



World Leaders in
Tools Manufacturing

CARMET TOOLS & INSERTS *ltd.*



carmet@carmettools.com

REAMERS

Super finishing reamers

Indexable reamers

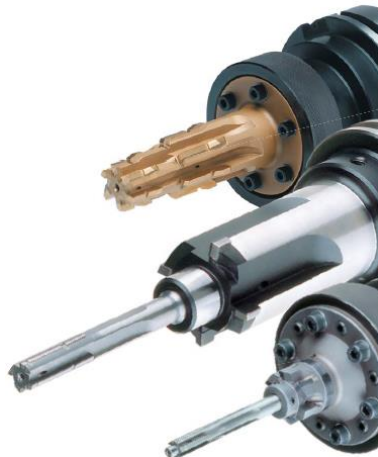
Reamers with guide pads

Reamers with replaceable heads

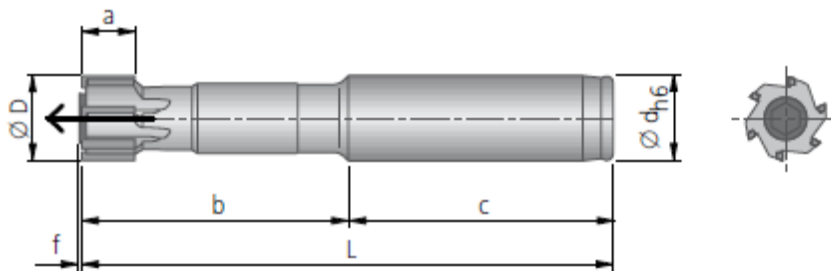
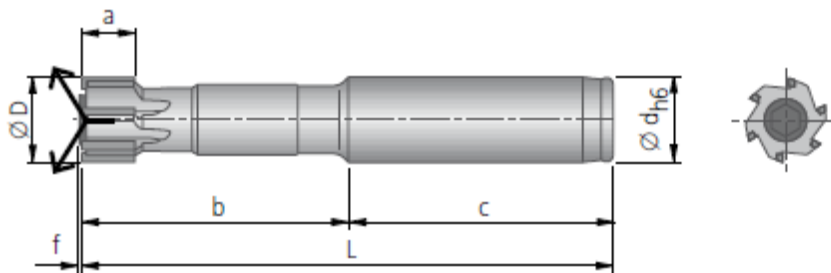
Monobloc reamers, cutting rings

Solid carbide reamers

PCD reamers



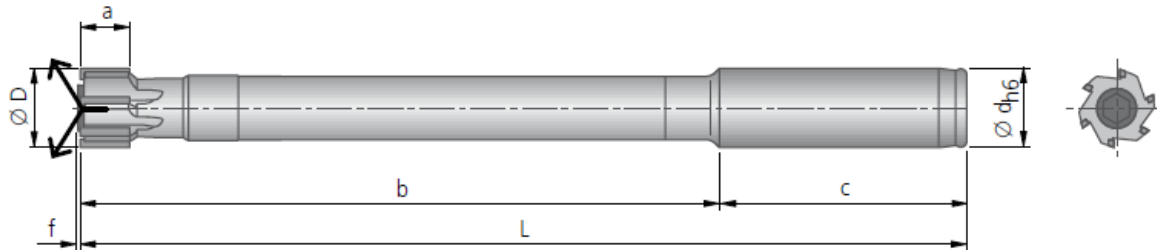
Monobloc Reamersst. shank.



Ø D	Ødxc	L	b	f ~	a ~
5,600 - 8,899	12x45	85	40	0,1	9,5
8,900 - 15,899	12x45	95	50	0,1	9,5
15,900 - 18,899	16x50	100	50	0,1	9,5
18,900 - 25,899	20x60	120	60	0,1	9,5

Monobloc long Reamers ...st. shank

for through hole machining

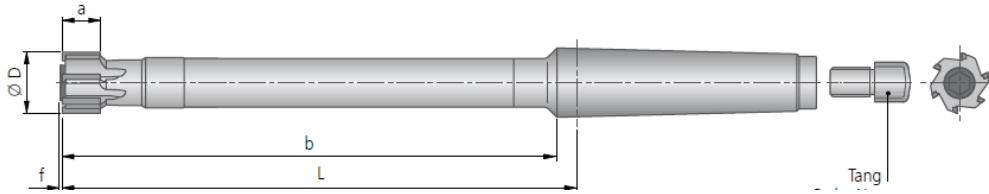


for blind hole machining



Ø D	Ødxc	L	b	f ~	a ~	Z
5,600 - 8,899	12x45	130	85	0,1	9,5	4
8,900 - 9,899	12x45	130	85	0,1	9,5	6
9,900 - 15,899	12x45	160	115	0,1	9,5	6
15,900 - 18,899	16x50	180	130	0,1	9,5	6
18,900 - 25,899	20x60	200	140	0,1	9,5	6

Monobloc Reamers ...Taper shank

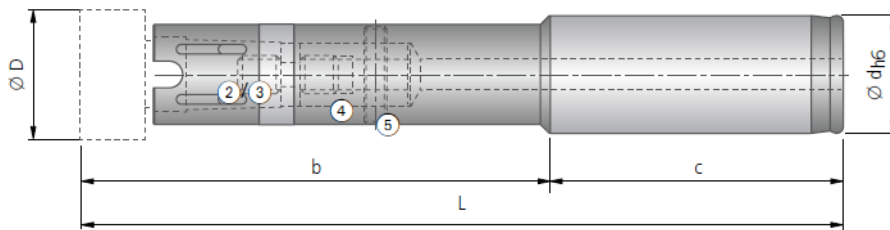


Ø D	MK	L	b	a ~	f ~	Z
5,600-8,899	2	90	85	9,5	0,1	4
8,900-9,899	2	90	85	9,5	0,1	6
9,900-15,899	2	120	115	9,5	0,1	6
15,900-18,899	2	135	130	9,5	0,1	6
18,900-25,899	2	145	140	9,5	0,1	6

Reamer with holder & reaming head



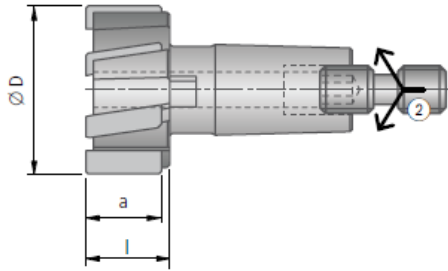
Reamer holder



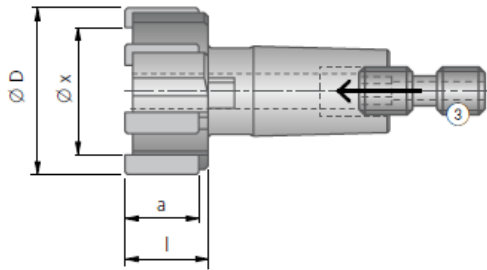
$\varnothing D$	L	b	c	d h6
9,60 – 12,59	95	50	45	12
12,60 – 15,59	108	60	48	16
15,60 – 18,59	110	60	50	20
18,60 – 24,00	130	80	50	20
24,01 – 30,10	158	98	60	25
30,11 – 40,00	164	104	60	25
40,01 – 50,70	184	104	80	32
50,71 – 60,00	188,5	108,5	80	32

$\varnothing D$
9,60 – 12,59
12,60 – 15,59
15,60 – 18,59
18,60 – 24,00
24,01 – 30,10
30,11 – 40,00
40,01 – 50,70
50,71 – 60,00

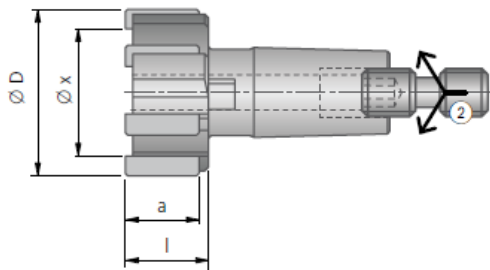
Reaming heads



For reaming through holes



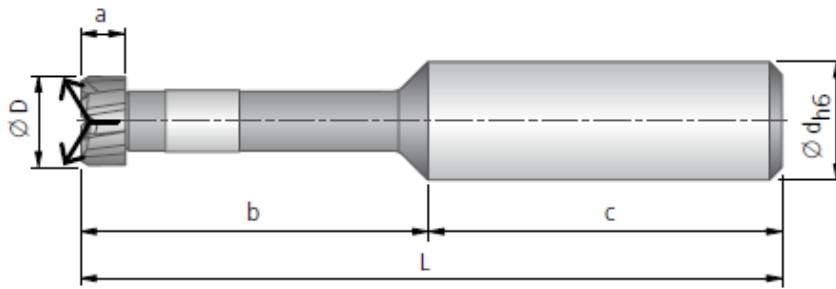
For reaming blind holes



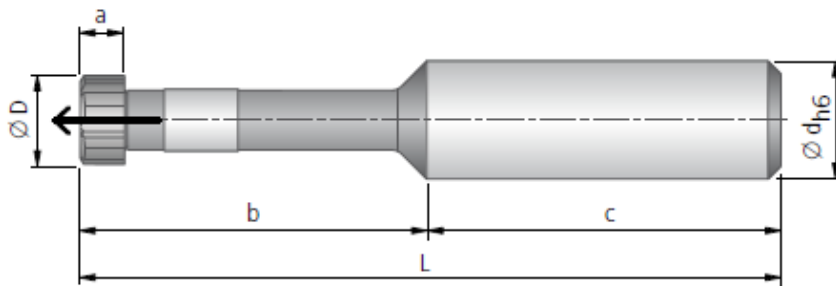
For reaming step holes

$\varnothing D$	$\varnothing x$ ~	a ~	l ~
9,60 – 12,59	$\varnothing D - 3,1$	9,5	11
12,60 – 15,59	$\varnothing D - 3,6$	10,5	11
15,60 – 18,59	$\varnothing D - 4,6$	10,5	11
18,60 – 24,00	$\varnothing D - 5,1$	10,5	11
24,01 – 30,10	$\varnothing D - 6,0$	10,5	11
30,11 – 40,00	$\varnothing D - 7,5$	16	17
40,01 – 60,00	$\varnothing D - 8,0$	16	17

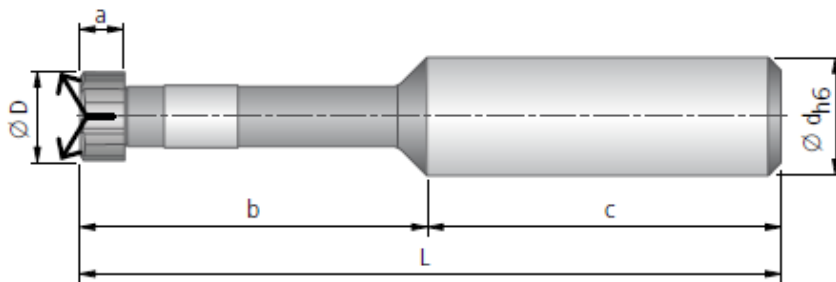
Monobloc long Reamers ...st. shank



For reaming through holes



For reaming blind holes

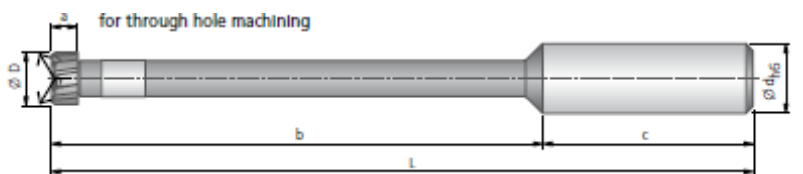


For reaming step holes

$\varnothing D$	$\varnothing d \times c$	L	b	a	Z
12,000 - 14,099	16 x 48	160	112	6	6
14,100 - 16,099	16 x 48	160	112	6	6
16,100 - 18,099	16 x 48	180	132	6	6
18,100 - 20,099	20 x 50	200	150	6	8
20,100 - 22,099	20 x 50	200	150	6	8
22,100 - 24,099	25 x 56	200	144	6	8
24,100 - 26,099	25 x 56	200	144	6	8
26,100 - 28,099	25 x 56	210	154	7	8
28,100 - 30,000	25 x 56	210	154	7	8



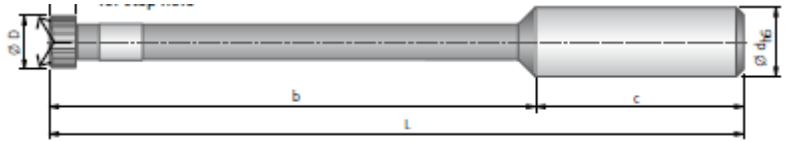
Monobloc long Reamersst. shank



For reaming through holes



For reaming Blind holes



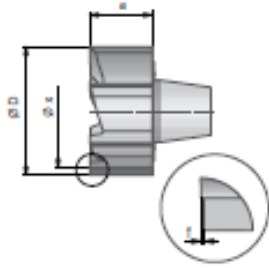
For reaming step holes

$\text{Ø } D$	$\text{Ø } d \times c$	L	b	a ~
12,000 - 14,099	16 x 48	160	112	6
14,100 - 16,099	16 x 48	160	112	6
16,100 - 18,099	16 x 48	180	132	6
18,100 - 20,099	20 x 50	200	150	6
20,100 - 22,099	20 x 50	200	150	6
22,100 - 24,099	25 x 56	200	144	6
24,100 - 26,099	25 x 56	200	144	6
26,100 - 28,099	25 x 56	210	154	7
28,100 - 30,000	25 x 56	210	154	7



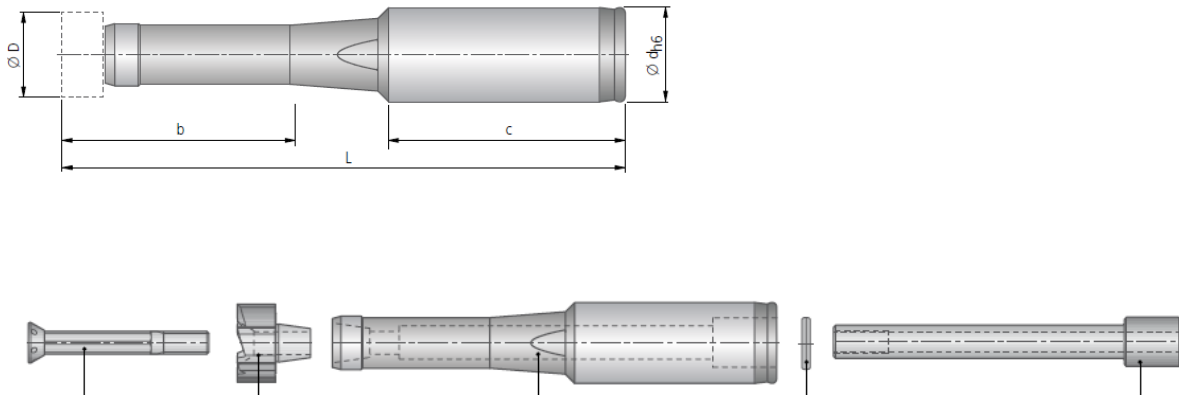
Reamer with holder & reaming head





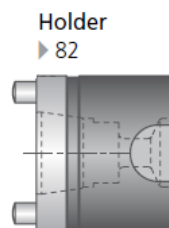
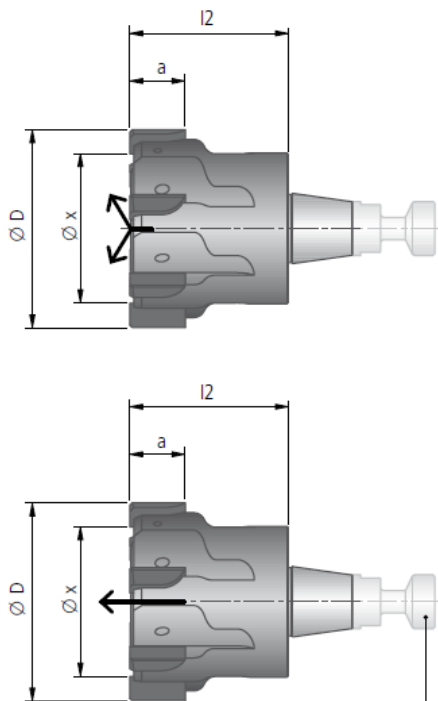
$\varnothing D$	$\varnothing x$	a	f	Z
	~	~	~	
15 ^{H7}	12,5	9	0,5	6
16 ^{H7}	13	9	0,5	6
18 ^{H7}	15	9	0,5	6
20 ^{H7}	17	9	0,5	6
22 ^{H7}	19	9	0,5	8
24 ^{H7}	21	9	0,5	8
25 ^{H7}	22	9	0,5	8
28 ^{H7}	24	9	0,5	8
30 ^{H7}	26	9	0,5	8
40 ^{H7}	36	9	0,5	8

Reamer with holder & reaming head



DIA		SHORT				LONG			
Ø D ^{H7}	Ø D	L	b	c	Ø d	L	b	c	Ø d
15 ^{H7}	12,000 – 15,999	107	3xD	48	16	137	5xD	48	16
16 ^{H7}									
18 ^{H7}	16,000 – 21,999	119	3xD	50	20	169	5xD	50	20
20 ^{H7}									
22 ^{H7}									
24 ^{H7}	22,000 – 25,999	140	3xD	56	25	196	5xD	56	25
25 ^{H7}									
28 ^{H7}	26,000 – 32,000	160	3xD	56	25	226	5xD	56	25
30 ^{H7}									
40 ^{H7}									
	32,001 – 40,000	199	3xD	60	32	270	5xD	60	32

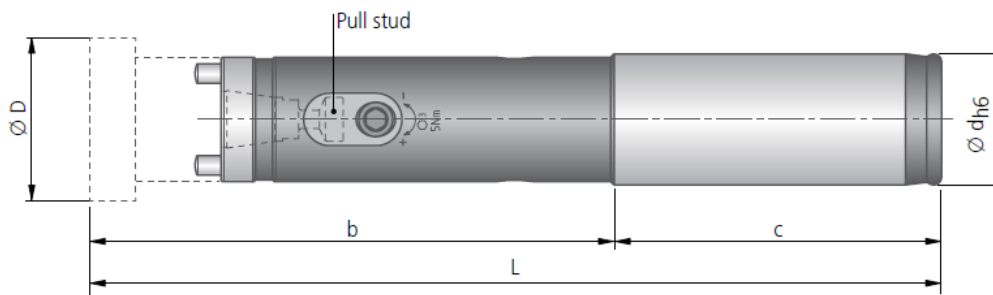
Reamer with holder & reaming head



$\varnothing D$	a ~	l2 ~	Z
18,000 - 19,999	6	20	8
20,000 - 21,999	6	20	8
22,000 - 24,099	6	20	8
24,100 - 26,099	6	20	8
26,100 - 26,999	7	20	8
27,000 - 28,099	7	25	8
28,100 - 30,000	7	25	8

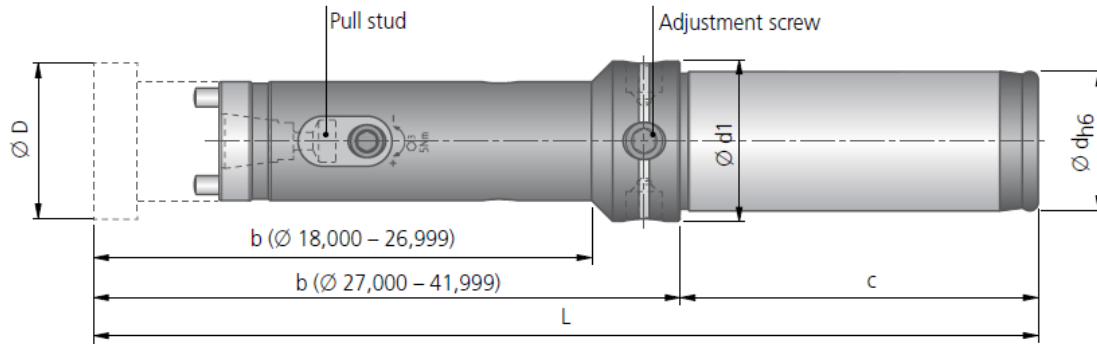
$\varnothing D$	min. diameter for face machining $\varnothing x$ ~	a ~	l2 ~
18,000 - 21,999	$\varnothing D - 4,0$	6,0	20
22,000 - 26,999	$\varnothing D - 4,2$	6,0	20
27,000 - 31,799	$\varnothing D - 5,4$	6,0	25
31,800 - 34,999	$\varnothing D - 6,0$	6,0	25
35,000 - 41,999	$\varnothing D - 6,9$	6,0	25
42,000 - 51,999	$\varnothing D - 7,5$	6,0	30
52,000 - 65,000	$\varnothing D - 8,8$	8,0	35

Reamer with holder & reaming head



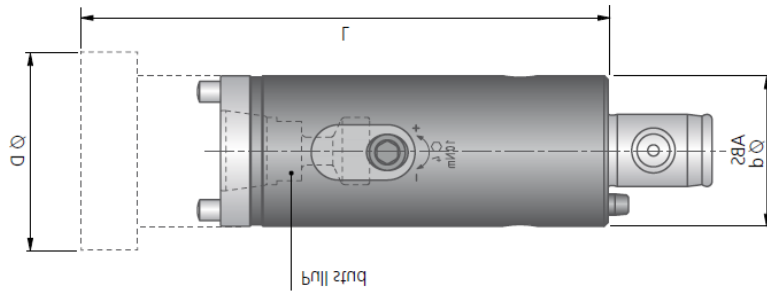
FOR DIAMETER		SHORT TYPE				LONG TYPE			
Ø DH7	Ø D	L	b	c	Ø d	L	b	c	Ø d
18 ^{H7}	18,000 – 19,999	130	80	50	20	190	140	50	20
20 ^{H7}	20,000 – 21,999	130	80	50	20	190	140	50	20
22 ^{H7}	22,000 – 26,999	130	80	50	20	210	160	50	20
24 ^{H7}									
25 ^{H7}									
26 ^{H7}									
28 ^{H7}	27,000 – 34,999	176	120	56	25	236	180	56	25
30 ^{H7}									
32 ^{H7}									
35 ^{H7}	35,000 – 41,999	176	120	56	25	256	200	56	25
40 ^{H7}									
42 ^{H7}	42,000 – 51,999	180	120	60	32	280	220	60	32
50 ^{H7}									
54 ^{H7}									

Reamer with holder & reaming head



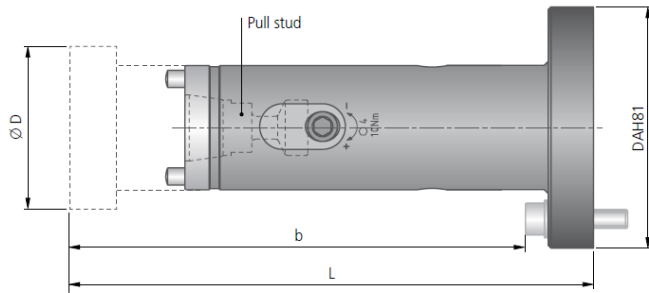
DIAMETER		SHORT					LONG				
Ø DH7	Ø D	L	b	c	Ø d	Ø d1	L	b	c	Ø d	Ø d1
18 ^{H7}	18,000 – 19,999	145	80	50	20	24	205	140	50	20	24
20 ^{H7}	20,000 – 21,999	145	80	50	20	25	205	140	50	20	25
22 ^{H7}	22,000 – 26,999	145	80	50	20	26,5	225	160	50	20	26,5
24 ^{H7}											
25 ^{H7}											
26 ^{H7}											
28 ^{H7}	27,000 – 34,999	176	120	56	25	26	236	180	56	25	26
30 ^{H7}											
32 ^{H7}											
35 ^{H7}	35,000 – 41,999	176	120	56	25	29	256	200	56	25	29
40 ^{H7}											

Reamer holder



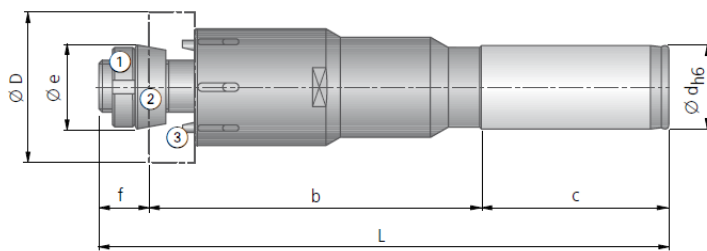
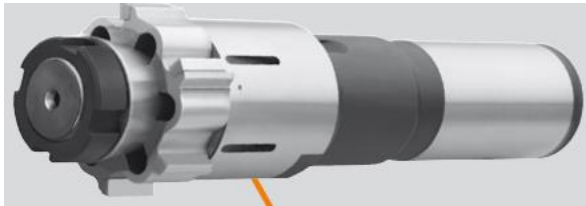
Ø DH7	Ø D	L	ABS Ø d
35 ^{H7}	35,000 – 41,999	110	32
40 ^{H7}			
42 ^{H7}	42,000 – 51,999	115	32
50 ^{H7}			
54 ^{H7}	52,000 – 70,000	125	40

Reamer holder



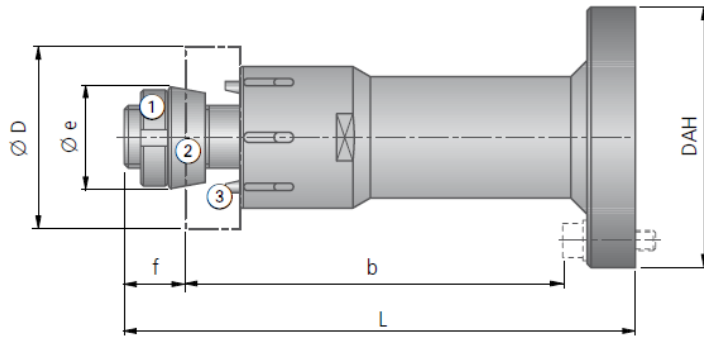
FOR DIAMETER		SHORT		LONG	
Ø D ^{H7}	Ø D	L	b	L	b
42 ^{H7}	42,000 – 51,999	138	120	238	220
50 ^{H7}					
54 ^{H7}	52,000 – 70,000	138	120	238	220

Reamer holder with cutting ring



Ø D	Ø D	Ø dxc	L	b	Ø e	f
62	60,600 – 70,599	32x60	189,5	105	40,0	24,5
65						
70						
72	70,600 – 79,599	32x60	189,5	105	40,0	24,5
75						
80	79,600 – 90,599	40x70	203,5	105	56,2	28,5
90						
92	90,600 – 100,599	40x70	203,5	105	56,2	28,5
100						

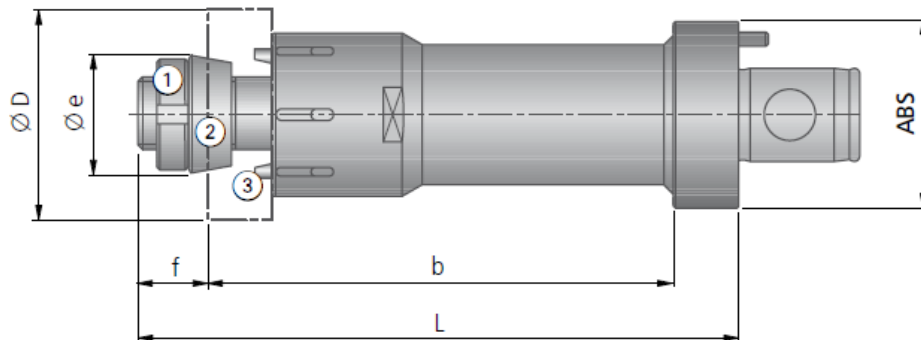
Reamer holder with cutting ring



Ø D	Ø D	L	b	Ø e	f
62	60,600 – 70,599	141,5	99	40,0	24,5
65					
70					
72	70,600 – 79,599	141,5	99	40,0	24,5
75					

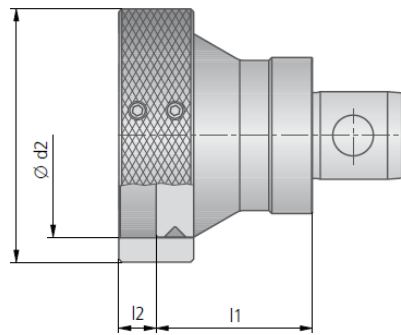
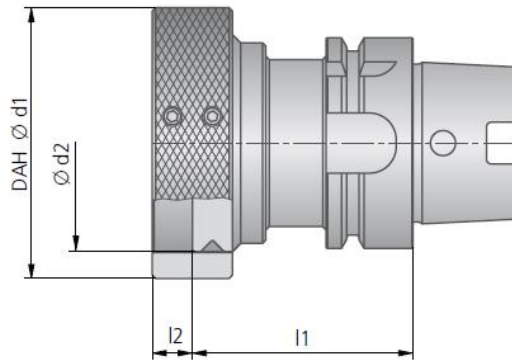
62	60,600 – 70,599	146	96	40,0	24,5
65					
70					
72	70,600 – 79,599	146	96	40,0	24,5
75					
80	79,600 – 90,599	150	96	56,2	28,5
90					
92	90,600 – 100,599	150	96	56,2	28,5
100					
110	100,600 – 110,599	158	97	73,4	35,5

Reamer holder with cutting ring



Ø D	Ø D	ABS	L	b	Ø e	f	kg
62	60,600 – 65,599	50	143,5	105	40,0	24,5	1,95
65	65,600 – 70,599	63	149,5	105	40,0	24,5	2,33
70							
72	70,600 – 79,599	63	149,5	105	40,0	24,5	2,50
75							
80	79,600 – 90,599	63	153,5	105	56,2	28,5	3,55
90							
92	90,600 – 100,599	63	153,5	105	56,2	28,5	3,93
100							
110	100,600 – 110,599	80	167	106,5	73,4	35,5	6,21

Compensation holder for Reamers



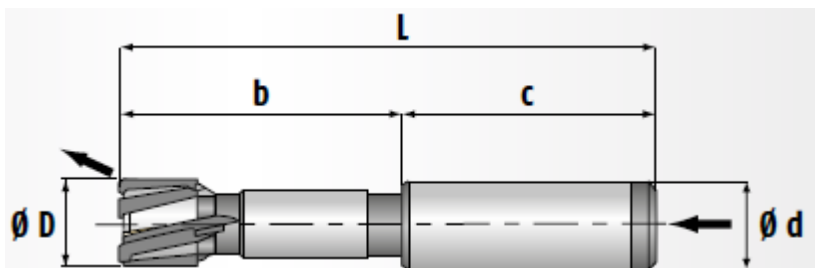
ABS	$\varnothing d2$	l1	l2
40	65	50	12
50	65	50	12
63	100	54	16

Ø D	Ø D
62	60,600 – 70,599
65	
70	
72	70,600 –
75	79,599

62	60,600 – 70,599
65	
70	
72	70,600 –
75	79,599
80	79,600 –
90	90,599
92	90,600 –
100	100,599
110	100,600 – 110,599

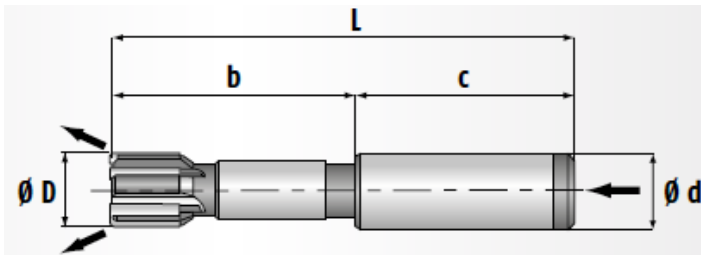


Monobloc Reamersst. shank



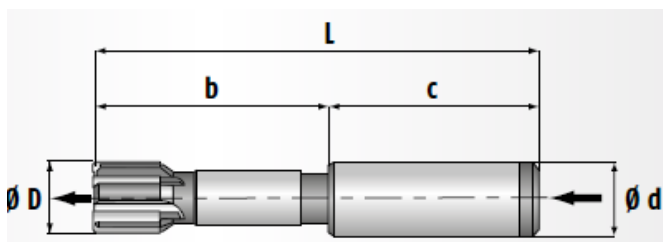
D	L	b	c	dh6
7,900 - 9,899	85	40	45	12
9,900 - 11,899	95	50	45	12
11,900 - 15,899	95	50	45	12
15,900 - 18,899	100	50	50	16
18,900 - 25,899	120	60	60	20
25,900 - 32,599	135	75	60	25
32,600 - 40,599	135	75	60	25
40,600 - 50,599	135	75	60	25
50,600 - 60,599	135	75	60	32

Monobloc Reamersst. shank



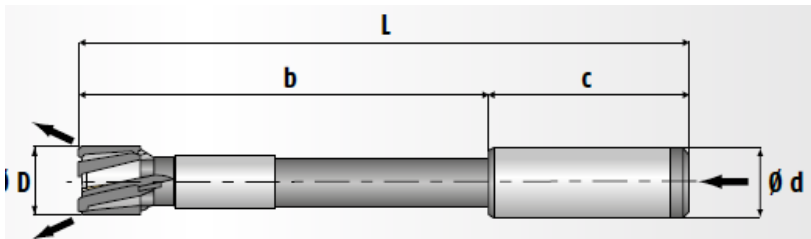
D	L	b	c	dh6
5,600 - 8,899	85	40	45	12
8,900 - 15,899	95	50	45	12
15,900 - 18,899	100	50	50	16
18,900 - 25,899	120	60	60	20
25,900 - 32,599	135	75	60	25
32,600 - 40,599	135	75	60	25
40,600 - 50,599	135	75	60	25
50,600 - 60,599	135	75	60	32

Monobloc Reamersst. shank



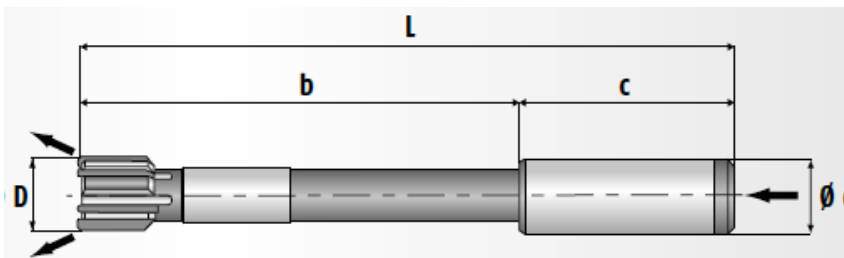
D	L	b	c	dh6
5,600 - 8,899	85	40	45	12
8,900 - 15,899	95	50	45	12
15,900 - 18,899	100	50	50	16
18,900 - 25,899	120	60	60	20
25,900 - 32,599	135	75	60	25
32,600 - 40,599	135	75	60	25
40,600 - 50,599	135	75	60	25
50,600 - 60,599	135	75	60	32

Monobloc Reamers,st. shank, long, LH flutes with internal coolant supply



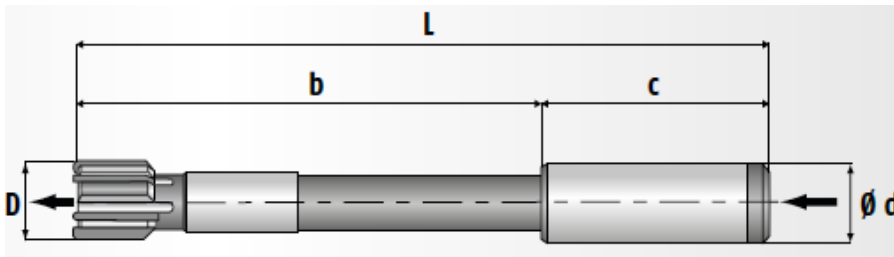
D	b	c	L	dh6
7,900 - 9,899	130	85	45	12
9,900 - 11,899	160	115	45	12
11,900 - 15,899	160	115	45	12
15,900 - 18,899	180	130	50	16
18,900 - 25,899	200	140	60	20
25,900 - 32,599	210	150	60	25
32,600 - 40,599	210	150	60	25
40,600 - 50,599	210	150	60	25
50,600 - 60,599	210	150	60	32

Monobloc Reamers,st. shank, long, LH flutes with internal coolant supply



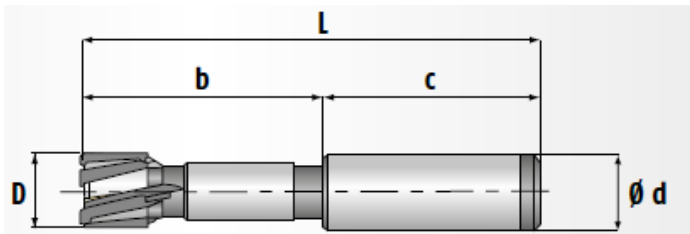
D	L	b	c	dh6
5,600 - 8,899	130	85	45	12
8,900 - 9,899	130	85	45	12
9,900 - 15,899	160	115	45	12
15,900 - 18,899	180	130	50	16
18,900 - 25,899	200	140	60	20
25,900 - 32,599	210	150	60	25
32,600 - 40,599	210	150	60	25
40,600 - 50,599	210	150	60	25
50,600 - 60,599	210	150	60	32

Monobloc Reamers,st. shank, long, LH flutes with internal coolant supply



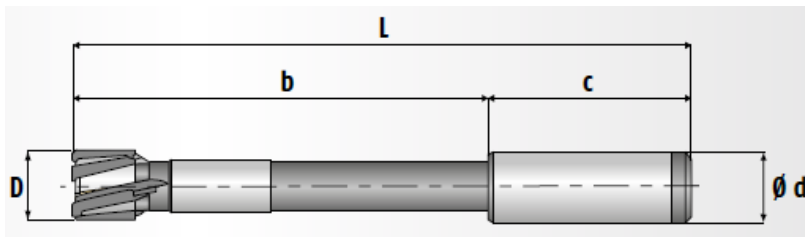
D	L	b	c	dh6
5,600 - 8,899	130	85	45	12
8,900 - 9,899	130	85	45	12
9,900 - 15,899	160	115	45	12
15,900 - 18,899	180	130	50	16
18,900 - 25,899	200	140	60	20
25,900 - 32,599	210	150	60	25
32,600 - 40,599	210	150	60	25
40,600 - 50,599	210	150	60	25
50,600 - 60,599	210	150	60	32

Monobloc Reamers,st. shank, short, LH flutes with internal coolant supply



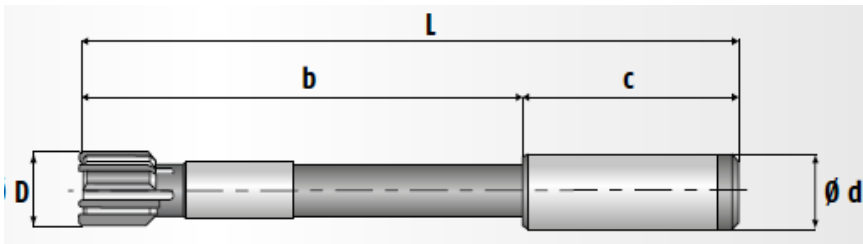
D	L	b	c	dh6
7,900 - 9,899	85	40	45	12
9,900 - 11,899	95	50	45	12
11,900 - 15,899	95	50	45	12
15,900 - 18,899	100	50	50	16
18,900 - 25,899	120	60	60	20
25,900 - 32,599	135	75	60	25
32,600 - 40,599	135	75	60	25
40,600 - 50,599	135	75	60	25
50,600 - 60,599	135	75	60	32

Monobloc Reamers,st. shank, long, LH flutes with internal coolant supply



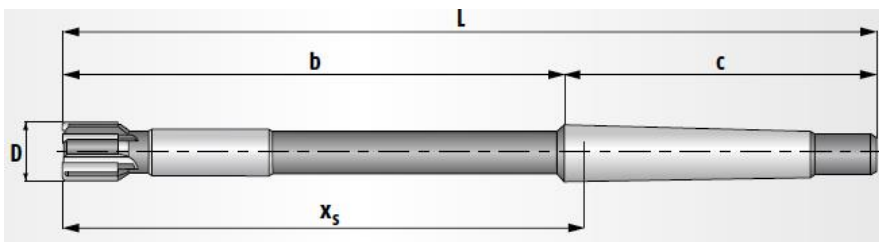
D	L	b	c	dh6
7,900 - 9,899	130	85	45	12
9,900 - 11,899	160	115	45	12
11,900 - 15,899	160	115	45	12
15,900 - 18,899	180	130	50	16
18,900 - 25,899	200	140	60	20
25,900 - 32,599	210	150	60	25
32,600 - 40,599	210	150	60	25
40,600 - 50,599	210	150	60	25
50,600 - 60,599	210	150	60	32

Monobloc Reamers,st. shank, long, st flutes with internal coolant supply



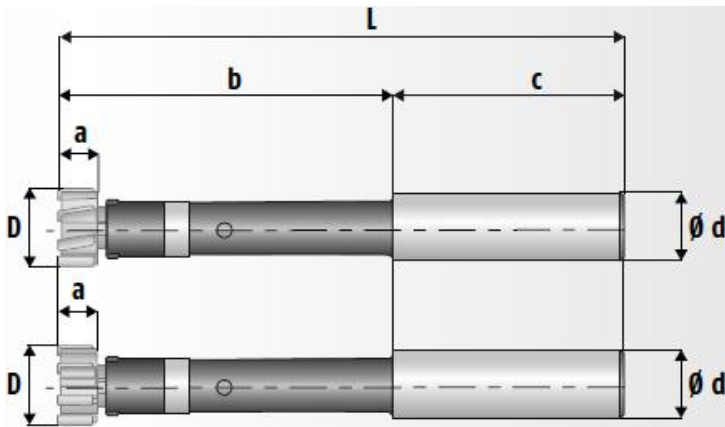
D	L	b	c	dh6
5,600 - 8,899	130	85	45	12
8,900 - 9,899	130	85	45	12
9,900 - 15,899	160	115	45	12
15,900 - 18,899	180	130	50	16
18,900 - 25,899	200	140	60	20
25,900 - 32,599	210	150	60	25
32,600 - 40,599	210	150	60	25
40,600 - 50,599	210	150	60	25
50,600 - 60,599	210	150	60	32

Monobloc Reamers, taper shank, long, st flutes with internal coolant supply



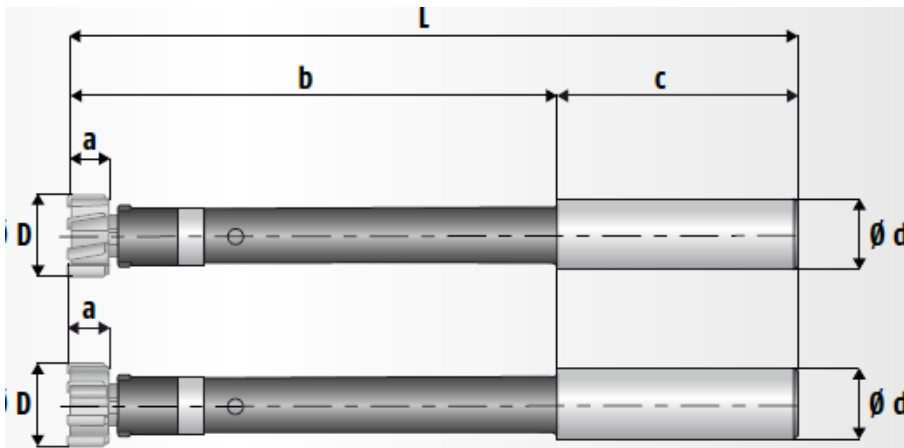
D	L	b	x	c	morse taper
5,600 - 8,899	150	84,5	88	65,5	1
8,900 - 9,899	160	94,5	98	65,5	1
9,900 - 12,899	170	104,5	108	65,5	1
12,900 - 15,899	180	114,5	118	65,5	1
15,900 - 16,899	200	120	125	80	2
16,900 - 18,899	210	130	135	80	2
18,900 - 21,599	220	140	145	80	2

Reaming head holder st shank, st flutes with internal coolant supply



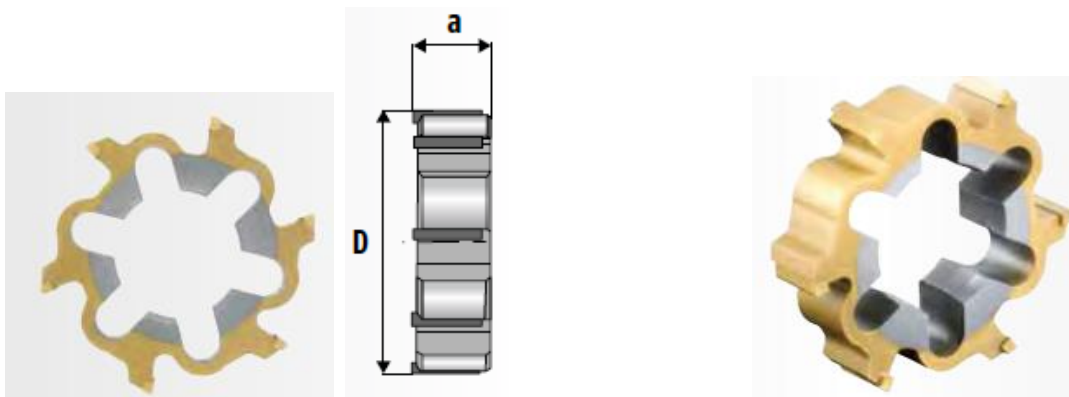
D	l	b	a	l	b	a	c	dh8
9,600 - 12,599	88	48	9,0	92	52	13,0	40	12
12,600 - 15,599	99,5	59,5	11,0	102	62	13,5	40	16
15,600 - 18,599	110	60	11,0	113	63	14,0	50	20
18,600 - 21,309	130	80	11,0	133	83	14,0	50	20
21,310 - 24,009	130	80	11,0	135	85	16,0	50	20
24,010 - 30,109	160,5	100,5	13,0	166	106	18,5	60	25
30,110 - 40,009	163,5	103,5	16,0	166	106	18,5	60	25
40,010 - 50,709	186	106	18,5	186	106	18,5	80	32
50,710 - 60,000	190	110	18,5	190	110	18,5	80	32

Reaming head holder st shank, st flutes with internal coolant supply



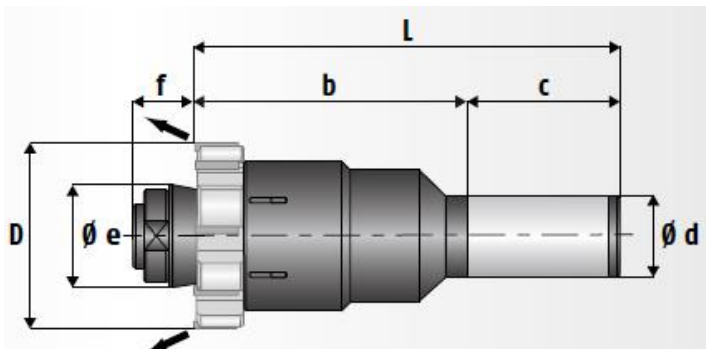
D	l	b	a	l	b	a	c	dh6
9,600 - 12,599	151	111	9,0	155	115	13,0	40	12
12,600 - 15,599	152,5	112,5	11,0	155	115	13,5	40	16
15,600 - 18,599	171	121	11,0	174	124	14,0	50	20
18,600 - 21,309	191	141	11,0	194	144	14,0	50	20
21,310 - 24,009	191	141	11,0	196	146	16,0	50	20
24,010 - 30,109	221,5	161,5	13,0	227	167	18,5	60	25
30,110 - 40,009	224,5	164,5	16,0	227	167	18,5	60	25
40,010 - 50,709	285	205	18,5	285	205	18,5	80	32
50,710 - 60,000	290	210	18,5	290	210	18,5	80	32

CUTTING RING STRAIGHT FLUTES



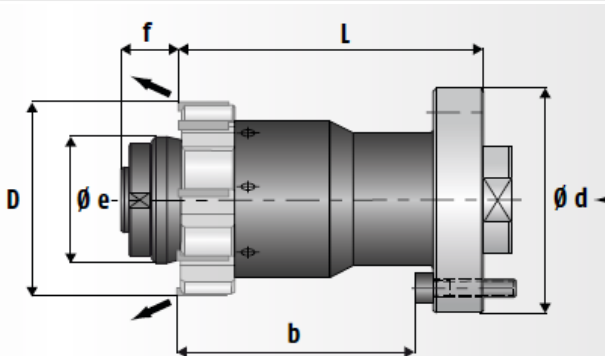
D	a
50,600 - 79,599	18,5
79,600 - 100,599	18,5
100,600 - 110,599	18,5
110,600 - 205,599	18,5

Cutting Ring holder st shank, st flutes with internal coolant supply



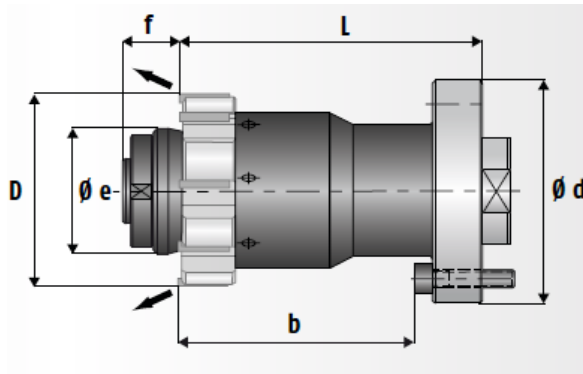
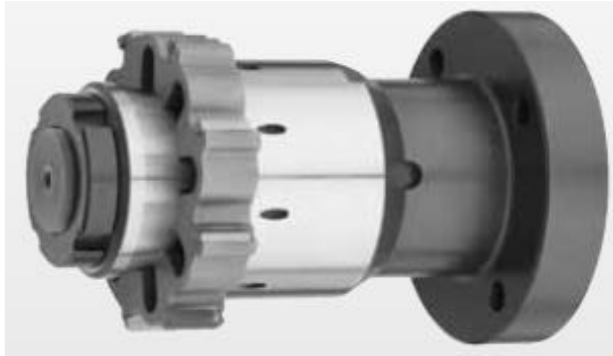
D	l	b	c	e	f	dh6
50,600 - 60,599	165	105	60	30,3	22,5	32
60,600 - 70,599	165	105	60	40,0	24,5	32
70,600 - 79,599	165	105	60	40,0	24,5	32
79,600 - 90,599	175	115	60	56,2	28,5	32
90,600 - 100,599	175	115	60	56,2	28,5	32

Cutting Ring holder with module flange for compensation holder, st shank, st flutes with internal coolant supply



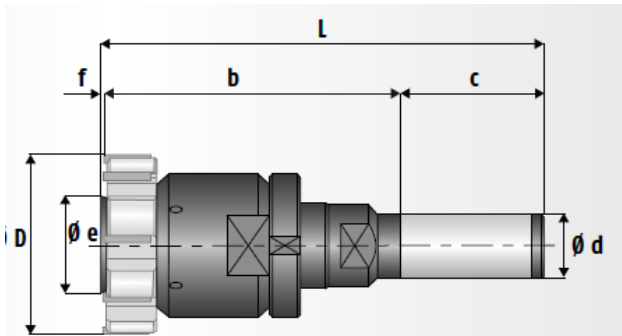
D	l	b	e	f	flange
50,600 - 60,599	118	89	30,3	22,5	100
60,600 - 70,599	126	97	40,0	24,5	100
70,600 - 79,599	126	97	40,0	24,5	100
79,600 - 90,599	126	97	56,2	28,5	100
90,600 - 100,599	126	97	56,2	28,5	100
100,600 - 110,599	157		73,4	35,5	100
110,600 - 115,599	157		80,4	35,5	100
115,600 - 125,599	157		86,4	35,5	100
125,600 - 132,599	157		90,4	35,5	100
132,600 - 139,599	157		90,4	35,5	100
139,600 - 145,599	157		101,1	35,5	100
145,600 - 155,599	157		107,1	35,5	100
155,600 - 165,599	157		107,4	49,5	100
165,600 - 175,599	157		117,4	49,5	100
175,600 - 185,599	157		127,4	49,5	100
185,600 - 195,599	157		137,0	49,5	100
195,600 - 205,599	157		145,4	49,5	100

Cutting Ring holder with module flange for compensation holder, st shank, st flutes with internal coolant supply



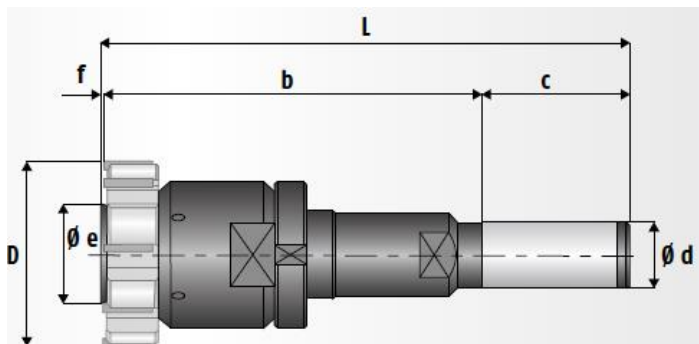
D	L	b	e	f	Flange d
50,600 – 60,599	118	89	30,3	22,5	100
60,600 – 70,599	126	97	40,0	24,5	100
70,600 – 79,599	126	97	40,0	24,5	100
79,600 – 90,599	126	97	56,2	28,5	100
90,600 – 100,599	126	97	56,2	28,5	100
100,600 – 110,599	157		73,4	35,5	100
110,600 – 115,599	157		80,4	35,5	100
115,600 – 125,599	157		86,4	35,5	100
125,600 – 132,599	157		90,4	35,5	100
132,600 – 139,599	157		90,4	35,5	100
139,600 – 145,599	157		101,1	35,5	100
145,600 – 155,599	157		107,1	35,5	100
155,600 – 165,599	157		107,4	49,5	100
165,600 – 175,599	157		117,4	49,5	100
175,600 – 185,599	157		127,4	49,5	100
185,600 – 195,599	157		137,0	49,5	100
195.600 – 205.599	157		145.4	49.5	100

Cutting Ring holder with module flange for compensation holder, short, st shank, st flutes with internal coolant supply



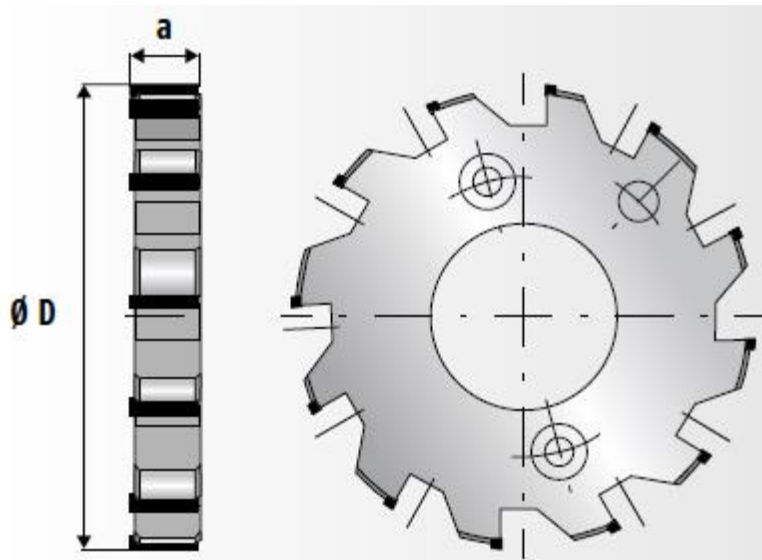
D	l	b	c	e	f	dh6
50,600 - 60,599	166,5	105	60	27,8	1,5	20
60,600 - 70,599	166,5	105	60	37,0	1,5	25
70,600 - 79,599	166,5	105	60	37,0	1,5	25
79,600 - 90,599	166,5	105	60	53,2	1,5	32
90,600 - 100,599	166,5	105	60	53,2	1,5	32
100,600 - 110,599	166,5	105	60	70,4	1,5	32
110,600 - 115,599	166,5	105	60	77,4	1,5	32
115,600 - 125,599	166,5	105	60	83,4	1,5	32
125,600 - 132,599	166,5	105	60	87,4	1,5	32
132,600 - 139,599	166,5	105	60	87,4	1,5	32
139,600 - 145,599	166,5	105	60	99,4	1,5	32
145,600 - 165,599	166,5	105	60	104,4	1,5	32

**Cutting Ring holder with module flange for compensation holder,
long, st shank, st flutes with internal coolant supply**



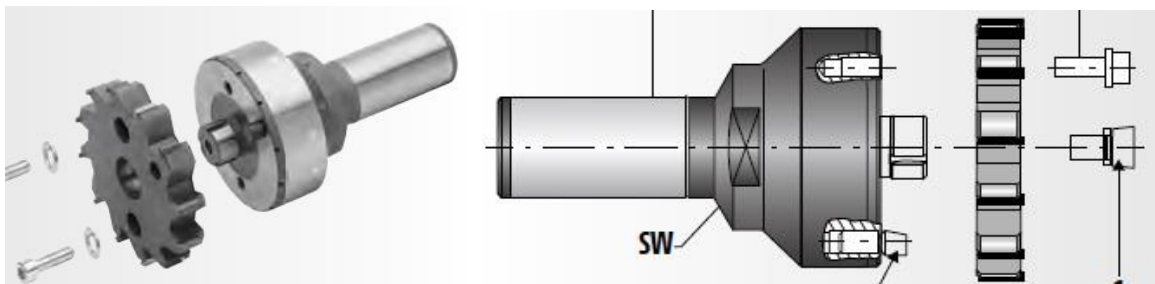
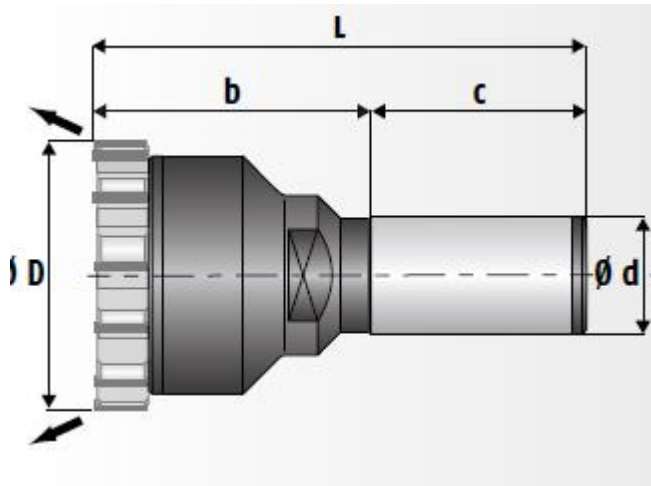
D	l	b	c	e	f	dh6
50,600 - 60,599	275,5	214	60	27,8	1,5	20
60,600 - 70,599	298,5	237	60	37,0	1,5	25
70,600 - 79,599	298,5	237	60	37,0	1,5	25
79,600 - 90,599	301,5	240	60	53,2	1,5	32
90,600 - 100,599	301,5	240	60	53,2	1,5	32
100,600 - 110,599	301,5	240	60	70,4	1,5	32
110,600 - 115,599	301,5	240	60	77,4	1,5	32
115,600 - 125,599	301,5	240	60	83,4	1,5	32
125,600 - 132,599	301,5	240	60	87,4	1,5	32
132,600 - 139,599	301,5	240	60	87,4	1,5	32
139,600 - 145,599	301,5	240	60	99,4	1,5	32
145,600 - 165,599	301,5	240	60	104,4	1,5	32

TOP SPEED RING...STRAIGHT FLUTE

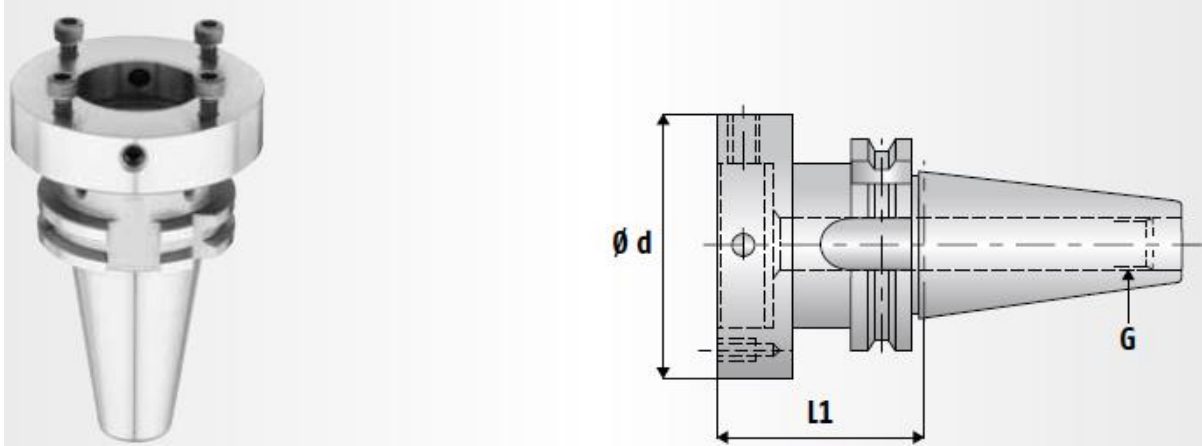


D	a	teeth
50,600 - 79,599	15	10
79,600 - 100,599	15	12
100,600 - 225,000	17	16

TOP SPEED RING holder with module flange for compensation holder, long, st shank, st flutes with internal coolant supply

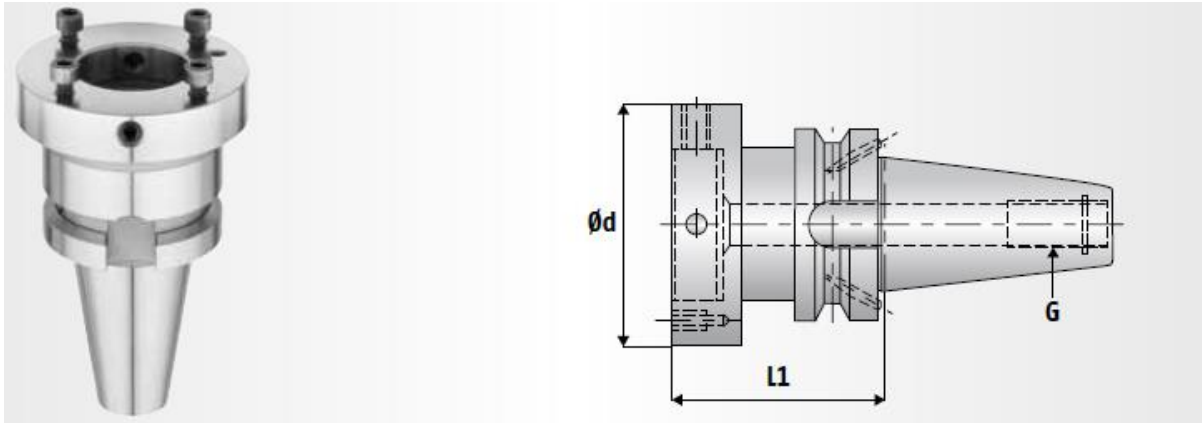


Compensation Holder with module flange



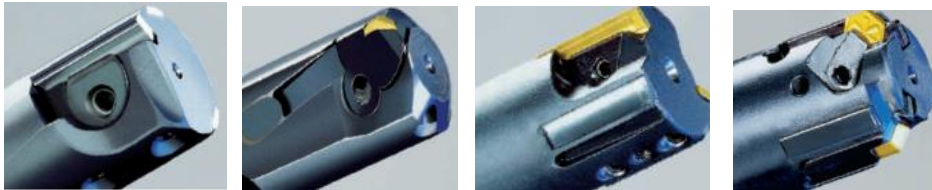
Taper	flange	G	L1
BT 30	60	M12	45
BT 30	80	M12	50
BT 40	60	M16	55
BT 40	60	M16	110
BT 40	70	M16	50
BT 40	80	M16	65
BT 40	80	M16	100
BT 40	100	M16	60
BT 50	60	M24	70
BT 50	70	M24	70
BT 50	80	M24	70
BT 50	100	M24	70

Compensation Holder with module flange

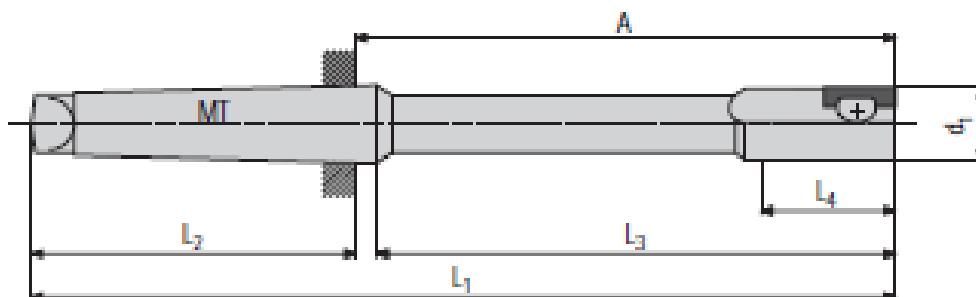


Taper	flange	G	l1
SK 40	60	M16	50
SK 40	70	M16	50
SK 40	80	M16	55
SK 40	100	M16	60
SK 50	60	M24	50
SK 50	70	M24	50
SK 50	80	M24	50
SK 50	100	M24	60

INDEXABLE BLADE REAMERS



INDEXABLE BLADE REAMERS.....Taper shank

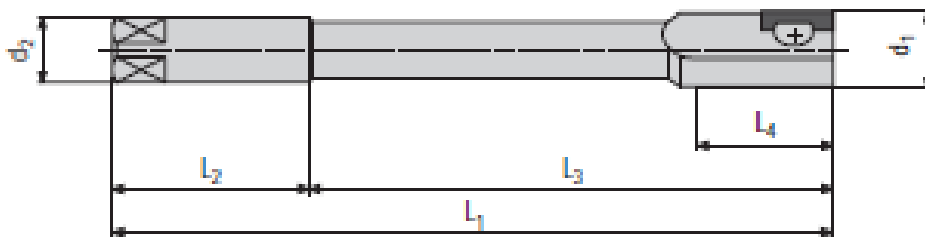


$\varnothing d_1^*$	L_1	L_2	L_3	L_4	MT	A
5,00-5,29	126 ^{mm}	62	60,5	15	1	64
5,30-5,49	126 ^{mm}	62	60,5	15	1	64
5,50-6,19	126 ^{mm}	62	60,5	15	1	64
6,20-6,90	126 ^{mm}	62	60,5	15	1	64
6,91-7,49	136 ^{mm}	62	70,5	15	1	74
7,50-7,79	136 ^{mm}	62	70,5	15	1	74
7,80-7,99	155	62	89,5	30	1	93
8,00-8,79	155	62	89,5	30	1	93
8,80-9,29	160	62	94,5	30	1	98
9,30-9,79	170	62	104,5	30	1	108
9,80-11,29	170	62	104,5	30	1	108
11,30-11,79	170	62	104,5	30	1	108
11,80-12,29	170	62	104,5	30	1	108
12,30-13,29	180	62	114,5	30	1	118
13,30-14,29	180	62	114,5	30	1	118
14,30-15,29	180	62	114,5	30	1	118
15,30-16,29	200	75	120	30	2	125
16,30-18,29	210	75	130	30	2	135

18,30-20,29	220	75	140	30	2	145
20,30-22,29	230	75	150	30	2	155
22,30-23,29	240	75	160	30	2	165
23,30-26,29	260	94	161	30	3	166
26,30-28,29	270	94	171	30	3	176
28,30-29,29	280	94	181	30	3	186
29,30-32,29	290	94	191	30	3	196
32,30-35,29	290	117,5	166	30	4	172,5
35,30-40,29	310	117,5	186	30	4	192,5
40,30-48,29	325	117,5	201	30	4	207,5
48,30-59,79	340	117,5	216	30	4	222,5
59,80-79,79	340	117,5	216	45	4	222,5
79,80-	340	149,5	184	45	5	190,5

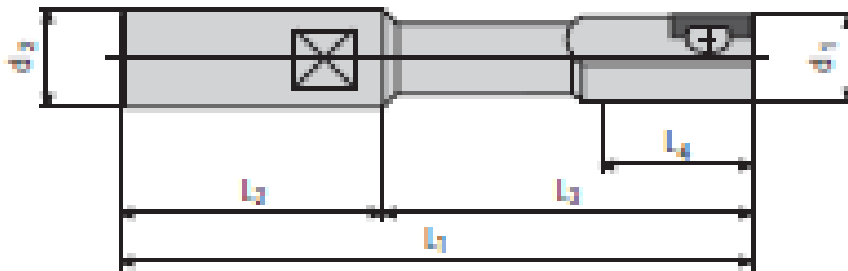


INDEXABLE BLADE REAMERS.....straight shank



$\varnothing d_1^*$	$\varnothing d_{2\text{нз}}$	L_1	L_2	L_3	L_4
5,00-5,29	5	85**	25	60	15
5,30-5,49	5	85**	25	60	15
5,50-6,19	5	85**	25	60	15
6,20-6,90	6	85**	25	60	15
6,91-7,49	7	100**	28	72	15
7,50-7,79	7	100**	28	72	15
7,80-7,99	8	120	28	92	30
8,00-8,29	8	120	28	92	30
8,30-8,79	9	130	30	100	30
8,80-9,29	9	130	30	100	30
9,30-9,79	10	140	32	108	30
9,80-10,29	10	140	32	108	30
10,30-11,29	9	145	36	109	30
11,30-12,29	10	155	40	115	30
12,30-13,29	11	160	45	115	30
13,30-14,29	11	170	45	125	30
14,30-15,29	13	175	45	130	30
15,30-16,29	13	180	50	130	30
16,30-17,29	14	190	50	140	30
17,30-18,29	14	195	50	145	30
18,30-19,29	16	205	56	149	30
19,30-20,29	16	210	56	154	30
20,30-21,29	18	215	56	159	30
21,30-22,29	18	225	63	162	30
22,30-23,29	18	230	63	167	30
23,30-24,29	20	240	63	177	30
24,30-25,29	20	245	63	182	30
25,30-26,29	20	250	70	180	30
26,30-27,29	22	260	70	190	30
27,30-29,29	22	270	70	200	30
29,30-30,29	24	280	80	200	30
30,30-32,29	24	290	80	210	30

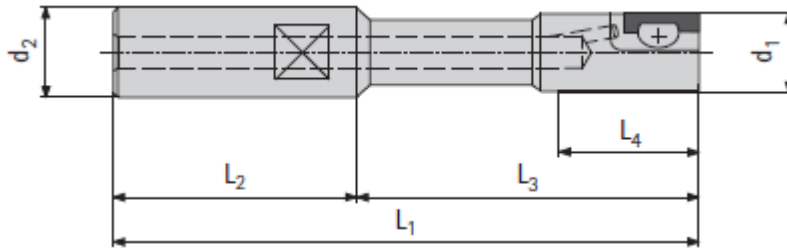
INDEXABLE BLADE REAMERS.....straight shank



$\varnothing d_1$	$\varnothing d_2$	L_1	L_2	L_3	L_4	size
5,00-5,29	10	90**	30	60	15	(SP) 81
5,30-5,49	10	90**	30	60	15	(SP) 81
5,50-6,19	10	90**	30	60	15	(SP) 81
6,20-6,90	10	90**	30	60	15	(SP) 81
6,91-7,49	10	100**	30	70	15	90
7,50-7,79	10	100**	30	70	15	90
7,80-8,29	16	120	45	75	30	90
8,30-8,79	16	120	45	75	30	90
8,80-9,29	16	120	45	75	30	90
9,30-9,79	16	120	45	75	30	91
9,80-11,29	16	120	45	75	30	91
11,30-11,79	16	120	45	75	30	92
11,80-12,29	16	120	45	75	30	92
12,30-13,29	16	120	45	75	30	92

13,30-14,29	16	120	45	75	30
14,30-18,29	20	130	55	75	30
18,30-19,79	20	130	55	75	30
19,80-20,29	20	150	55	95	30
20,30-26,29	20	150	55	95	30
26,30-40,29	25	160	65	95	30
40,30-50,79	25	180	65	115	30
50,80-	25	180	65	115	45

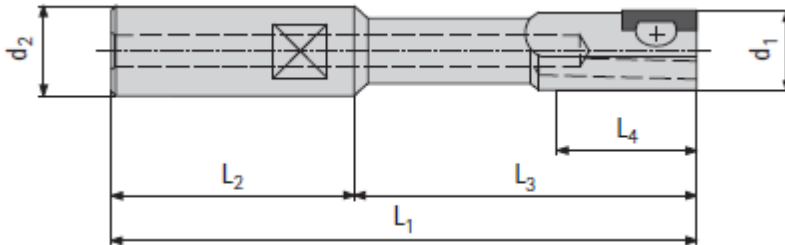
INDEXABLE BLADE REAMERS.....straight shank



$\varnothing d_1^*$	$\varnothing d_2 h_7$	L_1	L_2	L_3	L_4
5,00-5,29	10	90**	30	60	15
5,30-5,49	10	90**	30	60	15
5,50-6,19	10	90**	30	60	15
6,20-6,90	10	90**	30	60	15
6,91-7,49	10	100**	30	70	15
7,50-7,79	10	100**	30	70	15
7,80-8,29	16	120	45	75	30
8,30-8,79	16	120	45	75	30
8,80-9,29	16	120	45	75	30
9,30-9,79	16	120	45	75	30
9,80-11,29	16	120	45	75	30
11,30-11,79	16	120	45	75	30
11,80-12,29	16	120	45	75	30
12,30-13,29	16	120	45	75	30

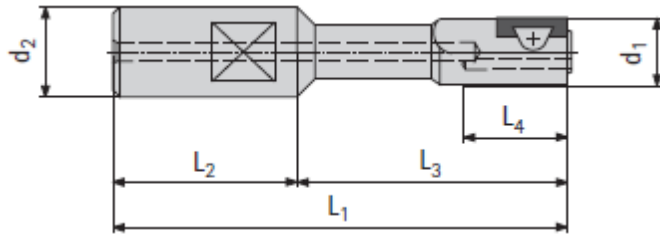
13,30-14,29	16	120	45	75	30
14,30-18,29	20	130	55	75	30
18,30-19,79	20	130	55	75	30
19,80-20,29	20	150	55	95	30
20,30-26,29	20	150	55	95	30
26,30-40,29	25	160	65	95	30
40,30-59,79	25	180	65	115	30
59,80-	25	180	65	115	45

INDEXABLE BLADE REAMERS.....straight shank



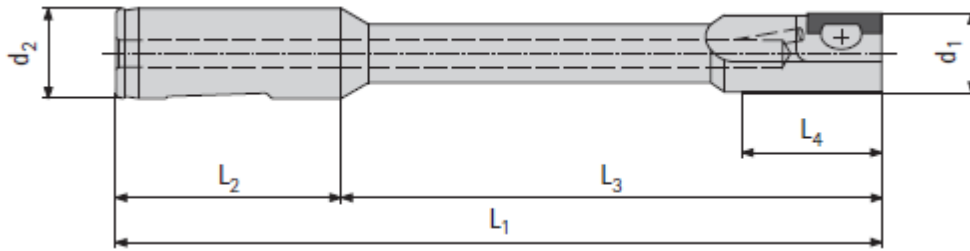
$\varnothing d_1^*$	$\varnothing d_2 \text{ h7}$	L_1	L_2	L_3	L_4
5,90-6,29	10	90**	30	60	15
6,30-6,90	10	90**	30	60	15
6,91-7,29	10	100**	30	70	15
7,30-7,79	10	100**	30	70	15
7,80-8,29	16	120**	45	75	15
8,30-9,79	16	120	45	75	15
9,80-10,29	16	120	45	75	15
10,30-11,29	16	120	45	75	30
11,30-12,29	16	120	45	75	30
12,30-14,29	16	120	45	75	30
14,30-16,29	20	130	55	75	30
16,30-17,29	20	130	55	75	30
17,30-19,79	20	130	55	75	30
19,80-26,29	20	150	55	95	30
26,30-40,29	25	160	65	95	30
40,30-59,79	25	180	65	115	30
59,80-	25	180	65	115	45

INDEXABLE BLADE REAMERS.....straight shank



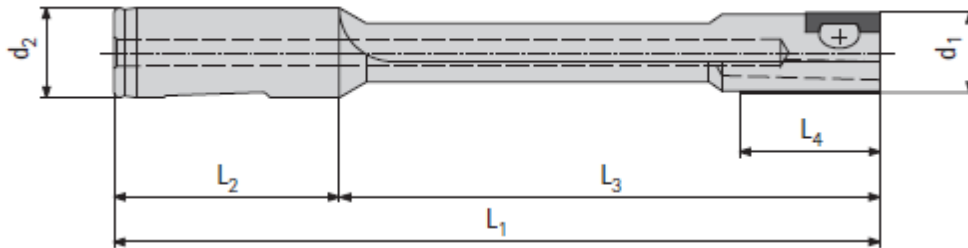
5,90-6,29	16	85**	27	58	15
6,30-7,29	16	85**	27	58	15
7,30-8,29	16	85**	27	58	15
8,30-9,79	16	85	27	58	15
9,80-10,29	16	85	27	58	15
10,30-11,29	16	85	27	58	30
11,30-12,29	16	85	27	58	30
12,30-14,29	16	85	27	58	30
14,30-16,29	16	85	27	58	30
16,30-17,29	16	85	27	58	30
17,30-19,79	16	85	27	58	30
19,80-20,29	16	85	27	58	30
20,30-26,29	20	90	30	60	30
26,30-40,29	25	95	35	60	30

INDEXABLE BLADE REAMERS.....straight shank



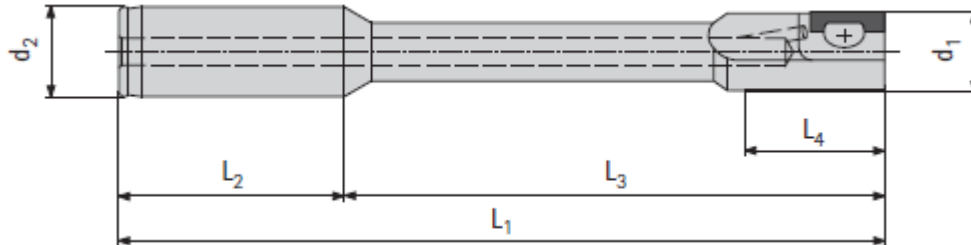
$\varnothing d_1^*$	$\varnothing d_2(-0,003)$	L_1	L_2	L_3	L_4	size
7,80-8,29	16	133	48	85	30	90
8,30-8,79	16	133	48	85	30	90
8,80-9,29	16	133	48	85	30	90
9,30-11,29	16	133	48	85	30	91
11,30-11,79	16	133	48	85	30	92
11,80-12,29	16	168	48	120	30	92
12,30-13,29	16	168	48	120	30	92
13,30-14,29	16	168	48	120	30	92
14,30-15,79	20	170	50	120	30	92
15,80-17,79	20	170	50	120	30	92
17,80-18,29	20	170	50	120	30	92
18,30-19,79	20	170	50	120	30	92
19,80-24,79	20	170	50	120	30	92
24,80-28,79	20	170	50	120	30	93
28,80-31,79	20	170	50	120	30	93
31,80-37,79	20	170	50	120	30	93
37,80-50,29	25	176	56	120	30	93
50,30-80,29	40	190	70	120	30	93

INDEXABLE BLADE REAMERS.....straight shank



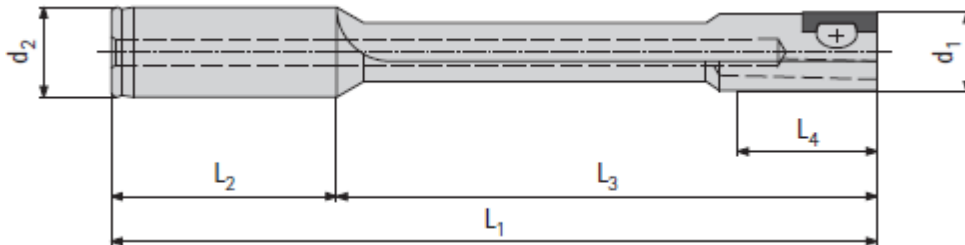
$\varnothing d_1^*$	$\varnothing d_{2(-0,003)}$	L_1	L_2	L_3	L_4
7,80-8,29	16	133	48	85	30
8,30-8,79	16	133	48	85	30
8,80-9,29	16	133	48	85	30
9,30-11,29	16	133	48	85	30
11,30-11,79	16	133	48	85	30
11,80-12,29	16	168	48	120	30
12,30-14,29	16	168	48	120	30
14,30-16,29	20	170	50	120	30
16,30-17,29	20	170	50	120	30
17,30-19,79	20	170	50	120	30
19,80-24,79	20	170	50	120	30
24,80-27,79	20	170	50	120	30
27,80-28,79	20	170	50	120	30
28,80-31,79	20	170	50	120	30
31,80-37,79	20	170	50	120	30
37,80-50,29	25	176	56	120	30

INDEXABLE BLADE REAMERS.....straight shank



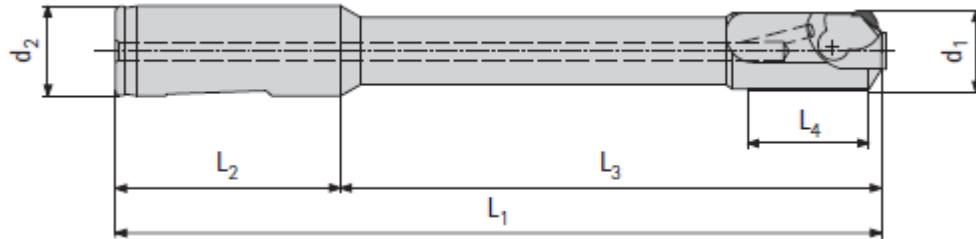
$\varnothing d_1^*$	$\varnothing d_2 \text{ h6}$	L_1	L_2	L_3	L_4
7,80-8,29	16	133	48	85	30
8,30-8,79	16	133	48	85	30
8,80-9,29	16	133	48	85	30
9,30-11,29	16	133	48	85	30
11,30-11,79	16	133	48	85	30
11,80-12,29	16	168	48	120	30
12,30-13,29	16	168	48	120	30
13,30-14,29	16	168	48	120	30
14,30-15,79	20	170	50	120	30
15,80-17,79	20	170	50	120	30
17,80-18,29	20	170	50	120	30
18,30-19,79	20	170	50	120	30
19,80-24,79	20	170	50	120	30
24,80-28,79	20	170	50	120	30
28,80-31,79	20	170	50	120	30
31,80-37,79	20	170	50	120	30
37,80-50,29	25	176	56	120	30
50,30-80,29	40	190	70	120	30

INDEXABLE BLADE REAMERS.....straight shank



$\varnothing d_1^*$	$\varnothing d_2 \text{ h6}$	L_1	L_2	L_3	L_4
7,80-8,29	16	133	48	85	30
8,30-8,79	16	133	48	85	30
8,80-9,29	16	133	48	85	30
9,30-11,29	16	133	48	85	30
11,30-11,79	16	133	48	85	30
11,80-12,29	16	168	48	120	30
12,30-14,29	16	168	48	120	30
14,30-16,29	20	170	50	120	30
16,30-17,29	20	170	50	120	30
17,30-19,79	20	170	50	120	30
19,80-24,79	20	170	50	120	30
24,80-27,79	20	170	50	120	30
27,80-28,79	20	170	50	120	30
28,80-31,79	20	170	50	120	30
31,80-37,79	20	170	50	120	30
37,80-50,29	25	176	56	120	30

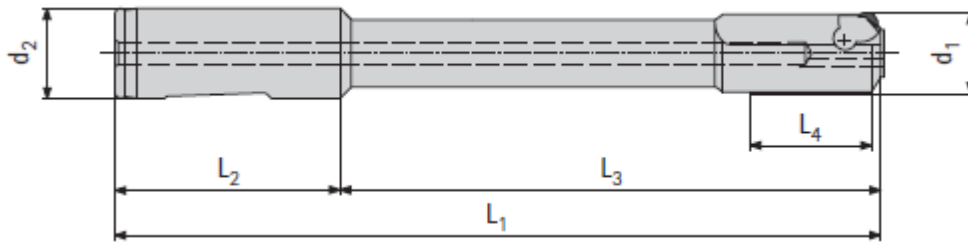
INDEXABLE BLADE REAMERS.....straight shank



$\varnothing d_1^*$	$\varnothing d_{2(-0,003)}$	L_1	L_2	L_3	L_4
13,83-14,49	16	168**	48	120	30
14,50-14,82	20	170**	50	120	30
14,83-16,49	20	170**	50	120	30
16,50-16,82	20	170**	50	120	30
16,83-17,82	20	170**	50	120	30
17,83-19,82	20	170**	50	120	30
19,83-21,82	20	170**	50	120	30
21,83-24,82	20	170**	50	120	30
24,83-37,82	20	170	50	120	30
37,83-50,16	25	176	56	120	30
50,17-80,16	40	190	70	120	30

Single Bladed Reamers

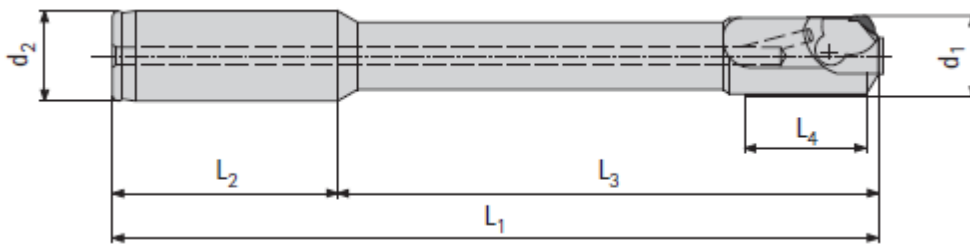
HX Single Bladed Reamers



$\varnothing d_1^*$	$\varnothing d_{2(-0,003)}$	L_1	L_2	L_3	L_4
14,83-16,49	20	170**	50	120	30
16,50-16,82	20	170**	50	120	30
16,83-17,82	20	170**	50	120	30
17,83-19,82	20	170**	50	120	30
19,83-21,82	20	170**	50	120	30
21,83-24,82	20	170**	50	120	30
24,83-37,82	20	170	50	120	30
37,83-50,16	25	176	56	120	30
50,17-80,16	40	190	70	120	30

Single Bladed Reamers

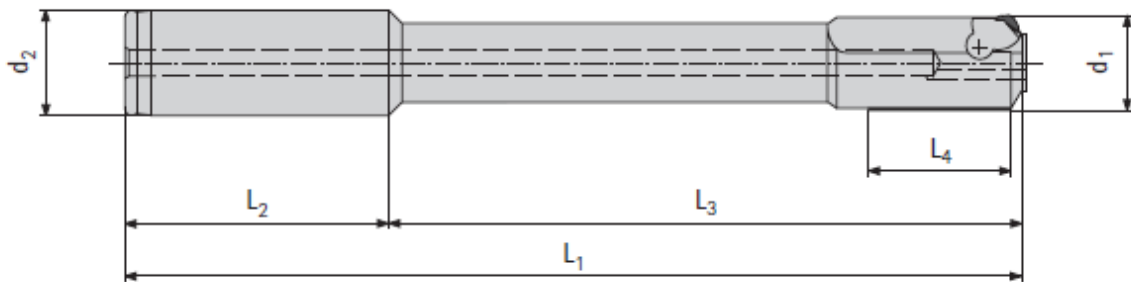
HX Single Bladed Reamers



$\varnothing d_1^*$	$\varnothing d_2 \text{ h6}$	L_1	L_2	L_3	L_4
13,83-14,49	16	168**	48	120	30
14,50-14,82	20	170**	50	120	30
14,83-16,49	20	170**	50	120	30
16,50-16,82	20	170**	50	120	30
16,83-17,82	20	170**	50	120	30
17,83-19,82	20	170**	50	120	30
19,83-21,82	20	170**	50	120	30
21,83-24,82	20	170**	50	120	30
24,83-37,82	20	170	50	120	30
37,83-50,16	25	176	56	120	30
50,17-80,16	40	190	70	120	30

Single Bladed Reamers

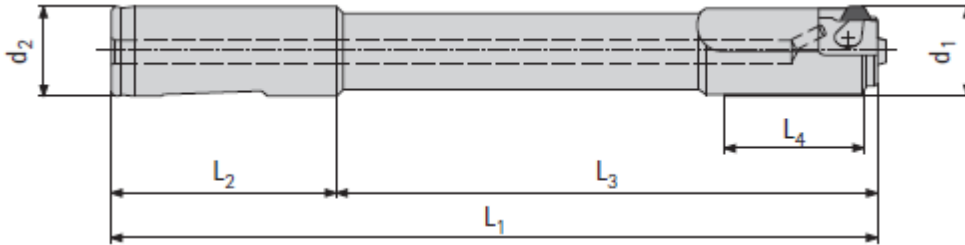
HX Single Bladed Reamers



$\varnothing d_1^*$	$\varnothing d_2$ h6	L_1	L_2	L_3	L_4
14,83-16,49	20	170**	50	120	30
16,50-16,82	20	170**	50	120	30
16,83-17,82	20	170**	50	120	30
17,83-19,82	20	170**	50	120	30
19,83-21,82	20	170**	50	120	30
21,83-24,82	20	170**	50	120	30
24,83-37,82	20	170	50	120	30
37,83-50,16	25	176	56	120	30
50,17-80,16	40	190	70	120	30

Single Bladed Reamers

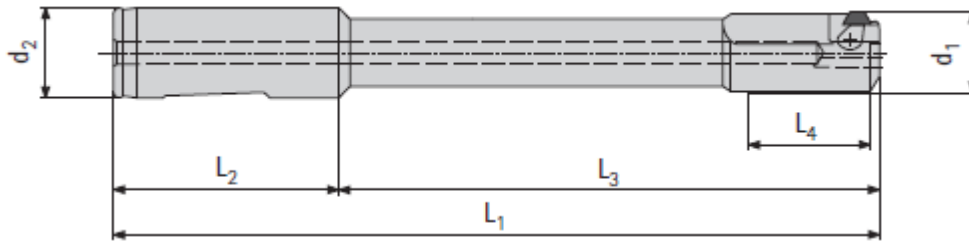
HX Single Bladed Reamers



σd_1^*	$\sigma d_{2(-0,003)}$	L_1	L_2	L_3	L_4
13,83-14,49	16	168**	48	120	30
14,50-14,82	20	170**	50	120	30
14,83-16,49	20	170**	50	120	30
16,50-17,82	20	170**	50	120	30
17,83-19,82	20	170**	50	120	30
19,83-21,82	20	170**	50	120	30
21,83-24,82	20	170**	50	120	30
24,83-29,82	20	170**	50	120	30
29,83-37,82	20	170**	50	120	30
37,83-39,82	25	176	56	120	30
39,83-44,82	25	176	56	120	30
44,83-50,16	25	176	56	120	30
50,17-54,29	40	190	70	120	30
54,30-59,79	40	190	70	120	30
59,80-64,79	40	190	70	120	30
64,80-69,79	40	190	70	120	30
69,80-74,49	40	190	70	120	30
74,50-80,16	40	190	70	120	30

Single Bladed Reamers

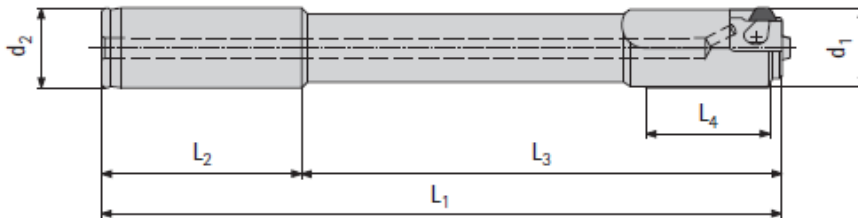
HX Single Bladed Reamers



$\varnothing d_1^*$	$\varnothing d_2(-0,003)$	L_1	L_2	L_3	L_4
14,83-16,49	20	170	50	120	30
16,50-17,82	20	170	50	120	30
17,83-19,82	20	170	50	120	30
19,83-21,82	20	170	50	120	30
21,83-24,82	20	170	50	120	30
24,83-29,82	20	170	50	120	30
29,83-37,82	20	170	50	120	30
37,83-50,16	25	176	56	120	30
50,17-80,16	40	190	70	120	30

Single Bladed Reamers

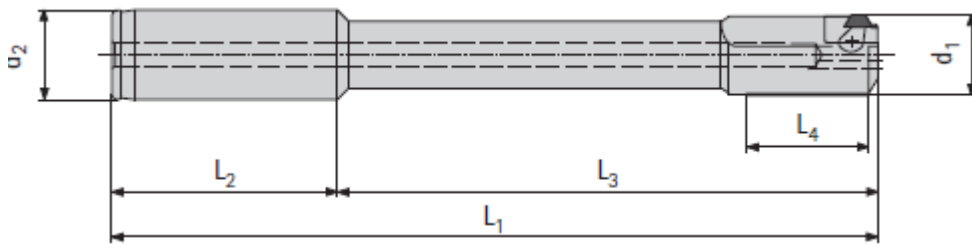
HX Single Bladed Reamers



$\varnothing d_1^*$	$\varnothing d_2 \text{ h6}$	L_1	L_2	L_3	L_4
13,83-14,49	16	168**	48	120	30
14,50-14,82	20	170**	50	120	30
14,83-16,49	20	170**	50	120	30
16,50-17,82	20	170**	50	120	30
17,83-19,82	20	170**	50	120	30
19,83-21,82	20	170**	50	120	30
21,83-24,82	20	170**	50	120	30
24,83-29,82	20	170**	50	120	30
29,83-37,82	20	170**	50	120	30
37,83-39,82	25	176	56	120	30
39,83-44,82	25	176	56	120	30
44,83-50,16	25	176	56	120	30
50,17-54,29	40	190	70	120	30
54,30-59,79	40	190	70	120	30
59,80-64,79	40	190	70	120	30
64,80-69,79	40	190	70	120	30
69,80-74,49	40	190	70	120	30
74,50-80,16	40	190	70	120	30

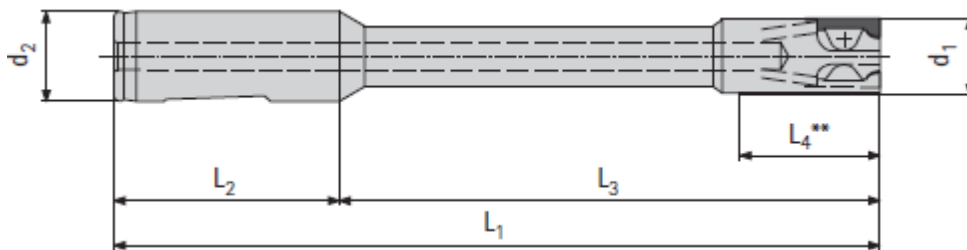
Single Bladed Reamers

HX Single Bladed Reamers



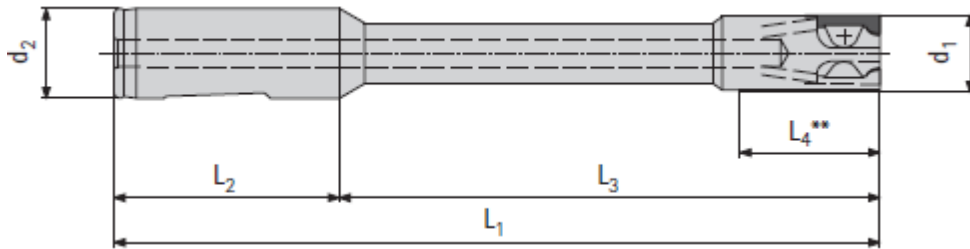
$\varnothing d_1^*$	$\varnothing d_2 \text{ h6}$	L_1	L_2	L_3	L_4
14,83-16,49	20	170	50	120	30
16,50-17,82	20	170	50	120	30
17,83-19,82	20	170	50	120	30
19,83-21,82	20	170	50	120	30
21,83-24,82	20	170	50	120	30
24,83-29,82	20	170	50	120	30
29,83-37,82	20	170	50	120	30
37,83-50,16	25	176	56	120	30
50,17-80,16	40	190	70	120	30

Twin Bladed Reamers



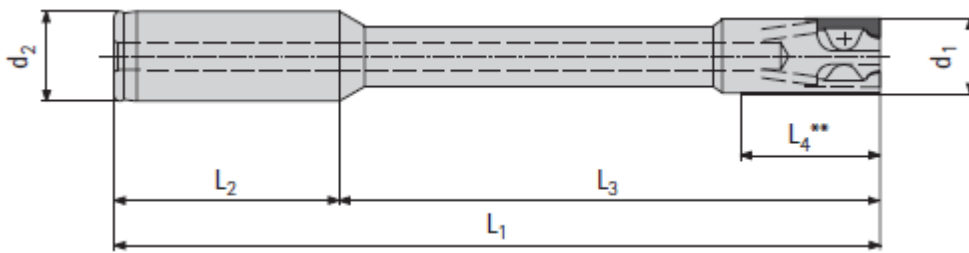
$\varnothing d_1^*$	L_1	L_2	L_3	MT	Length A
14,30-15,29	180	62	114,5	1	118
15,30-16,29	200	75	120	2	125
16,30-18,29	210	75	130	2	135
18,30-19,29	220	75	140	2	145
19,30-20,29	220	75	140	2	145
20,30-22,29	230	75	150	2	155
22,30-23,29	240	75	160	2	165
23,30-24,29	260	94	161	3	166
24,30-26,29	260	94	161	3	166
26,30-28,29	270	94	171	3	176
28,30-29,29	280	94	181	3	186
29,30-32,29	290	94	191	3	196
32,30-35,29	290	117,5	166	4	172,5
35,30-40,29	310	117,5	186	4	192,5

Twin Bladed Reamers



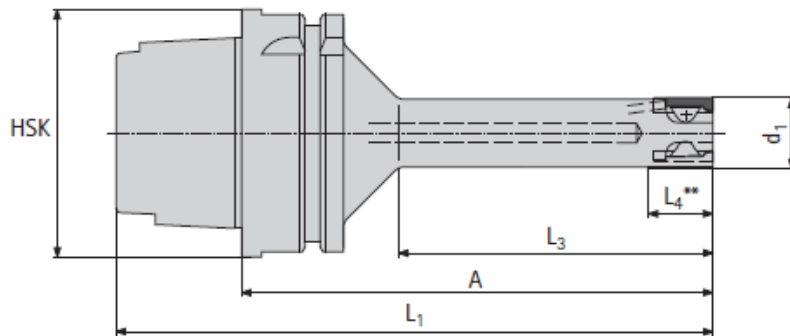
$\varnothing d_1^*$	$\varnothing d_{2(-0,003)}$	L_1	L_2	L_3
14,30-15,29	20	170	50	120
15,30-16,29	20	170	50	120
16,30-18,29	20	170	50	120
18,30-19,29	20	170	50	120
19,30-20,29	20	170	50	120
20,30-22,29	20	170	50	120
22,30-24,29	20	170	50	120
24,30-26,29	20	170	50	120
26,30-28,29	20	170	50	120
28,30-29,29	20	170	50	120
29,30-32,29	20	170	50	120
32,30-37,79	20	170	50	120

Twin Bladed Reamers



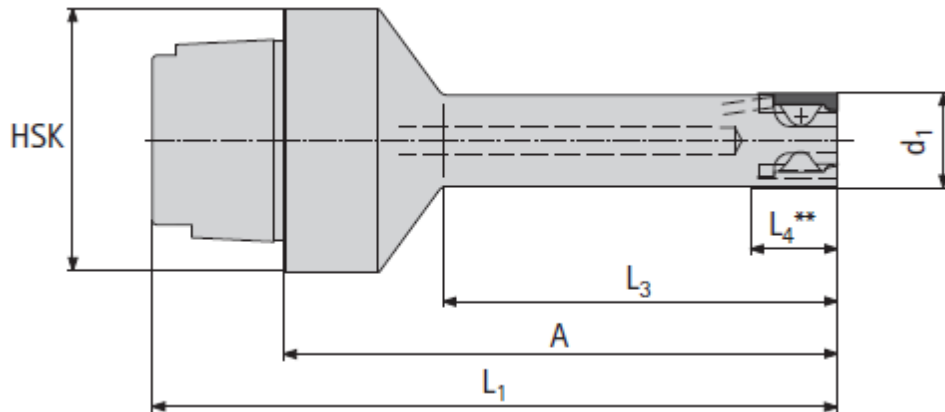
$\varnothing d_1^*$	$\varnothing d_2 \text{ h6}$	L_1	L_2	L_3
14,30-15,29	20	170	50	120
15,30-16,29	20	170	50	120
16,30-18,29	20	170	50	120
18,30-19,29	20	170	50	120
19,30-20,29	20	170	50	120
20,30-22,29	20	170	50	120
22,30-24,29	20	170	50	120
24,30-26,29	20	170	50	120
26,30-28,29	20	170	50	120
28,30-29,29	20	170	50	120
29,30-32,29	20	170	50	120
32,30-37,79	20	170	50	120
37,80-40,29	25	176	56	120

Twin Bladed Reamers



$\varnothing d_1^*$	L ₁	L ₃	HSK-A size	Length A
14,30-15,29	122	50	63	90
15,30-16,29	132	60	63	100
16,30-18,29	142	70	63	110
18,30-19,29	147	75	63	115
19,30-20,29	152	80	63	120
20,30-22,29	157	85	63	125
22,30-24,29	157	85	63	125
24,30-25,29	162	90	63	130
25,30-26,29	167	95	63	135
26,30-27,29	167	95	63	135
27,30-28,29	172	100	63	140
28,30-29,29	172	100	63	140
29,30-31,29	177	105	63	145
31,30-32,29	187	110	63	155
32,30-37,29	187	110	63	155

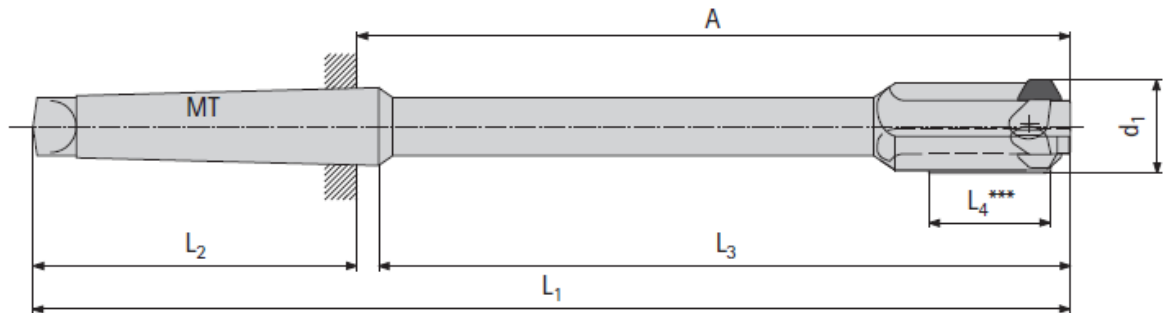
Twin Bladed Reamers



$\varnothing d_1^*$	L ₁	L ₃	HSK-C size	Length A
14,30-15,29	95	50	40	75
15,30-16,29	105	60	40	85
16,30-18,29	115	70	40	95
18,30-19,29	120	75	40	100
19,30-20,29	125	80	40	105
20,30-22,29	140	85	50	115
22,30-24,29	140	85	50	115
24,30-25,29	145	90	50	120
25,30-26,29	150	95	50	125
26,30-27,29	150	95	50	125
27,30-28,29	155	100	50	130
28,30-29,29	172	100	50	130
29,30-31,29	160	105	50	135
31,30-32,29	172	110	63	140
32,30-37,29	172	110	63	140
37,30-40,29	177	115	63	145

Twin Bladed Reamers

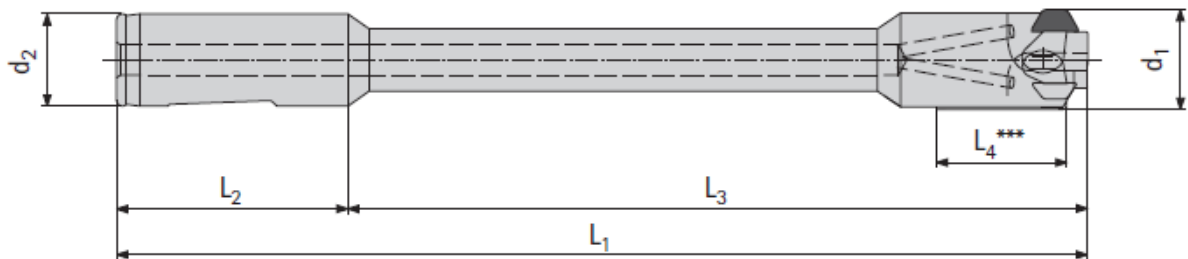
HX Twin Bladed Reamer



$\varnothing d_1^*$	L ₁	L ₂	L ₃	MT	Length A
21,83-23,82	240**	75	160	2	165
23,83-25,82	260**	94	161	3	166
25,83-26,82	260**	94	161	3	166
26,83-28,82	270**	94	171	3	176
28,83-29,82	280**	94	181	3	186
29,83-31,82	290**	94	191	3	196
31,83-32,82	290**	94	191	3	196
32,83-35,82	290**	117,5	166	4	172,5
35,83-37,82	310**	117,5	186	4	192,5
37,83-39,82	310	117,5	186	4	192,5
39,83-42,82	325	117,5	201	4	207,5
42,83-47,82	325	117,5	201	4	207,5

Twin Bladed Reamers

HX Twin Bladed Reamers



$\varnothing d_1^*$	$\varnothing d_{2(-0,003)}$	L_1	L_2	L_3
21,83-25,82	20**	170	50	120
25,83-29,82	20**	170	50	120
29,83-31,82	20**	170	50	120
31,83-37,82	20**	170	50	120
37,83-39,82	25	176	56	120
39,83-42,82	25	176	56	120
42,83-47,82	25	176	56	120

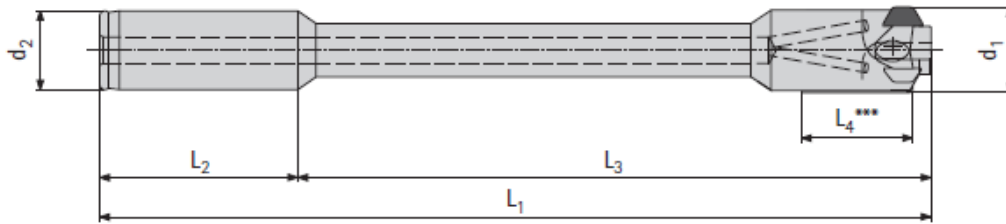
Twin Bladed Reamers

HX Twin Bladed Reamers

$\varnothing d_1^*$	$\varnothing d_{2(-0,003)}$	L ₁	L ₂	L ₃
21,83-25,82	20**	170	50	120
25,83-29,82	20**	170	50	120
29,83-31,82	20**	170	50	120
31,83-37,82	20**	170	50	120
37,83-39,82	25	176	56	120
39,83-42,82	25	176	56	120
42,83-47,82	25	176	56	120

Twin Bladed Reamers

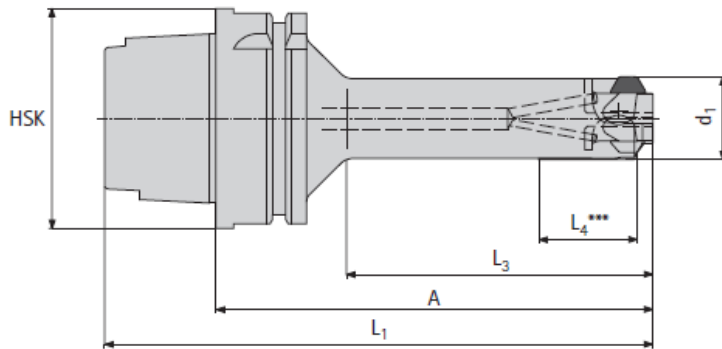
HX Twin Bladed Reamers



$\varnothing d_1^*$	$\varnothing d_2 \text{ h6}$	L_1	L_2	L_3
21,83-25,82	20**	170	50	120
25,83-29,82	20**	170	50	120
29,83-31,82	20**	170	50	120
31,83-37,82	20**	170	50	120
37,83-39,82	25	176	56	120
39,83-42,82	25	176	56	120
42,83-47,82	25	176	56	120

Twin Bladed Reamers

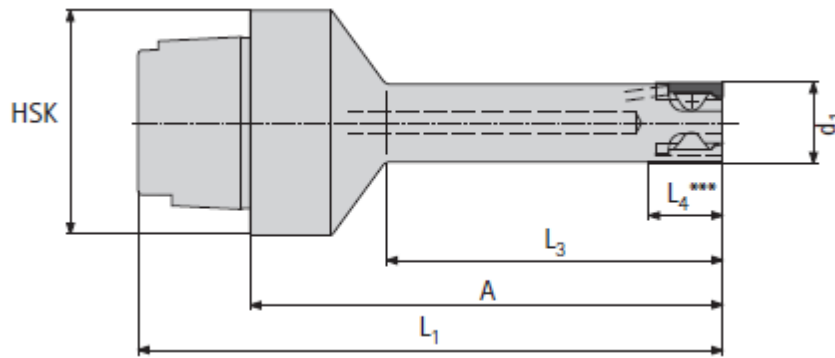
HX Twin Bladed Reamers



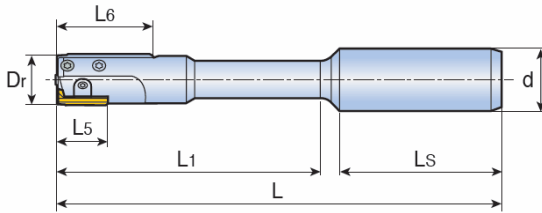
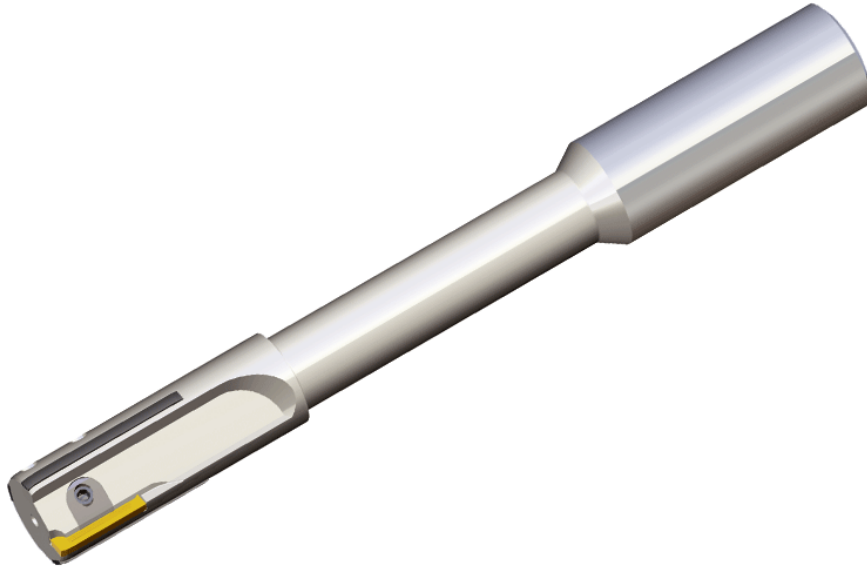
$\varnothing d_1^*$	L_1	L_3	HSK-A size	Length A
21,83-24,82	157**	85	63	125
24,83-25,82	162**	90	63	130
25,83-27,82	167**	95	63	135
27,83-29,82	172**	100	63	140
29,83-31,82	177**	105	63	145
31,83-37,82	187**	110	63	155
37,83-39,82	192	115	63	160
39,83-42,82	197	120	63	165
42,83-47,82	202	130	63	170

Twin Bladed Reamers

HX Twin Bladed Reamers



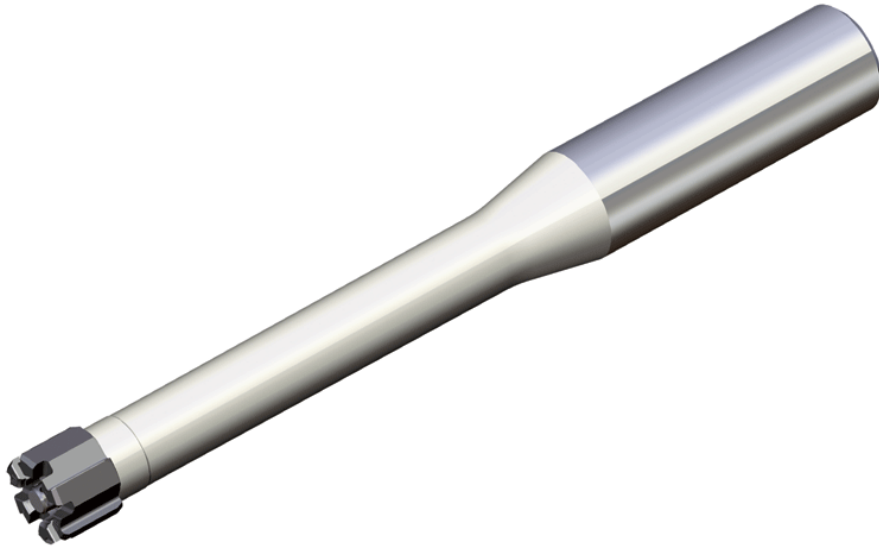
$\varnothing d_1^*$	L_1	L_3	HSK-C size	Length A
21,83-24,82	140**	85	50	115
24,83-25,82	145**	90	50	120
25,83-27,82	150**	95	50	125
27,83-29,82	155**	100	50	130
29,83-31,82	160**	105	50	135
31,83-37,82	172**	110	63	140
37,83-39,82	177	115	63	145
39,83-42,82	182	120	63	150
42,83-47,82	187	128	63	155



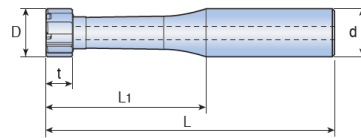
Single-edged indexable reamers for through holes.

Dr	L	L1	Ls	L5	L6	d	Po.Size
8.000	45.00	75.0	123.0	30.00	30.00	16.00	1.00
9.000	45.00	75.0	123.0	15.50	30.00	16.00	1.00
10.000	45.00	75.0	123.0	15.50	30.00	16.00	2.00
11.000	45.00	75.0	123.0	30.00	30.00	16.00	2.00
12.000	45.00	85.0	135.0	17.00	30.00	16.00	3.00
13.000	45.00	85.0	135.0	17.00	30.00	16.00	3.00
14.000	45.00	85.0	135.0	30.00	30.00	16.00	3.00
15.000	45.00	85.0	135.0	17.00	30.00	16.00	3.00
16.000	50.00	110.0	165.0	30.00	30.00	20.00	3.00
17.000	50.00	110.0	165.0	17.00	30.00	20.00	3.00
18.000	50.00	110.0	165.0	17.00	30.00	20.00	3.00

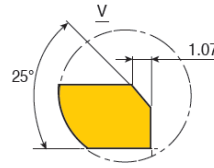
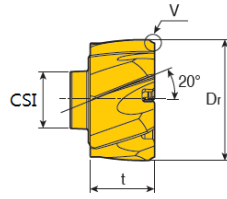
19.000	50.00	110.0	165.0	17.00	30.00	20.00	3.00
20.000	56.00	110.0	171.0	30.00	30.00	25.00	3.00
21.000	56.00	110.0	171.0	17.00	30.00	25.00	3.00
22.000	56.00	130.0	191.0	17.00	30.00	25.00	3.00
23.000	56.00	130.0	191.0	17.00	30.00	25.00	3.00
24.000	56.00	130.0	191.0	17.00	30.00	25.00	3.00
25.000	56.00	130.0	191.0	17.00	30.00	25.00	3.00
26.000	56.00	160.0	221.0	22.50	30.00	25.00	4.00
27.000	56.00	160.0	221.0	22.50	30.00	25.00	4.00
28.000	56.00	160.0	221.0	22.50	30.00	25.00	4.00
29.000	56.00	160.0	221.0	22.50	30.00	25.00	4.00
30.000	56.00	160.0	221.0	30.00	30.00	25.00	4.00
31.000	56.00	160.0	221.0	22.50	30.00	25.00	4.00
32.000	56.00	160.0	221.0	22.50	30.00	25.00	4.00



interchangeable head reamers



Dr (min)	Dr (max)	CSI	d	t	L	L1
11.500	13.500	B5	16.00	9.30	97.80	49.8
13.500	16.000	B6	16.00	9.40	105.40	57.4
16.000	20.000	B7	20.00	10.60	120.60	70.6
20.000	25.400	B8	20.00	12.80	137.80	87.8
25.400	32.000	B9	32.00	12.80	167.10	107.1
11.500	13.500	B5	16.00	9.30	125.00	77.0
13.500	16.000	B6	16.00	9.40	137.40	89.4
16.000	20.000	B7	20.00	10.60	160.60	110.6
20.000	25.400	B8	20.00	12.80	187.80	137.8
25.400	32.000	B9	32.00	12.80	231.10	171.1
11.500	13.500	B5	16.00	9.30	165.50	117.5
13.500	16.000	B6	16.00	9.40	185.40	137.4
16.000	20.000	B7	20.00	10.60	220.60	170.6
20.000	25.400	B8	20.00	12.80	262.80	212.8
25.400	32.000	B9	32.00	12.80	327.10	267.1

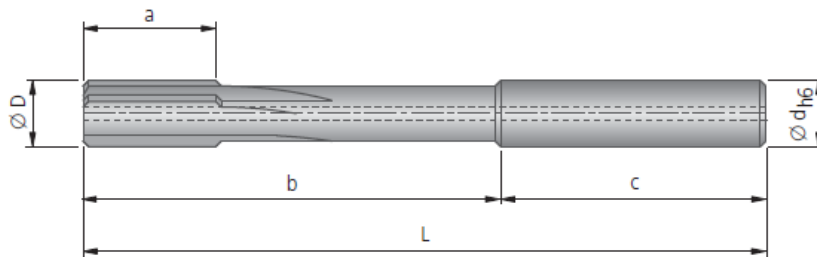


solid carbide reaming heads

with left- handed flute for through holes of high speed reaming

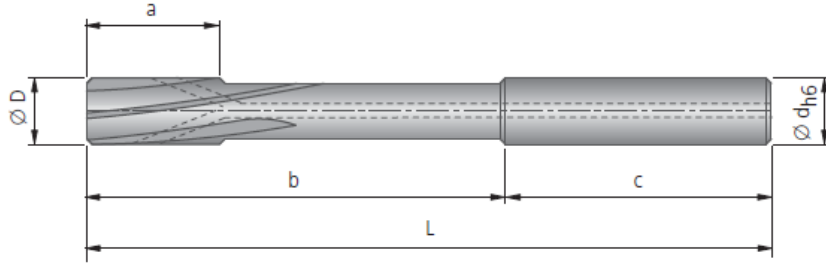
CSI	Dr	t	Flute ty	Flute	Edge typ
B5	11.501	9.30	L	6	B
B5	12.000	9.30	L	6	B
B5	13.000	9.30	L	6	B
B5	13.500	9.30	L	6	B
B6	13.501	9.30	L	6	B
B6	14.000	9.40	L	6	B
B6	15.000	9.40	L	6	B
B6	16.000	9.40	L	6	B
B7	16.001	9.40	L	6	B
B7	17.000	10.60	L	6	B
B7	18.000	10.60	L	6	B
B7	19.000	10.60	L	6	B
B7	20.000	10.60	L	6	B
B8	20.001	12.80	L	8	B
B8	21.000	12.80	L	8	B
B8	22.000	12.80	L	8	B
B8	23.000	12.80	L	8	B
B8	24.000	12.80	L	8	B
B8	25.000	12.80	L	8	B
B9	26.000	12.80	L	8	B
B9	27.000	12.80	L	8	B
B9	28.000	12.80	L	8	B
B9	29.000	12.80	L	8	B
B9	30.000	12.80	L	8	B
B9	31.000	12.80	L	8	B
B9	32.000	12.80	L	8	B

SOLID CARBIDE REAMER FOR BLIND HOLES.



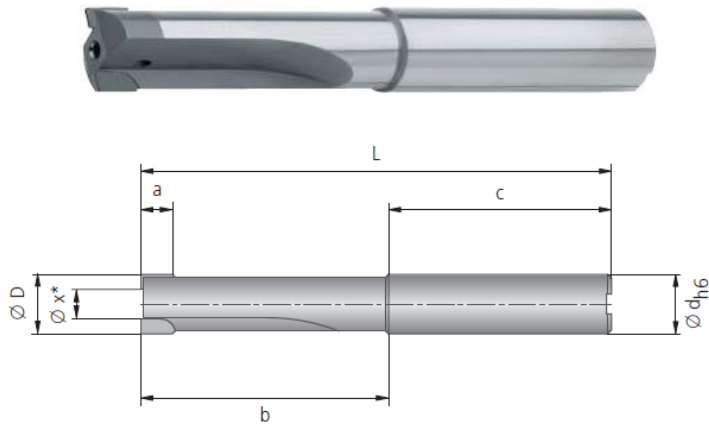
Ø D	Ø d × c	L	b	a
0.1165 – 0.1596 (2.959 – 4.054)	0.157 × 1.102 (4 × 28)	2.362 (60)	1.260 (32)	0.472 (12)
0.1597 – 0.2382 (4.055 – 6.050)	0.236 × 1.417 (6 × 36)	2.992 (76)	1.575 (40)	0.472 (12)
0.2383 – 0.3170 (6.051 – 8.051)	0.315 × 1.417 (8 × 36)	3.976 (101)	2.560 (65)	0.630 (16)
0.3171 – 0.3957 (8.052 – 10.051)	0.394 × 1.575 (10 × 40)	4.252 (108)	2.677 (68)	0.630 (16)
0.3958 – 0.4744 (10.052 – 12.050)	0.472 × 1.772 (12 × 45)	5.118 (130)	3.346 (85)	0.787 (20)
0.4745 – 0.5532 (12.051 – 14.052)	0.551 × 1.772 (14 × 45)	5.118 (130)	3.346 (85)	0.787 (20)
0.5533 – 0.6319 (14.053 – 16.050)	0.630 × 1.890 (16 × 48)	5.906 (150)	4.016 (102)	0.787 (20)
0.6320 – 0.7106 (16.051 – 18.050)	0.709 × 1.890 (18 × 48)	5.906 (150)	4.016 (102)	0.787 (20)
0.7107 – 0.7894 (18.051 – 20.050)	0.787 × 1.969 (20 × 50)	6.230 (160)	4.331 (110)	0.787 (20)

SOLID CARBIDE REAMER FOR THROUGH HOLES



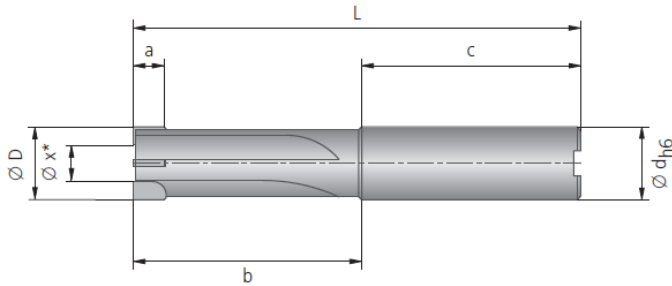
Ø D	Ø d × c	L	b	a ~
0.1165 – 0.1596 (2.959 – 4.054)	0.157 × 1.102 (4 × 28)	2.362 (60)	1.260 (32)	0.472 (12)
0.1597 – 0.2382 (4.055 – 6.050)	0.236 × 1.417 (6 × 36)	2.992 (76)	1.575 (40)	0.472 (12)
0.2383 – 0.3170 (6.051 – 8.051)	0.315 × 1.417 (8 × 36)	3.976 (101)	2.560 (65)	0.630 (16)
0.3171 – 0.3957 (8.052 – 10.051)	0.394 × 1.575 (10 × 40)	4.252 (108)	2.677 (68)	0.630 (16)
0.3958 – 0.4744 (10.052 – 12.050)	0.472 × 1.772 (12 × 45)	5.118 (130)	3.346 (85)	0.787 (20)
0.4745 – 0.5532 (12.051 – 14.052)	0.551 × 1.772 (14 × 45)	5.118 (130)	3.346 (85)	0.787 (20)
0.5533 – 0.6319 (14.053 – 16.050)	0.630 × 1.890 (16 × 48)	5.906 (150)	4.016 (102)	0.787 (20)
0.6320 – 0.7106 (16.051 – 18.050)	0.709 × 1.890 (18 × 48)	5.906 (150)	4.016 (102)	0.787 (20)
0.7107 – 0.7894 (18.051 – 20.050)	0.787 × 1.969 (20 × 50)	6.230 (160)	4.331 (110)	0.787 (20)

PCD Reamer with 2 flutes



Ø D	L	b	c	a
*0.1575 – 0.1811 (4.000 – 4.600)	2.520 (64)	1.102 (28)	1.417 (36)	0.276 (7)
*0.1812 – 0.2008 (4.601 – 5.100)	2.520 (64)	1.102 (28)	1.417 (36)	0.276 (7)
*0.2009 – 0.2205 (5.101 – 5.600)	2.520 (64)	1.102 (28)	1.417 (36)	0.276 (7)
0.2206 – 0.2402 (5.601 – 6.100)	2.795 (71)	1.378 (35)	1.417 (36)	0.276 (7)
0.2403 – 0.2598 (6.101 – 6.600)	2.992 (76)	1.575 (40)	1.417 (36)	0.276 (7)
0.2599 – 0.2795 (6.601 – 7.100)	2.992 (76)	1.575 (40)	1.417 (36)	0.276 (7)
0.2796 – 0.2992 (7.101 – 7.600)	2.992 (76)	1.575 (40)	1.417 (36)	0.276 (7)
0.2993 – 0.3189 (7.601 – 8.100)	2.992 (76)	1.575 (40)	1.417 (36)	0.276 (7)
0.3190 – 0.3386 (8.101 – 8.600)	3.346 (85)	1.575 (40)	1.772 (45)	0.276 (7)
0.3387 – 0.3583 (8.601 – 9.100)	3.346 (85)	1.575 (40)	1.772 (45)	0.276 (7)
0.3584 – 0.3976 (9.101 – 10.100)	3.346 (85)	1.575 (40)	1.772 (45)	0.276 (7)
0.3977 – 0.4567 (10.101 – 11.600)	3.740 (95)	1.969 (50)	1.772 (45)	0.276 (7)
0.4568 – 0.5552 (11.601 – 14.100)	3.740 (95)	1.969 (50)	1.772 (45)	0.276 (7)
0.5553 – 0.5945 (14.101 – 15.100)	3.858 (98)	1.969 (50)	1.890 (48)	0.276 (7)
0.5946 – 0.6339 (15.101 – 16.100)	3.858 (98)	1.969 (50)	1.890 (48)	0.276 (7)
0.6340 – 0.7126 (16.101 – 18.100)	4.252 (108)	2.362 (60)	1.890 (48)	0.276 (7)
0.7127 – 0.7913 (18.101 – 20.100)	4.331 (110)	2.362 (60)	1.968 (50)	0.276 (7)

PCD Reamer with 4 flutes



Ø D	L	b	c	a	Ø dh6 mm
0.3780 – 0.3976 (9.601 – 10.100)	3.346 (85)	1.575 (40)	1.772 (45)	0.276 (7)	12
0.3977 – 0.4567 (10.101 – 11.600)	3.740 (95)	1.969 (50)	1.772 (45)	0.276 (7)	12
0.4568 – 0.5552 (11.601 – 14.100)	3.740 (95)	1.969 (50)	1.772 (45)	0.276 (7)	12
0.5553 – 0.5945 (14.101 – 15.100)	3.858 (98)	1.969 (50)	1.890 (48)	0.276 (7)	16
0.5946 – 0.6339 (15.101 – 16.100)	3.858 (98)	1.969 (50)	1.890 (48)	0.276 (7)	16
0.6340 – 0.7126 (16.101 – 18.100)	4.252 (108)	2.362 (60)	1.890 (48)	0.276 (7)	16
0.7127 – 0.7913 (18.101 – 20.100)	4.331 (110)	2.362 (60)	1.968 (50)	0.276 (7)	20

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