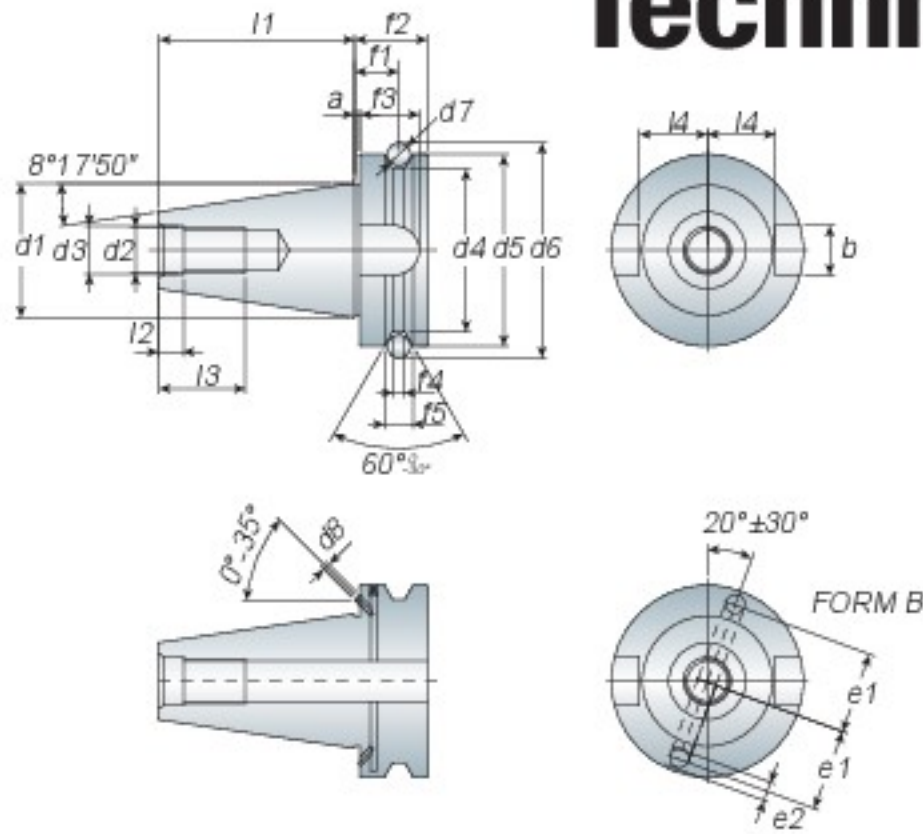


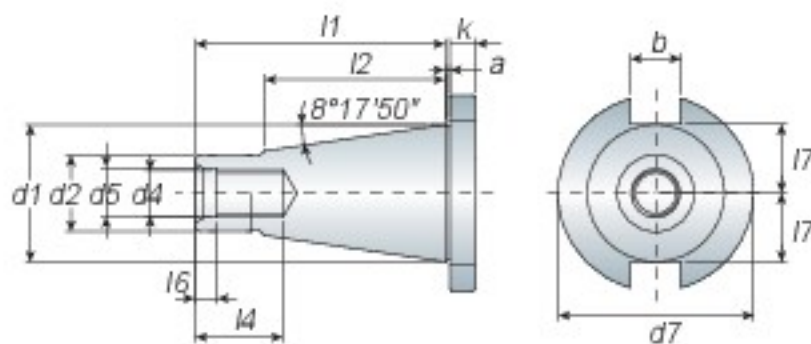
Technical Information



BT Shank

Shank Size	a	b	d1	d2	d3	d4	d5	d6	d7	d8	e1	e2	f1	f2	f3	f4	f5	l1	l2	l3	l4
BT30	2	16.1	31.75	M12	12.5	38	46	56.144	8	4	21	5	13.6	22	17	4	8	48.4	7	24	16.3
BT40	2	16.1	44.45	M16	17	53	63	75.679	10	4	27	5	16.6	27	21	5	10	65.4	9	30	22.6
BT50	3	25.7	69.85	M24	25	85	100	119.019	15	6	42	7	23.2	38	31	7	15	101.8	13	45	35.4

Unit: mm



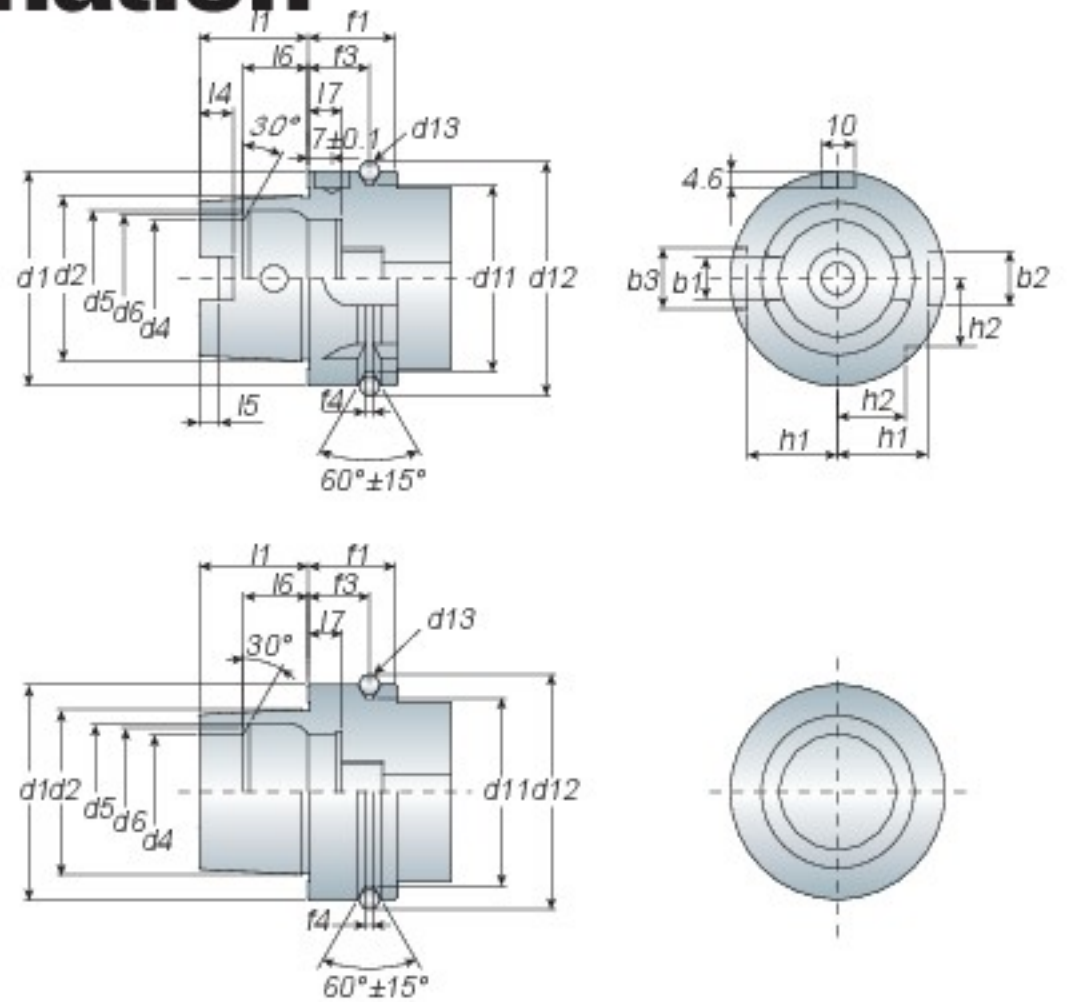
NT Shank

Shank Size	a	b	d1	d2	d4	d5	d7	k	l1	l2	l4	l6	l7
NT30	1.6	16.1	31.75	17.4	1/2"-12 M12x1.75P	13	50	8	68.4	48.4	24	5.5	16.2
NT40	1.6	16.1	44.45	25.3	5/8"-11 M16x2.0P	17	63	10	93.4	65.4	32	8.2	22.5
NT50	3.2	25.7	69.85	39.6	1"-8 M24x3.0P	26	97.5	12	126.8	101.8	47	11.5	35.3

Unit: mm

Technical Information

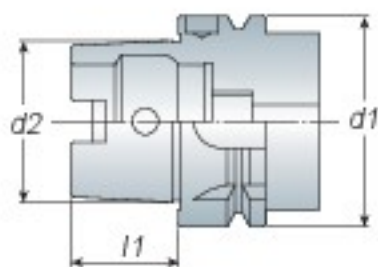
HSK-A/E Shank



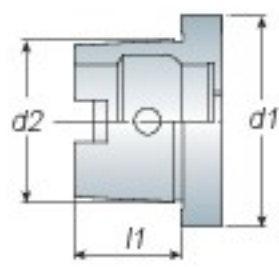
Shank Size	b1	b2	b3	d1	d2	d4	d5	d6	d11	d12	d13	f1	f3	f4	h1	h2	l1	l4	l5	l6	l7
HSK32	7.05	7	9	32	24	17	21	19	26.5	37	4	20	16	2	13	9.5	16	5	3	8.92	8
HSK40	8.05	9	11	40	30	21	25.5	23	34.8	45	4	20	16	2	17	12	20	6	3.5	11.42	8
HSK50	10.54	12	14	50	38	26	32	29	43	59.3	7	26	18	3.75	21	15.5	25	7.5	4.5	14.13	10
HSK63	12.54	16	18	63	48	34	40	37	55	72.3	7	26	18	3.75	26.5	20	32	10	6	18.13	10
HSK100	20.02	20	22	100	75	53	63	58	92	109.75	7	29	20	3.75	44	31.5	50	15	10	28.56	12.5

Unit: mm

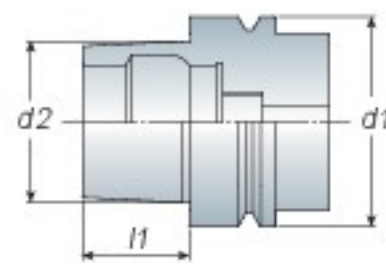
HSK-A



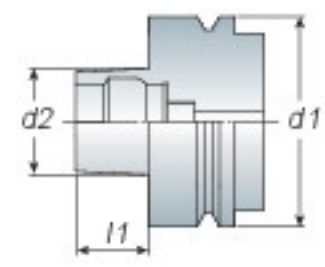
HSK-C



HSK-E



HSK-F



HSK-A

HSK-A	d1	d2	l1
32	32	24	16
40	40	30	20
50	50	38	25
63	63	48	32
100	100	75	50

Unit: mm

HSK-C

HSK-C	d1	d2	l1
32	32	24	16
40	40	30	20
50	50	38	25
63	63	48	32
100	100	75	50

Unit: mm

HSK-E

HSK-E	d1	d2	l1
32	32	24	16
40	40	30	20
50	50	38	25
63	63	48	32

Unit: mm

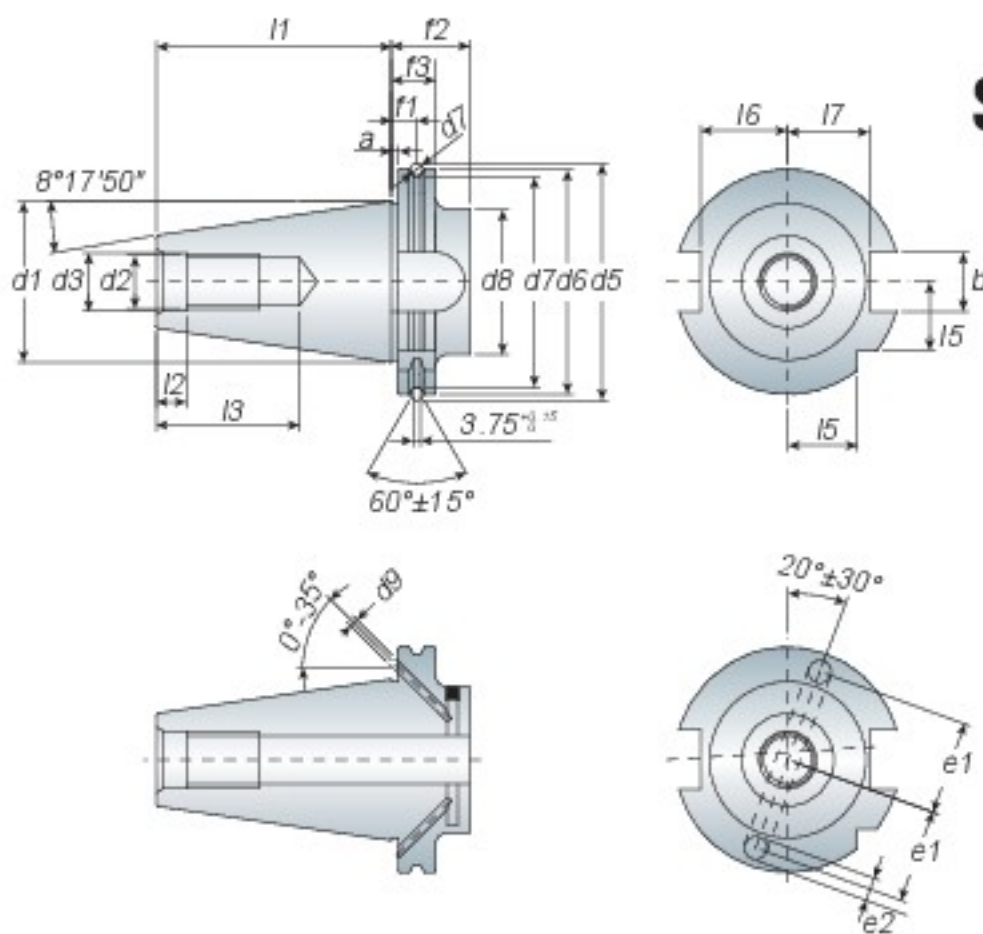
HSK-F

HSK-F	d1	d2	l1
50	50	30	20
63	63	38	25

Unit: mm

Technical Information

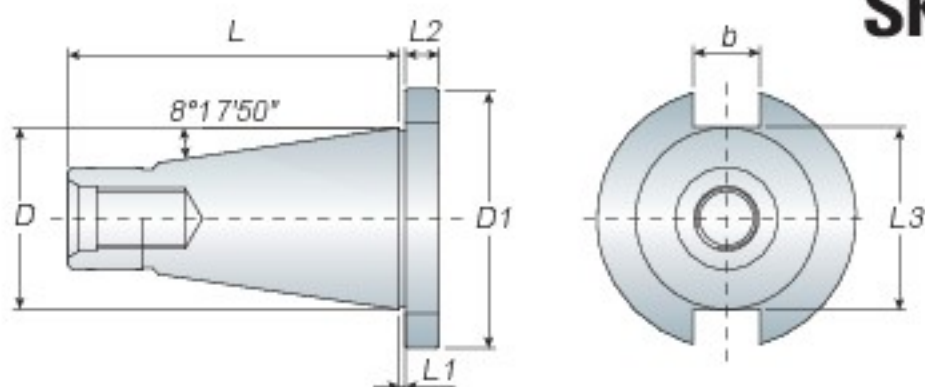
SK-DIN69871A Shank



Shank Size	a	b	d1	d2	d3	d5	d6	d7	d8	d9	e1	d2	f1	f2	f3	l1	l2	l3	l5	l6	l7
SK30	3.2	16.1	31.75	M12	13	59.3	50	44.3	45	4	21	5	11.1	35	19.1	47.8	5.5	24	15	16.4	19
SK40	3.2	16.1	44.45	M16	17	72.3	63.55	56.25	50	4	27	5	11.1	35	19.1	68.4	8.2	32	18.5	22.8	25
SK50	3.2	25.7	69.85	M24	25	107.25	97.50	91.25	80	6	42	7	11.1	35	19.1	101.75	11.5	47	30	35.5	37.7

Unit: mm

SK-DIN2080 Shank

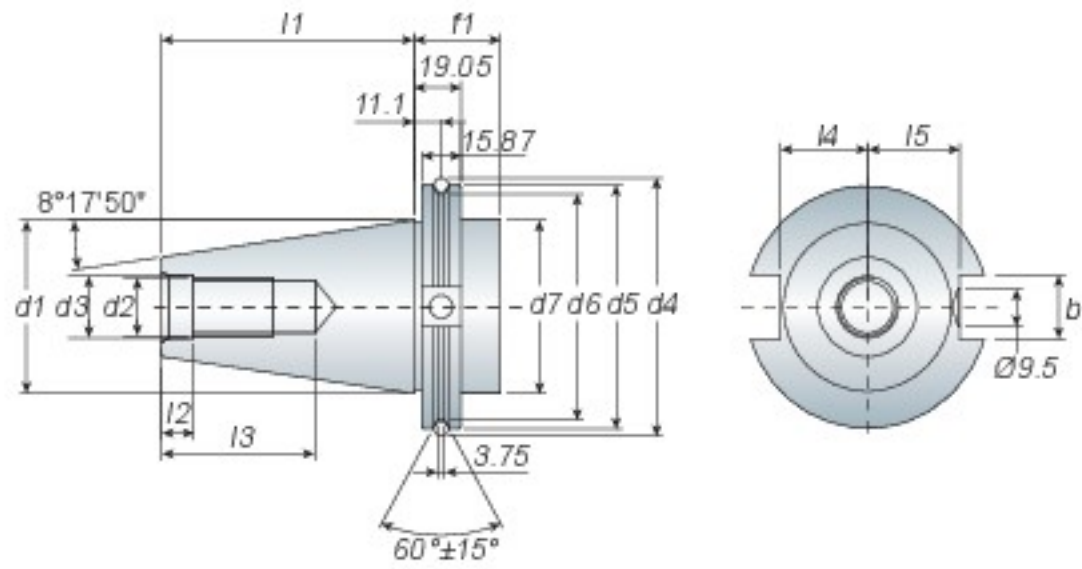


Shank Size	D	D1	L	L1	L2	L3	b	G
SK30	31.75	50	68.4	1.6	8	32.4	16.1	M12
SK40	44.45	63	93.4	1.6	10	45	16.1	M16
SK50	69.85	97.5	126.8	3.2	12	70.6	25.7	M24

Unit: mm

Technical Information

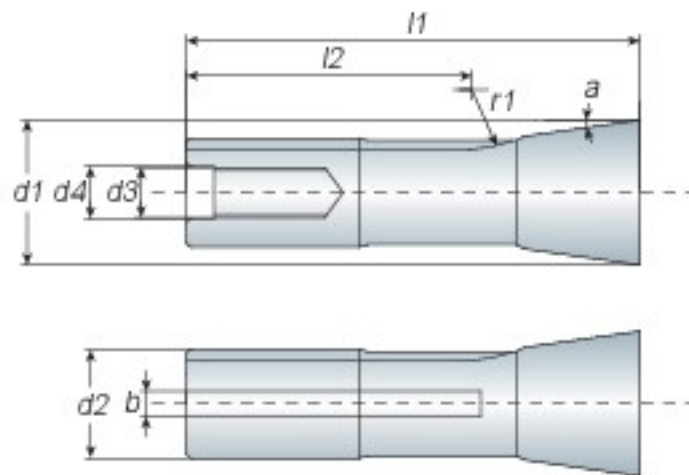
CAT Shank



Shank Size	b	d1	d2	d3	d4	d5	d6	d7	f1	l1	l2	l3	l4	l5
CAT40	16.1	44.45	M16	17	72.3	63.55	56.25	44.45	35	68.4	4.75	30	22.8	26
CAT50	25.7	69.85	M24	25	107.25	98.45	91.25	69.85	36.5	101.75	5.75	45	35.5	40.4

Unit: mm

R8 Shank

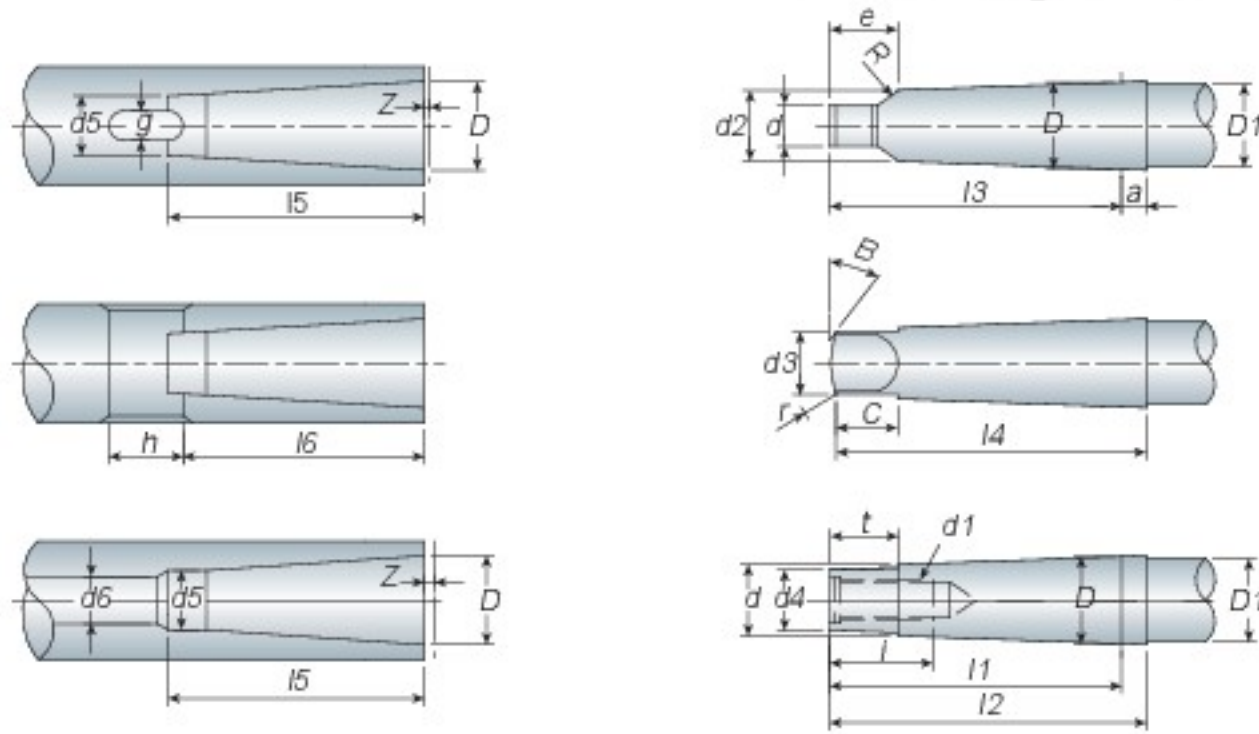


Shank Size	a	b	d1	d2	d3	d4	l1	l2	r1
R8	$8^{\circ}25'30''$	4.2	31.75	24.109	M12	12.5	101	60	20

Unit: mm

Technical Information

Morse Taper Shank



Code Number		Morse Taper Shank							
		0	1	2	3	4	5	6	7
		1:19.212 =0.05205	1:20.047 =0.04988	1:20.020 =0.04995	1:19.922 =0.05020	1:19.254 =0.05194	1:19.002 =0.05263	1:19.180 =0.05214	1:19.231 =0.05200
Outside Taper	D	9.045	12.065	17.780	23.825	31.267	44.399	63.348	83.058
	a	3	3.5	5	5	6.5	6.5	8	10
	D1	9.2	12.2	18	24.1	31.6	44.7	63.8	83.6
	d	6.4	9.4	14.6	19.8	25.9	37.6	53.9	70
	d1	-	M6	M10	M12	M16	*M20	M24	M33
	d2	6.1	9	14	19.1	25.2	36.5	52.4	68.2
	d3 Max.	6	8.7	13.5	18.5	24.5	35.7	51	66.8
	d4 Max.	6	9	14	19	25	35.7	51	65
	l1 Max.	50	53.5	64	81	102.5	129.5	182	250
	l2 Max.	53	57	69	86	109	136	190	260
	l3 Max.	56.5	62	75	94	117.5	149.5	210	286
	l4 Max.	59.5	65.5	80	99	124	156	218	296
	b h13	3.9	5.2	6.3	7.9	11.9	15.9	19	28.5
	C	6.5	8.5	10	13	16	19	27	35
	e Max.	10.5	13.5	16	20	24	29	40	54
	i Min.	-	16	24	28	32	40	50	80
R Max.	4	5	6	7	8	10	13	19	
r	1	1.2	1.6	2	2.5	3	4	5	
t Max.	4	5	5	7	9	9	12	185	
Inside Taper	d5 H11	6.7	9.7	14.9	20.2	26.5	38.2	54.6	71.1
	d6	-	7	11.5	14	18	23	27	30
	l5 Min.	52	56	67	84	107	135	188	258
	l6	49	52	62	78	98	125	177	241
	gA13	41	5.4	6.6	8.2	12.2	16.2	19.3	28.8
	h	15	19	22	27	32	38	47	69
	z	1	1	1	1	1.5	15	2	2

Unit: mm