

Code key
Système de codification
Kodifizierungs-System **D02**

Applications
Applications
Anwendungen **D03**

Microturn
Microturn
Microturn **D04**

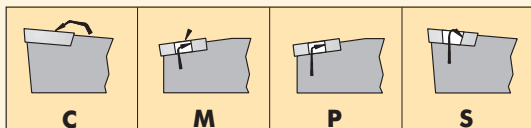
Center screw toolholders
Porte-outils avec vis centrale
Klemmhalter mit Zentralschrauben-Klemmung **D08**

Other applications
Autres applications
Andere Anwendungen **D11**

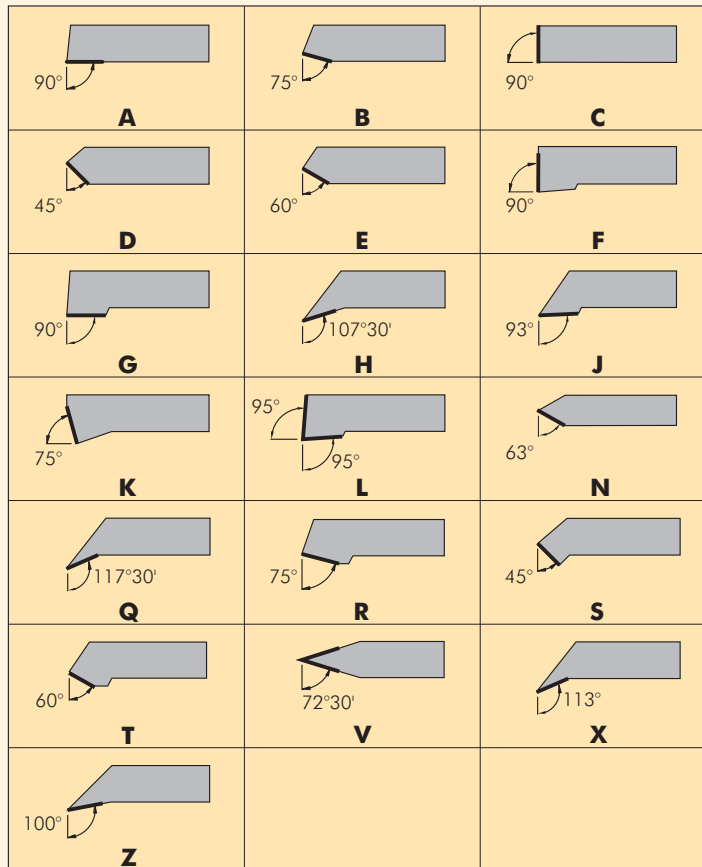
Cutting data
Conditions de coupe
Schnittbedingungen **D12**

S C A C R 12 12 M 09
1 2 3 4 5 6 7 8 9

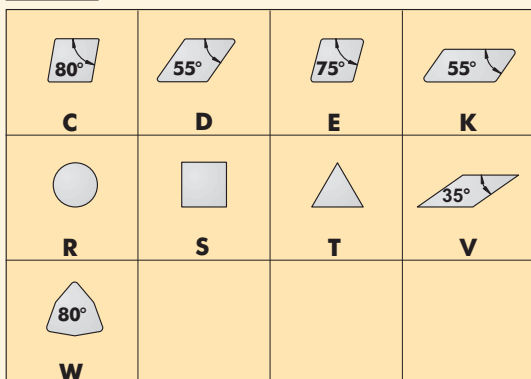
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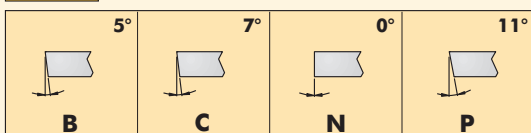
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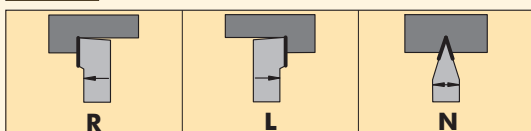
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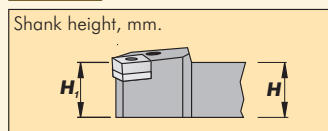
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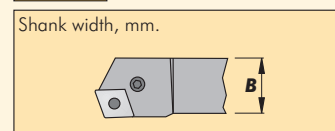
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6



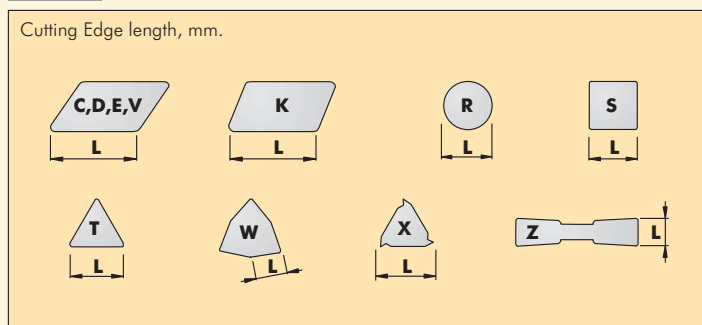
7



8

<p>Tool length, mm.</p>	D	60	P	170
	E	70	R	200
	F	80	S	250
	H	100	T	300
	K	125	U	350
	L	140	V	400
	M	150	X	Special

9



- Inserts
- Turning
- Automatic lathes
- Ceramic tools
- Parting & grooving
- Threading
- Drills
- Cartridges
- Brazed tools
- Milling cutters
- Solid carbide
- Boring heads
- Arbors & adaptors

Microturn - Microturn - Microturn

STHE



Page D.04

MT

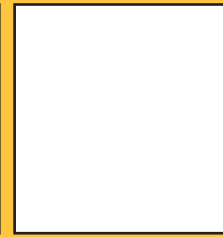


Page D.06

608.00
611.00
614.00
616.00



Page D.07




Inserts

Turning

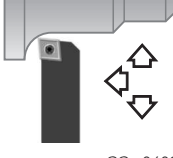
Center screw toolholders - Porte-outils avec vis centrale - Klemmhalter mit Zentralschrauben-Klemmung

SCAC 90°



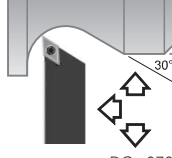
Page D.08 CC.. 0602..
CC.. 09T3..

SCLC 95°



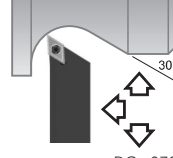
Page D.08 CC.. 0602..
CC.. 09T3..

SDAC 90°



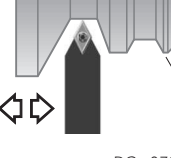
Page D.08 DC.. 0702..
DC.. 11T3..

SDJC 93°



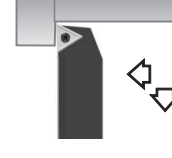
Page D.09 DC.. 0702..
DC.. 11T3..

SDNC 63°



Page D.09 DC.. 0702..
DC.. 11T3..

STJC 93°

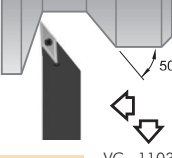


Page D.09 TC.. 1102..

Automatic lathes

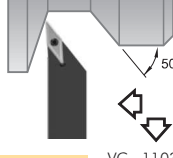
Ceramic tools

SVAC 90°



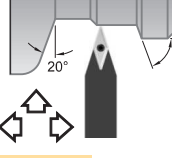
Page D.10 VC.. 1103..
VC.. 1604..

SVJC 93°

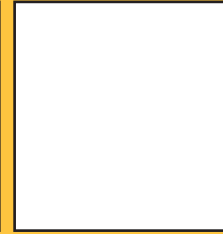


Page D.10 VC.. 1103..
VC.. 1604..

SVVC 72° 30°



Page D.10 VC.. 1103..

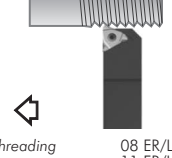


Parting & grooving

Threading

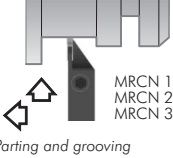
Other applications - Autres applications - Andere Anwendungen

SXAN 90°

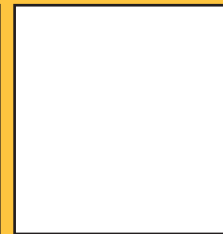


Threading
Page D.11 08 ER/L..
11 ER/L..
16 ER/L..

CZCB



Parting and grooving
Page D.11 MRCN 1,6
MRCN 2,2
MRCN 3,0



Drills

Cartridges

Brazed tools

Milling cutters

Solid carbide

Boring heads

Arbors & adaptors

Inserts

Turning

Automatic lathes

Ceramic tools

Parting & grooving

Threading

Drills

Cartridges

Brazed tools

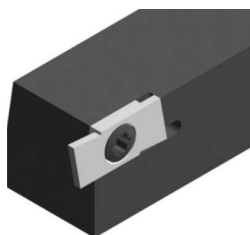
Milling cutters

Solid carbide

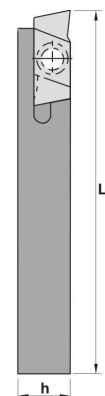
Boring heads

Arbors & adaptors

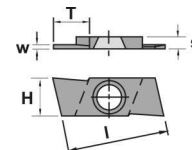
STHE



REF.	h	h1	B	L	f	Gl..		
STHER/L0808M07	8	8	8	150	8	Gl..	130	508
STHER/L1010M07	10	10	10	150	10	Gl..	130	508
STHER/L1212M07	12	12	12	150	12	Gl..	130	508
STHER/L1616M07	16	16	16	150	16	Gl..	130	508



REF.	l	s	H
Gl..	17,00	2,00	7,00



For more information see page: A.72



KIT STHE

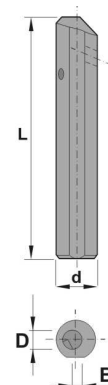
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KIT STHER08	STHER0808M07	GISG09R	GISG11R	GISG13R	GISG16R	GISG185R	GIGP20RN	GIGW55R	GIGW60R	GIST3R	GISC3R	
KIT STHEL08	STHEL0808M07	GISG09L	GISG11L	GISG13L	GISG16L	GISG185L	GIGP20LN	GIGW55L	GIGW60L	GIST3L	GISC3L	
KIT STHER10	STHER1010M07	GISG09R	GISG11R	GISG13R	GISG16R	GISG185R	GIGP20RN	GIGW55R	GIGW60R	GIST3R	GISC3R	
KIT STHEL10	STHEL1010M07	GISG09L	GISG11L	GISG13L	GISG16L	GISG185L	GIGP20LN	GIGW55L	GIGW60L	GIST3L	GISC3L	
KIT STHER12	STHER1212M07	GISG09R	GISG11R	GISG13R	GISG16R	GISG185R	GIGP20RN	GIGW55R	GIGW60R	GIST3R	GISC3R	
KIT STHEL12	STHEL1212M07	GISG09L	GISG11L	GISG13L	GISG16L	GISG185L	GIGP20LN	GIGW55L	GIGW60L	GIST3L	GISC3L	
KIT STHER16	STHER1616M07	GISG09R	GISG11R	GISG13R	GISG16R	GISG185R	GIGP20RN	GIGW55R	GIGW60R	GIST3R	GISC3R	
KIT STHEL16	STHEL1616M07	GISG09L	GISG11L	GISG13L	GISG16L	GISG185L	GIGP20LN	GIGW55L	GIGW60L	GIST3L	GISC3L	



00.30



REF.	L	d	B	D	CTI		
00.30.12.04	100	12	2,35	2,5 / 4,2	04..	157	525
00.30.16.06	120	16	2,80	8,2	06..	156	503



Inserts

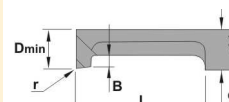
Turning

Automatic lathes

AR



REF.	L	d	B	Dmin	r
CTI 0402 AR	15	4	0,8	4,2	0,2
CTI 0602 AR	20	6	1,8	6,2	0,2



Turning tool

Ceramic tools

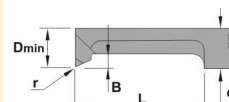
Parting & grooving

Threading

BR



REF.	L	d	B	Dmin	r
CTI 0402 BR	15	4	0,8	4,2	0,2
CTI 0602 BR	20	6	1,8	6,2	0,2



Copying tool

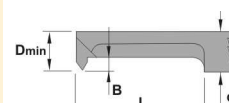
Drills

Cartridges

CR



REF.	L	d	B	Dmin	r
CTI 0400 CR	15	4	0,8	M5	-
CTI 0600 CR	20	6	1,8	M8	-



Threading tool

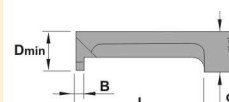
Brazed tools

Milling cutters

DR



REF.	L	d	B	Dmin	r
CTI 0410 DR	15	4	1,0	4,2	-
CTI 0615 DR	20	6	1,8	6,2	-



Grooving tool

Solid carbide



Boring heads

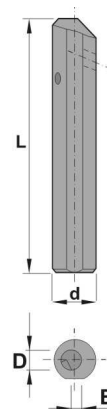
Arbors & adaptors

Inserts

KIT MT12



REF.	L	d	B	D	r		
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CTI 0402 AR	15	4	0,8	4,2	0,2		
CTI 0402 BR	15	4	0,8	4,2	0,2		
CTI 0404 CR	15	4	0,8	M5	-		
CTI 0410 DR	15	4	1,0	4,2	-		



Turning



Automatic lathes

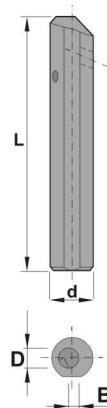
Ceramic tools

Parting & grooving

KIT MT16



REF.	L	d	B	D	r		
00.30.16.06	120	16	2,8	8,2	-	156	503
CTI 0602 AR	20	6	1,8	6,2	0,2		
CTI 0602 BR	20	6	1,8	6,2	0,2		
CTI 0600 CR	20	6	1,8	M8	-		
CTI 0615 DR	20	6	1,8	6,2	-		



Threading



Drills

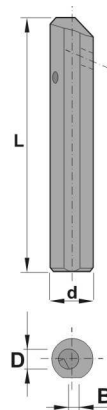
Cartridges

Brazed tools

KIT MT



REF.	L	d	B	D	r		
00.30.12.04	100	12	2,35	2,5 / 4,2	-	157	525
00.30.16.06	120	16	2,80	8,2	-	156	503
CTI 0402 AR	15	4	0,8	4,2	0,2		
CTI 0602 AR	20	6	1,8	6,2	0,2		
CTI 0402 BR	15	4	0,8	4,2	0,2		
CTI 0602 BR	20	6	1,8	6,2	0,2		
CTI 0400 CR	15	4	0,8	M5	-		
CTI 0600 CR	20	6	1,8	M8	-		
CTI 0410 DR	15	4	1,0	4,2	-		
CTI 0615 DR	20	6	1,8	6,2	-		



Milling cutters

Solid carbide

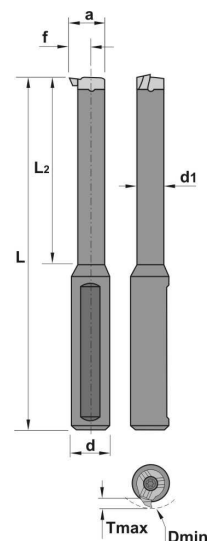
Boring heads

Arbors & adaptors

608.00
611.00
614.00
616.00



REF.	Dmin	d	d1	L	L2	α	f	Tmax	R/LS..		
608.0012.2 HM	8	12	6	90	30	7,8	4,8	1,0	R/LS08	706	508
611.0012.2 HM	11	12	8	110	42	10,7	6,7	2,3	R/LS11	735	530
614.0012.2 HM	14	12	-	110	45	13,8	9,0	4,0	R/LS14	734	515
616.0012.2 HM	16	12	11	130	56	15,7	10,2	4,3	R/LS16	745	520



Inserts

Turning

Automatic lathes

Ceramic tools

Parting & grooving

Threading

Drills

Cartridges

Brazed tools

Milling cutters

Solid carbide

Boring heads

Arbors & adaptors

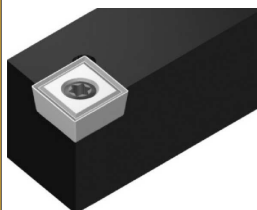
KIT 608...616

REF.	Holder	Inserts				
KIT 6080012	608.0012.2 HM	RS008.0090	RS008.0110	RS008.0130	RS008.0160	RS08.0815.01
KIT 6110012	611.0012.2 HM	RS011.0090	RS011.0110	RS011.0130	RS011.0160	RS11.0815.01
KIT 6140012	614.0012.2 HM	RS014.0090	RS014.0110	RS014.0130	RS014.0160	RS14.0815.01
KIT 6160012	616.0012.2 HM	RS016.0090	RS016.0110	RS016.0130	RS016.0160	RS16.0815.01

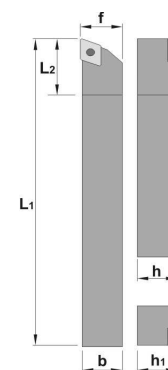


Inserts

SCAC 90°



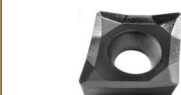
REF.	h=h1	b	L1	L2	f	CC..		
SCAC R/L 0808 M06	8	8	150	8	8	0602..	125	507
SCAC R/L 1010 M06	10	10	150	10	10	0602..	125	507
SCAC R/L 1212 M06	12	12	150	12	12	0602..	125	507
SCAC R/L 1616 M06	16	16	150	16	16	0602..	125	507
SCAC R/L 1212 M09	12	12	150	12	12	09T3..	140	515
SCAC R/L 1616 M09	16	16	150	16	16	09T3..	140	515



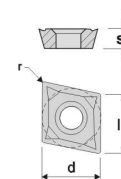
Turning

Automatic lathes

Ceramic tools



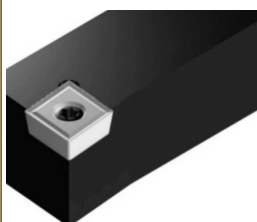
REF.	l	s	d
CC.. 0602..	6,45	2,38	6,35
CC.. 09T3..	9,65	3,97	9,52



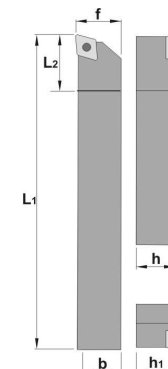
For more information see page: A.38

Parting & grooving

SCLC 95°



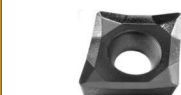
REF.	h=h1	b	L1	L2	f	CC..		
SCLC R/L 0808 M06	8	8	150	8	8	0602..	125	507
SCLC R/L 1010 M06	10	10	150	10	10	0602..	125	507
SCLC R/L 1212 M06	12	12	150	12	12	0602..	125	507
SCLC R/L 1616 M06	16	16	150	16	16	0602..	125	507
SCLC R/L 1212 M09	12	12	150	12	12	09T3..	140	515
SCLC R/L 1616 M09	16	16	150	16	16	09T3..	140	515



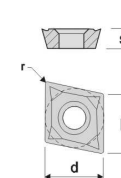
Threading

Drills

Cartridges



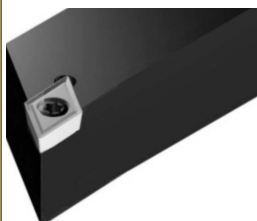
REF.	l	s	d
CC.. 0602..	6,45	2,38	6,35
CC.. 09T3..	9,65	3,97	9,52



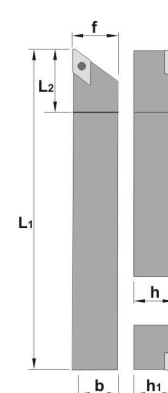
For more information see page: A.38

Brazed tools

SDAC 90°



REF.	h=h1	b	L1	L2	f	DC..		
SDAC R/L 0808 M07	8	8	150	12,7	8	0702..	125	507
SDAC R/L 1010 M07	10	10	150	15,0	10	0702..	125	507
SDAC R/L 1212 M07	12	12	150	15,0	12	0702..	125	507
SDAC R/L 1616 M07	16	16	150	16,0	16	0702..	125	507
SDAC R/L 1212 M11	12	12	150	18,0	12	11T3..	140	515
SDAC R/L 1616 M11	16	16	150	20,0	16	11T3..	140	515



Milling cutters

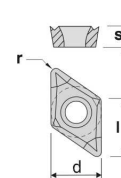
Solid carbide

Boring heads

Arbors & adaptors

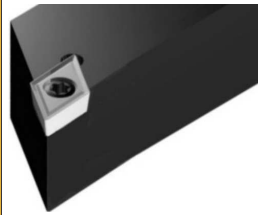


REF.	l	s	d
DC.. 0702..	7,75	2,38	6,35
DC.. 11T3..	11,60	3,97	9,52



For more information see page: A.41

SDJC 93°



REF.	h=h1	b	L1	L2	f	DC..		
SDJC R/L 0808 M07	8	8	150	8	8	0702..	125	507
SDJC R/L 1010 M07	10	10	150	10	10	0702..	125	507
SDJC R/L 1212 M07	12	12	150	12	12	0702..	125	507
SDJC R/L 1616 M07	16	16	150	16	16	0702..	125	507
SDJC R/L 1212 M11	12	12	150	12	12	11T3..	140	515
SDJC R/L 1616 M11	16	16	150	16	16	11T3..	140	515



Inserts

Turning

Automatic lathes

Ceramic tools

Parting & grooving

Threading

Drills

Cartridges

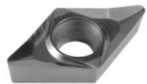
Brazed tools

Milling cutters

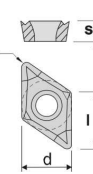
Solid carbide

Boring heads

Arbors & adaptors



REF.	l	s	d
DC.. 0702..	7,75	2,38	6,35
DC.. 11T3..	11,60	3,97	9,52

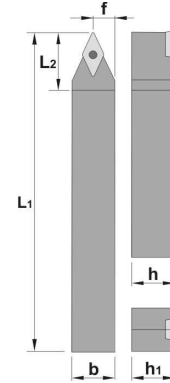


For more information see page: A.41

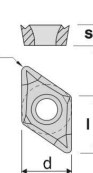
SDNC 63°



REF.	h=h1	b	L1	L2	f	DC..		
SDNC N 1010 M07	10	10	150	15	5,2	0702..	125	507
SDNC N 1212 M11	12	12	150	21	6,2	11T3..	140	515
SDNC N 1616 M11	16	16	150	21	8,6	11T3..	140	515

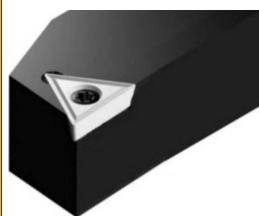


REF.	l	s	d
DC.. 0702..	7,75	2,38	6,35
DC.. 11T3..	11,60	3,97	9,52

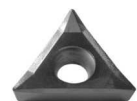
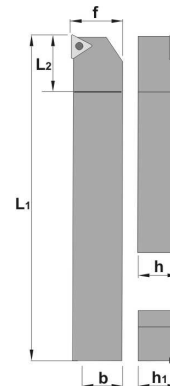


For more information see page: A.41

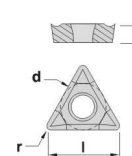
STJC 93°



REF.	h=h1	b	L1	L2	f	TC..		
STJC R/L 1010 M11	10	10	150	16	10	1102..	125	507
STJC R/L 1212 M11	12	12	150	16	12	1102..	125	507
STJC R/L 1616 M11	16	16	150	16	16	1102..	125	507



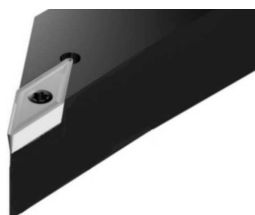
REF.	l	s	d
TC.. 1102..	11,00	2,38	6,35



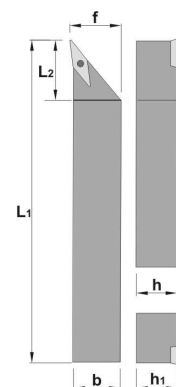
For more information see page: A.51,52

Inserts

SVAC 90°



REF.	h=h1	b	L1	L2	f	VC..		
SVAC R/L 0808 M11	8	8	150	26	8	1103..	125	507
SVAC R/L 1010 M11	10	10	150	26	10	1103..	125	507
SVAC R/L 1212 M11	12	12	150	26	12	1103..	125	507
SVAC R/L 1616 M11	16	16	150	26	16	1103..	125	507
SVAC R/L 1212 M16	12	12	150	40	12	1604..	140	515
SVAC R/L 1616 M16	16	16	150	40	16	1604..	140	515



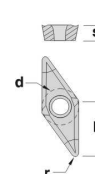
Turning

Automatic lathes

Ceramic tools



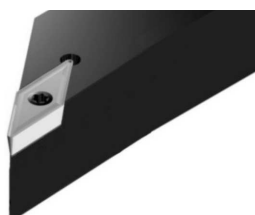
REF.	l	s	d
VC.. 1103..	11,00	3,18	6,35
VC.. 1604..	16,50	4,76	9,52



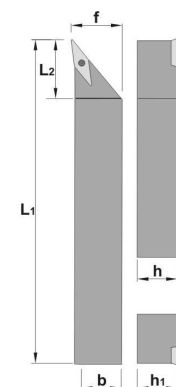
For more information see page: A.55,56

Parting & grooving

SVJC 93°



REF.	h=h1	b	L1	L2	f	VC..		
SVJC R/L 0808 M11	8	8	150	26	8	1103..	125	507
SVJC R/L 1010 M11	10	10	150	26	10	1103..	125	507
SVJC R/L 1212 M11	12	12	150	26	12	1103..	125	507
SVJC R/L 1616 M11	16	16	150	26	16	1103..	125	507
SVJC R/L 1212 M16	12	12	150	40	12	1604..	140	515
SVJC R/L 1616 M16	16	16	150	40	16	1604..	140	515



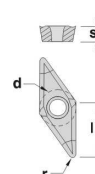
Threading

Drills

Cartridges



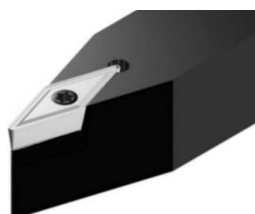
REF.	l	s	d
VC.. 1103..	11,00	3,18	6,35
VC.. 1604..	16,50	4,76	9,52



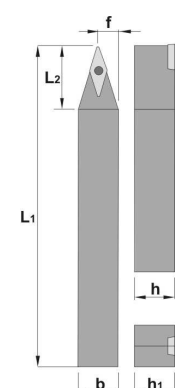
For more information see page: A.55,56

Brazed tools

SVVC 72° 30'



REF.	h=h1	b	L1	L2	f	VC..		
SVVC N 0808 M11	8	8	150	21	4,3	1103..	125	507
SVVC N 1010 M11	10	10	150	21	5,3	1103..	125	507
SVVC N 1212 M11	12	12	150	21	6,3	1103..	125	507
SVVC N 1616 M11	16	16	150	21	8,3	1103..	125	507



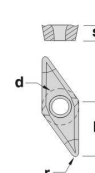
Milling cutters

Solid carbide

Boring heads



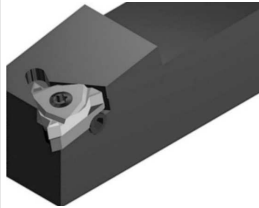
REF.	l	s	d
VC.. 1103..	11,00	3,18	6,35



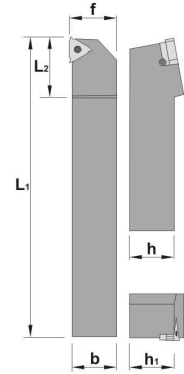
For more information see page: A.55,56

Arbors & adaptors

SXAN 90°



REF.	h=h1	b	L1	L2	f	ER/L..					
SXAN R/L 0808 M08	8	8	150	20	8	08	125	507	-	-	-
SXAN R/L 1010 M08	10	10	150	20	10	08	125	507	-	-	-
SXAN R/L 1212 M11	12	12	150	20	12	11	125	507	-	-	-
SXAN R/L 1616 M16	16	16	150	20	16	16	133	515	436	435	203

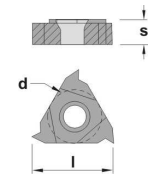


Inserts

Turning

Automatic lathes

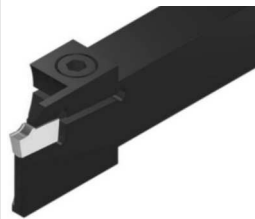
REF.	l	d
08 ER/L..	8,00	4,76
11 ER/L..	11,00	6,35
16 ER/L..	16,50	9,52



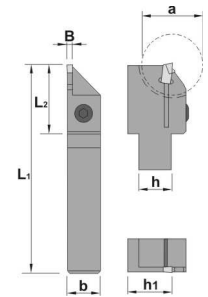
For more information see page: A.59

Ceramic tools

CZCB



REF.	h	b	L1	L2	h1	B	α	MRCN		
CZCB R/L 1010 J01	10	10	110	25	21	1,6	22	1,6	107	504
CZCB R/L 1010 J02	10	10	110	25	21	2,2	22	2,2	107	504
CZCB R/L 1212 J01	12	12	110	25	21	1,6	22	1,6	107	504
CZCB R/L 1212 J02	12	12	110	25	21	2,2	22	2,2	107	504
CZCB R/L 1612 J02	16	12	110	29	21	2,2	32	2,2	199	505
CZCB R/L 1612 J03	16	12	110	29	21	3,0	32	3,0	199	505
CZCB R/L 2016 K03	20	16	125	35	30	3,0	42	3,0	109	505
CZCB R/L 2016 K04	20	16	125	35	30	4,0	42	4,0	109	505
CZCB R/L 2016 K05	20	16	125	35	30	5,0	42	5,0	109	505
CZCB R/L 2016 K06	20	16	125	35	30	6,0	42	6,0	109	505
CZCB R/L 2520 M03	25	20	150	50	30	3,0	80	3,0	109	505
CZCB R/L 2520 M04	25	20	150	50	30	4,0	80	4,0	109	505
CZCB R/L 2520 M05	25	20	150	50	30	5,0	80	5,0	109	505
CZCB R/L 2520 M06	25	20	150	50	30	6,0	80	6,0	109	505

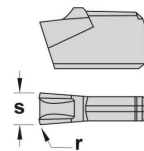


Parting & grooving

Threading

Drills

REF.	s	r
MRCN 1,6	1,6	0,15
MRCN 2,2	2,2	0,20
MRCN 3,0	3,0	0,20
MRCN 4,0	4,0	0,20
MRCN 5,0	5,0	0,30
MRCN 6,0	6,0	0,40



For more information see page: A.67

Cartridges

Brazed tools

Milling cutters

Solid carbide

Boring heads

Arbors & adaptors

Inserts

Turning

Automatic lathes

Ceramic tools

Parting & grooving

Threading

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Arbors & adaptors

Nominal cutting speed and feed values for automatic lathes

Material	P	HB	Condition	Cutting speed m/min.						Specific cutting force K _{c,0.4}
				P25K	P40K	CK30	TIC15	TIC20	TIC30	
				0.3-0.6-1.2		0.1 - 0.3		0.1-0.4-0.8		
Unalloyed steel	125	C=0.15%	150 115 80			350 280	480 345 250	440 300 205	330 230 110	1900
	150	C=0.35%	145 105 70			270 230	440 315 230	400 275 190	300 210 150	2100
	200	C=0.60%	115 90 65			240 190	385 275 200	350 240 165	260 185 130	2250
Low alloyed steel	180	Annealed	90 70 45			300 260	380 265 195	320 220 170	200 140 100	2100
	275	Hardened	65 45 30			220 140	260 180 130	215 150 115	140 100 70	2600
	300	Hardened	60 40 25			230 180	240 165 120	200 135 105	125 90 60	2700
	350	Hardened	50 35 20			220 140	210 145 105	170 120 90	110 75 55	2850
High alloyed steel	200	Annealed	80 60 45			200 160	350 230 170	280 185 135	175 115 80	2600
	325	Hardened	40 25 20			200 160	170 110	120 80 60	85 55 40	3900
Stainless steel	200	Martensitic/Ferritic	110 95 75			270 130	295 240 190	275 210 165	225 180 145	2300
Steel castings	180	Unalloyed	60 50 35			300 260	260 185 145	230 160 120	135 105 75	2000
	200	Low alloyed	50 45 30			230 180	230 160 120	190 125 85	120 90 60	2500
	225	High alloyed	40 30 20			220 140	190 130 95	170 115 80	95 70 55	2700

Material	M	HB	Condition	Cutting speed m/min.							Specific cutting force K _{c,0.4}		
				P25K	P40K	CK30	TIC15	TIC17	TIC20	TIC30		TIC35	
				0.1-0.3		0.1-0.3		0.1-0.4-0.8		0.1-0.3		0.2-0.4-0.6	
Stainless steel annealed	180		Austenitic Ni > 8%, Cr 12-25% Austenitic/Ferritic Austenitic/Ferritic, Low S	205 170			240 200	180 150 120	600 100		190 160 130	190 160 130	2450
							160 130	180 150 120	400 100		190 160 100	190 160 130	
							160 130	180 150 120	400 100		140 110	160 130 100	
Heat resistant alloys	200 280 250 350 320		Annealed Aged Annealed Aged Cast						50 20		40 20	40 20	3000 3050 3500 4150 4150
									50 20		35 15	35 15	
									40 15		25 6	25 8	
									35 20		15 4	15 4	
Titanium alloys	400 950 1050		Ti Cast a, almost a and a+b Aged cast a+b						140 80			80 130	1530 1675 1690
									45 25			15 35	
									45 25			15 35	

Material	K	HB	Condition	Cutting speed m/min.						Specific cutting force K _{c,0.4}
				K15K	TIC17	CK30	TIC15	TIC20	Z10R	
				0.2-0.5-1.0		0.2-0.5-1.0		0.2-0.5		
Hardened steel	350	Hardened steel	27 16 10	180 150 110		175 145 100				4500
	250	Manganese steel 12%	65 40 16	120 90 60		120 85 50				3600
Malleable cast iron	130	Ferritic	105 75 45	250 180 100		225 150 90				1100
	230	Pearlitic	80 60 30	160 100 60		155 95 55				1100
Cast iron	180	Low tensile strength	135 95 60	180 120 80	300 200	165 110 70				1100
	260	High tensile strength	95 65 40	140 105 60	250 180	120 90 55				1500
Nodular SG iron	160	Ferritic	115 80 45	220 180 100	250 180					1100
	250	Pearlitic	80 50 30	150 100 50	180 120					1800
Chilled cast iron	400		17 11	17 11						3000
Aluminium alloys	60	Non heat treatable	1750 1280 800	1750 1280 800					1750 1280 800	500
	100	Heat treatable	510 370 250	510 370 250					510 370 250	800
Aluminium alloys (Cast)	75	Non heat treatable	460 285 175	460 285 175					460 285 175	750
	90	Heat treatable	300 180 110	300 180 110					300 180 110	900
Bronze - Brass alloys	110	Lead alloys, Pb > 1%	610 430 295	610 430 295					610 430 295	700
	90	Brass and bronze	310 250 195	310 250 195					310 250 195	750
	100	Inc. electrolytic copper	225 160 115	225 160 115					225 160 115	1750
Other materials		Hard plastics	380 240	380 240					380 240	
		Fibre	190 120	190 120					190 120	
		Hard rubber	225 160	225 160					225 160	

