
 AD/B can be made by request.
Balancing: G6.3/15000 RPM;
Usage: for mounting screw-in cutters with thread.



Size	M	d1	d2	A	L	D
SK50-SOM08-69 L=50	8	8.5	14.5	69	50	23
SK50-SOM08-119 L=100	8	8.5	14.5	119	100	25
SK50-SOM08-169 L=150	8	8.5	14.5	169	150	30
SK50-SOM10-69 L=50	10	10.5	18	69	50	23
SK50-SOM10-119 L=100	10	10.5	18	119	100	32
SK50-SOM10-169 L=150	10	10.5	18	169	150	36.5
SK50-SOM12-69 L=50	12	12.5	21	69	50	24
SK50-SOM12-119 L=100	12	12.5	21	119	100	33
SK50-SOM12-169 L=150	12	12.5	21	169	150	40
SK50-SOM16-69 L=50	16	17	29	69	50	34
SK50-SOM16-119 L=100	16	17	29	119	100	36
SK50-SOM16-169 L=150	16	17	29	169	150	42.5

Size	M	d1	d2	A	L
SK40-M10-119 L=100	10	10.5	18	119	100
SK40-M10-169 L=150	10	10.5	18	169	150
SK40-M12-119 L=100	12	12.5	21	119	100
SK40-M12-144 L=125	12	12.5	21	144	125
SK40-M12-169 L=150	12	12.5	21	169	150
SK40-M16-119 L=100	16	17	29	119	100
SK40-M16-144 L=125	16	17	29	144	125
SK40-M16-169 L=150	16	17	29	169	150
SK50-M10-119 L=100	10	10.5	18	119	100
SK50-M10-169 L=150	10	10.5	18	169	150
SK50-M12-119 L=100	12	12.5	21	119	100
SK50-M12-169 L=150	12	12.5	21	169	150
SK50-M16-119 L=100	16	17	29	119	100
SK50-M16-169 L=150	16	17	29	169	150

ИНСТРУМЕНТАЛЬНАЯ ОСНАСТКА
 ВРАЩАЮЩИЙСЯ ИНСТРУМЕНТ
Стандарт хвостовика NT DIN2080



Size	D	d1	d2	d3	a	l1	l2	l3	l4	l5	T
NT30	50	31.75	16.1	17.04	1.6	68.4	48.4	3	24	8	M12
NT40	63	44.45	16.1	24.92	1.6	93.4	65.4	5	32	10	M16
NT50	97.5	69.85	25.7	39.19	3.2	126.8	101.8	8	47	12	M24

Taper standard: DIN 2080
Material: Alloyed case hardened steel
Surface Treatment: Blackening and Bright
Taper tolerance: <AT3
Hardness: HRC 58-62
Carbon depth: 0.8±0.2mm
Surface Roughness: Ra<0.005mm



ИНСТРУМЕНТАЛЬНАЯ ОСНАСТКА

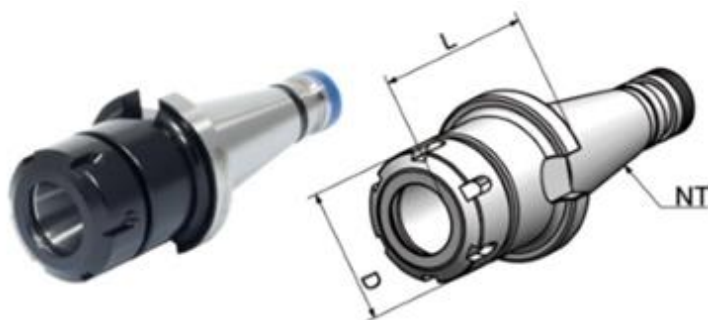
ВРАЩАЮЩИЙСЯ ИНСТРУМЕНТ

Цанговый DIN6499 Патрон с хвостовиком DIN2080

Runout: 0.003 mm

Cooling: AD

Usage: for clamping tools with straight shank in collets DIN 6499.



Size	D	L	Capacity
NT30-ER16A-50	28	50	1-10
NT30-ER20A-50	34	50	1-13
NT30-ER25-50	42	50	2-16
NT30-ER32-50	50	50	2-20
NT30-ER40-80	63	80	4-26
NT40-ER16-60	16	60	1-10
NT40-ER16A-50 OTT	28	50	1-10
NT40-ER25-50 OTT	42	50	1-13
NT40-ER32-60 OTT	50	60	3-20
NT40-ER40-80 OTT	63	80	4-26
NT40-ER16A-100 OTT	28	100	1-10
NT40-ER20A-100 OTT	34	100	1-13
NT40-ER25-100 OTT	42	100	2-16
NT40-ER32-100 OTT	50	100	3-20
NT50-ER32-70 OTT	50	70	1-20
NT50-ER40-70 OTT	63	70	2-26
NT50-ER50-90 OTT	78	90	6-34
NT50-ER16A-100 OTT	28	100	1-10
NT50-ER20A-100 OTT	34	100	1-13
NT50-ER32-100 OTT	50	100	3-20
NT50-ER40-100 OTT	63	100	4-26

ИНСТРУМЕНТАЛЬНАЯ ОСНАСТКА

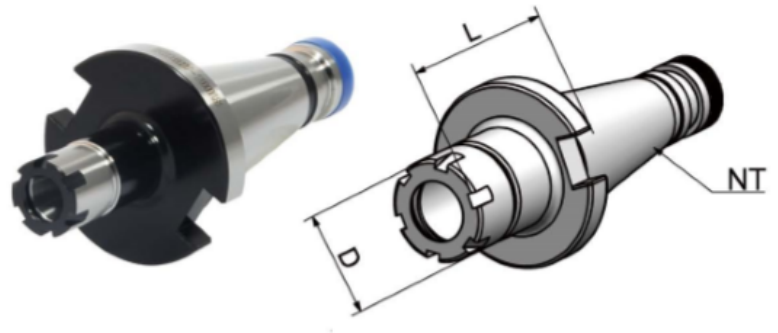
ВРАЩАЮЩИЙСЯ ИНСТРУМЕНТ

Цанговый Патрон DIN6499 с гайкой Мини и хвостовиком DIN2080

Runout: 0.003 mm

Cooling: AD;

Usage: for clamping tools with straight shank in collets DIN 6499.



Size	D	L	Capacity
NT30-ER16M-70	22	70	1-10
NT30-ER20M-70	28	70	1-13
NT30-ER25M-70	35	70	2-16
NT40-ER16M-60 OTT	22	60	1-10
NT40-ER20M-60 OTT	28	60	1-13
NT40-ER25M--60 OTT	35	60	2-16



ИНСТРУМЕНТАЛЬНАЯ ОСНАСТКА

ВРАЩАЮЩИЙСЯ ИНСТРУМЕНТ

Силовой Патрон DIN2080

Runout: 0.01 mm

Cooling: AD

Usage: for clamping tools with straight collets or clamping same diameter cutting tools directly



Size	d	D	L	Capacity	M
NT40-HC25-90	25	59	90	3-20; 25	M16
NT40-HC32-90	32	70	90	3-25; 32	M16
NT40-HC32-105	32	70	105	3-25; 32	M16
NT50-HC25-85	25	59	85	3-20; 25	M24
NT50-HC32-90	32	70	90	3-25; 32	M24
NT50-HC42-95	42	99	95	3-32; 42	M24
NT50-HC25-150	25	59	150	3-20; 25	M24
NT50-HC32-150	32	70	150	3-25; 32	M24
NT50-HC42-150	42	99	150	3-32; 42	M24

ИНСТРУМЕНТАЛЬНАЯ ОСНАСТКА

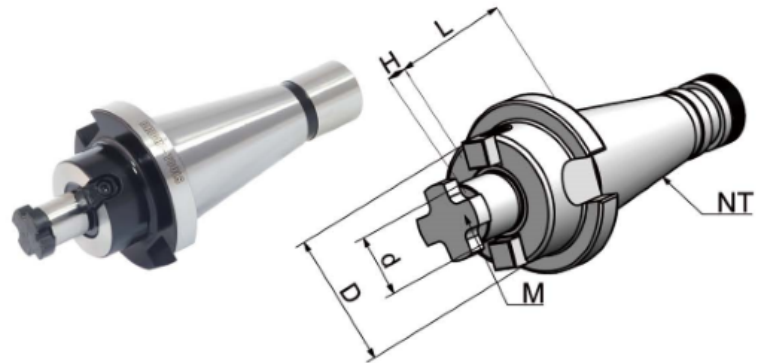
ВРАЩАЮЩИЙСЯ ИНСТРУМЕНТ

Патрон DIN2080 для Торцевых фрез DIN6357

Runout: 0.005 mm

Cooling: Central Coolant

Usage: for holding tools like shell mill cutters.



Size	d	D	L	H	M
NT30-FMB16-30	16	38	30	17	M8
NT30-FMB22-30	22	48	30	19	M10
NT30-FMB27-45	27	58	45	21	M12
NT30-FMB32-50	32	78	50	24	M16
NT40-FMB16-30	16	38	30	17	M8
NT40-FMB22-30	22	48	30	19	M10
NT40-FMB27-30	27	58	30	21	M12
NT40-FMB32-30	32	78	30	24	M16
NT40-FMB40-30	40	88	30	27	M16
NT50-FMB16-30	16	38	30	17	M8
NT50-FMB22-35	22	48	35	19	M10
NT50-FMB27-35	27	58	35	21	M12
NT50-FMB32-40	32	78	40	24	M16
NT50-FMB40-40	40	88	40	27	M16

ИНСТРУМЕНТАЛЬНАЯ ОСНАСТКА

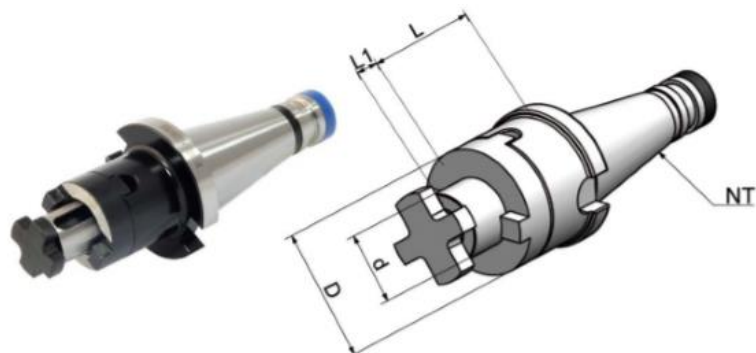
ВРАЩАЮЩИЙСЯ ИНСТРУМЕНТ

Патрон DIN2080 для Торцевых фрез со съемным кольцом DIN6358

Runout: 0.005 mm

Cooling: Central Coolant

Usage: for holding tools like shell mill cutters and angular milling cutters.



Size	d	D	L	L1
NT30-SEMC16-35	16	32	35	17
NT30-SEMC22-35	22	40	35	19
NT30-SEMC27-35	27	48	35	21
NT30-SEMC32-50	32	58	50	24
NT40-SEMC16-52	16	32	52	17
NT40-SEMC22-52	22	40	52	19
NT40-SEMC27-52	27	48	52	21
NT40-SEMC32-52	32	58	52	24
NT40-SEMC40-52	40	70	52	27
NT50-SEMC16-55	16	32	55	17
NT50-SEMC22-55	22	40	55	19
NT50-SEMC27-55	27	48	55	21
NT50-SEMC32-55	32	58	55	24
NT50-SEMC40-55	40	70	55	27

ИНСТРУМЕНТАЛЬНАЯ ОСНАСТКА

ВРАЩАЮЩИЙСЯ ИНСТРУМЕНТ

Патрон DIN2080 для Концевых фрез DIN6359/1835B (Weldon)

Runout: 0.005 mm

Bore Tolerance: H5

Cooling: AD

Usage: for clamping tools with straight shank and inclined flat DIN1835-B.



Size	d	D	L
NT30-SLA6-40	6	25	40
NT30-SLA8-40	8	28	40
NT30-SLA10-40	10	35	40
NT30-SLA12-40	12	42	40
NT30-SLA16-50	16	48	50
NT30-SLA18-50	18	50	50
NT30-SLA20-63	20	52	63
NT40-SLA6-50	6	25	50
NT40-SLA8-50	8	28	50
NT40-SLA10-50	10	35	50
NT40-SLA12-50	12	42	50
NT40-SLA14-50	14	44	50
NT40-SLA16-63	16	48	63
NT40-SLA18-63	18	50	63
NT40-SLA20-63	20	52	63
NT40-SLA25-80	25	65	80
NT40-SLA32-80	32	72	80
NT40-SLA40-90	42	80	90
NT50-SLA6-63	6	25	63
NT50-SLA8-63	8	28	63
NT50-SLA10-63	10	35	63
NT50-SLA12-63	12	42	63
NT50-SLA14-63	14	44	63
NT50-SLA16-63	16	48	63
NT50-SLA18-63	18	50	63
NT50-SLA20-63	20	52	63
NT50-SLA25-80	25	65	80
NT50-SLA32-80	32	72	80
NT50-SLA40-90	40	80	90

ИНСТРУМЕНТАЛЬНАЯ ОСНАСТКА

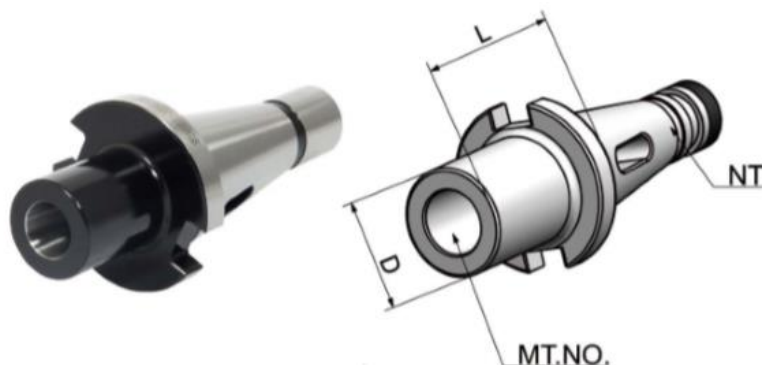
ВРАЩАЮЩИЙСЯ ИНСТРУМЕНТ

Патрон DIN2080 с Конусом Морзе DIN6383

Runout: 0.005 mm

Cooling: AD

Usage: for holding tools with Morse taper shank and tang according to DIN 228-1 form B.



Size	MT.No.	L	D
NT30-MTA1-50	1	50	25
NT30-MTA2-50	2	50	32
NT30-MTA3-75	3	75	40
NT40-MTA1-50	1	50	25
NT40-MTA2-50	2	50	32
NT40-MTA3-65	3	65	40
NT40-MTA4-95	4	95	48
NT50-MTA1-45	2	45	25
NT50-MTA2-60	2	60	32
NT50-MTA3-65	3	65	40
NT50-MTA4-70	4	70	48
NT50-MTA5-105	5	105	63

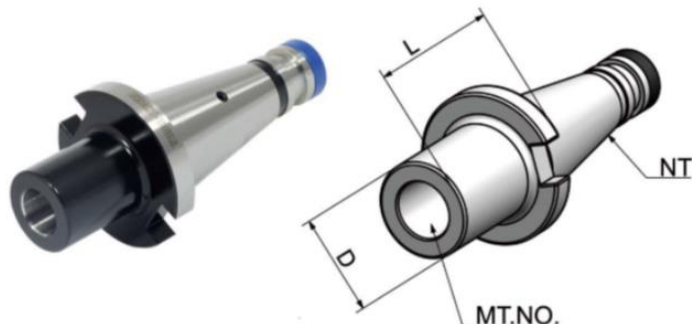


Патрон DIN2080 с Конусом Морзе и затяжным винтом DIN6364

Runout: 0.005 mm

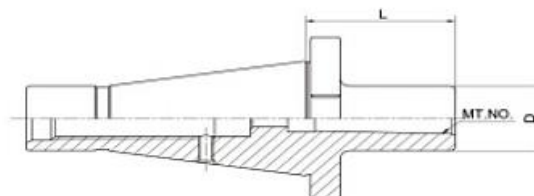
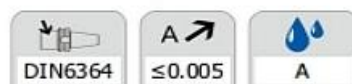
Cooling: A

Usage: for clamping tools with Morse taper shank and thread according to DIN 228-1 form A.



Size	MT.No.	L	D	M
NT30-MTB1-45	1	45	25	M6
NT30-MTB2-60	2	60	32	M10
NT30-MTB3-70	3	70	40	M12
NT40-MTB1-50	1	50	25	M6
NT40-MTB2-50	2	50	32	M10
NT40-MTB3-65	3	65	40	M12
NT40-MTB4-95	4	95	48	M16
NT50-MTB1-60	2	60	25	M6
NT50-MTB2-60	2	60	32	M10
NT50-MTB3-65	3	65	40	M12
NT50-MTB4-65	4	65	48	M16
NT50-MTB5-120	5	120	63	M20

Morse Taper Adapter with Drawbar

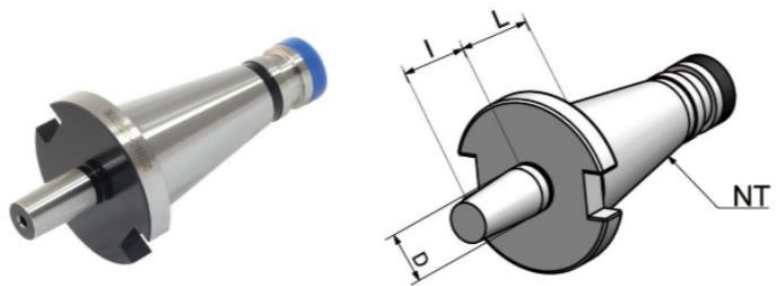


Size	MT.No	L	D
NT40-MTB2-50 OTT	2	50	32
NT40-MTB3-65 OTT	3	65	40
NT40-MTB4-95 OTT	4	95	48

ИНСТРУМЕНТАЛЬНАЯ ОСНАСТКА

ВРАЩАЮЩИЙСЯ ИНСТРУМЕНТ Сверльный Патрон DIN2080

Runout: 0.005 mm
Cooling: A
Usage: for mounting drill chucks.



Size	D	L	l
NT30-B12	B12	15	18.5
NT30-B16	B16	17	24
NT40-B12	B12	18	18.5
NT40-B16	B16	18	24
NT40-B18	B18	18	32
NT50-B16	B16	20	24
NT50-B18	B18	20	32

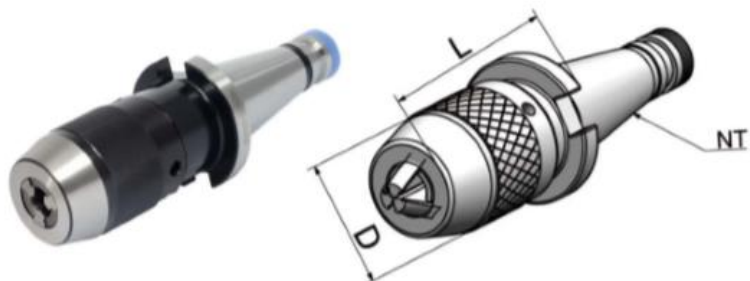


Сверлильный Патрон DIN2080 APU

Runout: 0.08 mm

Cooling: A; Central cooling is unavailable.

Usage: for clamping tools with straight shank.



Size	D	L		Capacity
NT30-APU08-80	38	80	90	1-8
NT30-APU13-100	48	100	110	1-13
NT40-APU08-85	38	85	95	1-8
NT40-APU13-110	48	110	120	1-13
NT40-APU16-130	53	130	141	3-16
NT50-APU08-95	38	90	105	1-8
NT50-APU13-120	48	120	130	1-13
NT50-APU16-130	53	130	141	3-16



ИНСТРУМЕНТАЛЬНАЯ ОСНАСТКА

ВРАЩАЮЩИЙСЯ ИНСТРУМЕНТ

Резьбонарезной Патрон DIN2080 с Быстросъемным компенсирующим механизмом

Usage: for tapping preferably.
Axial length compensation on tension and pressure.



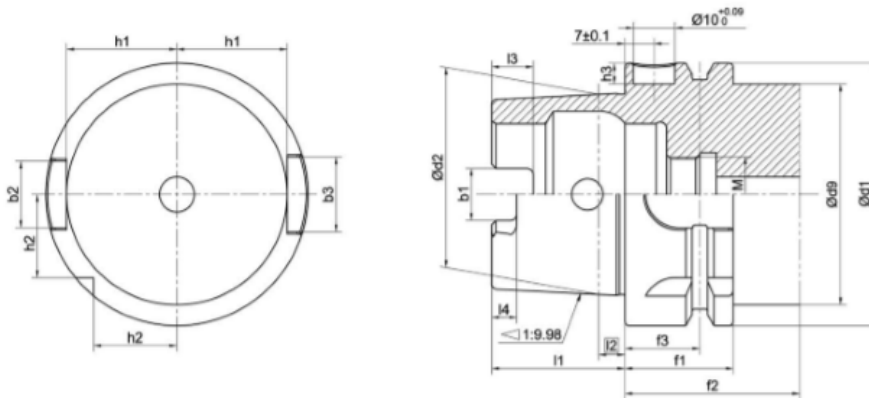
Size	Collet Size	d	D	L	T	C
NT30-TC312-55	1	19	36	55	7.5	7.5
NT30-TC820-86	2	31	53	86	12.5	12.5
NT40-TC312-55	1	19	36	55	7.5	7.5
NT40-TC820-86	2	31	53	86	12.5	12.5
NT40-TC1433-132	3	48	78	132	22	22
NT50-TC312-62	1	19	36	62	7.5	7.5
NT50-TC820-90	2	31	53	90	12.5	12.5
NT50-TC1433-117	3	48	78	117	22	22



ИНСТРУМЕНТАЛЬНАЯ ОСНАСТКА

ВРАЩАЮЩИЙСЯ ИНСТРУМЕНТ

Стандарт хвостовика HSK A DIN69893/ISO12164



Size	d1	d2	d9	l1	l2	l3	l4	f1	f2	f3	h1	h2	h3	b1	b2	b3
HSK25A	25	19.006	20	13	2.5	4	2	10	20	4.5	10	7.5	-	6.05	6	7
HSK32A	32	24.007	26	16	3.2	5	3	20	35	16	13	9.5	5.4	7.05	7	9
HSK40A	40	30.007	34	20	4	6	3.5	20	35	16	17	12	5.2	8.05	9	11
HSK50A	50	38.009	42	25	5	7.5	4.5	26	42	18	21	15.5	5.1	10.54	12	14
HSK63A	63	48.010	53	32	6.3	10	6	26	42	18	26.5	20	5.0	12.54	16	18
HSK80A	80	60.012	68	40	8	12	8	26	42	18	34	25	4.9	16.04	18	20
HSK100A	100	75.013	88	50	10	15	10	29	45	20	44	31.5	4.9	20.02	20	22

Taper standard: DIN 69893; ISO 12164

Material: Alloyed case hardened steel

Surface Treatment: Blackening and Bright

Taper tolerance: <AT3

Hardness: HRC 58-62

Carbon depth: 0.8±0.2mm

Surface Roughness: Ra<0.005mm

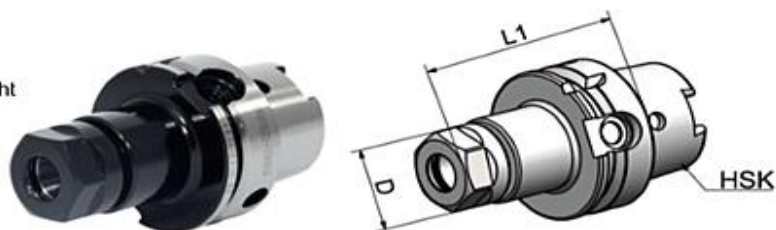
Balancing: G6.3/15000; G2.5/25000



ИНСТРУМЕНТАЛЬНАЯ ОСНАСТКА

ВРАЩАЮЩИЙСЯ ИНСТРУМЕНТ

Runout: 0.003 mm
Balancing: G2.5/25000 RPM
Usage: for clamping tools with straight shank in collets DIN 6499.



Size	D	L1	Capacity
HSK32A-ER16-80	28	80	1-10
HSK32A-ER25-80	42	80	2-16
HSK32A-ER32-50	50	50	3-20
HSK40A-ER16-80	28	80	1-10
HSK40A-ER25-80	42	80	2-16
HSK40A-ER32-80	50	80	3-20
HSK50A-ER16-80	28	80	1-10
HSK50A-ER20-80	34	80	1-13
HSK50A-ER25-80	42	80	2-16
HSK50A-ER32-100	50	100	3-20
HSK63A-ER16-75	28	75	1-10
HSK63A-ER20-75	34	75	1-13
HSK63A-ER25-75	42	75	2-16
HSK63A-ER32-75	50	75	3-20
HSK63A-ER40-90	50	90	4-26
HSK63A-ER16-100	28	100	1-10
HSK63A-ER20-100	34	100	1-13
HSK63A-ER25-100	42	100	2-16
HSK63A-ER32-100	50	100	3-20
HSK63A-ER16-120	28	120	1-10
HSK63A-ER20-120	34	120	1-13
HSK63A-ER25-120	42	120	2-16
HSK63A-ER32-120	50	120	3-20
HSK63A-ER40-120	50	120	4-26
HSK63A-ER16-160T	28	160	1-10
HSK63A-ER20-160	34	160	1-13
HSK63A-ER25-160	42	160	2-16
HSK63A-ER32-160	50	160	3-20
HSK63A-ER40-160	50	160	4-26
HSK63A-ER40-100	50	100	4-26

Цанговый Патрон DIN69893 с ER DIN6499 и UM гайкой



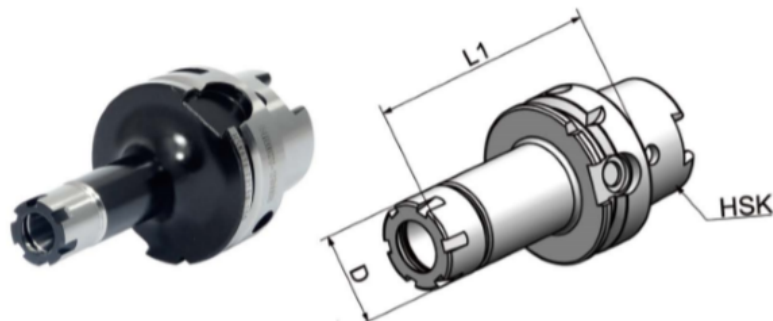
Size	D	L1	Capacity
HSK80A-ER16-100	28	100	1-10
HSK80A-ER25-100	42	100	2-16
HSK80A-ER32-100	50	100	3-20
HSK80A-ER40-120	63	120	4-26
HSK100A-ER16-100	28	100	1-10
HSK100A-ER20-100	34	100	1-13
HSK100A-ER25-100	42	100	2-16
HSK100A-ER32-100	50	100	3-20
HSK100A-ER40-120	63	120	4-26
HSK100A-ER16-160	28	160	1-10
HSK100A-ER20-160	34	160	1-13
HSK100A-ER25-160	42	160	2-16
HSK100A-ER32-160	50	160	3-20
HSK100A-ER40-160	63	160	4-26
HSK100A-ER25-120	25	120	2-16
HSK100A-ER32-120	32	120	3-20
HSK100A-ER40-100	40	100	4-26

Цанговый Патрон DIN69893 с ER DIN6499 и гайкой MINI

Runout: 0.003 mm

Balancing: G2.5/25000 RPM

Usage: for clamping tools with straight shank in collets DIN 6499.



Size	D	L1	Capacity
HSK32A-ER11M-50	16	50	1-7
HSK32A-ER16M-50	22	50	1-10
HSK40A-ER11M-40	16	40	1-7
HSK40A-ER16M-80	22	80	1-10
HSK50A-ER11M-60	16	60	1-7
HSK50A-ER16M-60	22	60	1-10
HSK63A-ER11M-100	16	100	1-7
HSK63A-ER16M-100	22	100	1-10
HSK63A-ER25M-100	35	100	2-16
HSK63A-ER11M-160	16	160	1-7
HSK63A-ER16M-160	22	160	1-10
HSK63A-ER25M-160	35	160	2-16
HSK100A-ER16M-100	22	100	1-10
HSK100A-ER25M-100	35	100	2-16
HSK100A-ER16M-160	22	160	1-10
HSK100A-ER25M-160	35	160	2-16



Силовой Патрон DIN69893

Runout: 0.01 mm

Balancing: G6.3/15000 RPM

Usage: for clamping tools with straight collets or clamping same diameter cutting tools directly.



Size	d	D	L	Capacity
HSK63A-HC20-100	20	50	100	3-16; 20
HSK63A-HC25-100	25	59	100	3-20; 25
HSK63A-HC32-120	32	70	120	3-25; 32
HSK100A-HC20-105	20	50	105	3-16; 20
HSK100A-HC25-105	25	59	105	3-20; 25
HSK100A-HC32-120	32	70	120	3-25; 32

HSK100A-HC20-115	20	50	115	3-16;20
HSK100A-HC32-135	32	70	135	3-25;32



ИНСТРУМЕНТАЛЬНАЯ ОСНАТКА

ВРАЩАЮЩИЙСЯ ИНСТРУМЕНТ

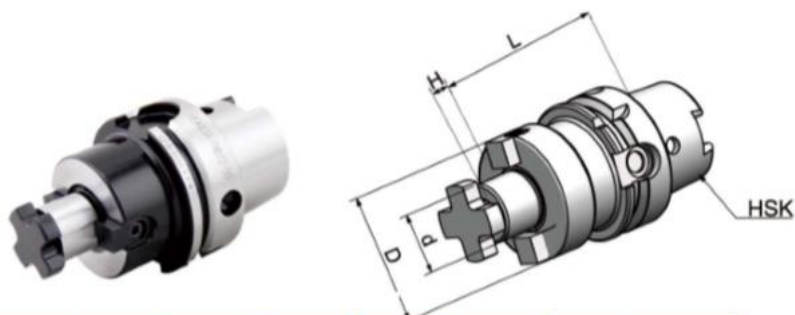
Патрон DIN69893 для Торцевых фрез Combi со съемным кольцом DIN6358

Runout: 0.005 mm

Balancing: G6.3/15000 RPM

Balancing G2.5 can be made by request.

Usage: for holding tools like shell mill cutters.



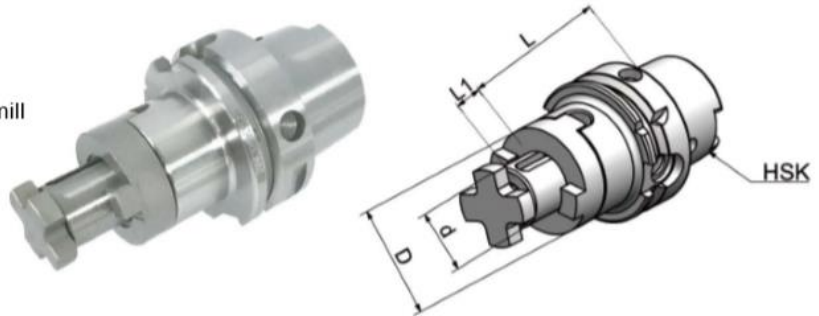
Size	d	D	H	L
HSK32A-FMB16-45	16	38	17	45
HSK32A-FMB22-50	22	48	19	50
HSK40A-FMB22-50	22	48	19	50
HSK40A-FMB27-55	27	58	21	55
HSK40A-FMB32-60	32	78	24	60
HSK50A-FMB16-50	16	38	17	50
HSK50A-FMB22-60	22	48	19	60
HSK50A-FMB27-60	27	58	21	60
HSK50A-FMB32-60	32	78	24	60
HSK63A-FMB16-50	16	38	17	50
HSK63A-FMB22-50	22	48	19	50
HSK63A-FMB27-60	27	58	21	60
HSK63A-FMB32-60	32	78	24	60
HSK63A-FMB40-60	40	88	27	60
HSK63A-FMB16-100	16	38	17	100
HSK63A-FMB22-100	22	48	19	100
HSK63A-FMB27-100	27	58	21	100
HSK63A-FMB32-100	32	78	24	100
HSK63A-FMB40-100	40	88	27	100
HSK80A-FMB22-50	22	48	19	50
HSK80A-FMB27-50	27	58	21	50
HSK80A-FMB32-60	32	78	24	60
HSK80A-FMB40-60	40	88	27	60
HSK100A-FMB22-50	22	48	19	50
HSK100A-FMB27-50	27	58	21	50
HSK100A-FMB32-60	32	78	24	60
HSK100A-FMB40-60	40	88	27	60
HSK100A-FMB60-70	60	138	25	70
HSK100A-FMB32-50	32	78	24	50

Патрон DIN69893 для Торцевых фрез Combi со съемным кольцом DIN6358

Runout: 0.005 mm

Balancing: G6.3/15000 RPM

Usage: for holding tools like shell mill cutters and angular milling cutters.



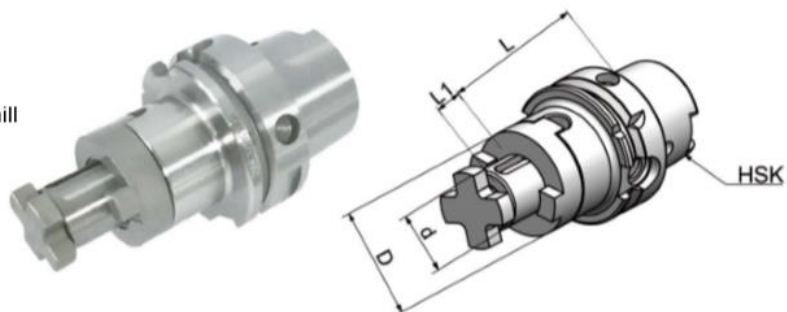
Size	d	D	L	L1
HSK32A-SEMC16-55	16	32	55	17
HSK32A-SEMC22-55	22	40	55	19
HSK32A-SEMC27-65	27	48	65	21
HSK32A-SEMC32-65	32	58	65	24
HSK40A-SEMC16-50	16	32	50	17
HSK40A-SEMC22-50	22	40	50	19
HSK40A-SEMC27-65	27	48	65	21
HSK40A-SEMC32-65	32	58	65	24
HSK50A-SEMC16-50	16	32	50	17
HSK50A-SEMC22-50	22	40	50	19
HSK50A-SEMC27-65	27	48	65	21
HSK50A-SEMC32-65	32	58	65	24
HSK63A-SEMC16-60	16	32	60	17
HSK63A-SEMC22-60	22	40	60	19
HSK63A-SEMC27-60	27	48	60	21
HSK63A-SEMC32-60	32	58	60	24
HSK63A-SEMC40-70	40	70	70	27
HSK63A-SEMC16-100	16	32	100	17
HSK63A-SEMC22-100	22	40	100	19
HSK63A-SEMC27-100	27	48	100	21
HSK63A-SEMC32-100	32	58	100	24

Патрон DIN69893 для Торцевых фрез Combi со съемным кольцом DIN6358

Runout: 0.005 mm

Balancing: G6.3/15000 RPM

Usage: for holding tools like shell mill cutters and angular milling cutters.



Size	d	D	L	L1
HSK80A-SEMC16-60	16	32	60	17
HSK80A-SEMC22-60	22	40	60	19
HSK80A-SEMC27-60	27	48	60	21
HSK80A-SEMC32-60	32	58	60	24
HSK80A-SEMC40-70	40	70	70	27
HSK100A-SEMC16-60	16	32	60	17
HSK100A-SEMC22-60	22	40	60	19
HSK100A-SEMC27-60	27	48	60	21
HSK100A-SEMC32-60	32	58	60	24
HSK100A-SEMC40-70	40	70	70	27



Патрон DIN69893 для Концевых фрез DIN6359/1835B (Weldon)

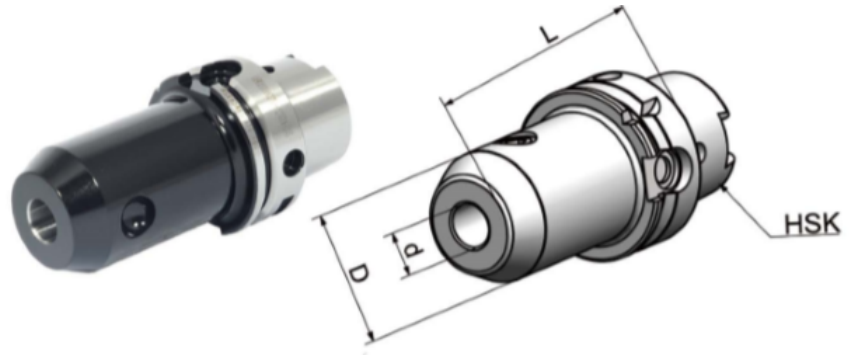
Runout: 0.005 mm

Bore Tolerance: H5

Balancing: G6.3/15000 RPM

Balancing G2.5 can be made by request.

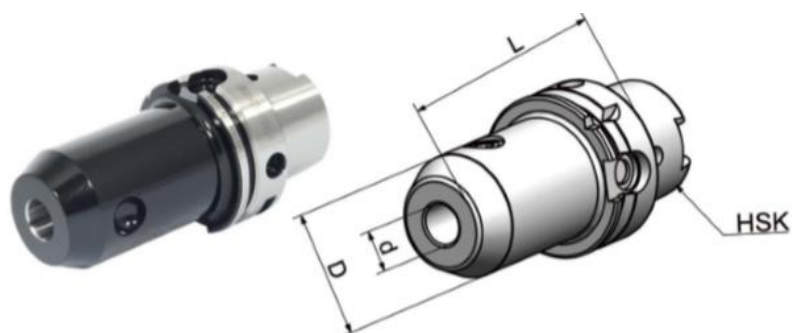
Usage: for clamping tools with straight shank and inclined flat DIN1835-B.



Size	d	D	L
HSK32A-SLA06-60	6	25	60
HSK32A-SLA08-60	8	28	60
HSK32A-SLA10-65	10	35	65
HSL32A-SLA12-70	12	42	70
HSK32A-SLA14-75	14	44	75
HSK32A-SLA16-75	16	48	75
HSK32A-SLA20-90	20	52	90
HSK40A-SLA06-60	6	25	60
HSK40A-SLA08-60	8	28	60
HSK40A-SLA10-60	10	35	60
HSK40A-SLA12-70	12	42	70
HSK40A-SLA14-75	14	44	75
HSK40A-SLA16-75	16	48	75
HSK40A-SLA18-85	18	50	85
HSK40A-SLA20-85	20	52	85
HSK40A-SLA25-95	25	60	95
HSK40A-SLA32-105	32	60	105

Патрон DIN69893 для Концевых фрез DIN6359/1835B (Weldon)

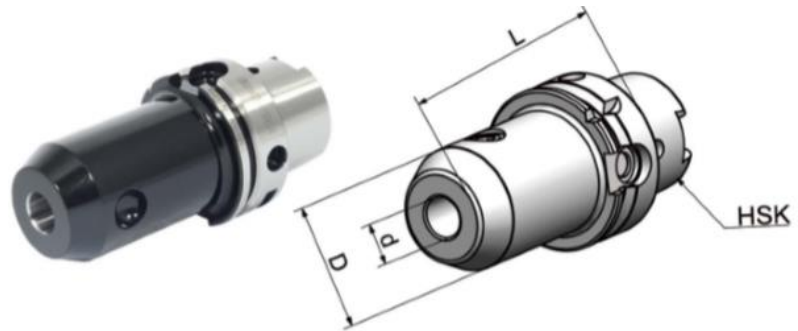
Runout: 0.005 mm
Bore Tolerance: H5
Balancing: G6.3/15000 RPM
 Balancing G2.5 can be made by request.
Usage: for clamping tools with straight shank and inclined flat DIN1835-B.



Size	d	D	L
HSK63A-SLA06-65	6	25	65
HSK63A-SLA08-65	8	28	65
HSK63A-SLA10-65	10	35	65
HSK63A-SLA12-80	12	42	80
HSK63A-SLA14-80	14	44	80
HSK63A-SLA16-80	16	48	80
HSK63A-SLA20-80	20	52	80
HSK63A-SLA25-110	25	65	110
HSK63A-SLA32-110	32	72	110
HSK63A-SLA40-125	40	80	125
HSK63A-SLA06-100	6	25	100
HSK63A-SLA08-100	8	28	100
HSK63A-SLA10-100	10	35	100
HSK63A-SLA14-100	14	44	100
HSK63A-SLA16-100	16	48	100
HSK63A-SLA18-100	18	50	100
HSK63A-SLA20-100	20	52	100
HSK63A-SLA06-160	6	25	160
HSK63A-SLA08-160	8	28	160
HSK63A-SLA10-160	10	35	160
HSK63A-SLA12-160	12	42	160
HSK63A-SLA14-160	14	44	160
HSK63A-SLA16-160	16	48	160
HSK63A-SLA18-160	18	50	160
HSK63A-SLA20-160	20	52	160

Патрон DIN69893 для Концевых фрез DIN6359/1835B (Weldon)

Runout: 0.005 mm
Bore Tolerance: H5
Balancing: G6.3/15000 RPM
 Balancing G2.5 can be made by request.
Usage: for clamping tools with straight shank and inclined flat DIN1835-B.



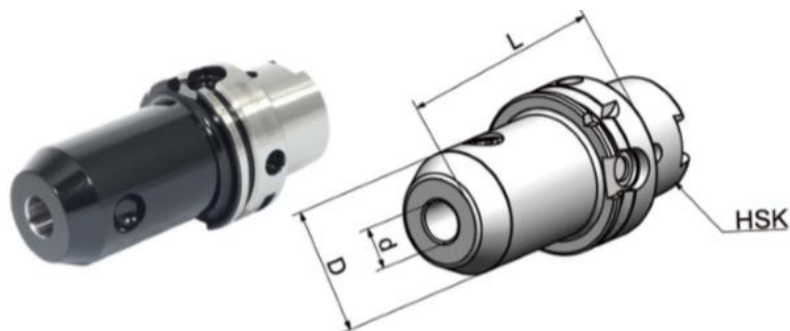
Size	d	D	L
HSK80A-SLA06-80	6	25	80
HSK80A-SLA08-80	8	28	80
HSK80A-SLA10-80	10	35	80
HSK80A-SLA12-80	12	42	80
HSK80A-SLA14-80	14	44	80
HSK80A-SLA16-100	16	48	100
HSK80A-SLA18-100	18	50	100
HSK80A-SLA20-100	20	52	100
HSK80A-SLA25-100	25	65	100
HSK80A-SLA32-110	32	72	110
HSK80A-SLA40-120	40	80	120
HSK100A-SLA08-80	8	28	80
HSK100A-SLA10-80	10	35	80
HSK100A-SLA12-80	12	42	80
HSK100A-SLA14-80	14	44	80
HSK100A-SLA14-80	14	44	80
HSK100A-SLA16-100	16	48	100
HSK100A-SLA20-100	20	52	100
HSK100A-SLA25-100	25	65	100
HSK100A-SLA32-100	32	72	100
HSK100A-SLA40-105	40	80	105
HSK100A-SLA6-80	6	25	80

ИНСТРУМЕНТАЛЬНАЯ ОСНАСТКА

ВРАЩАЮЩИЙСЯ ИНСТРУМЕНТ

Патрон DIN69893 для Концевых фрез DIN6359/1835B (Weldon) с отверстиями для подвода СОЖ

Runout: 0.005 mm
Bore Tolerance: H5
Balancing: G6.3/15000 RPM
Balancing G2.5 can be made by request.
Usage: for clamping tools with straight shank and inclined flat DIN1835-B.



Size	d	D	L
HSK63A-SLA06-65K	6	25	65
HSK63A-SLA08-65K	8	28	65
HSK63A-SLA10-65K	10	35	65
HSK63A-SLA12-80K	12	42	80
HSK63A-SLA14-80K	14	44	80
HSK63A-SLA16-80K	16	48	80
HSK63A-SLA18-80K	18	50	80
HSK63A-SLA20-80K	20	52	80
HSK63A-SLA25-110K	25	65	110
HSK63A-SLA32-110K	32	72	110
HSK63A-SLA40-125K	40	80	125
HSK100A-SLA06-80K	6	25	80
HSK100A-SLA08-80K	8	28	80
HSK100A-SLA10-80K	10	35	80
HSK100A-SLA12-80K	12	42	80
HSK100A-SLA14-80K	14	44	80
HSK100A-SLA16-100K	16	48	100
HSK100A-SLA18-100K	18	50	100
HSK100A-SLA20-100K	20	52	100
HSK100A-SLA25-100K	25	65	100
HSK100A-SLA32-100K	32	72	100
HSK100A-SLA40-105K	40	80	105



Патрон с Конусом Морзе и хвостовиком DIN69893/ISO 12164

Runout: 0.005 mm

Balancing: G6.3/15000 RPM

Balancing G2.5 can be made by request.

Usage: for holding tools with Morse taper shank and tang according to DIN 228-1form B.



Size	MT. NO.	D	L
HSK50A-MTA1-100	1	25	100
HSK50A-MTA2-120	2	32	120
HSK50A-MTA3-140	3	40	140
HSK63A-MTA1-100	1	25	100
HSK63A-MTA2-120	2	32	120
HSK63A-MTA3-140	3	40	140
HSK63A-MTA4-160	4	48	160
HSK80A-MTA1-100	1	25	100
HSK80A-MTA2-120	2	32	120
HSK80A-MTA3-140	3	40	140
HSK80A-MTA4-160	4	48	160
HSK100A-MTA1-110	1	25	110
HSK100A-MTA2-120	2	32	120
HSK100A-MTA3-150	3	40	150
HSK100A-MTA4-170	4	48	170
HSK100A-MTA5-200	5	63	200

Патрон с хвостовиком DIN69893/ISO 12164 , Конусом Морзе и затяжным винтом DIN6364

Runout: 0.005 mm

Balancing: G6.3/15000 RPM

Balancing G2.5 can be made by request.

Usage: for holding tools with Morse taper shank and tang according to DIN 228-1form B.



Size	MT. NO.	D	L
HSK50A-MTB1-100	1	25	100
HSK50A-MTB2-120	2	32	120
HSK50A-MTB3-140	3	40	140
HSK63A-MTB1-100	1	25	100
HSK63A-MTB2-120	2	32	120
HSK63A-MTB3-140	3	40	140
HSK63A-MTB4-160	4	48	160
HSK80A-MTB1-110	1	25	110
HSK80A-MTB2-120	2	32	120
HSK80A-MTB3-150	3	40	150
HSK80A-MTB4-170	4	48	170
HSK100A-MTB1-110	1	25	110
HSK100A-MTB2-120	2	32	120
HSK100A-MTB3-150	3	40	150
HSK100A-MTB4-170	4	48	170
HSK100A-MTB5-200	5	63	200

Сверлильный Патрон APU с хвостовиком DIN69893/ISO 12164

Runout: 0.08 mm

Cooling: Central cooling is unavailable.

Balancing: G6.3/15000 RPM

Usage: for clamping tools with straight shank.

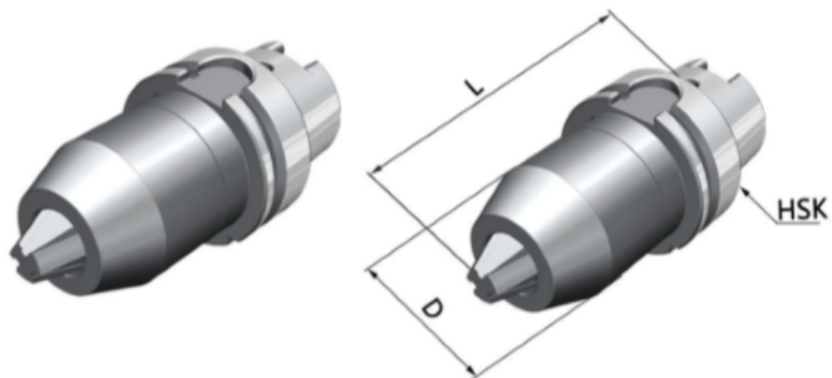


Size	D	L		Capacity
HSK50A-APU08-90	38	90	95	1-8
HSK50A-APU08-120	38	120	130	1-8
HSK50A-APU13-116	48	116	126	1-13
HSK50A-APU16-116	53	116	126	3-16
HSK63A-APU08-85	38	85	95	1-8
HSK63A-APU08-120	38	120	130	1-8
HSK63A-APU13-150	48	150	160	1-13
HSK63A-APU13-104	48	104	114	1-13
HAK63A-APU16-106	53	106	116	3-16
HSK63A-APU16-155	53	155	165	3-16
HSK80A-APU13-109	48	109	119	1-13
HSK80A-APU16-114	53	114	124	3-16
HSK100A-APU13-155	48	155	165	1-13
HSK100A-APU16-160	53	160	170	3-16
HSK100A-APU13-107	48	107	117	1-13
HAK100A-APU16-112	53	112	122	3-16

Прецизионный Сверлильный Патрон с хвостовиком DIN69893/ISO 12164

Advantages:

- 1) Runout: 0.03 mm;
- 2) Internal cooling;
- 3) Worm and gear design for better clamping force;
- 4) Use a hex key to lock easily.

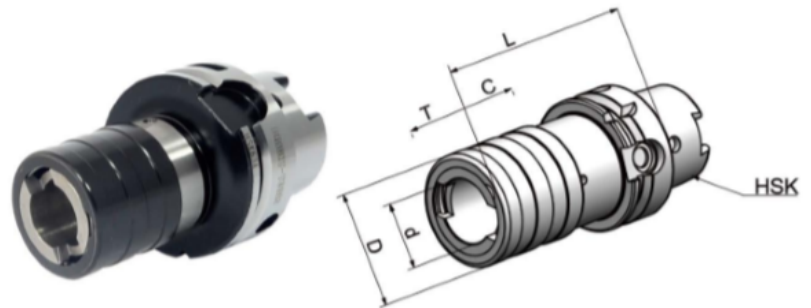


Size	D	L	Capacity
HSK40A-CPU1.5-50	20	50	0.2-1.5
HSK40A-CPU3-50	20	50	1.5-3
HSK50A-CPU10-94	38	94	0.5-10
HSK63A-CPU10-85	38	85	0.5-10
HSK50A-CPU16-107	50	107	1-16
HSK63A-CPU16-98	50	98	1-16
HSK80A-CPU16-101	50	101	1-16
HSK100A-CPU16-104	50	104	1-16



Резьбонарезной Патрон DIN69893/ISO 12164 с Быстросъемным
компенсирующим механизмом

Usage: for tapping preferably. Axial length compensation on tension and pressure.



Size	Collet Size	d	D	L	T	C
HSK32A-TC312-80	1	19	36	80	7.5	7.5
HSK40A-TC312-80	1	19	36	80	7.5	7.5
HSK40A-TC820-103	2	31	53	103	12.5	12.5
HSK50A-TC312-72	1	19	36	72	7.5	7.5
HSK50A-TC820-110	2	31	53	110	12.5	12.5
HSK63A-TC312-102	1	19	36	102	7.5	7.5
HSK63A-TC820-140	2	31	53	140	12.5	12.5
HSK63A-TC1433-141	3	48	78	141	22	22
HSK80A-TC312-72	1	19	36	72	7.5	7.5
HSK80A-TC820-95	2	31	53	95	12.5	12.5
HSK80A-TC1433-141	3	48	78	141	22	22
HSK100A-TC312-112	1	19	36	112	7.5	7.5
HSK100A-TC820-148	2	31	53	148	12.5	12.5
HSK100A-TC1433-144	3	48	78	144	22	22

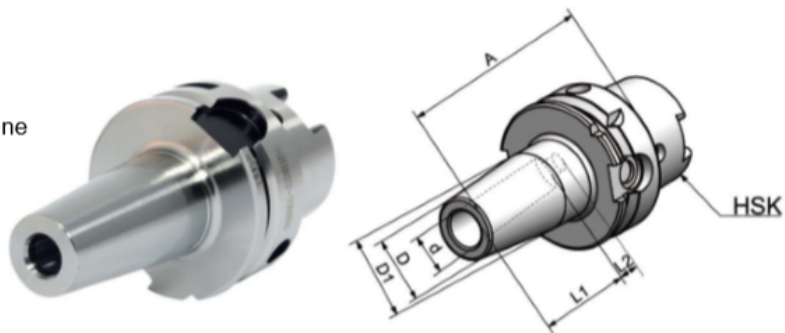


Термоусадочный Патрон DIN69893/ISO 12164

Runout: 0.003 mm

Blancing: G2.5/25000 RPM

Usage: Working with induction shrink machine for mounting straight shank tools.



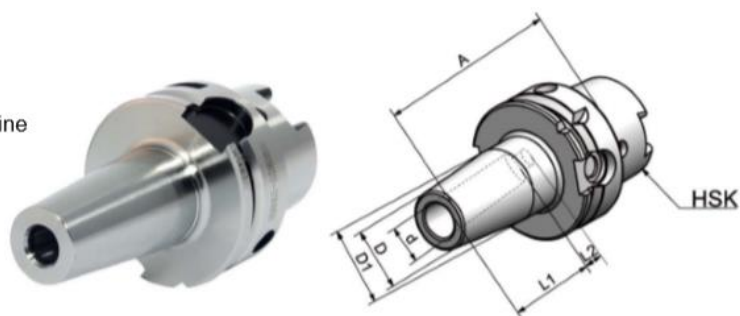
Size	d	A	D	D1	L1	L2
HSK32A-3-65	3	65	15	20	20	-
HSK32A-4-65	4	65	15	20	20	5
HSK32A-5-65	5	65	15	20	20	5
HSK32A-6-75	6	75	20	27	36	10
HSK32A-8-75	8	75	20	27	36	10
HSK32A-10-75	10	75	24	29	42	10
HSK32A-12-80	12	80	24	29	47	10
HSK40A-3-60	3	60	15	20	20	-
HSK40A-4-60	4	60	15	20	20	5
HSK40A-5-60	5	60	15	20	25	5
HSK40A-6-80	6	80	20	27	36	10
HSK40A-8-80	8	80	20	27	36	10
HSK40A-10-80	10	80	24	32	42	10
HSK40A-12-90	12	90	24	32	47	10
HSK40A-14-90	14	90	27	34	47	10
HSK40A-16-90	16	90	27	34	50	10

Термоусадочный Патрон DIN69893/ISO 12164

Runout: 0.003 mm

Blancing: G2.5/25000 RPM

Usage: Working with induction shrink machine for mounting straight shank tools.



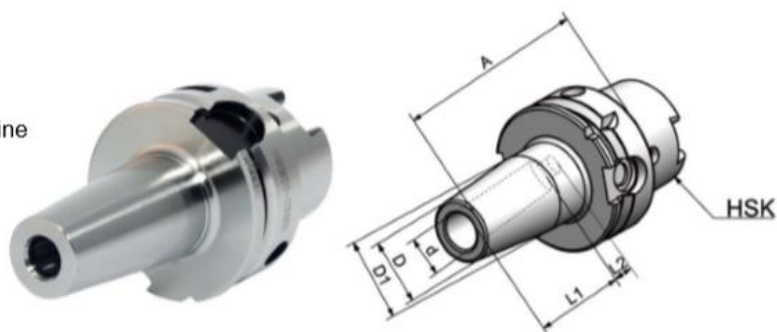
Size	d	A	D	D1	L1	L2
HSK50A-3-80	3	80	15	20	20	-
HSK50A-4-80	4	80	15	20	20	5
HSK50A-5-80	5	80	15	20	25	5
HSK50A-6-80	6	80	20	27	36	10
HSK50A-8-80	8	80	20	27	36	10
HSK50A-10-85	10	85	24	32	42	10
HSK50A-12-90	12	90	24	32	47	10
HSK50A-14-90	14	90	27	34	47	10
HSK50A-16-95	16	95	27	34	50	10
HSK50A-18-95	18	95	33	42	50	10
HSK50A-20-100	20	100	33	42	52	10
HSK63A-3-90	3	90	15	20	20	-
HSK63A-4-90	4	90	15	20	20	5
HSK63A-5-90	5	90	15	25	25	5
HSK63A-6-80	6	80	20	27	36	10
HSK63A-8-80	8	80	20	27	36	10
HSK63A-10-85	10	85	24	32	42	10
HSK63A-12-90	12	90	24	32	47	10
HSK63A-14-90	14	90	27	34	47	10
HSK63A-16-95	16	95	27	34	50	10
HSK63A-18-95	18	95	33	42	50	10
HSK63A-20-100	20	100	33	42	52	10
HSK63A-25-115	25	115	44	53	58	10
HSK63A-32-120	32	120	44	53	62	10

Термоусадочный Патрон DIN69893/ISO 12164

Runout: 0.003 mm

Blancing: G2.5/25000 RPM

Usage: Working with induction shrink machine for mounting straight shank tools.



Size	d	A	D	D1	L1	L2
HSK80A-6-85	6	85	20	27	36	10
HSK80A-8-85	8	85	20	27	36	10
HSK80A-10-90	10	90	24	32	42	10
HSK80A-12-95	12	95	24	32	47	10
HSK80A-14-95	14	95	27	34	47	10
HSK80A-16-100	16	100	27	34	50	10
HSK80A-18-100	18	100	33	42	50	10
HSK80A-20-105	20	105	33	42	52	10
HSK80A-25-115	25	115	44	53	58	10
HSK80A-32-120	32	120	44	53	62	10
HSK100A-6-85	6	85	20	27	36	10
HSK100A-8-85	8	85	20	27	36	10
HSK100A-10-90	10	90	24	32	42	10
HSK100A-12-95	12	95	24	32	47	10
HSK100A-14-95	14	95	27	34	47	10
HSK100A-16-100	16	100	27	34	50	10
HSK100A-18-100	18	100	33	42	50	10
HSK100A-20-105	20	105	33	42	52	10
HSK100A-25-115	25	115	44	53	58	10
HSK100A-32-120	32	120	44	53	62	10

ИНСТРУМЕНТАЛЬНАЯ ОСНАСТКА

ВРАЩАЮЩИЙСЯ ИНСТРУМЕНТ

Патрон DIN69893/ISO 12164 со сменной фрезерной навинчиваемой головкой

Runout: 0.005 mm

Balancing: G6.3/15000 RPM;

Balancing G2.5 can be made by request.

Usage: for mounting screw-in cutters with thread.



Size	M	d1	d2	A	L	D
HAK63A-SOM08-51 L=25	8	8.5	14.5	51	25	15
HSK63A-SOM08-76 L=50	8	8.5	14.5	76	50	23
HSK63A-SOM08-101 L=75	8	8.5	14.5	101	75	23
HSK63A-SOM10-51 L=25	10	10.5	18	51	25	20
HSK63A-SOM10-76 L=50	10	10.5	18	76	50	23
HSK63A-SOM10-126 L=100	10	10.5	18	126	100	32
HSK63A-SOM10-176 L=150	10	10.5	18	176	150	36.5
HSK63A-SOM12-51 L=25	12	12.5	21	51	25	24
HSK63A-SOM12-76 L=50	12	12.5	21	76	50	34
HSK63A-SOM12-101 L=75	12	12.5	21	101	75	31
HSK63A-SOM12-126 L=100	12	12.5	21	126	100	33
HSK63A-SOM12-176 L=150	12	12.5	21	176	150	40
HSK63A-SOM16-51 L=25	16	17	29	51	25	29
HSK63A-SOM16-76 L=50	16	17	29	76	50	34
HSK63A-SOM16-101 L=75	16	17	29	101	75	34
HSK63A-SOM16-126 L=100	16	17	29	126	100	36
HSK63A-SOM16-176 L=150	16	17	29	176	150	42.5
HSK100A-SOM08-79 L=50	8	8.5	14.5	79	50	23
HSK100A-SOM10-79 L=50	10	10.5	18	79	50	23
HSK100A-SOM10-129 L=100	10	10.5	18	129	100	32
HSK100A-SOM10-179 L=150	10	10.5	18	179	150	36.5
HSK100A-SOM12-79 L=50	12	12.5	21	79	50	24
HSK100A-SOM12-129 L=100	12	12.5	21	129	100	33
HSK100A-SOM12-179 L=150	12	12.5	21	179	150	40
HSK100A-SOM16-79 L=50	16	17	29	79	50	34
HSK100A-SOM16-129 L=100	16	17	29	129	100	36
HSK100A-SOM16-179 L=150	16	17	29	179	150	42.5

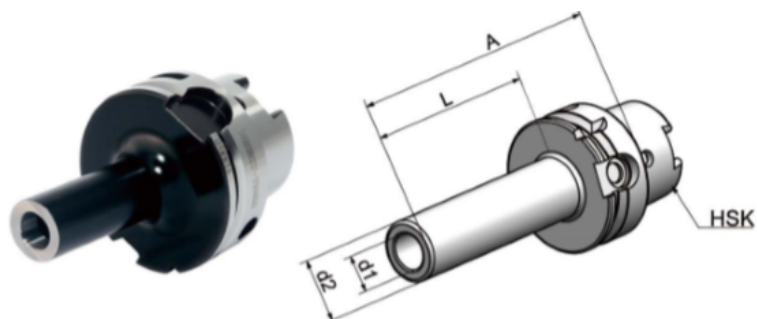
Патрон DIN69893/ISO 12164 со сменной фрезерной навинчиваемой головкой

Runout: 0.005 mm

Balancing: G6.3/15000 RPM;

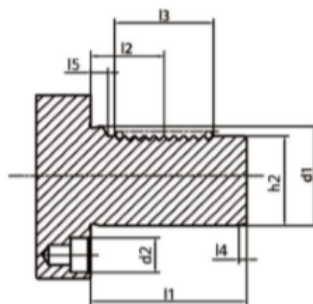
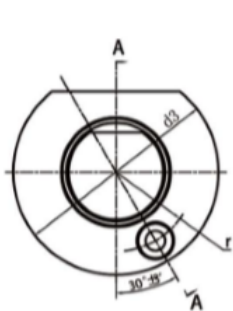
Balancing G2.5 can be made by request.

Usage: for mounting screw-in cutters with thread.



Size	M	d1	d2	A	L
HSK63A-M10-126 L=100	10	10.5	18	126	100
HSK63A-M10-176 L=150	10	10.5	18	176	150
HSK63A-M12-101 L=75	12	12.5	21	101	75
HSK63A-M12-126 L=100	12	12.5	21	126	100
HSK63A-M12-176 L=150	12	12.5	21	176	150
HSK63A-M16-101 L=75	16	17	29	101	75
HSK63A-M16-126 L=100	16	17	29	126	100
HSK63A-M16-176 L=150	16	17	29	176	150
HSK100A-M10-129 L=100	10	10.5	18	129	100
HSK100A-M10-179 L=150	10	10.5	18	179	150
HSK100A-M12-126 L=100	12	12.5	21	126	100
HSK100A-M12-179 L=150	12	12.5	21	179	150
HSK100A-M16-129 L=100	16	17	29	129	100
HSK100A-M16-179 L=150	16	17	29	179	150

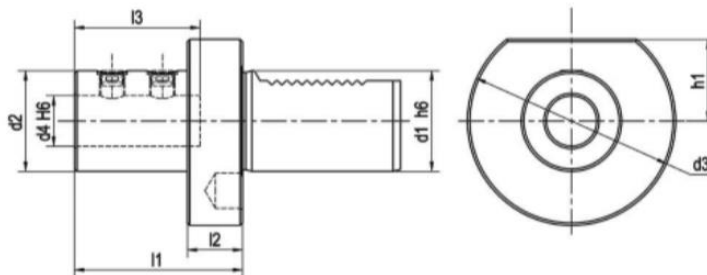
ИНСТРУМЕНТАЛЬНАЯ ОСНАСТКА
 ВРАЩАЮЩИЙСЯ ИНСТРУМЕНТ
Стандарт хвостовика VDI DIN69880



d1 H6	h1 max	d2	d3	h2 ±0.1	r ±0.02	l1 max	l2 ±0.05	l3 min	l4 max	l5
16	12	8	40	15.0	14.5	32	12.7	16	2	3.5
20	16	10	50	18.0	18.0	40	21.7	24	2	7.0
25	16	10	58	23.5	21.0	48	21.7	24	2	7.0
30	20	14	68	27.0	25.0	55	29.7	40	2	7.0
40	25	14	83	36.0	32.0	63	29.7	40	3	7.0
50	32	16	98	45.0	37.0	78	35.7	48	3	8.0
60	32	16	123	55	48	94	43.7	56	4	10
80	40	20	158	72	65	124	49.7	80	4	10

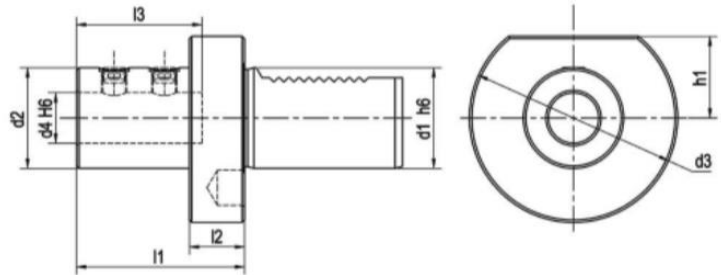


Расточной Патрон DIN69880 для Хвостовиков типа E1



Size	d1	d2	d3	d4	h1	l1	l2	l3
E1-20x16	20	36	50	16	-	66	18	54
E1-20x20	20	40	50	20	-	67	18	54
E1-20x25	20	45	50	25	-	71	18	58
E1-30x16	30	36	68	16	28	66	22	54
E1-30x20	30	40	68	20	28	67	22	54
E1-30x25	30	45	68	25	28	71	22	58
E1-30x32	30	52	68	32	28	75	22	61
E1-30x40	30	65	68	40	28	90	22	72
E1-40x16	40	36	83	16	32.5	66	22	54
E1-40x20	40	40	83	20	32.5	67	22	54
E1-40x25	40	45	83	25	32.5	75	22	59
E1-40x32	40	52	83	32	32.5	75	22	61
E1-40x40	40	65	83	40	32.5	90	22	73
E1-40x50	40	70	83	50	32.5	100	22	83

Патрон DIN69880 для Хвостовиков типа E1

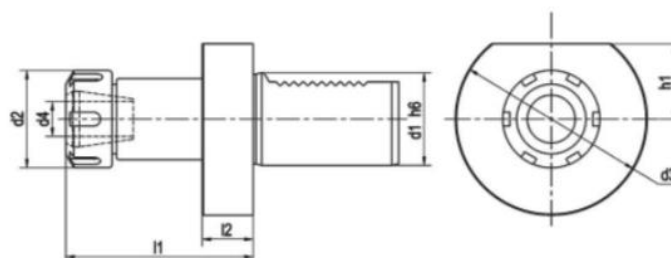


Size	d1	d2	d3	d4	h1	l1	l2	l3
E1-50x16	50	36	98	16	35	67	30	54
E1-50x20	50	40	98	20	35	67	30	54
E1-50x25	50	45	98	25	35	80	30	59
E1-50x32	50	52	98	32	35	80	30	63
E1-50x40	50	65	98	40	35	90	30	73
E1-50x50	50	75	98	50	35	100	30	83
E1-60x16	60	36	123	16	42.5	80	30	54
E1-60x20	60	40	123	20	42.5	80	30	54
E1-60x25	60	45	123	25	42.5	80	30	59
E1-60x32	60	52	123	32	42.5	80	30	63
E1-60x40	60	65	123	40	42.5	90	30	73
E1-60x50	60	75	123	50	42.5	100	30	83
E1-80x20	80	40	158	20	55	80	30	54
E1-80x25	80	45	158	25	55	80	30	59
E1-80x32	80	52	158	32	55	80	30	63
E1-80x40	80	65	158	40	55	90	30	73
E1-80x50	80	75	158	50	55	100	30	83

ИНСТРУМЕНТАЛЬНАЯ ОСНАСТКА

ВРАЩАЮЩИЙСЯ ИНСТРУМЕНТ

Цанговый Патрон DIN6499 с хвостовиком DIN69880 типа E4

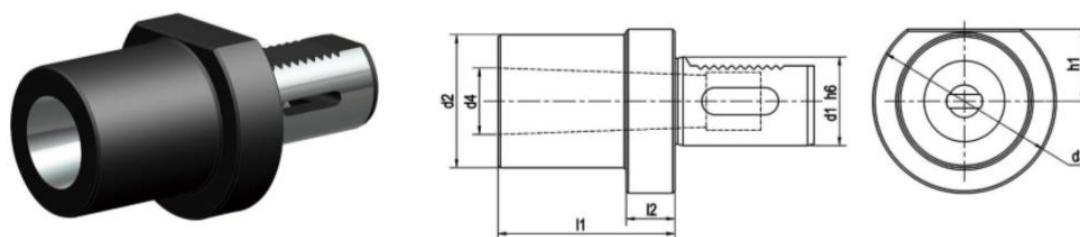


Size	Description	d1	d2	d3	d4	h1	l1	l2
E4-16x16	VDI16-ER16-44	16	32	40	1-10	18	40	13
E4-16x20	VDI16-ER20-44	16	35	40	1-13	18	44	13
E4-20x16	VDI20-ER16-44	20	32	50	1-10	-	40	18
E4-20x20	VDI20-ER20-59	20	35	50	1-13	-	59	18
E4-20x25	VDI20-ER25-65	20	42	50	2-16	-	54	18
E4-20x32	VDI20-ER32-67	20	50	50	2-20	-	67	18
E4-25x16	VDI25-ER16-44	25	32	58	1-10	25	44	18
E4-25x25	VDI25-ER25-58	25	42	58	2-16	25	57	18
E4-25x32	VDI25-ER32-63	25	50	58	2-20	25	62	18
E4-30x16	VDI30-ER16-48	30	32	68	1-10	28	48	22
E4-30x20	VDI30-ER20-59	30	35	68	1-13	28	59	22
E4-30x25	VDI30-ER25-57	30	42	68	2-16	28	57	22
E4-30x32	VDI30-ER32-78	30	50	68	2-20	28	62	22
E4-30x40	VDI30-ER40-80	30	63	68	3-30	28	70	22
E4-40x20	VDI40-ER20-59	40	35	83	1-13	32.5	59	22
E4-40x25	VDI40-ER25-57	40	42	83	2-16	32.5	70	22
E4-40x32	VDI40-ER32-78	40	50	83	2-20	32.5	84	22
E4-40x40	VDI40-ER40-80	40	63	83	3-30	32.5	75	22
E4-50x25	VDI50-ER25-67	50	42	98	2-16	35	67	30
E4-50x32	VDI50-ER32-92	50	50	98	2-20	35	84	30
E4-50x40	VDI50-ER40-80	50	63	98	3-30	35	90	30
E4-60x32	VDI60-ER32-78	60	50	123	2-20	42.5	78	30
E4-60x40	VDI60-ER40-80	60	63	123	3-30	42.5	75	30
E4-80x40	VDI80-ER40-100	80	63	158	3-30	55	100	40

ИНСТРУМЕНТАЛЬНАЯ ОСНАСТКА

ВРАЩАЮЩИЙСЯ ИНСТРУМЕНТ

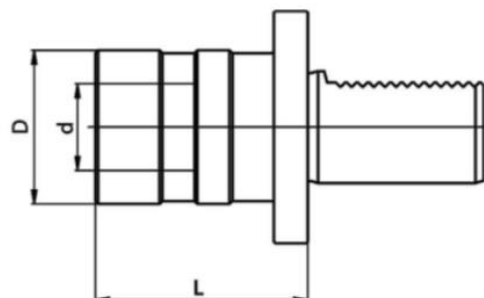
Патрон DIN69880 типа F с Конусом Морзе



Size	d1	d2	d3	МК	d4	h1	l1	l2
F30-MKD1	30	-	68	1	12.065	28	27	-
F30-MKD2	30	55	68	2	17.78	28	36	27
F30-MKD3	30	55	68	3	23.825	28	66	41
F40-MKD1	40	55	83	1	12.065	32.5	36	22
F40-MKD2	40	55	83	2	17.78	32.5	36	22
F40-MKD3	40	58	83	3	23.825	32.5	50	22
F40-MKD4	40	68	83	4	31.267	32.5	80	22
F50-MKD2	50	55	98	2	17.78	35	36	30
F50-MKD3	50	58	98	3	23.825	35	45	30
F50-MKD4	50	68	98	4	31.267	35	55	30
F50-MKD5	50	75	98	5	44.399	35	68	30
F60-MKD2	60	55	123	2	17.78	42.5	35	30
F60-MKD3	60	58	123	3	23.825	42.5	36	30
F60-MKD4	60	68	123	4	31.267	42.5	50	30
F60-MKD5	60	98	123	5	44.399	42.5	81	30



Резьбонарезной Патрон DIN69880 с быстросъемным компенсирующим механизмом

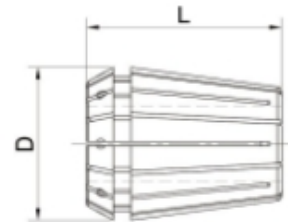


Size	Collet Size	d	D	L	T	C
VDI20-TC312-55	1	19	38	70	7.5	7.5
VDI30-TC312-55	1	19	38	70	7.5	7.5
VDI30-TC820-77	2	31	54	95	12.5	12.5
VDI40-TC312-55	1	19	38	65	7.5	7.5
VDI40-TC820-77	2	31	53	93	12.5	12.5
VDI40-TC1433-110	3	48	78	166	22	22
VDI50-TC312-55	1	19	38	65	7.5	7.5
VDI50-TC820-77	2	31	53	93	12.5	12.5
VDI50-TC1433-110	3	48	78	166	22	22



Цанги. Наборы Цанг.

ER Sealed Collet



Size	D	L	Diameter	PCS/SET
ER16SS-7PCS AA	17	27,5	4,5,6,7,8,9,10	7
ER25SS-13PCS AA	26	34	4,5,6,7,8,9,10,11,12,13,14,15,16	13
ER32SS-17PCS AA	33	40	4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20	17
ER40SS-10PCS AA	41	46	6,8,10,12,14,16,18,20,22,25	10

ER Collet Set



Metric

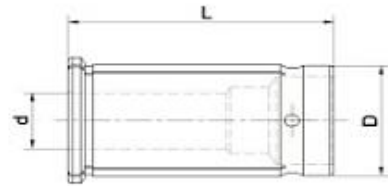
Size	COLLET DIAMETER	PCS/SET
ER16-10PCS AA	1,2,3,4,5,6,7,8,9,10	10
ER20-12PCS AA	2,3,4,5,6,7,8,9,10,11,12,13	12
ER25-15PCS AA	2,3,4,5,6,7,8,9,10,11,12,13,14,15,16	15
ER32-18PCS AA	3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20	18
ER40-23PCS AA	4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26	23

ИНСТРУМЕНТАЛЬНАЯ ОСНАСТКА

ВРАЩАЮЩИЙСЯ ИНСТРУМЕНТ

Цанги. Наборы Цанг.

Straight Shank Collet



Metric

Size	d	D	L
SC20-6PCS	6,8,10,12,14,16	20	50
SC32-9PCS	6,8,10,12,14,16,18,20,25	32	64

