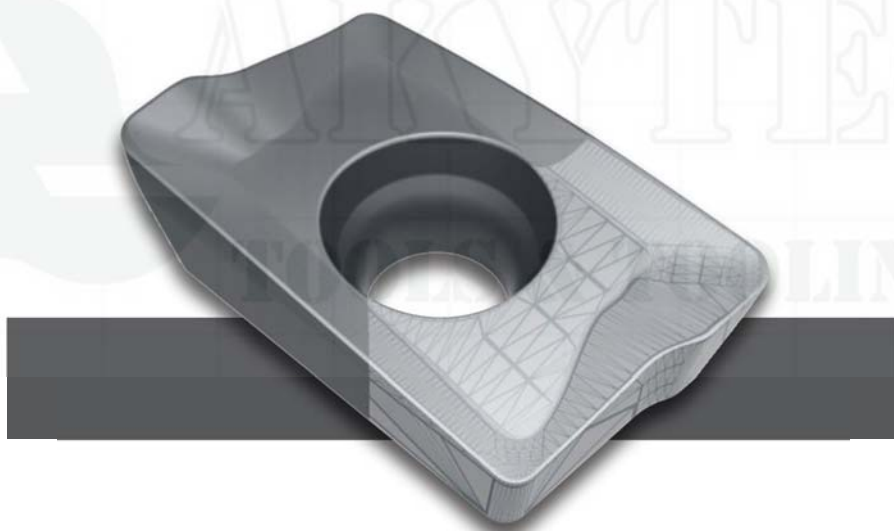


MILLING

LT 30 | LT 3000

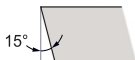




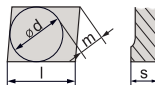
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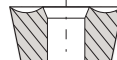
Shape



Clearance Angle



Tolerance

 $d \pm 0.05$ $m \pm 0.013$ $s \pm 0.025$ Fixing,
Chipbreaker

LT 30 Multi-Mat™ General Usage – Standard					
Insert Designation	l	s	r	Direction	Catalog Nr.
ADKT 1505 PDTR LT 30	15.75	5.63	0.96	Right	M0001573

LT 3000 Multi-Mat™ General Usage – Premium					
Insert Designation	l	s	r	Direction	Catalog Nr.
ADKT 1505 PDTR LT 3000	15.75	5.63	0.96	Right	M0002209

Application Guide

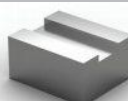
Helical Interpolation



Shoulder Mill



Slotting



Surfacing



Ramping Down



Plunging



Pocket Milling

Machining
Recommendations

Productivity


1, 2, 3, 4	No
6, 7, 8, 11	No
10, 12	Yes
Coolant 5, 9	Yes

Stainless Steel

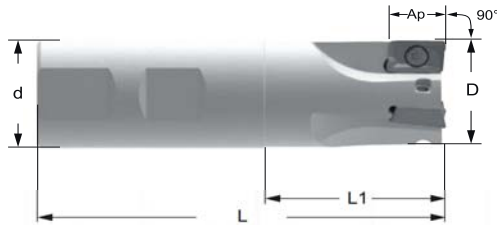
End Mill for ADKT 1505 PDTR

Cutter Designation	D	d	L1	L	Ap	z	α	Catalog Nr.
LT 790 W-W-D025/2*	25	25	44	100	15	2	5	M2001613
LT 790 W-W-D032/3*	32	32	50	110	15	3	3	M2001503
LT 790 W-W-D040/4*	40	32	45	115	15	4	2.5	M2001614

* On request

Screw: M2000597

Key: M2000602



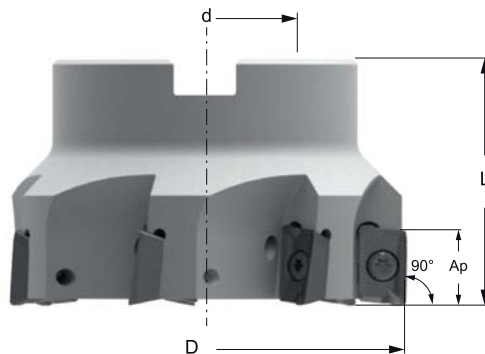
Shell Mill for ADKT 1505 PDTR

Cutter Designation	D	d	L	Ap	z	α	Catalog Nr.
LT 790 M-W-D040/4*	40	16	40	15	4	2.5	M2001615
LT 790 M-W-D050/5*	50	22	40	15	5	2.2	M2001504
LT 790 M-W-D063/6*	63	22	40	15	6	1.8	M2001616
LT 790 M-W-D080/7*	80	27	50	15	7	1.4	M2001617
LT 790 M-W-D100/8*	100	32	50	15	8	1.1	M2001618
LT 790 M-W-D125/9*	125	40	63	15	9	0.8	M2001619

* On request

Screw: M2000597

Key: M2000602



ADKT 1505 – LT 30 | LT 3000

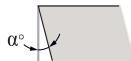
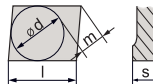
Material Group	Gr. N°	VDI Group	Material Exemples	Hardness	D.O.C [mm]		Feed [mm/rev]		V _c [m/min]		Suggested Starting Parameters		
					min	max	min	max	min	max	D.O.C	Feed	V _c
Steel	Non Alloyed	1	C35, Ck45, 1020, 1045, 1060, 28Mn6	125 HB	0.5	14.0	0.18	0.32	190	330	4.0	0.23	250
				190 HB	0.5	14.0	0.18	0.32	190	300	4.0	0.23	220
				250 HB	0.5	14.0	0.18	0.32	190	250	4.0	0.23	200
	Low Alloyed	2	42CrMo4, S150, Ck60, 4140, 4340, 100Cr6	180 HB	0.5	14.0	0.15	0.25	150	240	4.0	0.20	200
				230 HB	0.5	14.0	0.15	0.25	150	210	4.0	0.20	180
				280 HB	0.5	14.0	0.15	0.22	130	190	4.0	0.18	150
				350 HB	0.5	14.0	0.15	0.22	130	170	4.0	0.18	140
	High Alloyed	3	X40CrMoV5, H13, M42, D3, S6-5-2, 12Ni19	220 HB	0.5	10.0	0.12	0.22	90	150	3.0	0.18	130
				280 HB	0.5	10.0	0.12	0.22	90	130	3.0	0.18	120
				320 HB	0.5	10.0	0.12	0.18	60	110	3.0	0.16	100
				350 HB	0.5	10.0	0.12	0.18	60	90	3.0	0.16	80
Stainless Steel	Austenitic	4	304, 316, X5CrNi18-9	180 HB	0.5	14.0	0.15	0.25	190	250	4.0	0.20	220
				240 HB	0.5	14.0	0.12	0.22	160	210	4.0	0.20	190
	Duplex	5	X2CrNiN23-4, S31500	290 HB	0.5	10.0	0.12	0.18	70	130	3.0	0.16	100
				310 HB	0.5	10.0	0.12	0.18	70	120	3.0	0.16	90
	Ferritic & Martensitic	6	410, X6Cr17, 17-4 PH, 430	200 HB	0.5	14.0	0.15	0.25	150	210	4.0	0.20	190
				42 HRc	0.5	10.0	0.15	0.20	90	150	3.0	0.16	130
Cast Iron	Grey	7	GG20, GG40, EN-GJL-250, No30B	150 HB	0.5	14.0	0.18	0.32	150	240	4.0	0.23	200
				200 HB	0.5	14.0	0.18	0.32	150	220	4.0	0.23	180
				250 HB	0.5	14.0	0.18	0.32	150	190	4.0	0.23	160
Malleable & Nodular	8	GGG40, GGG70, 50005	150 HB	0.5	14.0	0.15	0.28	100	200	4.0	0.20	180	
			200 HB	0.5	14.0	0.15	0.28	100	180	4.0	0.20	150	
			250 HB	0.5	14.0	0.15	0.28	100	150	4.0	0.20	130	
High Temp. Alloys	Fe, Ni & Co Based	9	Incoloy 800	240 HB	0.5	10.0	0.12	0.18	25	45	3.0	0.16	32
				250 HB	0.5	10.0	0.12	0.18	25	45	3.0	0.16	30
				350 HB	0.5	10.0	0.12	0.18	25	45	3.0	0.16	30
	Ti Based	10	TiAl6V4	-	0.5	10.0	0.12	0.20	40	65	3.0	0.18	55
				-	0.5	10.0	0.12	0.18	30	55	3.0	0.16	40
Hardened Mat.	Steel	11	X100CrMo13, 440C, G-X260NiCr42	45 HRc	0.5	5.0	0.10	0.18	40	80	2.0	0.14	60
				50 HRc	0.5	3.0	0.10	0.16	40	70	1.5	0.13	55
				55 HRc	0.5	1.5	0.10	0.14	40	60	1.0	0.12	50
	Chilled Cast Iron	40	Ni-Hard 2	400 HB	0.5	4.0	0.10	0.18	40	80	1.5	0.14	50
				55 HRc	0.5	1.5	0.10	0.14	30	60	1.0	0.12	40
White Cast Iron	41	G-X300CrMo15	55 HRc	0.5	1.5	0.10	0.14	30	60	1.0	0.12	40	
Al (>8%Si)	12	25	AlSi12	130 HB	0.5	14.0	0.18	0.32	200	400	4.0	0.25	280



A O M T



Shape

Clearance Angle
 $\alpha = \text{Special}$ Tolerance
 $d \pm 0.05$
 $m \pm 0.08$
 $s \pm 0.13$ Fixing,
Chipbreaker

LT 30 Multi-Mat™ General Usage – Standard

Insert Designation	l	s	r	Direction	Catalog Nr.
AOMT 123608 PETR LT 30	11.93	3.62	0.7	Right	M0001640

AKYTEC

TOOLS & TOOLING

Application Guide

Helical Interpolation



Shoulder Milling



Slotting



Surfacing



Ramping Down



Plunging



Pocket Milling



Machining Recommendations

$\nearrow F \Rightarrow$
 \nearrow Productivity

Coolant	1, 2, 3, 4	No
	6, 7, 8, 11	No
	10, 12	Yes
	5, 9	Yes

Stainless Steel
 $\nearrow V_C$

End Mill for AOMT 123608 PETR

Cutter Designation	D	d	L1	L	Ap	z	α	Catalog Nr.
LT 720 W-W-D016/2*	16	16	22	85	10	2	12	M2001781
LT 720 W-W-D020/3*	20	20	25	90	10	3	7	M2001782
LT 720 W-W-D025/3*	25	25	25	95	10	3	5	M2001783
LT 720 W-W-D025/4*	25	25	25	95	10	4	5	M2001819
LT 720 W-W-D032/5*	32	32	25	95	10	5	3	M2001784

* On request

Screw: M2002181

Key: M2000601



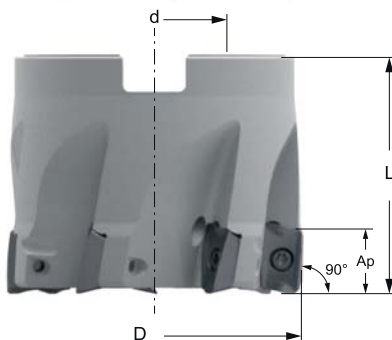
Shell Mill for AOMT 123608 PETR

Cutter Designation	D	d	L	Ap	z	α	Catalog Nr.
LT 720 M-W-D040/6*	40	22	40	10	6	2.5	M2001785
LT 720 M-W-D050/7*	50	22	40	10	7	2.2	M2001821

* On request

Screw: M2002181

Key: M2000601



AOMT 123608 PETR – LT 30 | LT 3000

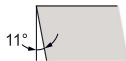
Material Group	Gr. №	VDI Group	Material Exemples	Hardness	D.O.C [mm]		Feed [mm/rev]		V _c [m/min]		Suggested Starting Parameters			
					min	max	min	max	min	max	D.O.C	Feed	V _c	
Steel	Non Alloyed	1	C35, Ck45, 1020, 1045, 1060, 28Mn6	125 HB	0.5	11.0	0.13	0.22	190	330	2.0	0.15	250	
		2		190 HB	0.5	11.0	0.13	0.22	190	300	2.0	0.15	220	
		3		250 HB	0.5	11.0	0.13	0.22	190	250	2.0	0.15	200	
	Low Alloyed	2	6	42CrMo4, S150, Ck60, 4140, 4340, 100Cr6	180 HB	0.5	11.0	0.11	0.18	150	240	2.0	0.13	200
			4,6		230 HB	0.5	11.0	0.11	0.18	150	210	2.0	0.13	180
			5,7		280 HB	0.5	11.0	0.11	0.15	130	190	2.0	0.12	150
			8		350 HB	0.5	11.0	0.11	0.15	130	170	2.0	0.12	140
	High Alloyed	3	10	X40CrMoV5, H13, M42, D3, S6-5-2, 12Ni19	220 HB	0.5	7.9	0.08	0.15	90	150	1.5	0.12	130
			10		280 HB	0.5	7.9	0.08	0.15	90	130	1.5	0.12	120
			11		320 HB	0.5	7.9	0.08	0.13	60	110	1.5	0.10	100
			11		350 HB	0.5	7.9	0.08	0.13	60	90	1.5	0.10	80
Stainless Steel	Austenitic	4	304, 316, X5CrNi18-9	180 HB	0.5	11.0	0.11	0.18	190	250	2.0	0.13	220	
				14	240 HB	0.5	11.0	0.08	0.15	160	210	2.0	0.13	190
	Duplex	5	X2CrNiN23-4, S31500	290 HB	0.5	7.9	0.08	0.13	70	130	1.5	0.10	100	
				14	310 HB	0.5	7.9	0.08	0.13	70	120	1.5	0.10	90
	Ferritic & Martensitic	6	410, X6Cr17, 17-4 PH, 430	200 HB	0.5	11.0	0.11	0.18	150	210	2.0	0.13	190	
				13	42 HRc	0.5	7.9	0.08	0.14	90	150	1.5	0.10	130
Cast Iron	Grey	7	GG20, GG40, EN-GJL-250, No30B	150 HB	0.5	11.0	0.13	0.22	150	240	2.0	0.15	200	
				15	200 HB	0.5	11.0	0.13	0.22	150	220	2.0	0.15	180
				16	250 HB	0.5	11.0	0.13	0.22	150	190	2.0	0.15	160
	Malleable & Nodular	8	GGG40, GGG70, 50005	150 HB	0.5	11.0	0.11	0.20	100	200	2.0	0.13	180	
				17,19	200 HB	0.5	11.0	0.11	0.20	100	180	2.0	0.13	150
				18,20	250 HB	0.5	11.0	0.11	0.20	100	150	2.0	0.13	130
High Temp. Alloys	Fe, Ni & Co Based	9	31,32	Incoloy 800	240 HB	0.5	7.9	0.08	0.13	25	45	1.5	0.10	32
			33	Inconel 700	250 HB	0.5	7.9	0.08	0.13	25	45	1.5	0.10	30
			34	Stellite 21	350 HB	0.5	7.9	0.08	0.13	25	45	1.5	0.10	30
	Ti Based	10	36	TiAl6V4	-	0.5	7.9	0.08	0.14	40	65	1.5	0.12	55
			37	T40	-	0.5	7.9	0.08	0.13	30	55	1.5	0.10	40
			38	X100CrMo13, 440C, G-X260NiCr42	45 HRc	0.5	3.9	0.07	0.13	40	80	1.0	0.09	60
Hardened Mat.	Steel	11	38	X100CrMo13, 440C, G-X260NiCr42	50 HRc	0.5	2.4	0.07	0.11	40	70	0.8	0.08	55
			38	G-X260NiCr42	55 HRc	0.5	1.2	0.07	0.10	40	60	0.5	0.08	50
	Chilled Cast Iron White Cast Iron	11	40	Ni-Hard 2	400 HB	0.5	3.1	0.07	0.13	40	80	0.8	0.09	50
			41	G-X300CrMo15	55 HRc	0.5	1.2	0.07	0.10	30	60	0.5	0.08	40
NF	Al (>8%Si)	12	25	AlSi12	130 HB	0.5	11.0	0.13	0.22	200	400	2.0	0.16	280



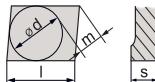
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Shape

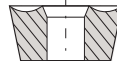


Clearance Angle



Tolerance

$d \pm 0.05$
 $m \pm 0.013$
 $s \pm 0.025$









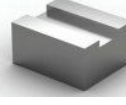


Fixing,
Chipbreaker

LT 30 Multi-Mat™ General Usage – Standard						
Insert Designation	l	s	r	Direction	Catalog Nr.	
APKT 060204 PDTR LT 30	06.00	2.16	0.40	Right	M0003885	
APKT 100304 PDTR LT 30	10.39	3.53	0.40	Right	M0002920	
APKT 1003 PDTR LT 30	10.39	3.53	0.80	Right	M0002918	
APKT 100312 PDTR LT 30	10.39	3.53	1.20	Right	M0002921	
APKT 100316 PDTR LT 30	10.39	3.53	1.60	Right	M0003094	
APKT 100332 PDTR LT 30	10.39	3.53	3.20	Right	M0002922	
APKT 100340 PDTR LT 30	10.39	3.53	4.00	Right	M0002923	
APKT 1604 PDTR LT 30 (NEW)	15.3	4.76	0.80	Right	M0000022	
APKT 1604 PDTR LT 30	15.3	4.76	0.95	Right	M0000021	
APKT 160416 PDTR LT 30	15.3	4.76	1.60	Right	M0000172	
APKT 160424 PDTR LT 30	15.3	4.76	2.40	Right	M0003833	
APKT 160432 PDTR LT 30	15.3	4.76	3.20	Right	M0001569	
APKT 1705 PETR LT 30	17.48	5.12	0.80	Right	M0001810	

Application Guide				Machining Recommendations
Helical Interpolation	Plunging	Pocket Milling	Surfacing	 Productivity
Ramping Down	Shoulder Milling	Slotting		 1, 2, 3, 4 No 6, 7, 8, 11 No 10, 12 Yes Coolant 5, 9 Yes
				Stainless Steel

APKT

LT 3000 Multi-Mat™ General Usage – Premium					
Insert Designation	l	s	r	Direction	Catalog Nr.
APKT 060204 PDTR LT 3000	6.00	2.16	0.40	Right	M0004026
APKT 100304 PDTR LT 3000	10.39	3.53	0.40	Right	M0003389
APKT 1003 PDTR LT 3000	10.39	3.53	0.80	Right	M0003388
APKT 100312 PDTR LT 3000	10.39	3.53	1.20	Right	M0003391
APKT 100316 PDTR LT 3000	10.39	3.53	1.60	Right	M0003392
APKT 100332 PDTR LT 3000	10.39	3.53	3.20	Right	M0003394
APKT 100340 PDTR LT 3000	10.39	3.53	4.00	Right	M0003395
APKT 1604 PDTR LT 3000 (NEW)	15.3	4.76	0.80	Right	M0002182
APKT 160416 PDTR LT 3000	15.3	4.76	1.60	Right	M0004027
APKT 160424 PDTR LT 3000	15.3	4.76	2.40	Right	M0004029
APKT 160432 PDTR LT 3000	15.3	4.76	3.20	Right	M0004030
APKT 1705 PETR LT 3000	17.48	5.12	0.80	Right	M0002212

Application Guide				Machining Recommendations
Helical Interpolation 	Plunging 	Pocket-Milling 	Surfacing 	 F ⇒  Productivity
Ramping Down 	Shoulder Milling 	Slotting 	 1, 2, 3, 4 No 6, 7, 8, 11 No 10, 12 Yes Coolant 5, 9 Yes	
				Stainless Steel  V_c

End Mill for APKT 060204								
Cutter Designation	D	d	L1	L	Ap	z	α	Catalog Nr.
LT 751 C-W-D010/2	10	10	22	72	5.2	2	10	M2003066
LT 751 CL-W-D010/2	10	10	40	100	5.2	2	10	M2003067
LT 751 CL-W-D012/2	12	12	45	110	5.2	2	7.5	M2003068
LT 751 C-W-D012/3	12	12	26	80	5.2	3	7.5	M2003069
LT 751 CL-W-D016/3	16	16	50	120	5.2	3	4	M2003070
LT 751 C-W-D016/4	16	16	32	90	5.2	4	4	M2003071
LT 751 C-W-D020/5	20	20	40	100	5.2	5	2.5	M2003072
LT 751 C-W-D025/7*	25	20	40	120	5.2	7	1.5	M2003073
LT 751 C-W-D032/8*	32	25	40	130	5.2	8	1	M2003074
LT 751 C-W-D040/10*	40	32	40	140	5.2	10	1	M2003075

* On request

Screw: M2001640
Key: M2003064

End Mill for APKT 100332/40 PDTR								
Bezeichnung	D	d	L1	L	Ap	z	α	Katalognr.
LT 745 WL-W-D016/2*	16	16	35	150	9	2	10	M0001849
LT 745 W-W-D016/2*	16	16	25	100	9	2	10	M2001587
LT 745 W-W-D018/2*	18	20	30	100	9	2	8	M0001588
LT 745 WL-W-D020/3*	20	20	35	150	9	3	7	M0001850
LT 745 W-W-D020/3*	20	20	30	100	9	3	7	M0001589
LT 745 W-W-D022/3*	22	20	30	100	9	3	7	M2001590
LT 745 WL-W-D025/4*	25	25	40	200	9	4	5	M0001851
LT 745 W-W-D025/3*	25	25	30	120	9	3	5	M0001591
LT 745 W-W-D028/4*	28	25	30	120	9	4	-	M2001593
LT 745 W-W-D030/4*	30	25	30	120	9	4	-	M2001594
LT 745 WL-W-D032/4*	32	32	40	200	9	4	3	M2001852
LT 745 W-W-D032/5*	32	32	30	120	9	5	3	M2001848

* On request

Screw: M2002181
Key: M2000601

Shell Mill for APKT 100332/40 PDTR						
Bezeichnung	D	d	L	Ap	z	Katalognr.
LT 745 M-W-D040/6	40	22	40	9	6	M2001580
LT 745 M-W-D050/7	50	22	40	9	7	M2001581
LT 745 M-W-D063/8	63	22	40	9	8	M2001582
LT 745 M-W-D080/11	80	27	50	9	10	M2001583

* On request

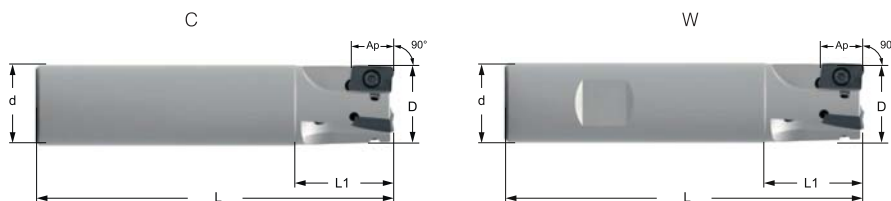
Screw: M2002181
Key: M2000601

End Mill for APKT 1003 PDTR								
Cutter Designation	D	d	L1	L	Ap	z	α	Catalog Nr.
LT 741 C-W-D010/1*	10	10	24	80	9	1	5	M2002802
LT 741 CL-W-D010/1*	10	16	32	150	9	1	5	M2002815
LT 741 C-W-D012/1*	12	12	24	80	9	1	5	M2002803
LT 741 CL-W-D012/1*	12	16	32	150	9	1	5	M2002816
LT 741 C-W-D014/1*	14	16	24	80	9	1	5	M2002804
LT 741 C-W-D016/2	16	16	25	100	9	2	12	M2002806
LT 741 CL-W-D016/2	16	16	40	150	9	2	12	M2002817
LT 741 C-W-D018/2	18	20	30	85	9	2	12	M2002807
LT 741 C-W-D020/3	20	20	25	100	9	3	7	M2002808
LT 741 CL-W-D020/3	20	20	40	150	9	3	7	M2002818
LT 741 C-W-D022/3	22	20	25	95	9	3	7	M2002809
LT 741 C-W-D025/3	25	25	32	120	9	3	5	M2002810
LT 741 C-W-D025/4	25	25	32	120	9	4	5	M2002811
LT 741 CL-W-D025/4	25	25	40	200	9	4	5	M2002819
LT 741 C-W-D028/4	28	25	32	120	9	4	2	M2002812
LT 741 C-W-D030/4	30	25	32	95	9	4	2	M2002813
LT 741 W-W-D032/5	32	32	32	95	9	5	3	M2002814
LT 741 WL-W-D032/4	32	32	32	200	9	4	3	M2002820

* On request

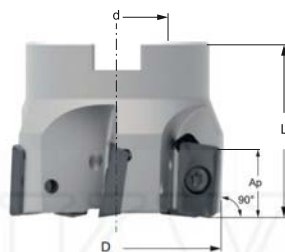
Screw: M2002181

Key: M2000601



Shell Mill for APKT 1003 PDTR							
Cutter Designation	D	d	L	Ap	z	α	Catalog Nr.
LT 741 M-W-D040/6	40	16	40	9	6	2.5	M2002798
LT 741 M-W-D050/7	50	22	40	9	7	2.2	M2002799
LT 741 M-W-D063/8	63	22	40	9	8	1.8	M2002800
LT 741 M-W-D080/11*	80	27	50	9	10	1.4	M2002801

* On request

Screw: M2002181
Key: M2000601

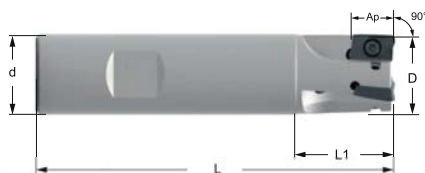
Screw Coupling for APKT 1003 PDTR							
Cutter Designation	D	d	L1	Ap	z	α	Catalog Nr.
LT 741 S-W-D016/2	16	M8	25	9	2	12	M2002962
LT 741 S-W-D020/3	20	M10	30	9	3	7	M2002963
LT 741 S-W-D025/4	25	M12	35	9	4	5	M2002964

Screw: M2002181
Key: M2000601

End Mill for APKT 1604 PDTR

Cutter Designation	D	d	L1	L	Ap	z	α	Catalog Nr.
LT 731 WL-W-D025/2	25	25	90	220	15	2	5	M2002965
LT 731 W-W-D025/2	25	25	44	100	15	2	5	M2002966
LT 731 WL-W-D032/3	32	32	90	220	15	3	3	M2002967
LT 731 W-W-D032/3	32	32	50	110	15	3	3	M2002968
LT 731 WL-W-D040/4	40	32	90	220	15	4	2.5	M2002969
LT 731 W-W-D040/4	40	32	50	115	15	4	2.5	M2002970

Screw: M2000597
Key: M2000602

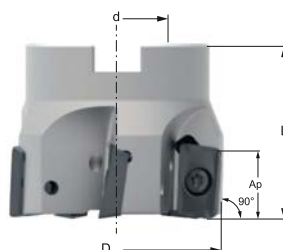


Shell Mill for APKT 1604 PDTR

Cutter Designation	D	d	L	Ap	z	α	Catalog Nr.
LT 731 M-W-D040/4	40	16	40	15	4	2.5	M2002971
LT 731 M-W-D050/5	50	22	40	15	5	2.2	M2002972
LT 731 M-W-D063/6	63	22	40	15	6	1.8	M2002973
LT 731 M-W-D080/7	80	27	50	15	7	1.4	M2002974
LT 731 M-W-D100/8	100	32	50	15	8	1.4	M2002975
LT 731 M-W-D125/9	125	40	63	15	9	0.8	M2002976
LT 731 M-W-D160/10*	160	40	63	15	10	-	M2002977

* On request

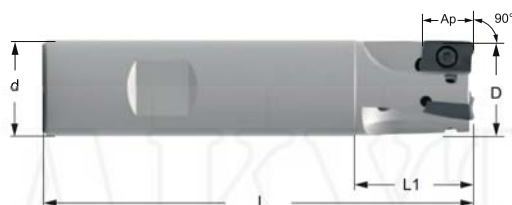
Screw: M2000597
Key: M2000602



End Mill for APKT 1705 PETR

Cutter Designation	D	D1	d	L1	L	Ap	z	α	Catalog Nr.
LT 737 W-W-D025/2	25	25	20	32	100	16	2	5	M2001833
LT 737 WL-W-D025/2	25	25	25	40	210	16	2	5	M2001836
LT 737 W-W-D032/3	32	32	32	40	110	16	3	3	M2001834
LT 737 WL-W-D032/3	32	32	32	65	200	16	3	3	M2001837
LT 737 W-W-D040/4	40	40	32	45	115	16	4	2.5	M2001835
LT 737 WL-W-D040/4	40	40	32	45	115	16	4	2.5	M2001982

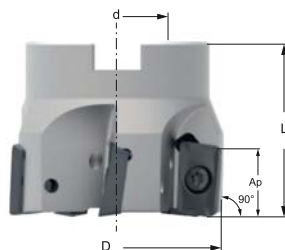
Screw: M2000597
Key: M2000602



Shell Mill for APKT 1705 PETR

Cutter Designation	D	D1	d	L	Ap	z	α	Catalog Nr.
LT 737 M-W-D040/4	40	40	16	40	16	4	2.5	M2001838
LT 737 M-W-D050/5	50	50	22	40	16	5	2.2	M2001839
LT 737 M-W-D063/6	63	63	22	40	16	6	1.8	M2001841
LT 737 M-W-D080/7	80	80	27	50	16	7	1.4	M2001842
LT 737 M-W-D100/7	100	100	32	50	16	7	1.4	M2001843
LT 737 M-W-D125/9	125	125	40	63	16	9	0.8	M2001844
LT 737 M-W-D160/10	160	160	40	63	16	10	-	M2001845

Screw: M2000597
Key: M2000602



APKT 060204 PDTR – LT 30 | LT3000

Material Group	Gr. №	VDI Group	Material Exemples	Hardness	D.O.C [mm]		Feed [mm/rev]		V _c [m/min]		Suggested Starting Parameters				
					min	max	min	max	min	max	D.O.C	Feed	V _c		
Steel	Non Alloyed	1	1	C35, Ck45, 1020, 1045, 1060, 28Mn6	125 HB	0.3	5.5	0.04	0.13	190	330	1.3	0.07	250	
			2		190 HB	0.3	5.5	0.04	0.13	190	300	1.3	0.07	220	
			3		250 HB	0.3	5.5	0.04	0.13	190	250	1.3	0.07	200	
	Low Alloyed	2	6	42CrMo4, S150, Ck60, 4140, 4340, 100Cr6	180 HB	0.3	5.5	0.03	0.10	150	240	1.3	0.06	200	
			4,6		230 HB	0.3	5.5	0.03	0.10	150	210	1.3	0.06	180	
			5,7		280 HB	0.3	5.5	0.03	0.09	130	190	1.3	0.05	150	
			8		350 HB	0.3	5.5	0.03	0.09	130	170	1.3	0.05	140	
	High Alloyed	3	10	X40CrMoV5, H13, M42, D3, S6-5-2, 12N119	220 HB	0.3	3.9	0.03	0.09	90	150	1.0	0.05	130	
			10		280 HB	0.3	3.9	0.03	0.09	90	130	1.0	0.05	120	
			11		320 HB	0.3	3.9	0.03	0.07	60	110	1.0	0.05	100	
			11		350 HB	0.3	3.9	0.03	0.07	60	90	1.0	0.05	80	
Stainless Steel	Austenitic	4	304, 316, X5CrNi18-9	180 HB	0.3	5.5	0.03	0.10	190	250	1.3	0.06	220		
				240 HB	0.3	5.5	0.03	0.09	160	210	1.3	0.06	190		
	Duplex	5	X2CrNiN23-4, S31500	290 HB	0.3	3.9	0.03	0.07	70	130	1.0	0.05	100		
				310 HB	0.3	3.9	0.03	0.07	70	120	1.0	0.05	90		
	Ferritic & Martensitic	6	410, X6Cr17, 17-4 PH, 430	200 HB	0.3	5.5	0.03	0.10	150	210	1.3	0.06	190		
				42 HRc	0.3	3.9	0.03	0.08	90	150	1.0	0.05	130		
Cast Iron	Grey	7	GG20, GG40, EN-GJL-250, No30B	150 HB	0.3	5.5	0.04	0.13	150	240	1.3	0.07	200		
				200 HB	0.3	5.5	0.04	0.13	150	220	1.3	0.07	180		
				250 HB	0.3	5.5	0.04	0.13	150	190	1.3	0.07	160		
Malleable & Nodular	8	GGG40, GGG70, 50005	150 HB	0.3	5.5	0.03	0.11	100	200	1.3	0.06	180			
			200 HB	0.3	5.5	0.03	0.11	100	180	1.3	0.06	150			
			250 HB	0.3	5.5	0.03	0.11	100	150	1.3	0.06	130			
High Temp. Alloys	Fe, Ni & Co Based	9	31,32	Incoloy 800	240 HB	0.3	3.9	0.03	0.07	25	45	1.0	0.05	32	
			33		Inconel 700	250 HB	0.3	3.9	0.03	0.07	25	45	1.0	0.05	30
			34		Stellite 21	350 HB	0.3	3.9	0.03	0.07	25	45	1.0	0.05	30
Ti Based	10	36	TiAl6V4	-	0.3	3.9	0.03	0.08	40	65	1.0	0.05	55		
			37	T40	-	0.3	3.9	0.03	0.07	30	55	1.0	0.05	40	
Hardened Mat.	Steel	11	X100CrMo13, 440C, G-X260NiCr42	45 HRc	0.3	2.0	0.02	0.07	40	80	0.7	0.04	60		
				50 HRc	0.3	1.2	0.02	0.06	40	70	0.5	0.04	55		
				55 HRc	0.3	0.6	0.02	0.06	40	60	0.3	0.04	50		
	Chilled Cast Iron	40	Ni-Hard 2	400 HB	0.3	1.6	0.02	0.07	40	80	0.5	0.04	50		
				55 HRc	0.3	0.6	0.02	0.06	30	60	0.3	0.04	40		
White Cast Iron	41	G-X300CrMo15	55 HRc	0.3	0.6	0.02	0.06	30	60	0.3	0.04	40			
NF	Al (>8%Si)	12	25	AISI12	130 HB	0.3	5.5	0.04	0.13	200	400	1.3	0.08	280	

APKT 1003 PDTR – LT 30 | LT3000

Material Group	Gr. N°	VDI Group	Material Exemples	Hardness	D.O.C (mm)		Feed (mm/rev)		V _c [m/min]		Suggested Starting Parameters			
					min	max	min	max	min	max	D.O.C	Feed	V _c	
Steel	Non Alloyed	1	C35, Ck45, 1020, 1045, 1060, 28Mn6	125 HB	0.5	9.0	0.13	0.26	190	330	2.0	0.17	250	
		2		190 HB	0.5	9.0	0.13	0.26	190	300	2.0	0.17	220	
		3		250 HB	0.5	9.0	0.13	0.26	190	250	2.0	0.17	200	
	Low Alloyed	2	42CrMo4, S150, Ck60, 4140, 4340, 100Cr6	180 HB	0.5	9.0	0.11	0.21	150	240	2.0	0.15	200	
				230 HB	0.5	9.0	0.11	0.21	150	210	2.0	0.15	180	
				280 HB	0.5	9.0	0.11	0.18	130	190	2.0	0.13	150	
				350 HB	0.5	9.0	0.11	0.18	130	170	2.0	0.13	140	
	High Alloyed	3	X40CrMoV5, H13, M42, D3, S6-5-2, 12Ni19	220 HB	0.5	6.4	0.08	0.18	90	150	1.5	0.13	130	
				280 HB	0.5	6.4	0.08	0.18	90	130	1.5	0.13	120	
				320 HB	0.5	6.4	0.08	0.15	60	110	1.5	0.12	100	
				350 HB	0.5	6.4	0.08	0.15	60	90	1.5	0.12	80	
Stainless Steel	Austenitic	4	304, 316, X5CrNi18-9	180 HB	0.5	9.0	0.11	0.21	190	250	2.0	0.15	220	
				240 HB	0.5	9.0	0.08	0.18	160	210	2.0	0.15	190	
	Duplex	5	X2CrNi23-4, S31500	290 HB	0.5	6.4	0.08	0.15	70	130	1.5	0.12	100	
				310 HB	0.5	6.4	0.08	0.15	70	120	1.5	0.12	90	
	Ferritic & Martensitic	6	410, X6Cr17, 17-4 PH, 430	200 HB	0.5	9.0	0.11	0.21	150	210	2.0	0.15	190	
				42 HRc	0.5	6.4	0.11	0.16	90	150	1.5	0.12	130	
Cast Iron	Grey	7	GG20, GG40, EN-GJL-250, No30B	150 HB	0.5	9.0	0.13	0.26	150	240	2.0	0.17	200	
				200 HB	0.5	9.0	0.13	0.26	150	220	2.0	0.17	180	
				250 HB	0.5	9.0	0.13	0.26	150	190	2.0	0.17	160	
Malleable & Nodular	8	GGG40, GGG70, 50005	150 HB	0.5	9.0	0.11	0.23	100	200	2.0	0.15	180		
			200 HB	0.5	9.0	0.11	0.23	100	180	2.0	0.15	150		
			250 HB	0.5	9.0	0.11	0.23	100	150	2.0	0.15	130		
High Temp. Alloys	Fe, Ni & Co Based	9	31,32 Incoloy 800	240 HB	0.5	6.4	0.08	0.15	25	45	1.5	0.12	32	
			33 Inconel 700	250 HB	0.5	6.4	0.08	0.15	25	45	1.5	0.12	30	
			34 Stellite 21	350 HB	0.5	6.4	0.08	0.15	25	45	1.5	0.12	30	
	Ti Based	10	36 TiAl6V4	-	0.5	6.4	0.08	0.16	40	65	1.5	0.13	55	
37 T40			-	0.5	6.4	0.08	0.15	30	55	1.5	0.12	40		
Hardened Mat.	Steel	11	X100CrMo13, 440C, G-X260NiCr42	45 HRc	0.5	3.2	0.07	0.15	40	80	1.0	0.10	60	
				50 HRc	0.5	1.9	0.07	0.13	40	70	0.8	0.09	55	
				55 HRc	0.5	1.0	0.07	0.11	40	60	0.5	0.09	50	
	Chilled Cast Iron	40	Ni-Hard 2	400 HB	0.5	2.6	0.07	0.15	40	80	0.8	0.10	50	
				55 HRc	0.5	1.0	0.07	0.11	30	60	0.5	0.09	40	
White Cast Iron	41	G-X300CrMo15	55 HRc	0.5	1.0	0.07	0.11	30	60	0.5	0.09	40		
NF	Al (>8%Si)	12	25	AlSi12	130 HB	0.5	9.0	0.13	0.26	200	400	2.0	0.18	280

APKT 100304 PDTR – LT 30 | LT3000

Material Group	Gr. N°	VDI Group	Material Examples	Hardness	D.O.C (mm)		Feed (mm/rev)		V _c (m/min)		Suggested Starting Parameters				
					min	max	min	max	min	max	D.O.C	Feed	V _c		
Steel	Non Alloyed	1	1	C35, Ck45,	125 HB	0.5	9.0	0.11	0.20	190	330	2.0	0.14	250	
		2	2	1020, 1045,	190 HB	0.5	9.0	0.11	0.20	190	300	2.0	0.14	220	
		3	3	1060, 28Mn6	250 HB	0.5	9.0	0.11	0.20	190	250	2.0	0.14	200	
	Low Alloyed	2	6	6	42CrMo4,	180 HB	0.5	9.0	0.09	0.16	150	240	2.0	0.12	200
			4,6	4,6	S150, Ck60,	230 HB	0.5	9.0	0.09	0.16	150	210	2.0	0.12	180
			5,7	5,7	4140, 4340,	280 HB	0.5	9.0	0.09	0.14	130	190	2.0	0.11	150
			8	8	100Cr6	350 HB	0.5	9.0	0.09	0.14	130	170	2.0	0.11	140
	High Alloyed	3	10	10	X40CrMoV5,	220 HB	0.5	6.4	0.07	0.14	90	150	1.5	0.11	130
			10	10	H13, M42, D3,	280 HB	0.5	6.4	0.07	0.14	90	130	1.5	0.11	120
			11	11	S6-5-2, 12N19	320 HB	0.5	6.4	0.07	0.11	60	110	1.5	0.10	100
			11	11		350 HB	0.5	6.4	0.07	0.11	60	90	1.5	0.10	80
Stainless Steel	Austenitic	4	14	14	304, 316,	180 HB	0.5	9.0	0.09	0.16	190	250	2.0	0.12	220
			14	14	X5CrNi18-9	240 HB	0.5	9.0	0.07	0.14	160	210	2.0	0.12	190
	Duplex	5	14	14	X2CrNiN23-4,	290 HB	0.5	6.4	0.07	0.11	70	130	1.5	0.10	100
			14	14	S31500	310 HB	0.5	6.4	0.07	0.11	70	120	1.5	0.10	90
	Ferritic & Martensitic	6	12	12	410, X6Cr17,	200 HB	0.5	9.0	0.09	0.16	150	210	2.0	0.12	190
			13	13	17-4 PH, 430	42 HRc	0.5	6.4	0.09	0.12	90	150	1.5	0.10	130
Cast Iron	Grey	7	15	15	GG20, GG40,	150 HB	0.5	9.0	0.11	0.20	150	240	2.0	0.14	200
			15	15	EN-GJL-250,	200 HB	0.5	9.0	0.11	0.20	150	220	2.0	0.14	180
			16	16	No30B	250 HB	0.5	9.0	0.11	0.20	150	190	2.0	0.14	160
Malleable & Nodular	8	17,19	17,19	GGG40, GGG70,	150 HB	0.5	9.0	0.09	0.17	100	200	2.0	0.12	180	
		17,19	17,19	50005	200 HB	0.5	9.0	0.09	0.17	100	180	2.0	0.12	150	
		18,20	18,20		250 HB	0.5	9.0	0.09	0.17	100	150	2.0	0.12	130	
High Temp. Alloys	Fe, Ni & Co Based	9	31,32	31,32	Incoloy 800	240 HB	0.5	6.4	0.07	0.11	25	45	1.5	0.10	32
			33	33	Inconel 700	250 HB	0.5	6.4	0.07	0.11	25	45	1.5	0.10	30
			34	34	Stellite 21	350 HB	0.5	6.4	0.07	0.11	25	45	1.5	0.10	30
	Ti Based	10	36	36	TiAl6V4	-	0.5	6.4	0.07	0.12	40	65	1.5	0.11	55
			37	37	T40	-	0.5	6.4	0.07	0.11	30	55	1.5	0.10	40
Hardened Mat.	Steel	11	38	38	X100CrMo13,	45 HRc	0.5	3.2	0.06	0.11	40	80	1.0	0.09	60
			38	38	440C,	50 HRc	0.5	1.9	0.06	0.10	40	70	0.8	0.08	55
			38	38	G-X260NiCr42	55 HRc	0.5	1.0	0.06	0.09	40	60	0.5	0.07	50
	Chilled Cast Iron	11	40	40	Ni-Hard 2	400 HB	0.5	2.6	0.06	0.11	40	80	0.8	0.09	50
			41	41	G-X300CrMo15	55 HRc	0.5	1.0	0.06	0.09	30	60	0.5	0.07	40
White Cast Iron															
Al (>8%Si)	12	25	AlSi12	130 HB	0.5	9.0	0.11	0.20	200	400	2.0	0.16	280		

APKT 100312 PDTR – LT 30 | LT 3000

Material Group	Gr. N°	VDI Group	Material Exemples	Hardness	D.O.C [mm]		Feed [mm/rev]		V _c [m/min]		Suggested Starting Parameters				
					min	max	min	max	min	max	D.O.C	Feed	V _c		
Steel	Non Alloyed	1	C35, Ck45, 1020, 1045, 1060, 28Mn6	125 HB	0.5	9.0	0.13	0.28	190	330	2.0	0.20	250		
		2		190 HB	0.5	9.0	0.13	0.28	190	300	2.0	0.20	220		
		3		250 HB	0.5	9.0	0.13	0.28	190	250	2.0	0.20	200		
	Low Alloyed	2	42CrMo4, S150, Ck60, 4140, 4340, 100Cr6	180 HB	0.5	9.0	0.11	0.22	150	240	2.0	0.18	200		
				4,6	230 HB	0.5	9.0	0.11	0.22	150	210	2.0	0.18	180	
				5,7	280 HB	0.5	9.0	0.11	0.19	130	190	2.0	0.16	150	
				8	350 HB	0.5	9.0	0.11	0.19	130	170	2.0	0.16	140	
	High Alloyed	3	X40CrMoV5, H13, M42, D3, S6-5-2, 12Ni19	220 HB	0.5	6.4	0.08	0.19	90	150	1.5	0.16	130		
				10	280 HB	0.5	6.4	0.08	0.19	90	130	1.5	0.16	120	
				11	320 HB	0.5	6.4	0.08	0.16	60	110	1.5	0.14	100	
				11	350 HB	0.5	6.4	0.08	0.16	60	90	1.5	0.14	80	
Stainless Steel	Austenitic	4	304, 316, X5CrNi18-9	180 HB	0.5	9.0	0.11	0.22	190	250	2.0	0.18	220		
				14	240 HB	0.5	9.0	0.08	0.19	160	210	2.0	0.18	190	
	Duplex	5	X2CrNiN23-4, S31500	290 HB	0.5	6.4	0.08	0.16	70	130	1.5	0.14	100		
				14	310 HB	0.5	6.4	0.08	0.16	70	120	1.5	0.14	90	
	Ferritic & Martensitic	6	410, X6Cr17, 17-4 PH, 430	200 HB	0.5	9.0	0.11	0.22	150	210	2.0	0.18	190		
				13	42 HRc	0.5	6.4	0.11	0.18	90	150	1.5	0.14	130	
Cast Iron	Grey	7	GG20, GG40, EN-GJL-250, No30B	150 HB	0.5	9.0	0.13	0.28	150	240	2.0	0.20	200		
				15	200 HB	0.5	9.0	0.13	0.28	150	220	2.0	0.20	180	
				16	250 HB	0.5	9.0	0.13	0.28	150	190	2.0	0.20	160	
Malleable & Nodular	8	GGG40, GGG70, 50005	150 HB	0.5	9.0	0.11	0.25	100	200	2.0	0.18	180			
			17,19	200 HB	0.5	9.0	0.11	0.25	100	180	2.0	0.18	150		
			18,20	250 HB	0.5	9.0	0.11	0.25	100	150	2.0	0.18	130		
High Temp. Alloys	Fe, Ni & Co Based	9	Incoloy 800	240 HB	0.5	6.4	0.08	0.16	25	45	1.5	0.14	32		
				33	Inconel 700	250 HB	0.5	6.4	0.08	0.16	25	45	1.5	0.14	30
				34	Stellite 21	350 HB	0.5	6.4	0.08	0.16	25	45	1.5	0.14	30
	Ti Based	10	TiAl6V4	-	0.5	6.4	0.08	0.18	40	65	1.5	0.16	55		
37				T40	-	0.5	6.4	0.08	0.16	30	55	1.5	0.14	40	
Hardened Mat.	Steel	11	X100CrMo13, 440C, G-X260NiCr42	45 HRc	0.5	3.2	0.07	0.16	40	80	1.0	0.12	60		
				38	50 HRc	0.5	1.9	0.07	0.14	40	70	0.8	0.11	55	
				38	55 HRc	0.5	1.0	0.07	0.12	40	60	0.5	0.11	50	
	Chilled Cast Iron White Cast Iron	40	Ni-Hard 2	400 HB	0.5	2.6	0.07	0.16	40	80	0.8	0.12	50		
				41	G-X300CrMo15	55 HRc	0.5	1.0	0.07	0.12	30	60	0.5	0.11	40
NF	Al (>8%Si)	12	25	AlSi12	130 HB	0.5	9.0	0.13	0.28	200	400	2.0	0.22	280	

APKT 100316 PDTR – LT 30 | LT 3000

Material Group	Gr. N°	VDI Group	Material Examples	Hardness	D.O.C (mm)		Feed (mm/rev)		V _c (m/min)		Suggested Starting Parameters		
					min	max	min	max	min	max	D.O.C	Feed	V _c
Steel	1	1	C35, Ck45,	125 HB	0.5	9.0	0.13	0.28	190	330	2.0	0.20	250
		2	1020, 1045,	190 HB	0.5	9.0	0.13	0.28	190	300	2.0	0.20	220
		3	1060, 28Mn6	250 HB	0.5	9.0	0.13	0.28	190	250	2.0	0.20	200
	2	6	42CrMo4, S50, Ck60, 4140, 4340, 100Cr6	180 HB	0.5	9.0	0.11	0.22	150	240	2.0	0.18	200
		4,6		230 HB	0.5	9.0	0.11	0.22	150	210	2.0	0.18	180
		5,7		280 HB	0.5	9.0	0.11	0.19	130	190	2.0	0.16	150
		8		350 HB	0.5	9.0	0.11	0.19	130	170	2.0	0.16	140
		10		X40CrMoV5, H13, M42, D3, S6-5-2, 12N19	220 HB	0.5	6.4	0.08	0.19	90	150	1.5	0.16
	10	280 HB	0.5		6.4	0.08	0.19	90	130	1.5	0.16	120	
	11	320 HB	0.5		6.4	0.08	0.16	60	110	1.5	0.14	100	
	11		350 HB	0.5	6.4	0.08	0.16	60	90	1.5	0.14	80	
Stainless Steel	4	14	304, 316,	180 HB	0.5	9.0	0.11	0.22	190	250	2.0	0.18	220
		14	X5CrNi18-9	240 HB	0.5	9.0	0.08	0.19	160	210	2.0	0.18	190
	5	14	X2CrNiN23-4, S31500	290 HB	0.5	6.4	0.08	0.16	70	130	1.5	0.14	100
		14		310 HB	0.5	6.4	0.08	0.16	70	120	1.5	0.14	90
	6	12	410, X6Cr17, 17-4 PH, 430	200 HB	0.5	9.0	0.11	0.22	150	210	2.0	0.18	190
		13		42 HRc	0.5	6.4	0.11	0.18	90	150	1.5	0.14	130
Cast Iron	7	15	GG20, GG40,	150 HB	0.5	9.0	0.13	0.28	150	240	2.0	0.20	200
		15	EN-GJL-250, No30B	200 HB	0.5	9.0	0.13	0.28	150	220	2.0	0.20	180
		16		250 HB	0.5	9.0	0.13	0.28	150	190	2.0	0.20	160
8	17,19	GGG40, GGG70, 50005	150 HB	0.5	9.0	0.11	0.25	100	200	2.0	0.18	180	
	17,19		200 HB	0.5	9.0	0.11	0.25	100	180	2.0	0.18	150	
	18,20		250 HB	0.5	9.0	0.11	0.25	100	150	2.0	0.18	130	
High Temp. Alloys	9	31,32	Incoloy 800	240 HB	0.5	6.4	0.08	0.16	25	45	1.5	0.14	32
		33	Inconel 700	250 HB	0.5	6.4	0.08	0.16	25	45	1.5	0.14	30
		34	Stellite 21	350 HB	0.5	6.4	0.08	0.16	25	45	1.5	0.14	30
	10	36	TiAl6V4	-	0.5	6.4	0.08	0.18	40	65	1.5	0.16	55
		37	T40	-	0.5	6.4	0.08	0.16	30	55	1.5	0.14	40
		38	X100CrMo13, 440C, G-X260NiCr42	45 HRc	0.5	3.2	0.07	0.16	40	80	1.0	0.12	60
38	50 HRc	0.5		1.9	0.07	0.14	40	70	0.8	0.11	55		
38	55 HRc	0.5		1.0	0.07	0.12	40	60	0.5	0.11	50		
Hardened Mat.	11	40	Ni-Hard 2	400 HB	0.5	2.6	0.07	0.16	40	80	0.8	0.12	50
		41	G-X300CrMo15	55 HRc	0.5	1.0	0.07	0.12	30	60	0.5	0.11	40
MF	12	25	AlSi12	130 HB	0.5	9.0	0.13	0.28	200	400	2.0	0.22	280

APKT 100332 PDTR – LT 30 | LT 3000

Material Group	Gr. N°	VDI Group	Material Exemples	Hardness	D.O.C [mm]		Feed [mm/rev]		V _c [m/min]		Suggested Starting Parameters				
					min	max	min	max	min	max	D.O.C	Feed	V _c		
Steel	Non Alloyed	1	1	C35, Ck45,	125 HB	0.5	9.0	0.13	0.28	190	330	1.0	0.29	250	
		2	2	1020, 1045,	190 HB	0.5	9.0	0.13	0.28	190	300	1.0	0.29	220	
		3	3	1060, 28Mn6	250 HB	0.5	9.0	0.13	0.28	190	250	1.0	0.29	200	
	Low Alloyed	2	6	42CrMo4,	180 HB	0.5	9.0	0.11	0.22	150	240	1.0	0.25	200	
			4,6	Si50, Ck60,	230 HB	0.5	9.0	0.11	0.22	150	210	1.0	0.25	180	
			5,7	4140, 4340,	280 HB	0.5	9.0	0.11	0.19	130	190	1.0	0.22	150	
			8	100Cr6	350 HB	0.5	9.0	0.11	0.19	130	170	1.0	0.22	140	
	High Alloyed	3	10	X40CrMoV5, H13, M42, D3, S6-5-2, 12N119	220 HB	0.5	6.4	0.08	0.19	90	150	1.0	0.22	130	
			10		280 HB	0.5	6.4	0.08	0.19	90	130	1.0	0.22	120	
			11		320 HB	0.5	6.4	0.08	0.16	60	110	1.0	0.20	100	
			11		350 HB	0.5	6.4	0.08	0.16	60	90	1.0	0.20	80	
Stainless Steel	Austenitic	4	304, 316, X5CrNi18-9	14	14	180 HB	0.5	9.0	0.11	0.22	190	250	1.0	0.25	220
				14	240 HB	0.5	9.0	0.08	0.19	160	210	1.0	0.25	190	
	Duplex	5	X2CrNiN23-4, S31500	14	14	290 HB	0.5	6.4	0.08	0.16	70	130	1.0	0.20	100
				14	310 HB	0.5	6.4	0.08	0.16	70	120	1.0	0.20	90	
	Ferritic & Martensitic	6	410, X6Cr17, 17-4 PH, 430	12	12	200 HB	0.5	9.0	0.11	0.22	150	210	1.0	0.25	190
				13	42 HRc	0.5	6.4	0.11	0.18	90	150	1.0	0.20	130	
Cast Iron	Grey	7	GG20, GG40, EN-GJL-250, No30B	15	15	150 HB	0.5	9.0	0.13	0.28	150	240	1.0	0.29	200
				15	200 HB	0.5	9.0	0.13	0.28	150	220	1.0	0.29	180	
				16	250 HB	0.5	9.0	0.13	0.28	150	190	1.0	0.29	160	
Malleable & Nodular	8	GGG40, GGG70, 50005	17,19	17,19	150 HB	0.5	9.0	0.11	0.25	100	200	1.0	0.25	180	
			17,19	200 HB	0.5	9.0	0.11	0.25	100	180	1.0	0.25	150		
			18,20	250 HB	0.5	9.0	0.11	0.25	100	150	1.0	0.25	130		
High Temp. Alloys	Fe, Ni & Co Based	9	Incoloy 800	31,32	31,32	240 HB	0.5	6.4	0.08	0.16	25	45	1.0	0.20	32
				33	33	250 HB	0.5	6.4	0.08	0.16	25	45	1.0	0.20	30
				34	34	350 HB	0.5	6.4	0.08	0.16	25	45	1.0	0.20	30
	Ti Based	10	TiAl6V4	36	36	-	0.5	6.4	0.08	0.18	40	65	1.0	0.22	55
37				37	T40	-	0.5	6.4	0.08	0.16	30	55	1.0	0.20	40
Hardened Mat.	Steel	11	X100CrMo13, 440C, G-X260NiCr42	38	38	45 HRc	0.4	3.2	0.07	0.16	40	80	0.7	0.17	60
				38	50 HRc	0.4	1.9	0.07	0.14	40	70	0.7	0.16	55	
				38	55 HRc	0.4	1.0	0.07	0.12	40	60	0.7	0.15	50	
	Chilled Cast Iron White Cast Iron	40	Ni-Hard 2	40	40	400 HB	0.4	2.6	0.07	0.16	40	80	0.7	0.17	50
				41	41	G-X300CrMo15	55 HRc	0.4	1.0	0.07	0.12	30	60	0.7	0.15
NF	Al (>8%Si)	12	25	AlSi12	130 HB	0.5	9.0	0.13	0.28	200	400	1.0	0.31	280	

APKT 100340 PDTR – LT 30 | LT 3000

Material Group	Gr. N°	VDI Group	Material Examples	Hardness	D.O.C (mm)		Feed [mm/rev]		V _c [m/min]		Suggested Starting Parameters		
					min	max	min	max	min	max	D.O.C	Feed	V _c
Steel	1	1	C35, Ck45,	125 HB	0.5	9.0	0.13	0.46	190	330	1.0	0.35	250
		2	1020, 1045,	190 HB	0.5	9.0	0.13	0.46	190	300	1.0	0.35	220
		3	1060, 28Mn6	250 HB	0.5	9.0	0.13	0.46	190	250	1.0	0.35	200
	2	6	42CrMo4, S150, Ck60, 4140, 4340, 100Cr6	180 HB	0.5	9.0	0.11	0.36	150	240	1.0	0.30	200
		4,6		230 HB	0.5	9.0	0.11	0.36	150	210	1.0	0.30	180
		5,7		280 HB	0.5	9.0	0.11	0.32	130	190	1.0	0.27	150
		8		350 HB	0.5	9.0	0.11	0.32	130	170	1.0	0.27	140
	3	10	X40CrMoV5, H13, M42, D3, S6-5-2, 12N19	220 HB	0.5	6.4	0.08	0.32	90	150	1.0	0.27	130
		10		280 HB	0.5	6.4	0.08	0.32	90	130	1.0	0.27	120
		11		320 HB	0.5	6.4	0.08	0.26	60	110	1.0	0.24	100
		11		350 HB	0.5	6.4	0.08	0.26	60	90	1.0	0.24	80
Stainless Steel	4	14	304, 316,	180 HB	0.5	9.0	0.11	0.36	190	250	1.0	0.30	220
		14	X5CrNi18-9	240 HB	0.5	9.0	0.08	0.32	160	210	1.0	0.30	190
	5	14	X2CrNiN23-4, S31500	290 HB	0.5	6.4	0.08	0.26	70	130	1.0	0.24	100
		14	310 HB	0.5	6.4	0.08	0.26	70	120	1.0	0.24	90	
	6	12	410, X6Cr17, 17-4 PH, 430	200 HB	0.5	9.0	0.11	0.36	150	210	1.0	0.30	190
		13	42 HRc	0.5	6.4	0.11	0.29	90	150	1.0	0.24	130	
Cast Iron	7	15	GG20, GG40,	150 HB	0.5	9.0	0.13	0.46	150	240	1.0	0.35	200
		15	EN-GJL-250, No30B	200 HB	0.5	9.0	0.13	0.46	150	220	1.0	0.35	180
		16	250 HB	0.5	9.0	0.13	0.46	150	190	1.0	0.35	160	
Malleable & Nodular	8	17,19	GGG40, GGG70, 50005	150 HB	0.5	9.0	0.11	0.41	100	200	1.0	0.30	180
		17,19	200 HB	0.5	9.0	0.11	0.41	100	180	1.0	0.30	150	
		18,20	250 HB	0.5	9.0	0.11	0.41	100	150	1.0	0.30	130	
High Temp. Alloys	9	31,32	Incoloy 800	240 HB	0.5	6.4	0.08	0.26	25	45	1.0	0.24	32
		33	Inconel 700	250 HB	0.5	6.4	0.08	0.26	25	45	1.0	0.24	30
		34	Stellite 21	350 HB	0.5	6.4	0.08	0.26	25	45	1.0	0.24	30
	10	36	TiAl6V4	-	0.5	6.4	0.08	0.29	40	65	1.0	0.27	55
		37	T40	-	0.5	6.4	0.08	0.26	30	55	1.0	0.24	40
		Hardened Mat.	11	38	X100CrMo13, 440C, G-X260NiCr42	45 HRc	0.4	3.2	0.07	0.26	40	80	0.7
38	50 HRc			0.4	1.9	0.07	0.23	40	70	0.7	0.20	55	
38	55 HRc			0.4	1.0	0.07	0.20	40	60	0.7	0.18	50	
40	Ni-Hard 2		400 HB	0.4	2.6	0.07	0.26	40	80	0.7	0.21	50	
41	G-X300CrMo15		55 HRc	0.4	1.0	0.07	0.20	30	60	0.7	0.18	40	
12	25	AlSi12	130 HB	0.5	9.0	0.13	0.46	200	400	1.0	0.38	280	

APKT 1604 PDTR – LT 30 | LT 3000

Material Group	Gr. N°	VDI Group	Material Examples	Hardness	D.O.C [mm]		Feed [mm/rev]		V _c [m/min]		Suggested Starting Parameters			
					min	max	min	max	min	max	D.O.C	Feed	V _c	
Steel	Non Alloyed	1	1	C35, Ck45,	125 HB	0.5	15.0	0.18	0.32	190	330	4.0	0.23	250
		2	2	1020, 1045,	190 HB	0.5	15.0	0.18	0.32	190	300	4.0	0.23	220
		3	3	1060, 28Mn6	250 HB	0.5	15.0	0.18	0.32	190	250	4.0	0.23	200
	Low Alloyed	2	6	42CrMo4,	180 HB	0.5	15.0	0.15	0.25	150	240	4.0	0.20	200
			4,6	Si50, Ck60,	230 HB	0.5	15.0	0.15	0.25	150	210	4.0	0.20	180
			5,7	4140, 4340,	280 HB	0.5	15.0	0.15	0.22	130	190	4.0	0.18	150
			8	100Cr6	350 HB	0.5	15.0	0.15	0.22	130	170	4.0	0.18	140
	High Alloyed	3	10	X40CrMoV5,	220 HB	0.5	10.7	0.12	0.22	90	150	3.0	0.18	130
			10	H13, M42, D3,	280 HB	0.5	10.7	0.12	0.22	90	130	3.0	0.18	120
			11	S6-5-2, 12Ni19	320 HB	0.5	10.7	0.12	0.18	60	110	3.0	0.16	100
			11		350 HB	0.5	10.7	0.12	0.18	60	90	3.0	0.16	80
Stainless Steel	Austenitic	4	14	304, 316,	180 HB	0.5	15.0	0.15	0.25	190	250	4.0	0.20	220
			14	X5CrNi18-9	240 HB	0.5	15.0	0.12	0.22	160	210	4.0	0.20	190
	Duplex	5	14	X2CrNiN23-4,	290 HB	0.5	10.7	0.12	0.18	70	130	3.0	0.16	100
			14	S31500	310 HB	0.5	10.7	0.12	0.18	70	120	3.0	0.16	90
	Ferritic & Martensitic	6	12	410, X6Cr17,	200 HB	0.5	15.0	0.15	0.25	150	210	4.0	0.20	190
			13	17-4 PH, 430	42 HRc	0.5	10.7	0.15	0.20	90	150	3.0	0.16	130
Cast Iron	Grey	7	15	GG20, GG40,	150 HB	0.5	15.0	0.18	0.32	150	240	4.0	0.23	200
			15	EN-GJL-250,	200 HB	0.5	15.0	0.18	0.32	150	220	4.0	0.23	180
			16	No30B	250 HB	0.5	15.0	0.18	0.32	150	190	4.0	0.23	160
Malleable & Nodular	8	17,19	GGG40, GGG70,	150 HB	0.5	15.0	0.15	0.28	100	200	4.0	0.20	180	
		17,19	50005	200 HB	0.5	15.0	0.15	0.28	100	180	4.0	0.20	150	
		18,20		250 HB	0.5	15.0	0.15	0.28	100	150	4.0	0.20	130	
High Temp. Alloys	Fe, Ni & Co Based	9	31,32	Incoloy 800	240 HB	0.5	10.7	0.12	0.18	25	45	3.0	0.16	32
			33	Inconel 700	250 HB	0.5	10.7	0.12	0.18	25	45	3.0	0.16	30
			34	Stellite 21	350 HB	0.5	10.7	0.12	0.18	25	45	3.0	0.16	30
	Ti Based	10	36	TiAl6V4	-	0.5	10.7	0.12	0.20	40	65	3.0	0.18	55
			37	T40	-	0.5	10.7	0.12	0.18	30	55	3.0	0.16	40
			Hardened Mat.	Steel	11	38	X100CrMo13,	45 HRc	0.5	5.4	0.10	0.18	40	80
38	440C,	50 HRc				0.5	3.2	0.10	0.16	40	70	1.5	0.13	55
38	G-X260NiCr42	55 HRc				0.5	1.6	0.10	0.14	40	60	1.0	0.12	50
40	Ni-Hard 2	400 HB				0.5	4.3	0.10	0.18	40	80	1.5	0.14	50
41	G-X300CrMo15	55 HRc				0.5	1.6	0.10	0.14	30	60	1.0	0.12	40
White Cast Iron														
NF	Al (>8%Si)	12	25	AlSi12	130 HB	0.5	15.0	0.18	0.32	200	400	4.0	0.25	280

APKT 160416 PDTR – LT 30 | LT 3000

Material Group	Gr. N°	VDI Group	Material Examples	Hardness	D.O.C (mm)		Feed [mm/rev]		V _c [m/min]		Suggested Starting Parameters			
					min	max	min	max	min	max	D.O.C	Feed	V _c	
Steel	1	1	C35, Ck45,	125 HB	0.5	15.0	0.18	0.32	190	330	5.0	0.23	250	
		2	1020, 1045,	190 HB	0.5	15.0	0.18	0.32	190	300	5.0	0.23	220	
		3	1060, 28Mn6	250 HB	0.5	15.0	0.18	0.32	190	250	5.0	0.23	200	
	2	6	42CrMo4, S150, Ck60, 4140, 4340, 100Cr6	180 HB	0.5	15.0	0.15	0.25	150	240	5.0	0.20	200	
		4,6		230 HB	0.5	15.0	0.15	0.25	150	210	5.0	0.20	180	
		5,7		280 HB	0.5	15.0	0.15	0.22	130	190	5.0	0.18	150	
		8		350 HB	0.5	15.0	0.15	0.22	130	170	5.0	0.18	140	
	3	10	X40CrMoV5, H13, M42, D3, S6-5-2, 12Ni19	220 HB	0.5	10.7	0.12	0.22	90	150	3.8	0.18	130	
		10		280 HB	0.5	10.7	0.12	0.22	90	130	3.8	0.18	120	
		11		320 HB	0.5	10.7	0.12	0.18	60	110	3.8	0.16	100	
		11		350 HB	0.5	10.7	0.12	0.18	60	90	3.8	0.16	80	
Stainless Steel	4	14	304, 316, X5CrNi18-9	180 HB	0.5	15.0	0.15	0.25	190	250	5.0	0.20	220	
		14	240 HB	0.5	15.0	0.12	0.22	160	210	5.0	0.20	190		
	5	14	X2CrNiN23-4, S31500	290 HB	0.5	10.7	0.12	0.18	70	130	3.8	0.16	100	
		14	310 HB	0.5	10.7	0.12	0.18	70	120	3.8	0.16	90		
6	12	410, X6Cr17, 17-4 PH, 430	200 HB	0.5	15.0	0.15	0.25	150	210	5.0	0.20	190		
	13		42 HRc	0.5	10.7	0.15	0.20	90	150	3.8	0.16	130		
Cast Iron	7	15	GG20, GG40, EN-GJL-250, No30B	150 HB	0.5	15.0	0.18	0.32	150	240	5.0	0.23	200	
		15		200 HB	0.5	15.0	0.18	0.32	150	220	5.0	0.23	180	
		16		250 HB	0.5	15.0	0.18	0.32	150	190	5.0	0.23	160	
8	17,19	GGG40, GGG70, 50005	150 HB	0.5	15.0	0.15	0.28	100	200	5.0	0.20	180		
	17,19		200 HB	0.5	15.0	0.15	0.28	100	180	5.0	0.20	150		
	18,20		250 HB	0.5	15.0	0.15	0.28	100	150	5.0	0.20	130		
High Temp. Alloys	9	31,32	Incoloy 800	240 HB	0.5	10.7	0.12	0.18	25	45	3.8	0.16	32	
		33		Inconel 700	250 HB	0.5	10.7	0.12	0.18	25	45	3.8	0.16	30
		34		Stellite 21	350 HB	0.5	10.7	0.12	0.18	25	45	3.8	0.16	30
	10	36	TiAl6V4	-	0.5	10.7	0.12	0.20	40	65	3.8	0.18	55	
		37	T40	-	0.5	10.7	0.12	0.18	30	55	3.8	0.16	40	
Hardened Mat.	11	38	X100CrMo13, 440C, G-X260NiCr42	45 HRc	0.5	5.4	0.10	0.18	40	80	2.5	0.14	60	
		38		50 HRc	0.5	3.2	0.10	0.16	40	70	1.9	0.13	55	
		38		55 HRc	0.5	1.6	0.10	0.14	40	60	1.3	0.12	50	
		40	Ni-Hard 2	400 HB	0.5	4.3	0.10	0.18	40	80	1.9	0.14	50	
		41	G-X300CrMo15	55 HRc	0.5	1.6	0.10	0.14	30	60	1.3	0.12	40	
12	25	AlSi12	130 HB	0.5	15.0	0.18	0.32	200	400	5.0	0.25	280		

APKT 160424 PDTR – LT 30 | LT 3000

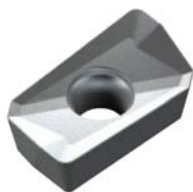
Material Group	Gr. N°	VDI Group	Material Examples	Hardness	D.O.C [mm]		Feed [mm/rev]		V _c [m/min]		Suggested Starting Parameters			
					min	max	min	max	min	max	D.O.C	Feed	V _c	
Steel	Non Alloyed	1	C35, Ck45, 1020, 1045, 1060, 28Mn6	125 HB	0.5	15.0	0.18	0.32	190	330	5.0	0.23	250	
		2		190 HB	0.5	15.0	0.18	0.32	190	300	5.0	0.23	220	
		3		250 HB	0.5	15.0	0.18	0.32	190	250	5.0	0.23	200	
	Low Alloyed	2	6	42CrMo4, S150, Ck60, 4140, 4340, 100Cr6	180 HB	0.5	15.0	0.15	0.25	150	240	5.0	0.20	200
			4,6		230 HB	0.5	15.0	0.15	0.25	150	210	5.0	0.20	180
			5,7		280 HB	0.5	15.0	0.15	0.22	130	190	5.0	0.18	150
			8		350 HB	0.5	15.0	0.15	0.22	130	170	5.0	0.18	140
	High Alloyed	3	10	X40CrMoV5, H13, M42, D3, S6-5-2, 12Ni19	220 HB	0.5	10.7	0.12	0.22	90	150	3.8	0.18	130
			10		280 HB	0.5	10.7	0.12	0.22	90	130	3.8	0.18	120
			11		320 HB	0.5	10.7	0.12	0.18	60	110	3.8	0.16	100
			11		350 HB	0.5	10.7	0.12	0.18	60	90	3.8	0.16	80
Stainless Steel	Austenitic	4	304, 316, X5CrNi18-9	180 HB	0.5	15.0	0.15	0.25	190	250	5.0	0.20	220	
				240 HB	0.5	15.0	0.12	0.22	160	210	5.0	0.20	190	
	Duplex	5	X2CrNi23-4, S31500	290 HB	0.5	10.7	0.12	0.18	70	130	3.8	0.16	100	
				310 HB	0.5	10.7	0.12	0.18	70	120	3.8	0.16	90	
	Ferritic & Martensitic	6	410, X6Cr17, 17-4 PH, 430	200 HB	0.5	15.0	0.15	0.25	150	210	5.0	0.20	190	
				42 HRc	0.5	10.7	0.15	0.20	90	150	3.8	0.16	130	
Cast Iron	Grey	7	GG20, GG40, EN-GJL-250, No30B	150 HB	0.5	15.0	0.18	0.32	150	240	5.0	0.23	200	
				200 HB	0.5	15.0	0.18	0.32	150	220	5.0	0.23	180	
				250 HB	0.5	15.0	0.18	0.32	150	190	5.0	0.23	160	
	Malleable & Nodular	8	GGG40, GGG70, 50005	150 HB	0.5	15.0	0.15	0.28	100	200	5.0	0.20	180	
				200 HB	0.5	15.0	0.15	0.28	100	180	5.0	0.20	150	
				250 HB	0.5	15.0	0.15	0.28	100	150	5.0	0.20	130	
High Temp. Alloys	Fe, Ni & Co Based	9	Incoloy 800, Inconel 700, Stellite 21	240 HB	0.5	10.7	0.12	0.18	25	45	3.8	0.16	32	
				250 HB	0.5	10.7	0.12	0.18	25	45	3.8	0.16	30	
				350 HB	0.5	10.7	0.12	0.18	25	45	3.8	0.16	30	
	Ti Based	10	TiAl6V4, T40	-	0.5	10.7	0.12	0.20	40	65	3.8	0.18	55	
				-	0.5	10.7	0.12	0.18	30	55	3.8	0.16	40	
				-	0.5	10.7	0.12	0.18	30	55	3.8	0.16	40	
Hardened Mat.	Steel	11	X100CrMo13, 440C, G-X260NiCr42	45 HRc	0.5	5.4	0.10	0.18	40	80	2.5	0.14	60	
				50 HRc	0.5	3.2	0.10	0.16	40	70	1.9	0.13	55	
				55 HRc	0.5	1.6	0.10	0.14	40	60	1.3	0.12	50	
	Chilled Cast Iron	11	Ni-Hard 2	400 HB	0.5	4.3	0.10	0.18	40	80	1.9	0.14	50	
				55 HRc	0.5	1.6	0.10	0.14	30	60	1.3	0.12	40	
	White Cast Iron	41	G-X300CrMo15	55 HRc	0.5	1.6	0.10	0.14	30	60	1.3	0.12	40	
Al (>8%Si)	12	25	AlSi12	130 HB	0.5	15.0	0.18	0.32	200	400	5.0	0.25	280	

APKT 160432 PDTR – LT 30 | LT 3000

Material Group	Gr. N°	VDI Group	Material Examples	Hardness	D.O.C (mm)		Feed (mm/rev)		V _c (m/min)		Suggested Starting Parameters		
					min	max	min	max	min	max	D.O.C	Feed	V _c
Steel	1	1	C35, Ck45,	125 HB	0.5	15.0	0.18	0.32	190	330	5.0	0.23	250
		2	1020, 1045,	190 HB	0.5	15.0	0.18	0.32	190	300	5.0	0.23	220
		3	1060, 28Mn6	250 HB	0.5	15.0	0.18	0.32	190	250	5.0	0.23	200
	2	6	42CrMo4, S150, Ck60, 4140, 4340, 100Cr6	180 HB	0.5	15.0	0.15	0.25	150	240	5.0	0.20	200
		4,6		230 HB	0.5	15.0	0.15	0.25	150	210	5.0	0.20	180
		5,7		280 HB	0.5	15.0	0.15	0.22	130	190	5.0	0.18	150
		8		350 HB	0.5	15.0	0.15	0.22	130	170	5.0	0.18	140
	3	10	X40CrMoV5, H13, M42, D3, S6-5-2, 12Ni19	220 HB	0.5	10.7	0.12	0.22	90	150	3.8	0.18	130
		10		280 HB	0.5	10.7	0.12	0.22	90	130	3.8	0.18	120
		11		320 HB	0.5	10.7	0.12	0.18	60	110	3.8	0.16	100
		11		350 HB	0.5	10.7	0.12	0.18	60	90	3.8	0.16	80
4	14	304, 316, X5CrNi18-9	180 HB	0.5	15.0	0.15	0.25	190	250	5.0	0.20	220	
	14		240 HB	0.5	15.0	0.12	0.22	160	210	5.0	0.20	190	
5	14	X2CrNiN23-4, S31500	290 HB	0.5	10.7	0.12	0.18	70	130	3.8	0.16	100	
	14		310 HB	0.5	10.7	0.12	0.18	70	120	3.8	0.16	90	
6	12	410, X6Cr17, 17-4 PH, 430	200 HB	0.5	15.0	0.15	0.25	150	210	5.0	0.20	190	
	13		42 HRc	0.5	10.7	0.15	0.20	90	150	3.8	0.16	130	
Austenitic	4	14	304, 316, X5CrNi18-9	180 HB	0.5	15.0	0.15	0.25	190	250	5.0	0.20	220
		14	240 HB	0.5	15.0	0.12	0.22	160	210	5.0	0.20	190	
		14	290 HB	0.5	10.7	0.12	0.18	70	130	3.8	0.16	100	
Duplex	5	14	X2CrNiN23-4, S31500	310 HB	0.5	10.7	0.12	0.18	70	120	3.8	0.16	90
		14	310 HB	0.5	10.7	0.12	0.18	70	120	3.8	0.16	90	
Ferritic & Martensitic	6	12	410, X6Cr17, 17-4 PH, 430	200 HB	0.5	15.0	0.15	0.25	150	210	5.0	0.20	190
		13	42 HRc	0.5	10.7	0.15	0.20	90	150	3.8	0.16	130	
Cast Iron	7	15	GG20, GG40, EN-GJL-250, No308	150 HB	0.5	15.0	0.18	0.32	150	240	5.0	0.23	200
		15	200 HB	0.5	15.0	0.18	0.32	150	220	5.0	0.23	180	
		16	250 HB	0.5	15.0	0.18	0.32	150	190	5.0	0.23	160	
Malleable & Nodular	8	17,19	GGG40, GGG70, 50005	150 HB	0.5	15.0	0.15	0.28	100	200	5.0	0.20	180
		17,19	200 HB	0.5	15.0	0.15	0.28	100	180	5.0	0.20	150	
		18,20	250 HB	0.5	15.0	0.15	0.28	100	150	5.0	0.20	130	
High Temp. Alloys	9	31,32	Incoloy 800	240 HB	0.5	10.7	0.12	0.18	25	45	3.8	0.16	32
		33	Inconel 700	250 HB	0.5	10.7	0.12	0.18	25	45	3.8	0.16	30
		34	Stellite 21	350 HB	0.5	10.7	0.12	0.18	25	45	3.8	0.16	30
Ti Based	10	36	TiAl6V4	-	0.5	10.7	0.12	0.20	40	65	3.8	0.18	55
		37	T40	-	0.5	10.7	0.12	0.18	30	55	3.8	0.16	40
Hardened Mat.	11	38	X100CrMo13, 440C, G-X260NiCr42	45 HRc	0.5	5.4	0.10	0.18	40	80	2.5	0.14	60
		38	50 HRc	0.5	3.2	0.10	0.16	40	70	1.9	0.13	55	
		38	55 HRc	0.5	1.6	0.10	0.14	40	60	1.3	0.12	50	
		40	Ni-Hard 2	400 HB	0.5	4.3	0.10	0.18	40	80	1.9	0.14	50
		41	G-X300CrMo15	55 HRc	0.5	1.6	0.10	0.14	30	60	1.3	0.12	40
White Cast Iron	12	25	AlSi12	130 HB	0.5	15.0	0.18	0.32	200	400	5.0	0.25	280
Al (>8%Si)													

APKT 1705 PDTR – LT 30 | LT 3000

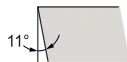
Material Group	Gr. N°	VDI Group	Material Examples	Hardness	D.O.C [mm]		Feed [mm/rev]		V _c [m/min]		Suggested Starting Parameters			
					min	max	min	max	min	max	D.O.C	Feed	V _c	
Steel	Non Alloyed	1	1	C35, Ck45,	125 HB	0.5	15.0	0.18	0.40	190	330	4.0	0.28	250
		2	2	1020, 1045,	190 HB	0.5	15.0	0.18	0.40	190	300	4.0	0.28	220
		3	3	1060, 28Mn6	250 HB	0.5	15.0	0.18	0.40	190	250	4.0	0.28	200
	Low Alloyed	2	6	42CrMo4,	180 HB	0.5	15.0	0.15	0.31	150	240	4.0	0.24	200
			4,6	S150, Ck60,	230 HB	0.5	15.0	0.15	0.31	150	210	4.0	0.24	180
			5,7	4140, 4340,	280 HB	0.5	15.0	0.15	0.27	130	190	4.0	0.22	150
			8	100Cr6	350 HB	0.5	15.0	0.15	0.27	130	170	4.0	0.22	140
	High Alloyed	3	10	X40CrMoV5,	220 HB	0.5	10.7	0.12	0.27	90	150	3.0	0.22	130
			10	H13, M42, D3,	280 HB	0.5	10.7	0.12	0.27	90	130	3.0	0.22	120
			11	S6-5-2, 12Ni19	320 HB	0.5	10.7	0.12	0.22	60	110	3.0	0.19	100
			11		350 HB	0.5	10.7	0.12	0.22	60	90	3.0	0.19	80
Stainless Steel	Austenitic	4	14	304, 316,	180 HB	0.5	15.0	0.15	0.31	190	250	4.0	0.24	220
			14	X5CrNi18-9	240 HB	0.5	15.0	0.12	0.27	160	210	4.0	0.24	190
	Duplex	5	14	X2CrNi23-4,	290 HB	0.5	10.7	0.12	0.22	70	130	3.0	0.19	100
			14	S31500	310 HB	0.5	10.7	0.12	0.22	70	120	3.0	0.19	90
	Ferritic & Martensitic	6	12	410, X6Cr17,	200 HB	0.5	15.0	0.15	0.31	150	210	4.0	0.24	190
			13	17-4 PH, 430	42 HRc	0.5	10.7	0.15	0.25	90	150	3.0	0.19	130
Cast Iron	Grey	7	15	GG20, GG40,	150 HB	0.5	15.0	0.18	0.40	150	240	4.0	0.28	200
			15	EN-GJL-250,	200 HB	0.5	15.0	0.18	0.40	150	220	4.0	0.28	180
			16	No30B	250 HB	0.5	15.0	0.18	0.40	150	190	4.0	0.28	160
Malleable & Nodular	8	17,19	GGG40, GGG70,	150 HB	0.5	15.0	0.15	0.35	100	200	4.0	0.24	180	
		17,19	50005	200 HB	0.5	15.0	0.15	0.35	100	180	4.0	0.24	150	
		18,20		250 HB	0.5	15.0	0.15	0.35	100	150	4.0	0.24	130	
High Temp. Alloys	Fe, Ni & Co Based	9	31,32	Incoloy 800	240 HB	0.5	10.7	0.12	0.22	25	45	3.0	0.19	32
			33	Inconel 700	250 HB	0.5	10.7	0.12	0.22	25	45	3.0	0.19	30
			34	Stellite 21	350 HB	0.5	10.7	0.12	0.22	25	45	3.0	0.19	30
Ti Based	10	36	TiAl6V4	-	0.5	10.7	0.12	0.25	40	65	3.0	0.22	55	
		37	T40	-	0.5	10.7	0.12	0.22	30	55	3.0	0.19	40	
Hardened Mat.	Steel	11	38	X100CrMo13,	45 HRc	0.5	5.4	0.10	0.22	40	80	2.0	0.17	60
			38	440C,	50 HRc	0.5	3.2	0.10	0.20	40	70	1.5	0.16	55
			38	G-X260NiCr42	55 HRc	0.5	1.6	0.10	0.17	40	60	1.0	0.14	50
	Chilled Cast Iron White Cast Iron	11	40	Ni-Hard 2	400 HB	0.5	4.3	0.10	0.22	40	80	1.5	0.17	50
			41	G-X300CrMo15	55 HRc	0.5	1.6	0.10	0.17	30	60	1.0	0.14	40
NF	Al (>8%Si)	12	25	AlSi12	130 HB	0.5	15.0	0.18	0.40	200	400	4.0	0.30	280



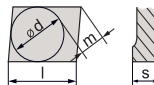
A P M T



Shape



Clearance Angle



Tolerance

$d \pm 0.05$
 $m \pm 0.08$
 $s \pm 0.13$

Fixing,
Chipbreaker

LT 30 Multi-Mat™ General Usage – Standard						
Insert Designation	l	s	r	Direction	Catalog Nr.	
APMT 1135 PDTR LT 30	11.45	3.52	0.7	Right	M0001133	
APMT 1604 PDTR LT 30	17.01	4.82	0.66	Right	M0001134	
APMT 160408 PDTR LT 30	17.01	4.82	0.66	Right	M0001733	

LT 3000 Multi-Mat™ General Usage – Premium						
Insert Designation	l	s	r	Direction	Catalog Nr.	
APMT 0903 PDTR LT 3000	9.94	3.38	0.4	Right	M0004161	
APMT 1135 PDTR LT 3000	11.45	3.52	0.7	Right	M0002216	
APMT 1604 PDTR LT 3000	17.01	4.82	0.66	Right	M0002183	
APMT 160408 PDTR LT 3000	17.01	4.82	0.66	Right	M0002218	

Application Guide

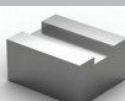
Helical Interpolation



Shoulder Milling



Slotting



Surfacing



Ramping Down



Plunging



Pocket Milling



Machining Recommendations

$\nearrow F \Rightarrow$
 \nearrow Productivity

1, 2, 3, 4 No
 6, 7, 8, 11 No
 10, 12 Yes
 Coolant 5, 9 Yes

Stainless Steel
 $\nearrow V_C$

End Mill for APMT 1135 PDTR								
Cutter Designation	D	d	L1	L	Ap	z	α	Catalog Nr.
LT 755 WL-W-D016/2*	16	16	30	150	9	2	12	M2001658
LT 755 W-W-D016/2*	16	16	30	120	9	2	12	M2001654
LT 755 WL-W-D020/2*	20	20	35	150	9	2	7	M2001659
LT 755 W-W-D020/3*	20	20	35	120	9	3	7	M2001655
LT 755 W-W-D025/4*	25	25	40	200	9	5	4	M2001660
LT 755 WL-W-D025/4*	25	25	40	150	9	4	4	M2001656
LT 755 W-W-D032/5*	32	25	40	150	9	5	3	M2001657
LT 755 WL-W-D032/5*	32	25	40	200	9	5	3	M2001661

* On request

Screw: M2002778

Key: M2002912

End Mill for APMT 1604 PDTR								
Cutter Designation	D	d	L1	L	Ap	z	α	Catalog Nr.
LT 760 WL-W-D025/2*	25	25	70	200	15	2	5	M2001665
LT 760 W-W-D025/2*	25	25	50	150	15	2	5	M2001662
LT 760 WL-W-D032/3*	32	32	100	250	15	3	3	M2001666
LT 760 W-W-D032/3*	32	32	100	200	15	3	3	M2001663
LT 760 WL-W-D040/4*	40	32	100	250	15	4	2.5	M2001667
LT 760 W-W-D040/4*	40	32	100	200	15	4	2.5	M2001664

* On request

Screw: M2000597

Key: M2000602



APMT 0903 PDTR – LT 3000

Material Group	Gr. N°	VDI Group	Material Examples	Hardness	D.O.C (mm)		Feed [mm/rev]		V _c [m/min]		Suggested Starting Parameters			
					min	max	min	max	min	max	D.O.C	Feed	V _c	
Steel	Non Alloyed	1	C35, Ck45, 1020, 1045, 1060, 28Mn6	125 HB	0.5	8.0	0.11	0.20	190	330	2.0	0.14	250	
		2		190 HB	0.5	8.0	0.11	0.20	190	300	2.0	0.14	220	
		3		250 HB	0.5	8.0	0.11	0.20	190	250	2.0	0.14	200	
	Low Alloyed	2	42CrMo4, S50, Ck60, 4140, 4340, 100Cr6	180 HB	0.5	8.0	0.09	0.16	150	240	2.0	0.12	200	
		4,6		230 HB	0.5	8.0	0.09	0.16	150	210	2.0	0.12	180	
		5,7		280 HB	0.5	8.0	0.09	0.14	130	190	2.0	0.11	150	
		8		350 HB	0.5	8.0	0.09	0.14	130	170	2.0	0.11	140	
	High Alloyed	3	X40CrMoV5, H13, M42, D3, S6-5-2, 12N19	220 HB	0.5	5.7	0.07	0.14	90	150	1.5	0.11	130	
		10		280 HB	0.5	5.7	0.07	0.14	90	130	1.5	0.11	120	
		11		320 HB	0.5	5.7	0.07	0.11	60	110	1.5	0.10	100	
		11		350 HB	0.5	5.7	0.07	0.11	60	90	1.5	0.10	80	
Stainless Steel	Austenitic	4	304, 316, X5CrNi18-9	180 HB	0.5	8.0	0.09	0.16	190	250	2.0	0.12	220	
		14		240 HB	0.5	8.0	0.07	0.14	160	210	2.0	0.12	190	
	Duplex	5	X2CrNi23-4, S31500	290 HB	0.5	5.7	0.07	0.11	70	130	1.5	0.10	100	
		14		310 HB	0.5	5.7	0.07	0.11	70	120	1.5	0.10	90	
	Ferritic & Martensitic	6	410, X6Cr17, 17-4 PH, 430	200 HB	0.5	8.0	0.09	0.16	150	210	2.0	0.12	190	
		13		42 HRc	0.5	5.7	0.09	0.12	90	150	1.5	0.10	130	
Cast Iron	Grey	7	GG20, GG40, EN-GJL-250, No308	150 HB	0.5	8.0	0.11	0.20	150	240	2.0	0.14	200	
		15		200 HB	0.5	8.0	0.11	0.20	150	220	2.0	0.14	180	
		16		250 HB	0.5	8.0	0.11	0.20	150	190	2.0	0.14	160	
Malleable & Nodular	8	GGG40, GGG70, 50005	150 HB	0.5	8.0	0.09	0.17	100	200	2.0	0.12	180		
	17,19		200 HB	0.5	8.0	0.09	0.17	100	180	2.0	0.12	150		
	18,20		250 HB	0.5	8.0	0.09	0.17	100	150	2.0	0.12	130		
High Temp. Alloys	Fe, Ni & Co Based	9	Incoloy 800	240 HB	0.5	5.7	0.07	0.11	25	45	1.5	0.10	32	
		33		Inconel 700	250 HB	0.5	5.7	0.07	0.11	25	45	1.5	0.10	30
		34		Stellite 21	350 HB	0.5	5.7	0.07	0.11	25	45	1.5	0.10	30
	Ti Based	10	TiAl6V4	-	0.5	5.7	0.07	0.12	40	65	1.5	0.11	55	
37		T40		-	0.5	5.7	0.07	0.11	30	55	1.5	0.10	40	
Hardened Mat.	Steel	11	X100CrMo13, 440C, G-X260NiCr42	45 HRc	0.5	2.9	0.06	0.11	40	80	1.0	0.09	60	
		38		50 HRc	0.5	1.7	0.06	0.10	40	70	0.8	0.08	55	
		38		55 HRc	0.5	1.2	0.06	0.09	40	60	0.5	0.07	50	
	Chilled Cast Iron	40	Ni-Hard 2	400 HB	0.5	2.3	0.06	0.11	40	80	0.8	0.09	50	
		White Cast Iron	41	G-X300CrMo15	55 HRc	0.5	1.2	0.06	0.09	30	60	0.5	0.07	40
Al (>8%Si)	12		25	AlSi12	130 HB	0.5	8.0	0.11	0.20	200	400	2.0	0.16	280

APMT 1135 PDTR – LT 30 | LT 3000

Material Group	Gr. N°	VDI Group	Material Examples	Hardness	D.O.C [mm]		Feed [mm/rev]		V _c [m/min]		Suggested Starting Parameters			
					min	max	min	max	min	max	D.O.C	Feed	V _c	
Steel	Non Alloyed	1	1	C35, Ck45,	125 HB	0.5	10.0	0.13	0.22	190	330	2.0	0.15	250
		2	2	1020, 1045,	190 HB	0.5	10.0	0.13	0.22	190	300	2.0	0.15	220
		3	3	1060, 28Mn6	250 HB	0.5	10.0	0.13	0.22	190	250	2.0	0.15	200
	Low Alloyed	2	6	42CrMo4,	180 HB	0.5	10.0	0.11	0.18	150	240	2.0	0.13	200
			4,6	S150, Ck60,	230 HB	0.5	10.0	0.11	0.18	150	210	2.0	0.13	180
			5,7	4140, 4340,	280 HB	0.5	10.0	0.11	0.15	130	190	2.0	0.12	150
			8	100Cr6	350 HB	0.5	10.0	0.11	0.15	130	170	2.0	0.12	140
	High Alloyed	3	10	X40CrMoV5,	220 HB	0.5	7.2	0.08	0.15	90	150	1.5	0.12	130
			10	H13, M42, D3,	280 HB	0.5	7.2	0.08	0.15	90	130	1.5	0.12	120
			11	S6-5-2, 12Ni19	320 HB	0.5	7.2	0.08	0.13	60	110	1.5	0.10	100
			11		350 HB	0.5	7.2	0.08	0.13	60	90	1.5	0.10	80
Stainless Steel	Austenitic	4	14	304, 316,	180 HB	0.5	10.0	0.11	0.18	190	250	2.0	0.13	220
			14	X5CrNi18-9	240 HB	0.5	10.0	0.08	0.15	160	210	2.0	0.13	190
	Duplex	5	14	X2CrNi23-4,	290 HB	0.5	7.2	0.08	0.13	70	130	1.5	0.10	100
			14	S31500	310 HB	0.5	7.2	0.08	0.13	70	120	1.5	0.10	90
	Ferritic & Martensitic	6	12	410, X6Cr17,	200 HB	0.5	10.0	0.11	0.18	150	210	2.0	0.13	190
			13	17-4 PH, 430	42 HRc	0.5	7.2	0.08	0.14	90	150	1.5	0.10	130
Cast Iron	Grey	7	15	GG20, GG40,	150 HB	0.5	10.0	0.13	0.22	150	240	2.0	0.15	200
			15	EN-GJL-250,	200 HB	0.5	10.0	0.13	0.22	150	220	2.0	0.15	180
			16	No30B	250 HB	0.5	10.0	0.13	0.22	150	190	2.0	0.15	160
	Malleable & Nodular	8	17,19	GGG40, GGG70,	150 HB	0.5	10.0	0.11	0.20	100	200	2.0	0.13	180
			17,19	50005	200 HB	0.5	10.0	0.11	0.20	100	180	2.0	0.13	150
			18,20		250 HB	0.5	10.0	0.11	0.20	100	150	2.0	0.13	130
High Temp. Alloys	Fe, Ni & Co Based	9	31,32	Incoloy 800	240 HB	0.5	7.2	0.08	0.13	25	45	1.5	0.10	32
			33	Inconel 700	250 HB	0.5	7.2	0.08	0.13	25	45	1.5	0.10	30
			34	Stellite 21	350 HB	0.5	7.2	0.08	0.13	25	45	1.5	0.10	30
	Ti Based	10	36	TiAl6V4	-	0.5	7.2	0.08	0.14	40	65	1.5	0.12	55
			37	T40	-	0.5	7.2	0.08	0.13	30	55	1.5	0.10	40
Hardened Mat.	Steel	11	38	X100CrMo13,	45 HRc	0.5	3.6	0.07	0.13	40	80	1.0	0.09	60
			38	440C,	50 HRc	0.5	2.1	0.07	0.11	40	70	0.8	0.08	55
			38	G-X260NiCr42	55 HRc	0.5	1.1	0.07	0.10	40	60	0.5	0.08	50
	Chilled Cast Iron White Cast Iron	11	40	Ni-Hard 2	400 HB	0.5	2.9	0.07	0.13	40	80	0.8	0.09	50
			41	G-X300CrMo15	55 HRc	0.5	1.1	0.07	0.10	30	60	0.5	0.08	40
NF	Al (>8%Si)	12	25	AlSi12	130 HB	0.5	10.0	0.13	0.22	200	400	2.0	0.16	280

APMT 1604 PDTR – LT 30 | LT 3000

Material Group	Gr. N°	VDI Group	Material Examples	Hardness	D.O.C (mm)		Feed (mm/rev)		V _c (m/min)		Suggested Starting Parameters		
					min	max	min	max	min	max	D.O.C	Feed	V _c
Steel	1	1	C35, Ck45,	125 HB	0.5	15.0	0.16	0.30	190	330	4.0	0.21	250
		2	1020, 1045,	190 HB	0.5	15.0	0.16	0.30	190	300	4.0	0.21	220
		3	1060, 28Mn6	250 HB	0.5	15.0	0.16	0.30	190	250	4.0	0.21	200
	2	6	42CrMo4, Sf50, Ck60, 4140, 4340, 100Cr6	180 HB	0.5	15.0	0.14	0.23	150	240	4.0	0.18	200
		4,6		230 HB	0.5	15.0	0.14	0.23	150	210	4.0	0.18	180
		5,7		280 HB	0.5	15.0	0.14	0.20	130	190	4.0	0.16	150
		8		350 HB	0.5	15.0	0.14	0.20	130	170	4.0	0.16	140
	3	10	X40CrMoV5, H13, M42, D3, S6-5-2, 12N19	220 HB	0.5	10.7	0.11	0.20	90	150	3.0	0.16	130
		10		280 HB	0.5	10.7	0.11	0.20	90	130	3.0	0.16	120
		11		320 HB	0.5	10.7	0.11	0.17	60	110	3.0	0.14	100
		11		350 HB	0.5	10.7	0.11	0.17	60	90	3.0	0.14	80
Stainless Steel	4	14	304, 316, X5CrNi18-9	180 HB	0.5	15.0	0.14	0.23	190	250	4.0	0.18	220
		14	240 HB	0.5	15.0	0.11	0.20	160	210	4.0	0.18	190	
	5	14	X2CrNiN23-4, S31500	290 HB	0.5	10.7	0.11	0.17	70	130	3.0	0.14	100
		14	310 HB	0.5	10.7	0.11	0.17	70	120	3.0	0.14	90	
	6	12	410, X6Cr17, 17-4 PH, 430	200 HB	0.5	15.0	0.14	0.23	150	210	4.0	0.18	190
		13		42 HRc	0.5	10.7	0.14	0.19	90	150	3.0	0.14	130
Cast Iron	7	15	GG20, GG40, EN-GJL-250, No30B	150 HB	0.5	15.0	0.16	0.30	150	240	4.0	0.21	200
		15	200 HB	0.5	15.0	0.16	0.30	150	220	4.0	0.21	180	
		16	250 HB	0.5	15.0	0.16	0.30	150	190	4.0	0.21	160	
Malleable & Nodular	8	17,19	GGG40, GGG70, 50005	150 HB	0.5	15.0	0.14	0.26	100	200	4.0	0.18	180
		17,19	200 HB	0.5	15.0	0.14	0.26	100	180	4.0	0.18	150	
		18,20	250 HB	0.5	15.0	0.14	0.26	100	150	4.0	0.18	130	
High Temp. Alloys	9	31,32	Incoloy 800	240 HB	0.5	10.7	0.11	0.17	25	45	3.0	0.14	32
		33	Inconel 700	250 HB	0.5	10.7	0.11	0.17	25	45	3.0	0.14	30
		34	Stellite 21	350 HB	0.5	10.7	0.11	0.17	25	45	3.0	0.14	30
	10	36	TiAl6V4	-	0.5	10.7	0.11	0.19	40	65	3.0	0.16	55
		37	T40	-	0.5	10.7	0.11	0.17	30	55	3.0	0.14	40
Hardened Mat.	11	38	X100CrMo13, 440C, G-X260NiCr42	45 HRc	0.5	5.4	0.09	0.17	40	80	2.0	0.13	60
		38		50 HRc	0.5	3.2	0.09	0.15	40	70	1.5	0.12	55
		38		55 HRc	0.5	1.6	0.09	0.13	40	60	1.0	0.11	50
		40	Ni-Hard 2	400 HB	0.5	4.3	0.09	0.17	40	80	1.5	0.13	50
		41	G-X300CrMo15	55 HRc	0.5	1.6	0.09	0.13	30	60	1.0	0.11	40
White Cast Iron													
Al (>8%Si)	12	25	AlSi12	130 HB	0.5	15.0	0.16	0.30	200	400	4.0	0.23	280

APMT 160408 PDTR – LT 30 | LT 3000

Material Group	Gr. N°	VDI Group	Material Examples	Hardness	D.O.C [mm]		Feed [mm/rev]		V _c [m/min]		Suggested Starting Parameters			
					min	max	min	max	min	max	D.O.C	Feed	V _c	
Steel	Non Alloyed	1	1	C35, Ck45,	125 HB	0.5	15.0	0.16	0.30	190	330	4.0	0.21	250
		2	2	1020, 1045,	190 HB	0.5	15.0	0.16	0.30	190	300	4.0	0.21	220
		3	3	1060, 28Mn6	250 HB	0.5	15.0	0.16	0.30	190	250	4.0	0.21	200
	Low Alloyed	2	6	42CrMo4,	180 HB	0.5	15.0	0.14	0.23	150	240	4.0	0.18	200
			4,6	S150, Ck60,	230 HB	0.5	15.0	0.14	0.23	150	210	4.0	0.18	180
			5,7	4140, 4340,	280 HB	0.5	15.0	0.14	0.20	130	190	4.0	0.16	150
			8	100Cr6	350 HB	0.5	15.0	0.14	0.20	130	170	4.0	0.16	140
	High Alloyed	3	10		220 HB	0.5	10.7	0.11	0.20	90	150	3.0	0.16	130
			10	X40CrMoV5,	280 HB	0.5	10.7	0.11	0.20	90	130	3.0	0.16	120
			11	H13, M42, D3,	320 HB	0.5	10.7	0.11	0.17	60	110	3.0	0.14	100
			11	S6-5-2, 12Ni19	350 HB	0.5	10.7	0.11	0.17	60	90	3.0	0.14	80
Stainless Steel	Austenitic	4	14	304, 316,	180 HB	0.5	15.0	0.14	0.23	190	250	4.0	0.18	220
			14	X5CrNi18-9	240 HB	0.5	15.0	0.11	0.20	160	210	4.0	0.18	190
	Duplex	5	14	X2CrNi23-4,	290 HB	0.5	10.7	0.11	0.17	70	130	3.0	0.14	100
			14	S31500	310 HB	0.5	10.7	0.11	0.17	70	120	3.0	0.14	90
	Ferritic & Martensitic	6	12	410, X6Cr17,	200 HB	0.5	15.0	0.14	0.23	150	210	4.0	0.18	190
			13	17-4 PH, 430	42 HRc	0.5	10.7	0.14	0.19	90	150	3.0	0.14	130
Cast Iron	Grey	7	15	GG20, GG40,	150 HB	0.5	15.0	0.16	0.30	150	240	4.0	0.21	200
			15	EN-GJL-250,	200 HB	0.5	15.0	0.16	0.30	150	220	4.0	0.21	180
			16	No30B	250 HB	0.5	15.0	0.16	0.30	150	190	4.0	0.21	160
Malleable & Nodular	8	17,19	GGG40, GGG70,	150 HB	0.5	15.0	0.14	0.26	100	200	4.0	0.18	180	
		17,19	50005	200 HB	0.5	15.0	0.14	0.26	100	180	4.0	0.18	150	
		18,20		250 HB	0.5	15.0	0.14	0.26	100	150	4.0	0.18	130	
High Temp. Alloys	Fe, Ni & Co Based	9	31,32	Incoloy 800	240 HB	0.5	10.7	0.11	0.17	25	45	3.0	0.14	32
			33	Inconel 700	250 HB	0.5	10.7	0.11	0.17	25	45	3.0	0.14	30
			34	Stellite 21	350 HB	0.5	10.7	0.11	0.17	25	45	3.0	0.14	30
Ti Based	10	36	TiAl6V4	-	0.5	10.7	0.11	0.19	40	65	3.0	0.16	55	
		37	T40	-	0.5	10.7	0.11	0.17	30	55	3.0	0.14	40	
Hardened Mat.	Steel	11	38	X100CrMo13,	45 HRc	0.5	5.4	0.09	0.17	40	80	2.0	0.13	60
			38	440C,	50 HRc	0.5	3.2	0.09	0.15	40	70	1.5	0.12	55
			38	G-X260NiCr42	55 HRc	0.5	1.6	0.09	0.13	40	60	1.0	0.11	50
	Chilled Cast Iron White Cast Iron	40	40	Ni-Hard 2	400 HB	0.5	4.3	0.09	0.17	40	80	1.5	0.13	50
			41	G-X300CrMo15	55 HRc	0.5	1.6	0.09	0.13	30	60	1.0	0.11	40
NF	Al (>8%Si)	12	25	AlSi12	130 HB	0.5	15.0	0.16	0.30	200	400	4.0	0.23	280



L

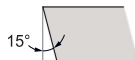
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M

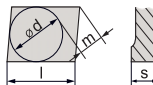
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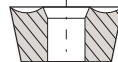
Shape



Clearance Angle



Tolerance

d \pm 0.05m \pm 0.08s \pm 0.13Fixing,
Chipbreaker

LDMT

LT 30 Multi-Mat™ General Usage – Standard

Insert Designation	l	s	r	Direction	Catalog Nr.
LDMT 1504 PDSR LT30	15.71	4.79	0.74	Right	M0001772

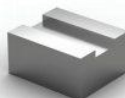
AKYTEC
TOOLS & TOOLING

Application Guide

Shoulder Milling



Slotting



Surfacing



Pocket Milling



Ramping Down



Plunging



Helical Interpolation

Machining
Recommendations

Productivity



1, 2, 3, 4	No
6, 7, 8, 11	No
10, 12	Yes
Coolant 5, 9	Yes

Stainless Steel

End Mill for LDMT 1504 PDSR

Cutter Designation	D	d	L1	L	Ap	z	α	Catalog Nr.
LT 770 WL-W-D25/2*	25	25	44	150	15	2	5	M2001825
LT 770 W-W-D025/2*	25	25	44	100	15	2	5	M2001822
LT 770 WL-W-D32/3*	32	25	50	150	15	3	3	M2001826
LT 770 W-W-D032/3*	32	35	50	110	15	3	3	M2001823
LT 770 W-W-D040/4*	40	32	45	115	15	4	2.5	M2001824

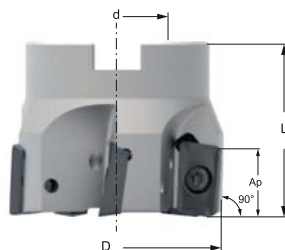
* On request

Screw: M2001418
Key: M2000602

Shell Mill for LDMT 1504 PDSR

Cutter Designation	D	d	L	Ap	z	α	Catalog Nr.
LT 770 M-W-D040/4*	40	16	40	15	4	2.5	M2001827
LT 770 M-W-D050/5*	50	22	40	15	5	2.2	M2001828
LT 770 M-W-D063/6*	63	22	40	15	6	1.8	M2001829
LT 770 M-W-D080/7*	80	27	50	15	7	1.4	M2001846
LT 770 M-W-D100/8*	100	32	50	15	8	1.1	M2001830
LT 770 M-W-D125/9*	125	40	63	15	9	0.8	M2001831
LT 770 M-W-D160/9*	160	40	63	15	9	-	M2001832

* On request

Screw: M2001418
Key: M2000602

LDMT 1504 PDSR – LT 30 | LT 3000

Material Group	Gr. N°	VDI Group	Material Examples	Hardness	D.O.C (mm)		Feed (mm/rev)		V _c (m/min)		Suggested Starting Parameters				
					min	max	min	max	min	max	D.O.C	Feed	V _c		
Steel	Non Alloyed	1	1	C35, Ck45,	125 HB	0.5	14.0	0.18	0.32	190	330	4.0	0.23	250	
		2	2	1020, 1045,	190 HB	0.5	14.0	0.18	0.32	190	300	4.0	0.23	220	
		3	3	1060, 28Mn6	250 HB	0.5	14.0	0.18	0.32	190	250	4.0	0.23	200	
	Low Alloyed	2	6	6	42CrMo4,	180 HB	0.5	14.0	0.15	0.25	150	240	4.0	0.20	200
			4,6	4,6	St50, Ck60,	230 HB	0.5	14.0	0.15	0.25	150	210	4.0	0.20	180
			5,7	5,7	4140, 4340,	280 HB	0.5	14.0	0.15	0.22	130	190	4.0	0.18	150
			8	8	100Cr6	350 HB	0.5	14.0	0.15	0.22	130	170	4.0	0.18	140
	High Alloyed	3	10	10	X40CrMoV5,	220 HB	0.5	10.0	0.12	0.22	90	150	3.0	0.18	130
			10	10	H13, M42, D3,	280 HB	0.5	10.0	0.12	0.22	90	130	3.0	0.18	120
			11	11	S6-5-2, 12N19	320 HB	0.5	10.0	0.12	0.18	60	110	3.0	0.16	100
			11	11		350 HB	0.5	10.0	0.12	0.18	60	90	3.0	0.16	80
Stainless Steel	Austenitic	4	14	14	304, 316,	180 HB	0.5	14.0	0.15	0.25	190	250	4.0	0.20	220
			14	14	X5CrNi18-9	240 HB	0.5	14.0	0.12	0.22	160	210	4.0	0.20	190
	Duplex	5	14	14	X2CrNi23-4,	290 HB	0.5	10.0	0.12	0.18	70	130	3.0	0.16	100
			14	14	S31500	310 HB	0.5	10.0	0.12	0.18	70	120	3.0	0.16	90
	Ferritic & Martensitic	6	12	12	410, X6Cr17,	200 HB	0.5	14.0	0.15	0.25	150	210	4.0	0.20	190
			13	13	17-4 PH, 430	42 HRc	0.5	10.0	0.15	0.20	90	150	3.0	0.16	130
Cast Iron	Grey	7	15	15	GG20, GG40,	150 HB	0.5	14.0	0.18	0.32	150	240	4.0	0.23	200
			15	15	EN-GJL-250,	200 HB	0.5	14.0	0.18	0.32	150	220	4.0	0.23	180
			16	16	No30B	250 HB	0.5	14.0	0.18	0.32	150	190	4.0	0.23	160
Malleable & Nodular	8	17,19	17,19	GGG40, GGG70,	150 HB	0.5	14.0	0.15	0.28	100	200	4.0	0.20	180	
		17,19	17,19	50005	200 HB	0.5	14.0	0.15	0.28	100	180	4.0	0.20	150	
		18,20	18,20		250 HB	0.5	14.0	0.15	0.28	100	150	4.0	0.20	130	
High Temp. Alloys	Fe, Ni & Co Based	9	31,32	31,32	Incoloy 800	240 HB	0.5	10.0	0.12	0.18	25	45	3.0	0.16	32
			33	33	Inconel 700	250 HB	0.5	10.0	0.12	0.18	25	45	3.0	0.16	30
			34	34	Stellite 21	350 HB	0.5	10.0	0.12	0.18	25	45	3.0	0.16	30
	Ti Based	10	36	36	TiAl6V4	-	0.5	10.0	0.12	0.20	40	65	3.0	0.18	55
			37	37	T40	-	0.5	10.0	0.12	0.18	30	55	3.0	0.16	40
Hardened Mat.	Steel	11	38	38	X100CrMo13,	45 HRc	0.5	5.0	0.10	0.18	40	80	2.0	0.14	60
			38	38	440C,	50 HRc	0.5	3.0	0.10	0.16	40	70	1.5	0.13	55
			38	38	G-X260NiCr42	55 HRc	0.5	1.5	0.10	0.14	40	60	1.0	0.12	50
	Chilled Cast Iron	11	40	40	Ni-Hard 2	400 HB	0.5	4.0	0.10	0.18	40	80	1.5	0.14	50
			41	41	G-X300CrMo15	55 HRc	0.5	1.5	0.10	0.14	30	60	1.0	0.12	40
	White Cast Iron	12	25												
Al (>8%Si)	12	25													



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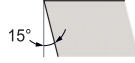
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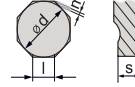
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Shape

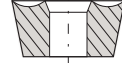


Clearance Angle



Tolerance

$s \pm 0.13$
 For $l = 05$, $d \pm 0.08$ $m \pm 0.13$
 For $l = 06$, $d \pm 0.10$ $m \pm 0.15$

Fixing,
Chipbreaker

LT 30 Multi-Mat™ General Usage – Standard					
Insert Designation	l	s	r	Direction	Catalog Nr.
ODMT 0504 ZZTR LT 30	5.08	4.76	0.8	Right	M0000664
ODMT 060508 TN LT 30	6.58	5.56	0.8	Right	M0001104

LT 3000 Multi-Mat™ General Usage – Premium					
Insert Designation	l	s	r	Direction	Catalog Nr.
ODMT 0504 ZZTR LT 3000	5.08	4.76	0.8	Right	M0003399
ODMT 060508 TN LT 3000	6.58	5.56	0.8	Right	M0002219

Application Guide


Chamfering



Surfacing

Machining
Recommendations

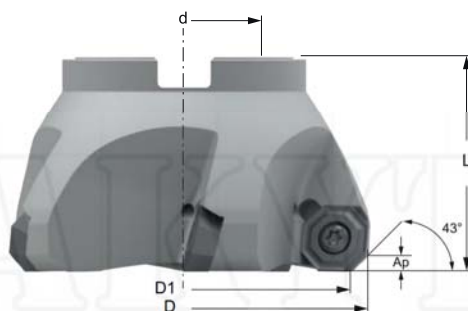
$\nearrow F \Rightarrow$
 \nearrow Productivity

 1, 2, 3, 4 No
 6, 7, 8, 11 No
 10, 12 Yes
 Coolant 5, 9 Yes

Stainless Steel
 $\nearrow V_C$

Shell Mill for ODMT 060508 TN							
Cutter Designation	D	D1	d	L	Ap	z	Catalog Nr.
LT 820 M-D-D063/5*	63	53	22	50	3.5	5	M2003837
LT 820 M-D-D080/5*	90	80	27	50	3.5	5	M2000711
LT 820 M-D-D100/6*	110	100	32	50	3.5	6	M2000712
LT 820 M-D-D125/7*	135	125	40	63	3.5	7	M2000713
LT 820 M-D-D160/9*	170	160	40	63	3.5	9	M2000714

* On request

Screw: M2002733
Key: M2000603

AKYTEC
TOOLS & TOOLING

ODMT 0504 ZZTR – LT 30 | LT 3000

Material Group	Gr. N°	VDI Group	Material Examples	Hardness	D.O.C [mm]		Feed [mm/rev]		V _c [m/min]		Suggested Starting Parameters			
					min	max	min	max	min	max	D.O.C	Feed	V _c	
Steel	Non Alloyed	1	1	C35, Ck45,	125 HB	0.5	3.5	0.22	0.51	190	330	2.5	0.37	250
		2	2	1020, 1045,	190 HB	0.5	3.5	0.22	0.51	190	300	2.5	0.37	220
		3	3	1060, 28Mn6	250 HB	0.5	3.5	0.22	0.51	190	250	2.5	0.37	200
	Low Alloyed	2	6	42CrMo4,	180 HB	0.5	3.5	0.18	0.40	150	240	2.5	0.32	200
			4,6	S150, Ck60,	230 HB	0.5	3.5	0.18	0.40	150	210	2.5	0.32	180
			5,7	4140, 4340,	280 HB	0.5	3.5	0.18	0.35	130	190	2.5	0.29	150
			8	100Cr6	350 HB	0.5	3.5	0.18	0.35	130	170	2.5	0.29	140
	High Alloyed	3	10	X40CrMoV5,	220 HB	0.5	2.5	0.14	0.35	90	150	1.9	0.29	130
			10	H13, M42, D3,	280 HB	0.5	2.5	0.14	0.35	90	130	1.9	0.29	120
			11	S6-5-2, 12N19	320 HB	0.5	2.5	0.14	0.29	60	110	1.9	0.26	100
			11		350 HB	0.5	2.5	0.14	0.29	60	90	1.9	0.26	80
Stainless Steel	Austenitic	4	14	304, 316,	180 HB	0.5	3.5	0.18	0.35	190	250	2.5	0.29	220
			14	X5CrNi18-9	240 HB	0.5	3.5	0.14	0.32	160	210	2.5	0.29	190
	Duplex	5	14	X2CrNiN23-4,	290 HB	0.5	2.5	0.14	0.29	70	130	1.9	0.26	100
			14	S31500	310 HB	0.5	2.5	0.14	0.29	70	120	1.9	0.26	90
	Ferritic & Martensitic	6	12	410, X6Cr17,	200 HB	0.5	3.5	0.18	0.35	150	210	2.5	0.29	190
			13	17-4 PH, 430	42 HRc	0.5	2.5	0.18	0.32	90	150	1.9	0.26	130
Cast Iron	Grey	7	15	GG20, GG40,	150 HB	0.5	3.5	0.22	0.51	150	240	2.5	0.37	200
			15	EN-GJL-250,	200 HB	0.5	3.5	0.22	0.51	150	220	2.5	0.37	180
			16	No30B	250 HB	0.5	3.5	0.22	0.51	150	190	2.5	0.37	160
Malleable & Nodular	8	17,19	GGG40, GGG70,	150 HB	0.5	3.5	0.18	0.45	100	200	2.5	0.32	180	
		17,19	50005	200 HB	0.5	3.5	0.18	0.45	100	180	2.5	0.32	150	
		18,20		250 HB	0.5	3.5	0.18	0.45	100	150	2.5	0.32	130	
High Temp. Alloys	Fe, Ni & Co Based	9	31,32	Incoloy 800	240 HB	0.5	2.5	0.14	0.29	25	45	1.9	0.26	32
			33	Inconel 700	250 HB	0.5	2.5	0.14	0.29	25	45	1.9	0.26	30
			34	Stellite 21	350 HB	0.5	2.5	0.14	0.29	25	45	1.9	0.26	30
	Ti Based	10	36	TiAl6V4	-	0.5	2.5	0.14	0.32	40	65	1.9	0.29	55
			37	T40	-	0.5	2.5	0.14	0.29	30	55	1.9	0.26	40
Hardened Mat.	Steel	11	38	X100CrMo13,	45 HRc	0.4	1.3	0.12	0.29	40	80	1.3	0.22	60
			38	440C,	50 HRc	0.4	0.8	0.12	0.26	40	70	0.9	0.21	55
			38	G-X260NiCr42	55 HRc	0.4	0.4	0.12	0.22	40	60	0.6	0.19	50
	Chilled Cast Iron White Cast Iron	11	40	Ni-Hard 2	400 HB	0.4	1.0	0.12	0.29	40	80	0.9	0.22	50
			41	G-X300CrMo15	55 HRc	0.4	0.4	0.12	0.22	30	60	0.6	0.19	40
NF	Al (>8%Si)	12	25	AlSi12	130 HB	0.5	3.5	0.22	0.51	200	400	2.5	0.40	280

ODMT 060508 TN – LT 30 | LT 3000

Material Group	Gr. N°	VDI Group	Material Examples	Hardness	D.O.C (mm)		Feed (mm/rev)		V _c (m/min)		Suggested Starting Parameters			
					min	max	min	max	min	max	D.O.C	Feed	V _c	
Steel	Non Alloyed	1	1	C35, Ck45,	125 HB	0.5	4.0	0.22	0.54	190	330	2.5	0.39	250
		2	2	1020, 1045,	190 HB	0.5	4.0	0.22	0.54	190	300	2.5	0.39	220
		3	3	1060, 28Mn6	250 HB	0.5	4.0	0.22	0.54	190	250	2.5	0.39	200
	Low Alloyed	2	6	42CrMo4,	180 HB	0.5	4.0	0.18	0.43	150	240	2.5	0.34	200
			4,6	St50, Ck60,	230 HB	0.5	4.0	0.18	0.43	150	210	2.5	0.34	180
			5,7	4140, 4340,	280 HB	0.5	4.0	0.18	0.37	130	190	2.5	0.31	150
			8	100Cr6	350 HB	0.5	4.0	0.18	0.37	130	170	2.5	0.31	140
	High Alloyed	3	10	X40CrMoV5,	220 HB	0.5	2.9	0.14	0.37	90	150	1.9	0.31	130
			10	H13, M42, D3,	280 HB	0.5	2.9	0.14	0.37	90	130	1.9	0.31	120
			11	S6-5-2, 12Ni19	320 HB	0.5	2.9	0.14	0.31	60	110	1.9	0.27	100
			11		350 HB	0.5	2.9	0.14	0.31	60	90	1.9	0.27	80
Stainless Steel	Austenitic	4	14	304, 316,	180 HB	0.5	4.0	0.18	0.37	190	250	2.5	0.31	220
			14	X5CrNi18-9	240 HB	0.5	4.0	0.14	0.34	160	210	2.5	0.31	190
	Duplex	5	14	X2CrNi23-4,	290 HB	0.5	2.9	0.14	0.31	70	130	1.9	0.27	100
			14	S31500	310 HB	0.5	2.9	0.14	0.31	70	120	1.9	0.27	90
	Ferritic & Martensitic	6	12	410, X6Cr17,	200 HB	0.5	4.0	0.18	0.37	150	210	2.5	0.31	190
			13	17-4 PH, 430	42 HRc	0.5	2.9	0.18	0.34	90	150	1.9	0.27	130
Cast Iron	Grey	7	15	GG20, GG40,	150 HB	0.5	4.0	0.22	0.54	150	240	2.5	0.39	200
			15	EN-GJL-250,	200 HB	0.5	4.0	0.22	0.54	150	220	2.5	0.39	180
			16	No30B	250 HB	0.5	4.0	0.22	0.54	150	190	2.5	0.39	160
Malleable & Nodular	8	17,19	GGG40, GGG70,	150 HB	0.5	4.0	0.18	0.48	100	200	2.5	0.34	180	
		17,19	50005	200 HB	0.5	4.0	0.18	0.48	100	180	2.5	0.34	150	
		18,20		250 HB	0.5	4.0	0.18	0.48	100	150	2.5	0.34	130	
High Temp. Alloys	Fe, Ni & Co Based	9	31,32	Incoloy 800	240 HB	0.5	2.9	0.14	0.31	25	45	1.9	0.27	32
			33	Inconel 700	250 HB	0.5	2.9	0.14	0.31	25	45	1.9	0.27	30
			34	Stellite 21	350 HB	0.5	2.9	0.14	0.31	25	45	1.9	0.27	30
Ti Based	10	36	TiAl6V4	-	0.5	2.9	0.14	0.34	40	65	1.9	0.31	55	
		37	T40	-	0.5	2.9	0.14	0.31	30	55	1.9	0.27	40	
Hardened Mat.	Steel	11	38	X100CrMo13,	45 HRc	0.4	1.4	0.12	0.31	40	80	1.3	0.24	60
			38	440C,	50 HRc	0.4	1.1	0.12	0.27	40	70	0.9	0.22	55
			38	G-X260NiCr42	55 HRc	0.4	0.9	0.12	0.24	40	60	0.6	0.20	50
	Chilled Cast Iron	40	40	Ni-Hard 2	400 HB	0.4	1.1	0.12	0.31	40	80	0.9	0.24	50
			41	G-X300CrMo15	55 HRc	0.4	0.9	0.12	0.24	30	60	0.6	0.20	40
White Cast Iron														
Al (>8%Si)	12	25	AlSi12	130 HB	0.5	4.0	0.22	0.54	200	400	2.5	0.43	280	



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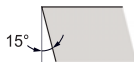
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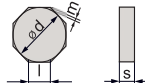
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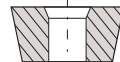
Shape



Clearance Angle



Tolerance

d \pm 0.10m \pm 0.15s \pm 0.13Fixing,
Chipbreaker

LT 30 Multi-Mat™ General Usage – Standard					
Insert Designation	l	s	r	Direction	Catalog Nr.
ODMW 060508 TN LT 30	6.58	5.56	0.8	Right	M0000451

LT 3000 Multi-Mat™ General Usage – Premium					
Insert Designation	l	s	r	Direction	Catalog Nr.
ODMW 060508 TN LT 3000	6.58	5.56	0.8	Right	M0003400

Shell Mill for ODMW 060508 TN							
Cutter Designation	D	D1	d	L	Ap	z	Catalog Nr.
LT 820 M-D-D063/5*	63	53	22	50	3.5	5	M2003837
LT 820 M-D-D080/5*	90	80	27	50	3.5	5	M2000711
LT 820 M-D-D100/6*	110	100	32	50	3.5	6	M2000712
LT 820 M-D-D125/7*	135	125	40	63	3.5	7	M2000713
LT 820 M-D-D160/9*	170	160	40	63	3.5	9	M2000714

* On request

Screw: M2002733

Key: M2000603

Application Guide

Chamfering



Surfacing

Machining
Recommendations

↑ Productivity



1, 2, 3, 4	No
6, 7, 8, 11	No
10, 12	Yes
Coolant 5, 9	Yes

Stainless Steel



ODMW 060508 TN – LT 30 | LT 3000

Material Group	Gr. №	VDI Group	Material Examples	Hardness	D.O.C [mm]		Feed [mm/rev]		V _c [m/min]		Suggested Starting Parameters		
					min	max	min	max	min	max	D.O.C	Feed	V _c
Steel	Non Alloyed	1	C35, Ck45, 1020, 1045, 1060, 28Mn6	125 HB	0.5	4.0	0.22	0.58	190	330	3.0	0.41	250
				190 HB	0.5	4.0	0.22	0.58	190	300	3.0	0.41	220
				250 HB	0.5	4.0	0.22	0.58	190	250	3.0	0.41	200
	Low Alloyed	2	42CrMo4, S150, Ck60, 4140, 4340, 100Cr6	180 HB	0.5	4.0	0.18	0.45	150	240	3.0	0.36	200
				230 HB	0.5	4.0	0.18	0.45	150	210	3.0	0.36	180
				280 HB	0.5	4.0	0.18	0.40	130	190	3.0	0.32	150
				350 HB	0.5	4.0	0.18	0.40	130	170	3.0	0.32	140
	High Alloyed	3	X40CrMoV5, H13, M42, D3, S6-5-2, 12N19	220 HB	0.5	2.9	0.14	0.40	90	150	2.3	0.32	130
				280 HB	0.5	2.9	0.14	0.40	90	130	2.3	0.32	120
				320 HB	0.5	2.9	0.14	0.32	60	110	2.3	0.29	100
				350 HB	0.5	2.9	0.14	0.32	60	90	2.3	0.29	80
Cast Iron	Grey	7	GG20, GG40, EN-GJL-250, No30B	150 HB	0.5	4.0	0.22	0.58	150	240	3.0	0.41	200
				200 HB	0.5	4.0	0.22	0.58	150	220	3.0	0.41	180
				250 HB	0.5	4.0	0.22	0.58	150	190	3.0	0.41	160
	Malleable & Nodular	8	GGG40, GGG70, 50005	150 HB	0.5	4.0	0.18	0.50	100	200	3.0	0.36	180
				200 HB	0.5	4.0	0.18	0.50	100	180	3.0	0.36	150
				250 HB	0.5	4.0	0.18	0.50	100	150	3.0	0.36	130
Hardened Mat.	Steel	11	X100CrMo13, 440C, G-X260NiCr42	45 HRc	0.4	1.4	0.12	0.32	40	80	1.1	0.25	60
				50 HRc	0.4	1.1	0.12	0.29	40	70	0.9	0.23	55
				55 HRc	0.4	0.9	0.12	0.25	40	60	0.7	0.22	50
	Chilled Cast Iron	40	Ni-Hard 2	400 HB	0.4	1.1	0.12	0.32	40	80	0.9	0.25	50
White Cast Iron	41	G-X300CrMo15	55 HRc	0.4	0.9	0.12	0.25	30	60	0.7	0.22	40	



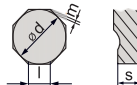
O F E R



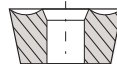
Shape



Clearance Angle



Tolerance

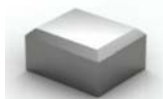
d \pm 0.025m \pm 0.025s \pm 0.025Fixing,
Chipbreaker

LT 30 Multi-Mat™ General Usage – Standard					
Insert Designation	l	s	r	Direction	Catalog Nr.
OFER 070405 TN LT 30	7.43	4.76	0.8	Right	M0000033

LT 3000 Multi-Mat™ General Usage – Premium					
Insert Designation	l	s	r	Direction	Catalog Nr.
OFER 070405 TN LT 3000	7.43	4.76	0.8	Right	M0003401

Application Guide

Chamfering



Surfacing



Machining Recommendations



↑ **Productivity**



1, 2, 3, 4 No
6, 7, 8, 11 No
10, 12 Yes
Coolant 5, 9 Yes

Stainless Steel

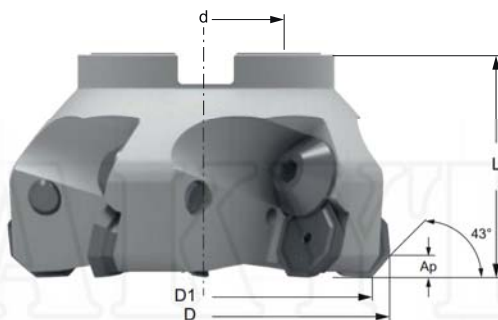


Shell Mill for OFER 070405 TN							
Cutter Designation	D	D1	d	L	Ap	z	Catalog Nr.
LT 880 M-W-D063/4*	73	63	22	40	5	4	M2000508
LT 880 M-W-D080/5*	90	80	27	50	5	5	M2000510
LT 880 M-W-D100/6*	110	100	32	50	5	6	M2000511
LT 880 M-W-D125/8*	135	125	40	63	5	8	M2000512
LT 880 M-W-D160/10*	170	160	40	63	5	10	M2000513

* On request

Screw: M2000606
Key: M2000609

OFER



OFER 070405 TN – LT 30 | LT 3000

Material Group	Gr. N°	VDI Group	Material Examples	Hardness	D.O.C [mm]		Feed [mm/rev]		V _c [m/min]		Suggested Starting Parameters			
					min	max	min	max	min	max	D.O.C	Feed	V _c	
Steel	Non Alloyed	1	C35, Ck45, 1020, 1045, 1060, 28Mn6	125 HB	0.5	4.5	0.22	0.51	190	330	3.0	0.37	250	
		2		190 HB	0.5	4.5	0.22	0.51	190	300	3.0	0.37	220	
		3		250 HB	0.5	4.5	0.22	0.51	190	250	3.0	0.37	200	
	Low Alloyed	2	6	42CrMo4, S150, Ck60, 4140, 4340, 100Cr6	180 HB	0.5	4.5	0.18	0.40	150	240	3.0	0.32	200
			4,6		230 HB	0.5	4.5	0.18	0.40	150	210	3.0	0.32	180
			5,7		280 HB	0.5	4.5	0.18	0.35	130	190	3.0	0.29	150
			8		350 HB	0.5	4.5	0.18	0.35	130	170	3.0	0.29	140
	High Alloyed	3	10	X40CrMoV5, H13, M42, D3, S6-5-2, 12Ni19	220 HB	0.5	3.2	0.14	0.35	90	150	2.2	0.29	130
			10		280 HB	0.5	3.2	0.14	0.35	90	130	2.2	0.29	120
			11		320 HB	0.5	3.2	0.14	0.29	60	110	2.2	0.26	100
			11		350 HB	0.5	3.2	0.14	0.29	60	90	2.2	0.26	80
Stainless Steel	Austenitic	4	304, 316, X5CrNi18-9	180 HB	0.5	4.5	0.18	0.35	190	250	3.0	0.29	220	
				240 HB	0.5	4.5	0.14	0.32	160	210	3.0	0.29	190	
	Duplex	5	X2CrNi23-4, S31500	290 HB	0.5	3.2	0.14	0.29	70	130	2.2	0.26	100	
				310 HB	0.5	3.2	0.14	0.29	70	120	2.2	0.26	90	
	Ferritic & Martensitic	6	410, X6Cr17, 17-4 PH, 430	200 HB	0.5	4.5	0.18	0.35	150	210	3.0	0.29	190	
				42 HRc	0.5	3.2	0.18	0.32	90	150	2.2	0.26	130	
Cast Iron	Grey	7	GG20, GG40, EN-GJL-250, No30B	150 HB	0.5	4.5	0.22	0.51	150	240	3.0	0.37	200	
				200 HB	0.5	4.5	0.22	0.51	150	220	3.0	0.37	180	
				250 HB	0.5	4.5	0.22	0.51	150	190	3.0	0.37	160	
	Malleable & Nodular	8	GGG40, GGG70, 50005	150 HB	0.5	4.5	0.18	0.45	100	200	3.0	0.32	180	
				200 HB	0.5	4.5	0.18	0.45	100	180	3.0	0.32	150	
				250 HB	0.5	4.5	0.18	0.45	100	150	3.0	0.32	130	
High Temp. Alloys	Fe, Ni & Co Based	9	Incoloy 800, Inconel 700, Stellite 21	240 HB	0.5	3.2	0.14	0.29	25	45	2.2	0.26	32	
				250 HB	0.5	3.2	0.14	0.29	25	45	2.2	0.26	30	
				350 HB	0.5	3.2	0.14	0.29	25	45	2.2	0.26	30	
	Ti Based	10	TiAl6V4, T40	-	0.5	3.2	0.14	0.32	40	65	2.2	0.29	55	
				-	0.5	3.2	0.14	0.29	30	55	2.2	0.26	40	
				-	0.5	3.2	0.14	0.29	30	55	2.2	0.26	40	
Hardened Mat.	Steel	11	X100CrMo13, 440C, G-X260NiCr42	45 HRc	0.4	1.6	0.12	0.29	40	80	1.5	0.22	60	
				50 HRc	0.4	1.3	0.12	0.26	40	70	1.1	0.21	55	
				55 HRc	0.4	1.0	0.12	0.22	40	60	0.7	0.19	50	
	Chilled Cast Iron	11	Ni-Hard 2	400 HB	0.4	1.3	0.12	0.29	40	80	1.1	0.22	50	
				55 HRc	0.4	1.0	0.12	0.22	30	60	0.7	0.19	40	
	White Cast Iron	41	G-X300CrMo15	55 HRc	0.4	1.0	0.12	0.22	30	60	0.7	0.19	40	
Al (>8%Si)	12	25	AlSi12	130 HB	0.5	4.5	0.22	0.51	200	400	3.0	0.40	280	



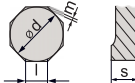
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Shape

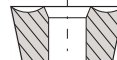


Clearance Angle



Tolerance

$s \pm 0.13$
For $l = 05$, $d \pm 0.08$ $m \pm 0.13$
For $l = 07$, $d \pm 0.10$ $m \pm 0.15$

Fixing,
Chipbreaker

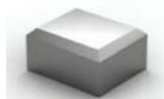
OFMT

LT 30		Multi-Mat™ General Usage – Standard				
Insert Designation	l	s	r	Direction	Catalog Nr.	
OFMT 05T305 TN LT 30	5.26	4.00	0.8	Neutral	M0000591	
OFMT 050405 TR LT 30	5.51	4.76	0.5	Right	M0000034	
OFMT 070405 TN LT 30	7.44	4.76	0.5	Neutral	M0000592	

LT 3000		Multi-Mat™ General Usage – Premium				
Insert Designation	l	s	r	Direction	Catalog Nr.	
OFMT 05T305 TN LT 3000	5.26	4.00	0.8	Neutral	M0002221	
OFMT 050405 TR LT 3000	5.51	4.76	0.5	Right	M0002220	
OFMT 070405 TN LT 3000	7.44	4.76	0.5	Neutral	M0002222	

Application Guide

Chamfering



Surfacing

Machining
Recommendations

$\nearrow F \Rightarrow$
 \nearrow Productivity

Coolant	1, 2, 3, 4	No
	6, 7, 8, 11	No
	10, 12	Yes
	5, 9	Yes

Stainless Steel

$\nearrow V_C$

Shell Mill for OFMT 05T305 TN							
Cutter Designation	D	D1	d	L	Ap	z	Catalog Nr.
LT 800 M-W-D032/3	39	32	16	40	3	3	M2000501
LT 800 M-W-D040/3	47	40	16	40	3	3	M2000502
LT 800 M-W-D050/4	57	50	22	40	3	4	M2000503
LT 800 M-W-D063/5	70	63	22	40	3	5	M2000504
LT 800 M-W-D080/6	87	80	27	50	3	6	M2000505
LT 800 M-W-D100/7	107	100	32	50	3	7	M2000506
LT 800 M-W-D125/8	132	125	40	63	3	8	M2000507

Screw: M2000597

Key: M2000602

Shell Mill for OFMT 050405 TR							
Cutter Designation	D	D1	d	L	Ap	z	Catalog Nr.
LT 805 M-W-D032/3*	39	32	16	40	3	3	M2001602
LT 805 M-W-D040/3*	47	40	16	40	3	3	M2001603
LT 805 M-W-D050/4*	57	50	22	40	3	4	M2001604
LT 805 M-W-D063/5*	70	63	22	40	3	5	M2001605
LT 805 M-W-D080/6*	87	80	27	50	3	6	M2001607
LT 805 M-W-D100/7*	107	100	32	50	3	7	M2001608
LT 805 M-W-D125/8*	132	125	40	63	3	8	M2001609

* On request

Screw: M2000597

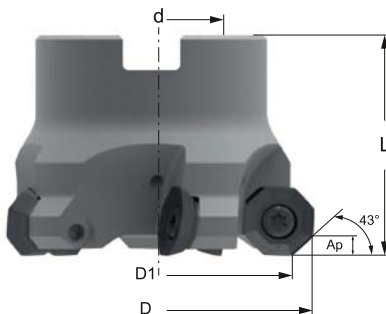
Key: M2000602

Shell Mill for OFMT 070405 TN							
Cutter Designation	D	D1	d	L	Ap	z	Catalog Nr.
LT 810 M-D-D080/6*	92	80	27	50	4.5	6	M2000707
LT 810 M-D-D100/7*	112	100	32	50	4.5	7	M2000708
LT 810 M-D-D125/8*	137	125	40	63	4.5	8	M2000709

* On request

Screw: M2002733

Key: M2000603



OFMT 050405 TR – LT 30 | LT 3000

Material Group	Gr. N°	VDI Group	Material Examples	Hardness	D.O.C (mm)		Feed (mm/rev)		V _c (m/min)		Suggested Starting Parameters		
					min	max	min	max	min	max	D.O.C	Feed	V _c
Steel	Non Alloyed	1	C35, Ck45, 1020, 1045, 1060, 28Mn6	125 HB	0.5	3.5	0.22	0.51	190	330	2.5	0.37	250
				190 HB	0.5	3.5	0.22	0.51	190	300	2.5	0.37	220
				250 HB	0.5	3.5	0.22	0.51	190	250	2.5	0.37	200
	Low Alloyed	2	42CrMo4, S150, Ck60, 4140, 4340, 100Cr6	180 HB	0.5	3.5	0.18	0.40	150	240	2.5	0.32	200
				230 HB	0.5	3.5	0.18	0.40	150	210	2.5	0.32	180
				280 HB	0.5	3.5	0.18	0.35	130	190	2.5	0.29	150
				350 HB	0.5	3.5	0.18	0.35	130	170	2.5	0.29	140
	High Alloyed	3	X40CrMoV5, H13, M42, D3, S6-5-2, 12N19	220 HB	0.5	2.5	0.14	0.35	90	150	1.9	0.29	130
				280 HB	0.5	2.5	0.14	0.35	90	130	1.9	0.29	120
				320 HB	0.5	2.5	0.14	0.29	60	110	1.9	0.26	100
				350 HB	0.5	2.5	0.14	0.29	60	90	1.9	0.26	80
Stainless Steel	Austenitic	4	304, 316, X5CrNi18-9	180 HB	0.5	3.5	0.18	0.35	190	250	2.5	0.29	220
				240 HB	0.5	3.5	0.14	0.32	160	210	2.5	0.29	190
	Duplex	5	X2CrNiN23-4, S31500	290 HB	0.5	2.5	0.14	0.29	70	130	1.9	0.26	100
				310 HB	0.5	2.5	0.14	0.29	70	120	1.9	0.26	90
	Ferritic & Martensitic	6	410, X6Cr17, 17-4 PH, 430	200 HB	0.5	3.5	0.18	0.35	150	210	2.5	0.29	190
				42 HRc	0.5	2.5	0.18	0.32	90	150	1.9	0.26	130
Cast Iron	Grey	7	GG20, GG40, EN-GJL-250, No30B	150 HB	0.5	3.5	0.22	0.51	150	240	2.5	0.37	200
				200 HB	0.5	3.5	0.22	0.51	150	220	2.5	0.37	180
				250 HB	0.5	3.5	0.22	0.51	150	190	2.5	0.37	160
Malleable & Nodular	8	GGG40, GGG70, 50005	150 HB	0.5	3.5	0.18	0.45	100	200	2.5	0.32	180	
			200 HB	0.5	3.5	0.18	0.45	100	180	2.5	0.32	150	
			250 HB	0.5	3.5	0.18	0.45	100	150	2.5	0.32	130	
High Temp. Alloys	Fe, Ni & Co Based	9	31,32 Incoloy 800	240 HB	0.5	2.5	0.14	0.29	25	45	1.9	0.26	32
			33 Inconel 700	250 HB	0.5	2.5	0.14	0.29	25	45	1.9	0.26	30
			34 Stellite 21	350 HB	0.5	2.5	0.14	0.29	25	45	1.9	0.26	30
	Ti Based	10	36 TiAl6V4	-	0.5	2.5	0.14	0.32	40	65	1.9	0.29	55
			37 T40	-	0.5	2.5	0.14	0.29	30	55	1.9	0.26	40
Hardened Mat.	Steel	11	X100CrMo13, 440C, G-X260NiCr42	45 HRc	0.4	1.3	0.12	0.29	40	80	1.1	0.22	60
				50 HRc	0.4	1.0	0.12	0.26	40	70	0.9	0.21	55
				55 HRc	0.4	0.8	0.12	0.22	40	60	0.6	0.19	50
	Chilled Cast Iron	40	Ni-Hard 2	400 HB	0.4	1.0	0.12	0.29	40	80	0.9	0.22	50
				55 HRc	0.4	0.8	0.12	0.22	30	60	0.6	0.19	40
	White Cast Iron	41	G-X300CrMo15	55 HRc	0.4	0.8	0.12	0.22	30	60	0.6	0.19	40
Al (>8%Si)	12	25	AlSi12	130 HB	0.5	3.5	0.22	0.51	200	400	2.5	0.40	280

OFMT 05T305 TN – LT 30 | LT 3000

Material Group	Gr. N°	VDI Group	Material Examples	Hardness	D.O.C [mm]		Feed [mm/rev]		V _c [m/min]		Suggested Starting Parameters			
					min	max	min	max	min	max	D.O.C	Feed	V _c	
Steel	Non Alloyed	1	C35, Ck45, 1020, 1045, 1060, 28Mn6	125 HB	0.5	3.5	0.22	0.51	190	330	2.5	0.37	250	
		2		190 HB	0.5	3.5	0.22	0.51	190	300	2.5	0.37	220	
		3		250 HB	0.5	3.5	0.22	0.51	190	250	2.5	0.37	200	
	Low Alloyed	2	42CrMo4, S150, Ck60, 4140, 4340, 100Cr6	180 HB	0.5	3.5	0.18	0.40	150	240	2.5	0.32	200	
		4,6		230 HB	0.5	3.5	0.18	0.40	150	210	2.5	0.32	180	
		5,7		280 HB	0.5	3.5	0.18	0.35	130	190	2.5	0.29	150	
		8		350 HB	0.5	3.5	0.18	0.35	130	170	2.5	0.29	140	
	High Alloyed	3	X40CrMoV5, H13, M42, D3, S6-5-2, 12N19	220 HB	0.5	2.5	0.14	0.35	90	150	1.9	0.29	130	
		10		280 HB	0.5	2.5	0.14	0.35	90	130	1.9	0.29	120	
		11		320 HB	0.5	2.5	0.14	0.29	60	110	1.9	0.26	100	
		11		350 HB	0.5	2.5	0.14	0.29	60	90	1.9	0.26	80	
Stainless Steel	Austenitic	4	304, 316, X5CrNi18-9	180 HB	0.5	3.5	0.18	0.35	190	250	2.5	0.29	220	
		14		240 HB	0.5	3.5	0.14	0.32	160	210	2.5	0.29	190	
	Duplex	5	X2CrNi23-4, S31500	290 HB	0.5	2.5	0.14	0.29	70	130	1.9	0.26	100	
		14		310 HB	0.5	2.5	0.14	0.29	70	120	1.9	0.26	90	
	Ferritic & Martensitic	6	410, X6Cr17, 17-4 PH, 430	200 HB	0.5	3.5	0.18	0.35	150	210	2.5	0.29	190	
		13		42 HRc	0.5	2.5	0.18	0.32	90	150	1.9	0.26	130	
Cast Iron	Grey	7	GG20, GG40, EN-GJL-250, No30B	150 HB	0.5	3.5	0.22	0.51	150	240	2.5	0.37	200	
		15		200 HB	0.5	3.5	0.22	0.51	150	220	2.5	0.37	180	
		16		250 HB	0.5	3.5	0.22	0.51	150	190	2.5	0.37	160	
	Malleable & Nodular	8	GGG40, GGG70, 50005	150 HB	0.5	3.5	0.18	0.45	100	200	2.5	0.32	180	
		17,19		200 HB	0.5	3.5	0.18	0.45	100	180	2.5	0.32	150	
		18,20		250 HB	0.5	3.5	0.18	0.45	100	150	2.5	0.32	130	
High Temp. Alloys	Fe, Ni & Co Based	9	Incoloy 800, Inconel 700, Stellite 21	240 HB	0.5	2.5	0.14	0.29	25	45	1.9	0.26	32	
		33		250 HB	0.5	2.5	0.14	0.29	25	45	1.9	0.26	30	
		34		350 HB	0.5	2.5	0.14	0.29	25	45	1.9	0.26	30	
	Ti Based	10	TiAl6V4, T40	-	0.5	2.5	0.14	0.32	40	65	1.9	0.29	55	
37		-		0.5	2.5	0.14	0.29	30	55	1.9	0.26	40		
Hardened Mat.	Steel	11	X100CrMo13, 440C, G-X260NiCr42	45 HRc	0.4	1.3	0.12	0.29	40	80	1.1	0.22	60	
		38		50 HRc	0.4	1.0	0.12	0.26	40	70	0.9	0.21	55	
		38		55 HRc	0.4	0.8	0.12	0.22	40	60	0.6	0.19	50	
	Chilled Cast Iron White Cast Iron	40	Ni-Hard 2	400 HB	0.4	1.0	0.12	0.29	40	80	0.9	0.22	50	
		41	G-X300CrMo15	55 HRc	0.4	0.8	0.12	0.22	30	60	0.6	0.19	40	
NF	Al (>8%Si)	12	25	AlSi12	130 HB	0.5	3.5	0.22	0.51	200	400	2.5	0.40	280

OFMT 070405 TN – LT 30 | LT 3000

Material Group	Gr. N°	VDI Group	Material Examples	Hardness	D.O.C (mm)		Feed (mm/rev)		V _c (m/min)		Suggested Starting Parameters				
					min	max	min	max	min	max	D.O.C	Feed	V _c		
Steel	Non Alloyed	1	1	C35, Ck45,	125 HB	0.5	4.5	0.22	0.51	190	330	3.0	0.37	250	
		2	2	1020, 1045,	190 HB	0.5	4.5	0.22	0.51	190	300	3.0	0.37	220	
		3	3	1060, 28Mn6	250 HB	0.5	4.5	0.22	0.51	190	250	3.0	0.37	200	
	Low Alloyed	2	6	4	42CrMo4,	180 HB	0.5	4.5	0.18	0.40	150	240	3.0	0.32	200
			4,6	5	S150, Ck60,	230 HB	0.5	4.5	0.18	0.40	150	210	3.0	0.32	180
			5,7	6	4140, 4340,	280 HB	0.5	4.5	0.18	0.35	130	190	3.0	0.29	150
			8	7	100Cr6	350 HB	0.5	4.5	0.18	0.35	130	170	3.0	0.29	140
	High Alloyed	3	10	8	X40CrMoV5,	220 HB	0.5	3.2	0.14	0.35	90	150	2.2	0.29	130
			10	9	H13, M42, D3,	280 HB	0.5	3.2	0.14	0.35	90	130	2.2	0.29	120
			11	10	S6-5-2, 12Ni19	320 HB	0.5	3.2	0.14	0.29	60	110	2.2	0.26	100
			11	11		350 HB	0.5	3.2	0.14	0.29	60	90	2.2	0.26	80
Stainless Steel	Austenitic	4	14	304, 316,	180 HB	0.5	4.5	0.18	0.35	190	250	3.0	0.29	220	
			14	X5CrNi18-9	240 HB	0.5	4.5	0.14	0.32	160	210	3.0	0.29	190	
	Duplex	5	14	X2CrNi23-4,	290 HB	0.5	3.2	0.14	0.29	70	130	2.2	0.26	100	
			14	S31500	310 HB	0.5	3.2	0.14	0.29	70	120	2.2	0.26	90	
	Ferritic & Martensitic	6	12	410, X6Cr17,	200 HB	0.5	4.5	0.18	0.35	150	210	3.0	0.29	190	
			13	17-4 PH, 430	42 HRc	0.5	3.2	0.18	0.32	90	150	2.2	0.26	130	
Cast Iron	Grey	7	15	GG20, GG40,	150 HB	0.5	4.5	0.22	0.51	150	240	3.0	0.37	200	
			15	EN-GJL-250,	200 HB	0.5	4.5	0.22	0.51	150	220	3.0	0.37	180	
			16	No30B	250 HB	0.5	4.5	0.22	0.51	150	190	3.0	0.37	160	
Malleable & Nodular	8	17,19	GGG40, GGG70,	150 HB	0.5	4.5	0.18	0.45	100	200	3.0	0.32	180		
		17,19	50005	200 HB	0.5	4.5	0.18	0.45	100	180	3.0	0.32	150		
		18,20		250 HB	0.5	4.5	0.18	0.45	100	150	3.0	0.32	130		
High Temp. Alloys	Fe, Ni & Co Based	9	31,32	Incoloy 800	240 HB	0.5	3.2	0.14	0.29	25	45	2.2	0.26	32	
			33	Inconel 700	250 HB	0.5	3.2	0.14	0.29	25	45	2.2	0.26	30	
			34	Stellite 21	350 HB	0.5	3.2	0.14	0.29	25	45	2.2	0.26	30	
	Ti Based	10	36	TiAl6V4	-	0.5	3.2	0.14	0.32	40	65	2.2	0.29	55	
			37	T40	-	0.5	3.2	0.14	0.29	30	55	2.2	0.26	40	
Hardened Mat.	Steel	11	38	X100CrMo13,	45 HRc	0.4	1.6	0.12	0.29	40	80	1.3	0.22	60	
			38	440C,	50 HRc	0.4	1.3	0.12	0.26	40	70	0.9	0.21	55	
			38	G-X260NiCr42	55 HRc	0.4	1.0	0.12	0.22	40	60	0.7	0.19	50	
	Chilled Cast Iron	40	Ni-Hard 2	400 HB	0.4	1.3	0.12	0.29	40	80	0.9	0.22	50		
			White Cast Iron	41	G-X300CrMo15	55 HRc	0.4	1.0	0.12	0.22	30	60	0.7	0.19	40
Al (>8%Si)	12	25	AlSi12	130 HB	0.5	4.5	0.22	0.51	200	400	3.0	0.40	280		



O

N

K

X



Shape



Clearance Angle



Tolerance

$s \pm 0.13$
For $l = 05$, $d \pm 0.08$ $m \pm 0.13$
For $l = 07$, $d \pm 0.10$ $m \pm 0.15$

Fixing,
Chipbreaker

LT 30 Multi-Mat™ General Usage – Standard					
Insert Designation	l	s	r	Direction	Catalog Nr.
ONKX 0806-45 LT 30	8.36	5.80	0.8	Neutral	M0003673

LT 3000 Multi-Mat™ General Usage – Premium					
Insert Designation	l	s	r	Direction	Catalog Nr.
ONKX 0806-45 LT 30	8.36	5.80	0.8	Neutral	M0002211

Application Guide

Chamfering



Surfacing

Machining
Recommendations

$\nearrow F \Rightarrow$
 \nearrow Productivity

Coolant	1, 2, 3, 4	No
	6, 7, 8, 11	No
	10, 12	Yes
	5, 9	Yes

Stainless Steel

$\nearrow V_C$

Shell Mill for ONKX 0806-45°							
Cutter Designation	D	D1	d	L	Ap	z	Catalog Nr.
LT 987 M-W-D063/5	75.7	63	22	50	5	5	M2003631
LT 987 M-W-D080/6	92.7	80	27	50	5	6	M2003632
LT 987 M-W-D100/7	112.7	100	32	50	5	7	M2003633
LT 987 M-W-D125/8	137.7	125	40	63	5	8	M2003634
LT 987 M-D-D160/10 ¹	172.7	160	40	63	5	10	M2003635
LT 987 M-D-D200/12* ¹	212.7	200	60	63	5	12	M2003636
LT 987 M-D-D250/14* ¹	262.7	250	60	63	5	14	M2003637

* On request

¹ Accessories available for coolant:

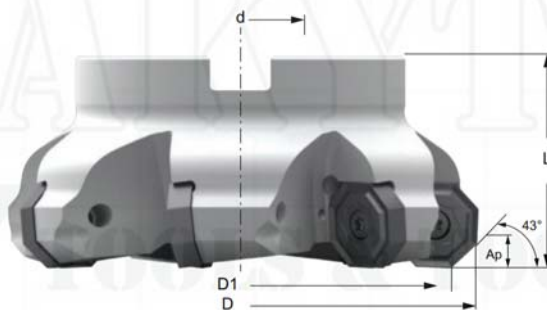
M2003635: M2004024

M2003636-7: M2001847

Screw: M2000599

Key: M2000603

ONKX



ONKX 0806-45 – LT 30 | LT 3000

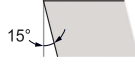
Material Group	Gr. N°	VDI Group	Material Examples	Hardness	D.O.C [mm]		Feed [mm/rev]		V _c [m/min]		Suggested Starting Parameters			
					min	max	min	max	min	max	D.O.C	Feed	V _c	
Steel	Non Alloyed	1	C35, Ck45, 1020, 1045, 1060, 28Mn6	125 HB	0.5	4.0	0.16	0.58	190	330	3.0	0.46	250	
		2		190 HB	0.5	4.0	0.16	0.58	190	300	3.0	0.46	220	
		3		250 HB	0.5	4.0	0.16	0.58	190	250	3.0	0.46	200	
	Low Alloyed	2	42CrMo4, S150, Ck60, 4140, 4340, 100Cr6	180 HB	0.5	4.0	0.14	0.50	150	240	3.0	0.40	200	
		4,6		230 HB	0.5	4.0	0.14	0.50	150	210	3.0	0.40	180	
		5,7		280 HB	0.5	4.0	0.14	0.44	130	190	3.0	0.36	150	
		8		350 HB	0.5	4.0	0.14	0.44	130	170	3.0	0.36	140	
	High Alloyed	3	X40CrMoV5, H13, M42, D3, S6-5-2, 12Ni19	220 HB	0.5	4.0	0.11	0.44	90	150	3.0	0.36	130	
		10		280 HB	0.5	4.0	0.11	0.44	90	130	3.0	0.36	120	
		11		320 HB	0.5	4.0	0.11	0.36	60	110	3.0	0.32	100	
		11		350 HB	0.5	4.0	0.11	0.36	60	90	3.0	0.32	80	
Stainless Steel	Austenitic	4	304, 316, X5CrNi18-9	180 HB	0.5	1.5	0.14	0.44	190	250	1.2	0.34	220	
		14		240 HB	0.5	1.5	0.11	0.40	160	210	1.2	0.34	190	
	Duplex	5	X2CrNi23-4, S31500	290 HB	0.5	1.5	0.11	0.36	70	130	1.2	0.30	100	
		14		310 HB	0.5	1.5	0.11	0.36	70	120	1.2	0.30	90	
	Ferritic & Martensitic	6	410, X6Cr17, 17-4 PH, 430	200 HB	0.5	1.5	0.14	0.44	150	210	1.2	0.34	190	
		13		42 HRc	0.5	1.5	0.14	0.40	90	150	1.2	0.30	130	
Cast Iron	Grey	7	GG20, GG40, EN-GJL-250, No30B	150 HB	0.5	4.0	0.17	0.58	150	240	4.0	0.46	200	
		15		200 HB	0.5	4.0	0.17	0.58	150	220	4.0	0.46	180	
		16		250 HB	0.5	4.0	0.17	0.58	150	190	4.0	0.46	160	
	Malleable & Nodular	8	GGG40, GGG70, 50005	150 HB	0.5	4.0	0.14	0.52	100	200	4.0	0.40	180	
		17,19		200 HB	0.5	4.0	0.14	0.52	100	180	4.0	0.40	150	
		18,20		250 HB	0.5	4.0	0.14	0.52	100	150	4.0	0.40	130	
High Temp. Alloys	Fe, Ni & Co Based	9	Incoloy 800, Inconel 700, Stellite 21	240 HB	0.5	1.5	0.11	0.36	25	45	1.2	0.30	32	
		33		250 HB	0.5	1.5	0.11	0.36	25	45	1.2	0.30	30	
		34		350 HB	0.5	1.5	0.11	0.36	25	45	1.2	0.30	30	
	Ti Based	10	TiAl6V4, T40	-	0.5	1.5	0.11	0.40	40	65	1.2	0.34	55	
37		-		0.5	1.5	0.11	0.36	30	55	1.2	0.30	40		
Hardened Mat.	Steel	11	X100CrMo13, 440C, G-X260NiCr42	45 HRc	0.4	3.0	0.10	0.36	40	80	2.0	0.28	60	
		38		50 HRc	0.4	3.0	0.10	0.32	40	70	1.0	0.26	55	
		38		55 HRc	0.4	1.5	0.10	0.28	40	60	0.5	0.24	50	
	Chilled Cast Iron White Cast Iron	40	Ni-Hard 2	400 HB	0.4	3.0	0.10	0.36	40	80	1.5	0.28	50	
		41	G-X300CrMo15	55 HRc	0.4	1.5	0.10	0.28	30	60	0.5	0.24	40	
	NF	Al (>8%Si)	12	25	AlSi12	130 HB	0.5	1.5	0.17	0.60	200	400	1.5	0.50



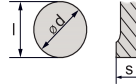
R D M T



Shape

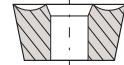


Clearance Angle



Tolerance

$s \pm 0.13$
For $l = 06/08/10$, $d \pm 0.05$
For $l = 12$, $d \pm 0.08$

Fixing,
Chipbreaker

RDMT

LT 30 Multi-Mat™ General Usage – Standard						
Insert Designation	l	s	r	Direction	Catalog Nr.	
RDMT 0602 M0 LT 30	6	2.38	-	Neutral	M0000035	
RDMT 0702 M0 LT 30	7	2.38	-	Neutral	M0001882	
RDMT 0803 M0 LT 30	8	3.18	-	Neutral	M0000037	
RDMT 1003 M0 LT 30	10	3.18	-	Neutral	M0001875	
RDMT 10T3 M0 LT 30	10	3.97	-	Neutral	M0000038	
RDMT 12T3 M0 LT 30	12	3.97	-	Neutral	M0001876	
RDMT 1204 M0 LT 30	12	4.76	-	Neutral	M0000039	
RDMT 1604 M0 LT 30	16	4.76	-	Neutral	M0001881	

Application Guide

Copying



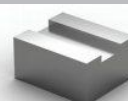
Helical Interpolation



Pocket Milling



Slotting



Surfacing

Machining
Recommendations

$\nearrow F \Rightarrow$
 \nearrow Productivity

1, 2, 3, 4 No
6, 7, 8, 11 No
10, 12 Yes
Coolant 5, 9 Yes

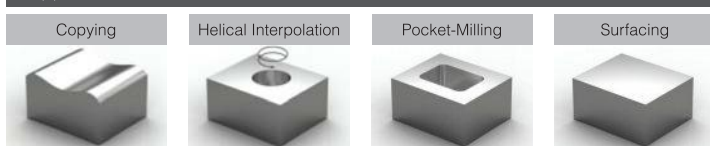
Stainless Steel

$\nearrow V_C$

R D M T


LT 3000 Multi-Mat™ General Usage – Premium						
Insert Designation	l	s	r	Direction	Catalog Nr.	
RDMT 0602 M0 LT 3000	6	2.38	-	Neutral	M0003403	
RDMT 0702 M0 LT 3000	7	2.38	-	Neutral	M0003404	
RDMT 0803 M0 LT 3000	8	3.18	-	Neutral	M0003405	
RDMT 1003 M0 LT 3000	10	3.18	-	Neutral	M0002224	
RDMT 10T3 M0 LT 3000	10	3.97	-	Neutral	M0002225	
RDMT 12T3 M0 LT 3000	12	3.97	-	Neutral	M0002226	
RDMT 1204 M0 LT 3000	12	4.76	-	Neutral	M0002227	
RDMT 1604 M0 LT 3000	16	4.76	-	Neutral	M0003407	

Application Guide



Machining Recommendations

F ⇒
↑ **Productivity**

	1, 2, 3, 4	No
	6, 7, 8, 11	No
	10, 12	Yes
Coolant	5, 9	Yes

Stainless Steel
↑ **V_C**

End Mill for RDMT 0602 M0

Cutter Designation	D	D1	d	L	L1	Ap	z	α	Catalog Nr.
LT 060 WL-W-D012/2	12	6	16	150	25	3	2	7	M2003321
LT 060 WL-W-D016/2	16	10	16	150	25	3	2	6	M2000676
LT 060 WL-W-D020/3	20	14	20	180	60	3	3	4.5	M2000677
LT 060 WL-W-D025/3	25	19	25	180	80	3	3	4	M2000678

Screw: M2001416

Key: M2002912

End Mill for RDMT 0704 M0

Cutter Designation	D	D1	d	L	L1	Ap	z	α	Catalog Nr.
LT 070 WL-W-D016/2	16	9	16	150	25	3.5	2	6	M2003336
LT 070 WL-W D020/3	20	13	20	180	60	3.5	3	4.5	M2003337
LT 070 WL-W D025/4	25	18	25	180	60	3.5	4	4	M2003339

Screw: M2001416

Key: M2002912

End Mill for RDMT 0803 M0

Cutter Designation	D	D1	d	L	L1	Ap	z	α	Catalog Nr.
LT 080 WL-W-D016/2	16	8	16	150	25	4	2	12	M2003322
LT 080 WL-W-D020/2	20	12	16	180	42	4	2	6	M2000679
LT 080 WL-W-D025/3	25	17	20	180	60	4	3	4.5	M2000680
LT 080 WL-W-D032/3	32	24	25	180	80	4	3	4	M2000681

Screw: M2002181

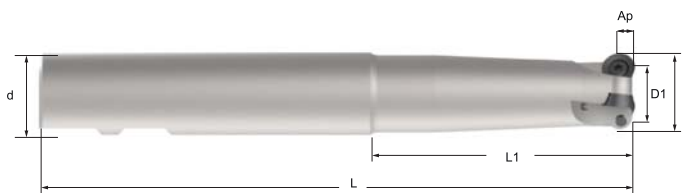
Key: M2002912

End Mill for RDMT 10T3 M0

Cutter Designation	D	D1	d	L	L1	Ap	z	α	Catalog Nr.
LT 100 WL-W-D020/2	20	10	20	180	80	5	2	12	M2000683
LT 100 WL-W D025/3	25	15	25	180	60	5	3	8	M2000684
LT 100 WL-W D032/3	32	22	32	180	80	5	3	5	M2000685

Screw: M2000597

Key: M2000602

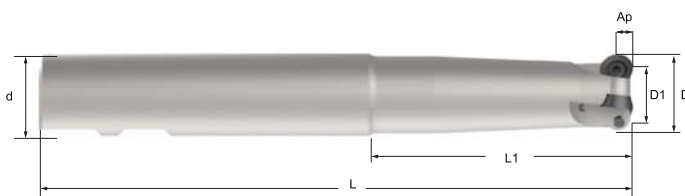


End Mill for RDMT 1204 M0

Cutter Designation	D	D1	d	L	L1	Ap	z	α	Catalog Nr.
LT 120 WL-W-D032/3	32	20	32	170	60	6	3	5	M2003323
LT 120 WL-W-D040/4	40	28	32	170	110	6	4	7	M2000687

Screw: M2000597

Key: M2000602



Shell Mill for RDMT 1204 M0

Cutter Designation	D	D1	d	L	Ap	z	α	Catalog Nr.
LT 120 M-W-D040/4	40	28	16	40	6	4	7	M2000691
LT 120 M-W-D050/4	50	38	22	40	6	4	5	M2001780
LT 120 M-W-D063/5	63	51	22	40	6	5	3.5	M2000689
LT 120 M-W-D080/6	80	68	27	50	6	6	2.5	M2000690
LT 120 M-W-D100/7	100	88	40	50	6	7	1.5	M2000688

Screw: M2000597

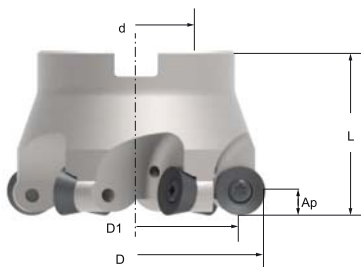
Key: M2000602

Shell Mill for RDMT 1604 M0

Cutter Designation	D	D1	d	L	Ap	z	α	Catalog Nr.
LT 160 M-W-D050/4	50	34	22	50	6	4	5	M2003331
LT 160 M-W-D063/5	63	47	22	50	6	5	3.5	M2003332
LT 160 M-W-D080/6	80	64	27	50	6	6	2.5	M2003333
LT 160 M-W-D100/7	100	84	32	50	6	7	2	M2003334
LT 160 M-W-D125/8	125	109	40	63	6	8	1	M2003335

Screw: M2000599

Key: M2000603



RDMT 0602 M0 – LT 30 | LT 3000

Material Group	Gr. N°	VDI Group	Material Examples	Hardness	D.O.C (mm)		Feed [mm/rev]		V _c [m/min]		Suggested Starting Parameters			
					min	max	min	max	min	max	D.O.C	Feed	V _c	
Steel	Non Alloyed	1	1	C35, Ck45,	125 HB	0.5	1.5	0.18	0.48	190	330	0.8	0.29	250
			2	1020, 1045,	190 HB	0.5	1.5	0.18	0.48	190	300	0.8	0.29	220
			3	1060, 28Mn6	250 HB	0.5	1.5	0.18	0.48	190	250	0.8	0.29	200
	Low Alloyed	2	6	42CrMo4,	180 HB	0.5	1.5	0.15	0.38	150	240	0.8	0.25	200
			4,6	S150, Ck60,	230 HB	0.5	1.5	0.15	0.38	150	210	0.8	0.25	180
			5,7	4140, 4340,	280 HB	0.5	1.5	0.15	0.33	130	190	0.8	0.23	150
			8	100Cr6	350 HB	0.5	1.5	0.15	0.33	130	170	0.8	0.23	140
	High Alloyed	3	10	X40CrMoV5, H13, M42, D3, S6-5-2, 12N19	220 HB	0.5	1.1	0.12	0.33	90	150	0.6	0.23	130
			10		280 HB	0.5	1.1	0.12	0.33	90	130	0.6	0.23	120
			11		320 HB	0.5	1.1	0.12	0.27	60	110	0.6	0.20	100
			11		350 HB	0.5	1.1	0.12	0.27	60	90	0.6	0.20	80
Stainless Steel	Austenitic	4	304, 316, X5CrNi18-9	180 HB	0.5	1.5	0.15	0.38	190	250	0.8	0.25	220	
				240 HB	0.5	1.5	0.12	0.33	160	210	0.8	0.25	190	
	Duplex	5	X2CrNi23-4, S31500	290 HB	0.5	1.2	0.12	0.27	70	130	0.6	0.20	100	
				310 HB	0.5	1.2	0.12	0.27	70	120	0.6	0.20	90	
	Ferritic & Martensitic	6	410, X6Cr17, 17-4 PH, 430	200 HB	0.5	1.5	0.15	0.38	150	210	0.8	0.25	190	
				42 HRc	0.5	1.2	0.15	0.30	90	150	0.6	0.20	130	
Cast Iron	Grey	7	GG20, GG40, EN-GJL-250, No30B	150 HB	0.5	1.5	0.18	0.48	150	240	0.8	0.29	200	
				200 HB	0.5	1.5	0.18	0.48	150	220	0.8	0.29	180	
				250 HB	0.5	1.5	0.18	0.48	150	190	0.8	0.29	160	
	Malleable & Nodular	8	GGG40, GGG70, 50005	150 HB	0.5	1.5	0.15	0.42	100	200	0.8	0.25	180	
				200 HB	0.5	1.5	0.15	0.42	100	180	0.8	0.25	150	
				250 HB	0.5	1.5	0.15	0.42	100	150	0.8	0.25	130	
High Temp. Alloys	Fe, Ni & Co Based	9	31,32	Incoloy 800	240 HB	0.5	1.2	0.12	0.27	25	45	0.6	0.20	32
			33	Inconel 700	250 HB	0.5	1.2	0.12	0.27	25	45	0.6	0.20	30
			34	Stellite 21	350 HB	0.5	1.2	0.12	0.27	25	45	0.6	0.20	30
	Ti Based	10	36	TiAl6V4	-	0.5	1.2	0.12	0.30	40	65	0.6	0.23	55
			37	T40	-	0.5	1.2	0.12	0.27	30	55	0.6	0.20	40
Hardened Mat.	Steel	11	38	X100CrMo13,	45 HRc	0.3	0.6	0.10	0.27	40	80	0.4	0.18	60
			38	440C,	50 HRc	0.3	0.4	0.10	0.24	40	70	0.3	0.16	55
			38	G-X260NiCr42	55 HRc	0.3	0.4	0.10	0.21	40	60	0.3	0.15	50
	Chilled Cast Iron	40	Ni-Hard 2	400 HB	0.3	0.4	0.10	0.27	40	80	0.3	0.18	50	
				41	G-X300CrMo15	55 HRc	0.3	0.4	0.10	0.21	30	60	0.3	0.15
White Cast Iron														
Al (>8%Si)	12	25	AlSi12	130 HB	0.5	1.5	0.18	0.48	200	400	0.8	0.31	280	

RDMT 0702 M0 – LT 30 | LT 3000

Material Group	Gr. №	VDI Group	Material Examples	Hardness	D.O.C [mm]		Feed [mm/rev]		V _c [m/min]		Suggested Starting Parameters		
					min	max	min	max	min	max	D.O.C	Feed	V _c
Steel	Non Alloyed	1	C35, Ck45, 1020, 1045, 1060, 28Mn6	125 HB	0.5	1.8	0.18	0.54	190	330	0.8	0.32	250
		2		190 HB	0.5	1.8	0.18	0.54	190	300	0.8	0.32	220
		3		250 HB	0.5	1.8	0.18	0.54	190	250	0.8	0.32	200
	Low Alloyed	2	42CrMo4, S150, Ck60, 4140, 4340, 100Cr6	180 HB	0.5	1.8	0.15	0.43	150	240	0.8	0.28	200
		4,6		230 HB	0.5	1.8	0.15	0.43	150	210	0.8	0.28	180
		5,7		280 HB	0.5	1.8	0.15	0.37	130	190	0.8	0.25	150
		8		350 HB	0.5	1.8	0.15	0.37	130	170	0.8	0.25	140
	High Alloyed	3	X40CrMoV5, H13, M42, D3, S6-5-2, 12Ni19	220 HB	0.5	1.3	0.12	0.37	90	150	0.6	0.25	130
		10		280 HB	0.5	1.3	0.12	0.37	90	130	0.6	0.25	120
		11		320 HB	0.5	1.3	0.12	0.31	60	110	0.6	0.22	100
		11		350 HB	0.5	1.3	0.12	0.31	60	90	0.6	0.22	80
Stainless Steel	Austenitic	4	304, 316, X5CrNi18-9	180 HB	0.5	1.8	0.15	0.43	190	250	0.8	0.28	220
		14		240 HB	0.5	1.8	0.12	0.37	160	210	0.8	0.28	190
	Duplex	5	X2CrNi23-4, S31500	290 HB	0.5	1.4	0.12	0.31	70	130	0.6	0.22	100
		14		310 HB	0.5	1.4	0.12	0.31	70	120	0.6	0.22	90
	Ferritic & Martensitic	6	410, X6Cr17, 17-4 PH, 430	200 HB	0.5	1.8	0.15	0.43	150	210	0.8	0.28	190
		13		42 HRc	0.5	1.4	0.15	0.34	90	150	0.6	0.22	130
Cast Iron	Grey	7	GG20, GG40, EN-GJL-250, No30B	150 HB	0.5	1.8	0.18	0.54	150	240	0.8	0.32	200
		15		200 HB	0.5	1.8	0.18	0.54	150	220	0.8	0.32	180
		16		250 HB	0.5	1.8	0.18	0.54	150	190	0.8	0.32	160
	Malleable & Nodular	8	GGG40, GGG70, 50005	150 HB	0.5	1.8	0.15	0.48	100	200	0.8	0.28	180
		17,19		200 HB	0.5	1.8	0.15	0.48	100	180	0.8	0.28	150
		18,20		250 HB	0.5	1.8	0.15	0.48	100	150	0.8	0.28	130
High Temp. Alloys	Fe, Ni & Co Based	9	Incoloy 800, Inconel 700, Stellite 21	240 HB	0.5	1.4	0.12	0.31	25	45	0.6	0.22	32
		33		250 HB	0.5	1.4	0.12	0.31	25	45	0.6	0.22	30
		34		350 HB	0.5	1.4	0.12	0.31	25	45	0.6	0.22	30
	Ti Based	10	TiAl6V4, T40	-	0.5	1.4	0.12	0.34	40	65	0.6	0.25	55
37		-		0.5	1.4	0.12	0.31	30	55	0.6	0.22	40	
Hardened Mat.	Steel	11	X100CrMo13, 440C, G-X260NiCr42	45 HRc	0.3	0.7	0.10	0.31	40	80	0.4	0.20	60
		38		50 HRc	0.3	0.5	0.10	0.27	40	70	0.3	0.18	55
		38		55 HRc	0.3	0.5	0.10	0.24	40	60	0.3	0.17	50
	Chilled Cast Iron	40	Ni-Hard 2	400 HB	0.3	0.5	0.10	0.31	40	80	0.3	0.20	50
		41	G-X300CrMo15	55 HRc	0.3	0.5	0.10	0.24	30	60	0.3	0.17	40
	White Cast Iron	12	25	AlSi12	130 HB	0.5	1.8	0.18	0.54	200	400	0.8	0.35

RDMT 0803 M0 – LT 30 | LT 3000

Material Group	Gr. N°	VDI Group	Material Examples	Hardness	D.O.C (mm)		Feed [mm/rev]		V _c [m/min]		Suggested Starting Parameters		
					min	max	min	max	min	max	D.O.C	Feed	V _c
Steel	1	1	C35, Ck45,	125 HB	0.5	2.0	0.18	0.58	190	330	0.8	0.35	250
		2	1020, 1045,	190 HB	0.5	2.0	0.18	0.58	190	300	0.8	0.35	220
		3	1060, 28Mn6	250 HB	0.5	2.0	0.18	0.58	190	250	0.8	0.35	200
	2	6	42CrMo4, Sf50, Ck60, 4140, 4340, 100Cr6	180 HB	0.5	2.0	0.15	0.45	150	240	0.8	0.30	200
		4,6		230 HB	0.5	2.0	0.15	0.45	150	210	0.8	0.30	180
		5,7		280 HB	0.5	2.0	0.15	0.40	130	190	0.8	0.27	150
		8		350 HB	0.5	2.0	0.15	0.40	130	170	0.8	0.27	140
	3	10	X40CrMoV5, H13, M42, D3, S6-5-2, 12N19	220 HB	0.5	1.4	0.12	0.40	90	150	0.6	0.27	130
		10		280 HB	0.5	1.4	0.12	0.40	90	130	0.6	0.27	120
		11		320 HB	0.5	1.4	0.12	0.32	60	110	0.6	0.24	100
		11		350 HB	0.5	1.4	0.12	0.32	60	90	0.6	0.24	80
Stainless Steel	4	14	304, 316,	180 HB	0.5	2.0	0.15	0.45	190	250	0.8	0.30	220
		14	X5CrNi18-9	240 HB	0.5	2.0	0.12	0.40	160	210	0.8	0.30	190
	5	14	X2CrNiN23-4,	290 HB	0.5	1.5	0.12	0.32	70	130	0.6	0.24	100
		14	S31500	310 HB	0.5	1.5	0.12	0.32	70	120	0.6	0.24	90
	6	12	410, X6Cr17,	200 HB	0.5	2.0	0.15	0.45	150	210	0.8	0.30	190
		13	17-4 PH, 430	42 HRc	0.5	1.5	0.15	0.36	90	150	0.6	0.24	130
	7	15	GG20, GG40, EN-GJL-250, No30B	150 HB	0.5	2.0	0.18	0.58	150	240	0.8	0.35	200
		15		200 HB	0.5	2.0	0.18	0.58	150	220	0.8	0.35	180
		16		250 HB	0.5	2.0	0.18	0.58	150	190	0.8	0.35	160
	8	17,19	GGG40, GGG70, 50005	150 HB	0.5	2.0	0.15	0.50	100	200	0.8	0.30	180
17,19		200 HB		0.5	2.0	0.15	0.50	100	180	0.8	0.30	150	
18,20		250 HB		0.5	2.0	0.15	0.50	100	150	0.8	0.30	130	
High Temp. Alloys	9	31,32	Incoloy 800	240 HB	0.5	1.5	0.12	0.32	25	45	0.6	0.24	32
		33	Inconel 700	250 HB	0.5	1.5	0.12	0.32	25	45	0.6	0.24	30
		34	Stellite 21	350 HB	0.5	1.5	0.12	0.32	25	45	0.6	0.24	30
	10	36	TiAl6V4	-	0.5	1.5	0.12	0.36	40	65	0.6	0.27	55
		37	T40	-	0.5	1.5	0.12	0.32	30	55	0.6	0.24	40
	Hardened Mat.	11	38	X100CrMo13, 440C, G-X260NiCr42	45 HRc	0.3	0.7	0.10	0.32	40	80	0.4	0.21
38			50 HRc		0.3	0.6	0.10	0.29	40	70	0.3	0.20	55
38			55 HRc		0.3	0.5	0.10	0.25	40	60	0.3	0.18	50
40			Ni-Hard 2	400 HB	0.3	0.6	0.10	0.32	40	80	0.3	0.21	50
41			G-X300CrMo15	55 HRc	0.3	0.5	0.10	0.25	30	60	0.3	0.18	40
12			25	AlSi12	130 HB	0.5	2.0	0.18	0.58	200	400	0.8	0.38

RDMT 10T3 M0 – LT 30 | LT 3000

Material Group	Gr. №	VDI Group	Material Examples	Hardness	D.O.C [mm]		Feed [mm/rev]		V _c [m/min]		Suggested Starting Parameters		
					min	max	min	max	min	max	D.O.C	Feed	V _c
Steel	Non Alloyed	1	C35, Ck45, 1020, 1045, 1060, 28Mn6	125 HB	0.5	2.5	0.18	0.64	190	330	1.0	0.35	250
				190 HB	0.5	2.5	0.18	0.64	190	300	1.0	0.35	220
				250 HB	0.5	2.5	0.18	0.64	190	250	1.0	0.35	200
	Low Alloyed	2	42CrMo4, S150, Ck60, 4140, 4340, 100Cr6	180 HB	0.5	2.5	0.15	0.50	150	240	1.0	0.30	200
				230 HB	0.5	2.5	0.15	0.50	150	210	1.0	0.30	180
				280 HB	0.5	2.5	0.15	0.44	130	190	1.0	0.27	150
				350 HB	0.5	2.5	0.15	0.44	130	170	1.0	0.27	140
	High Alloyed	3	X40CrMoV5, H13, M42, D3, S6-5-2, 12Ni19	220 HB	0.5	1.8	0.12	0.44	90	150	0.8	0.27	130
				280 HB	0.5	1.8	0.12	0.44	90	130	0.8	0.27	120
				320 HB	0.5	1.8	0.12	0.36	60	110	0.8	0.24	100
				350 HB	0.5	1.8	0.12	0.36	60	90	0.8	0.24	80
Stainless Steel	Austenitic	4	304, 316, X5CrNi18-9	180 HB	0.5	2.5	0.15	0.50	190	250	1.0	0.30	220
				240 HB	0.5	2.5	0.12	0.44	160	210	1.0	0.30	190
	Duplex	5	X2CrNiN23-4, S31500	290 HB	0.5	2.0	0.12	0.36	70	130	0.8	0.24	100
				310 HB	0.5	2.0	0.12	0.36	70	120	0.8	0.24	90
	Ferritic & Martensitic	6	410, X6Cr17, 17-4 PH, 430	200 HB	0.5	2.5	0.15	0.50	150	210	1.0	0.30	190
				42 HRc	0.5	2.0	0.15	0.40	90	150	0.8	0.24	130
Cast Iron	Grey	7	GG20, GG40, EN-GJL-250, No30B	150 HB	0.5	2.5	0.18	0.64	150	240	1.0	0.35	200
				200 HB	0.5	2.5	0.18	0.64	150	220	1.0	0.35	180
				250 HB	0.5	2.5	0.18	0.64	150	190	1.0	0.35	160
	Malleable & Nodular	8	GGG40, GGG70, 50005	150 HB	0.5	2.5	0.15	0.56	100	200	1.0	0.30	180
				200 HB	0.5	2.5	0.15	0.56	100	180	1.0	0.30	150
				250 HB	0.5	2.5	0.15	0.56	100	150	1.0	0.30	130
High Temp. Alloys	Fe, Ni & Co Based	9	Incoloy 800, Inconel 700, Stellite 21	240 HB	0.5	2.0	0.12	0.36	25	45	0.8	0.24	32
				250 HB	0.5	2.0	0.12	0.36	25	45	0.8	0.24	30
				350 HB	0.5	2.0	0.12	0.36	25	45	0.8	0.24	30
	Ti Based	10	TiAl6V4, T40	-	0.5	2.0	0.12	0.40	40	65	0.8	0.27	55
				-	0.5	2.0	0.12	0.36	30	55	0.8	0.24	40
				-	0.5	2.0	0.12	0.36	30	55	0.8	0.24	40
Hardened Mat.	Steel	11	X100CrMo13, 440C, G-X260NiCr42	45 HRc	0.3	0.9	0.10	0.36	40	80	0.5	0.21	60
				50 HRc	0.3	0.7	0.10	0.32	40	70	0.4	0.20	55
				55 HRc	0.3	0.6	0.10	0.28	40	60	0.3	0.18	50
	Chilled Cast Iron	40	Ni-Hard 2	400 HB	0.3	0.7	0.10	0.36	40	80	0.4	0.21	50
				55 HRc	0.3	0.6	0.10	0.28	30	60	0.3	0.18	40
	White Cast Iron	41	G-X300CrMo15	55 HRc	0.3	0.6	0.10	0.28	30	60	0.3	0.18	40
Al (>8%Si)	12	25	AlSi12	130 HB	0.5	2.5	0.18	0.64	200	400	1.0	0.38	280

RDMT 1003 M0 – LT 30 | LT 3000

Material Group	Gr. N°	VDI Group	Material Examples	Hardness	D.O.C (mm)		Feed (mm/rev)		V _c (m/min)		Suggested Starting Parameters		
					min	max	min	max	min	max	D.O.C	Feed	V _c
Steel	1	1	C35, Ck45,	125 HB	0.5	2.5	0.18	0.64	190	330	1.0	0.35	250
		2	1020, 1045,	190 HB	0.5	2.5	0.18	0.64	190	300	1.0	0.35	220
		3	1060, 28Mn6	250 HB	0.5	2.5	0.18	0.64	190	250	1.0	0.35	200
	2	6	42CrMo4, S50, Ck60, 4140, 4340, 100Cr6	180 HB	0.5	2.5	0.15	0.50	150	240	1.0	0.30	200
		4,6		230 HB	0.5	2.5	0.15	0.50	150	210	1.0	0.30	180
		5,7		280 HB	0.5	2.5	0.15	0.44	130	190	1.0	0.27	150
		8		350 HB	0.5	2.5	0.15	0.44	130	170	1.0	0.27	140
	3	10	X40CrMoV5, H13, M42, D3, S6-5-2, 12N19	220 HB	0.5	1.8	0.12	0.44	90	150	0.8	0.27	130
		10		280 HB	0.5	1.8	0.12	0.44	90	130	0.8	0.27	120
		11		320 HB	0.5	1.8	0.12	0.36	60	110	0.8	0.24	100
		11		350 HB	0.5	1.8	0.12	0.36	60	90	0.8	0.24	80
4	14	304, 316,	180 HB	0.5	2.5	0.15	0.50	190	250	1.0	0.30	220	
	14	X5CrNi18-9	240 HB	0.5	2.5	0.12	0.44	160	210	1.0	0.30	190	
5	14	X2CrNiN23-4, S31500	290 HB	0.5	2.0	0.12	0.36	70	130	0.8	0.24	100	
	14	S31500	310 HB	0.5	2.0	0.12	0.36	70	120	0.8	0.24	90	
6	12	410, X6Cr17, 17-4 PH, 430	200 HB	0.5	2.5	0.15	0.50	150	210	1.0	0.30	190	
	13		42 HRc	0.5	2.0	0.15	0.40	90	150	0.8	0.24	130	
7	15	GG20, GG40,	150 HB	0.5	2.5	0.18	0.64	150	240	1.0	0.35	200	
	15	EN-GJL-250, No30B	200 HB	0.5	2.5	0.18	0.64	150	220	1.0	0.35	180	
	16		250 HB	0.5	2.5	0.18	0.64	150	190	1.0	0.35	160	
8	17,19	GGG40, GGG70, 50005	150 HB	0.5	2.5	0.15	0.56	100	200	1.0	0.30	180	
	17,19		200 HB	0.5	2.5	0.15	0.56	100	180	1.0	0.30	150	
	18,20		250 HB	0.5	2.5	0.15	0.56	100	150	1.0	0.30	130	
9	31,32	Incoloy 800	240 HB	0.5	2.0	0.12	0.36	25	45	0.8	0.24	32	
	33	Inconel 700	250 HB	0.5	2.0	0.12	0.36	25	45	0.8	0.24	30	
	34	Stellite 21	350 HB	0.5	2.0	0.12	0.36	25	45	0.8	0.24	30	
	36	TiAl6V4	-	0.5	2.0	0.12	0.40	40	65	0.8	0.27	55	
10	37	T40	-	0.5	2.0	0.12	0.36	30	55	0.8	0.24	40	
	38	X100CrMo13, 440C, G-X260NiCr42	45 HRc	0.3	0.9	0.10	0.36	40	80	0.5	0.21	60	
11	38		50 HRc	0.3	0.7	0.10	0.32	40	70	0.4	0.20	55	
	38		55 HRc	0.3	0.6	0.10	0.28	40	60	0.3	0.18	50	
	40	Ni-Hard 2	400 HB	0.3	0.7	0.10	0.36	40	80	0.4	0.21	50	
	41	G-X300CrMo15	55 HRc	0.3	0.6	0.10	0.28	30	60	0.3	0.18	40	
12	25	AlSi12	130 HB	0.5	2.5	0.18	0.64	200	400	1.0	0.38	280	

RDMT 12T3 M0 – LT 30 | LT 3000

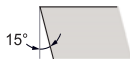
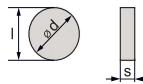
Material Group	Gr. №	VDI Group	Material Examples	Hardness	D.O.C [mm]		Feed [mm/rev]		V _c [m/min]		Suggested Starting Parameters			
					min	max	min	max	min	max	D.O.C	Feed	V _c	
Steel	Non Alloyed	1	C35, Ck45, 1020, 1045, 1060, 28Mn6	125 HB	0.5	3.0	0.25	0.74	190	330	1.3	0.35	250	
				190 HB	0.5	3.0	0.25	0.74	190	300	1.3	0.35	220	
				250 HB	0.5	3.0	0.25	0.74	190	250	1.3	0.35	200	
	Low Alloyed	2	42CrMo4, S150, Ck60, 4140, 4340, 100Cr6	180 HB	0.5	3.0	0.21	0.58	150	240	1.3	0.30	200	
				230 HB	0.5	3.0	0.21	0.58	150	210	1.3	0.30	180	
				280 HB	0.5	3.0	0.21	0.51	130	190	1.3	0.27	150	
				350 HB	0.5	3.0	0.21	0.51	130	170	1.3	0.27	140	
	High Alloyed	3	X40CrMoV5, H13, M42, D3, S6-5-2, 12Ni19	220 HB	0.5	2.2	0.17	0.51	90	150	1.0	0.27	130	
				280 HB	0.5	2.2	0.17	0.51	90	130	1.0	0.27	120	
				320 HB	0.5	2.2	0.17	0.41	60	110	1.0	0.24	100	
				350 HB	0.5	2.2	0.17	0.41	60	90	1.0	0.24	80	
Stainless Steel	Austenitic	4	304, 316, X5CrNi18-9	180 HB	0.5	3.0	0.21	0.58	190	250	1.3	0.30	220	
				240 HB	0.5	3.0	0.17	0.51	160	210	1.3	0.30	190	
	Duplex	5	X2CrNi23-4, S31500	290 HB	0.5	2.4	0.17	0.41	70	130	1.0	0.24	100	
				310 HB	0.5	2.4	0.17	0.41	70	120	1.0	0.24	90	
	Ferritic & Martensitic	6	410, X6Cr17, 17-4 PH, 430	200 HB	0.5	3.0	0.21	0.58	150	210	1.3	0.30	190	
				42 HRc	0.5	2.4	0.21	0.46	90	150	1.0	0.24	130	
Cast Iron	Grey	7	GG20, GG40, EN-GJL-250, No30B	150 HB	0.5	3.0	0.25	0.74	150	240	1.3	0.35	200	
				200 HB	0.5	3.0	0.25	0.74	150	220	1.3	0.35	180	
				250 HB	0.5	3.0	0.25	0.74	150	190	1.3	0.35	160	
Malleable & Nodular	8	GGG40, GGG70, 50005	150 HB	0.5	3.0	0.21	0.64	100	200	1.3	0.30	180		
			200 HB	0.5	3.0	0.21	0.64	100	180	1.3	0.30	150		
			250 HB	0.5	3.0	0.21	0.64	100	150	1.3	0.30	130		
High Temp. Alloys	Fe, Ni & Co Based	9	31,32 Incoloy 800	240 HB	0.5	2.4	0.17	0.41	25	45	1.0	0.24	32	
			33 Inconel 700	250 HB	0.5	2.4	0.17	0.41	25	45	1.0	0.24	30	
			34 Stellite 21	350 HB	0.5	2.4	0.17	0.41	25	45	1.0	0.24	30	
	Ti Based	10	36 TiAl6V4	-	0.5	2.4	0.17	0.46	40	65	1.0	0.27	55	
37 T40			-	0.5	2.4	0.17	0.41	30	55	1.0	0.24	40		
Hardened Mat.	Steel	11	X100CrMo13, 440C, G-X260NiCr42	45 HRc	0.3	1.1	0.14	0.41	40	80	0.7	0.21	60	
				50 HRc	0.3	0.9	0.14	0.37	40	70	0.5	0.20	55	
				55 HRc	0.3	0.8	0.14	0.32	40	60	0.3	0.18	50	
	Chilled Cast Iron White Cast Iron	40	Ni-Hard 2	400 HB	0.3	0.9	0.14	0.41	40	80	0.5	0.21	50	
				41 G-X300CrMo15	55 HRc	0.3	0.8	0.14	0.32	30	60	0.3	0.18	40
NF	Al (>8%Si)	12	25	AlSi12	130 HB	0.5	3.0	0.25	0.74	200	400	1.3	0.38	280

RDMT 1204 M0 – LT 30 | LT 3000

Material Group	Gr. N°	VDI Group	Material Examples	Hardness	D.O.C (mm)		Feed (mm/rev)		V _c (m/min)		Suggested Starting Parameters			
					min	max	min	max	min	max	D.O.C	Feed	V _c	
Steel	1	1	C35, Ck45,	125 HB	0.5	3.0	0.25	0.74	190	330	1.3	0.35	250	
		2	1020, 1045,	190 HB	0.5	3.0	0.25	0.74	190	300	1.3	0.35	220	
		3	1060, 28Mn6	250 HB	0.5	3.0	0.25	0.74	190	250	1.3	0.35	200	
	2	6	42CrMo4, Sf50, Ck60, 4140, 4340, 100Cr6	180 HB	0.5	3.0	0.21	0.58	150	240	1.3	0.30	200	
		4,6		230 HB	0.5	3.0	0.21	0.58	150	210	1.3	0.30	180	
		5,7		280 HB	0.5	3.0	0.21	0.51	130	190	1.3	0.27	150	
		8		350 HB	0.5	3.0	0.21	0.51	130	170	1.3	0.27	140	
	3	10	X40CrMoV5, H13, M42, D3, S6-5-2, 12N19	220 HB	0.5	2.2	0.17	0.51	90	150	1.0	0.27	130	
		10		280 HB	0.5	2.2	0.17	0.51	90	130	1.0	0.27	120	
		11		320 HB	0.5	2.2	0.17	0.41	60	110	1.0	0.24	100	
		11		350 HB	0.5	2.2	0.17	0.41	60	90	1.0	0.24	80	
Stainless Steel	4	14	304, 316,	180 HB	0.5	3.0	0.21	0.58	190	250	1.3	0.30	220	
		14	X5CrNi18-9	240 HB	0.5	3.0	0.17	0.51	160	210	1.3	0.30	190	
	5	14	X2CrNi23-4,	290 HB	0.5	2.4	0.17	0.41	70	130	1.0	0.24	100	
		14	S31500	310 HB	0.5	2.4	0.17	0.41	70	120	1.0	0.24	90	
	6	12	410, X6Cr17,	200 HB	0.5	3.0	0.21	0.58	150	210	1.3	0.30	190	
		13	17-4 PH, 430	42 HRc	0.5	2.4	0.21	0.46	90	150	1.0	0.24	130	
	Cast Iron	7	15	GG20, GG40,	150 HB	0.5	3.0	0.25	0.74	150	240	1.3	0.35	200
			15	EN-GJL-250,	200 HB	0.5	3.0	0.25	0.74	150	220	1.3	0.35	180
			16	No30B	250 HB	0.5	3.0	0.25	0.74	150	190	1.3	0.35	160
	8	17,19	GGG40, GGG70, 50005	150 HB	0.5	3.0	0.21	0.64	100	200	1.3	0.30	180	
17,19		200 HB		0.5	3.0	0.21	0.64	100	180	1.3	0.30	150		
18,20		250 HB		0.5	3.0	0.21	0.64	100	150	1.3	0.30	130		
High Temp. Alloys	9	31,32	Incoloy 800	240 HB	0.5	2.4	0.17	0.41	25	45	1.0	0.24	32	
		33	Inconel 700	250 HB	0.5	2.4	0.17	0.41	25	45	1.0	0.24	30	
		34	Stellite 21	350 HB	0.5	2.4	0.17	0.41	25	45	1.0	0.24	30	
	10	36	TiAl6V4	-	0.5	2.4	0.17	0.46	40	65	1.0	0.27	55	
		37	T40	-	0.5	2.4	0.17	0.41	30	55	1.0	0.24	40	
	Hardened Mat.	11	38	X100CrMo13,	45 HRc	0.3	1.1	0.14	0.41	40	80	0.7	0.21	60
38			440C,	50 HRc	0.3	0.9	0.14	0.37	40	70	0.5	0.20	55	
38			G-X260NiCr42	55 HRc	0.3	0.8	0.14	0.32	40	60	0.3	0.18	50	
Chilled Cast Iron		40	Ni-Hard 2	400 HB	0.3	0.9	0.14	0.41	40	80	0.5	0.21	50	
		White Cast Iron	41	G-X300CrMo15	55 HRc	0.3	0.8	0.14	0.32	30	60	0.3	0.18	40
Al (>8%Si)			12	25	AlSi12	130 HB	0.5	3.0	0.25	0.74	200	400	1.3	0.38

RDMT 1604 M0 – LT 30 | LT 3000

Material Group	Gr. N°	VDI Group	Material Examples	Hardness	D.O.C [mm]		Feed [mm/rev]		V _c [m/min]		Suggested Starting Parameters			
					min	max	min	max	min	max	D.O.C	Feed	V _c	
Steel	Non Alloyed	1	C35, Ck45, 1020, 1045, 1060, 28Mn6	125 HB	0.5	4.0	0.25	1.00	190	330	2.0	0.35	250	
		2		190 HB	0.5	4.0	0.25	1.00	190	300	2.0	0.35	220	
		3		250 HB	0.5	4.0	0.25	1.00	190	250	2.0	0.35	200	
	Low Alloyed	2	6	42CrMo4, S150, Ck60, 4140, 4340, 100Cr6	180 HB	0.5	4.0	0.21	0.78	150	240	2.0	0.30	200
			4,6		230 HB	0.5	4.0	0.21	0.78	150	210	2.0	0.30	180
			5,7		280 HB	0.5	4.0	0.21	0.69	130	190	2.0	0.27	150
			8		350 HB	0.5	4.0	0.21	0.69	130	170	2.0	0.27	140
	High Alloyed	3	10	X40CrMoV5, H13, M42, D3, S6-5-2, 12Ni19	220 HB	0.5	2.9	0.17	0.69	90	150	1.5	0.27	130
			10		280 HB	0.5	2.9	0.17	0.69	90	130	1.5	0.27	120
			11		320 HB	0.5	2.9	0.17	0.56	60	110	1.5	0.24	100
			11		350 HB	0.5	2.9	0.17	0.56	60	90	1.5	0.24	80
Stainless Steel	Austenitic	4	304, 316, X5CrNi18-9	180 HB	0.5	4.0	0.21	0.78	190	250	2.0	0.30	220	
				240 HB	0.5	4.0	0.17	0.69	160	210	2.0	0.30	190	
	Duplex	5	X2CrNi23-4, S31500	290 HB	0.5	3.1	0.17	0.56	70	130	1.5	0.24	100	
				310 HB	0.5	3.1	0.17	0.56	70	120	1.5	0.24	90	
	Ferritic & Martensitic	6	410, X6Cr17, 17-4 PH, 430	200 HB	0.5	4.0	0.21	0.78	150	210	2.0	0.30	190	
				42 HRc	0.5	3.1	0.21	0.63	90	150	1.5	0.24	130	
Cast Iron	Grey	7	GG20, GG40, EN-GJL-250, No30B	150 HB	0.5	4.0	0.25	1.00	150	240	2.0	0.35	200	
				200 HB	0.5	4.0	0.25	1.00	150	220	2.0	0.35	180	
				250 HB	0.5	4.0	0.25	1.00	150	190	2.0	0.35	160	
Malleable & Nodular	8	GGG40, GGG70, 50005	150 HB	0.5	4.0	0.21	0.88	100	200	2.0	0.30	180		
			200 HB	0.5	4.0	0.21	0.88	100	180	2.0	0.30	150		
			250 HB	0.5	4.0	0.21	0.88	100	150	2.0	0.30	130		
High Temp. Alloys	Fe, Ni & Co Based	9	31,32	Incoloy 800	240 HB	0.5	3.1	0.17	0.56	25	45	1.5	0.24	32
			33	Inconel 700	250 HB	0.5	3.1	0.17	0.56	25	45	1.5	0.24	30
			34	Stellite 21	350 HB	0.5	3.1	0.17	0.56	25	45	1.5	0.24	30
	Ti Based	10	36	TiAl6V4	-	0.5	3.1	0.17	0.63	40	65	1.5	0.27	55
37			T40	-	0.5	3.1	0.17	0.56	30	55	1.5	0.24	40	
Hardened Mat.	Steel	11	X100CrMo13, 440C, G-X260NiCr42	45 HRc	0.4	1.4	0.14	0.56	40	80	1.0	0.21	60	
				50 HRc	0.4	1.1	0.14	0.50	40	70	0.8	0.20	55	
				55 HRc	0.4	1.0	0.14	0.44	40	60	0.5	0.18	50	
	Chilled Cast Iron White Cast Iron	11	40	Ni-Hard 2	400 HB	0.4	1.1	0.14	0.56	40	80	0.8	0.21	50
					55 HRc	0.4	1.0	0.14	0.44	30	60	0.5	0.18	40
NF	Al (>8%Si)	12	25	AlSi12	130 HB	0.5	4.0	0.25	1.00	200	400	2.0	0.38	280

**R****D****M****W****Shape****Clearance Angle****Tolerance**
d ± 0.05
s ± 0.13**Fixing,
Chipbreaker**

LT 30 Multi-Mat™ General Usage – Standard					
Insert Designation	l	s	r	Direction	Catalog Nr.
RDMW 10T3 M0 LT 30	10	3.97	-	Neutral	M0001550
RDMW 1204 M0 LT 30	12	4.76	-	Neutral	M0001551

LT 3000 Multi-Mat™ General Usage – Premium					
Insert Designation	l	s	r	Direction	Catalog Nr.
RDMW 10T3 M0 LT 3000	10	3.97	-	Neutral	M0002228
RDMW 1204 M0 LT 3000	12	4.76	-	Neutral	M0003408

RDMW

TOOLS & TOOLING

Application Guide

Copying



Helical Interpolation



Pocket Milling



Surfacing



Machining Recommendations

↑ **F** ⇒
↑ **Productivity**

1, 2, 3, 4 No
6, 7, 8, 11 No
10, 12 Yes
Coolant 5, 9 Yes

Stainless Steel

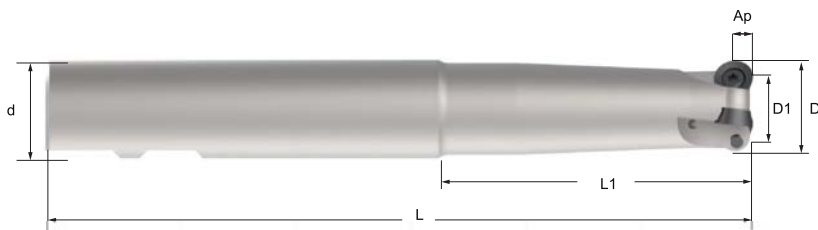
↑ **V_C**

End Mill for RDMW 10T3 M0

Cutter Designation	D	D1	d	L	L1	Ap	z	α	Catalog Nr.
LT 100 WL-W-D020/2	20	10	20	180	80	5	2	12	M2000683
LT 100 WL-W D025/3	25	15	25	180	60	5	3	8	M2000684
LT 100 WL-W D032/3	32	22	32	180	80	5	3	5	M2000685

Screw: M2000597

Key: M2000602

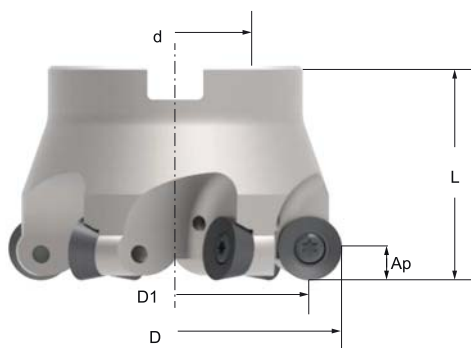


Shell Mill for RDMW 1204 M0

Cutter Designation	D	D1	d	L	Ap	z	α	Catalog Nr.
LT 120 M-W-D040/4	40	28	16	40	6	4	7	M2000691
LT 120 M-W-D050/4	50	38	22	40	6	4	5	M2001780
LT 120 M-W-D063/5	63	51	22	40	6	5	3.5	M2000689
LT 120 M-W-D080/6	80	68	27	50	6	6	2.5	M2000690
LT 120 M-W-D100/7	100	88	40	50	6	7	1.5	M2000688

Screw: M2000597

Key: M2000602

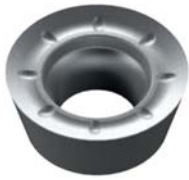
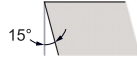
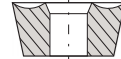


RDMW 10T3 M0 – LT 30 | LT 3000

Material Group	Gr. №	VDI Group	Material Examples	Hardness	D.O.C [mm]		Feed [mm/rev]		V _c [m/min]		Suggested Starting Parameters					
					min	max	min	max	min	max	D.O.C	Feed	V _c			
Steel	Non Alloyed	1	C35, Ck45, 1020, 1045, 1060, 28Mn6	125 HB	0.5	2.5	0.18	0.70	190	330	1.0	0.39	250			
		2		190 HB	0.5	2.5	0.18	0.70	190	300	1.0	0.39	220			
		3		250 HB	0.5	2.5	0.18	0.70	190	250	1.0	0.39	200			
	Low Alloyed	2	42CrMo4, St50, Ck60, 4140, 4340, 100Cr6	180 HB	0.5	2.5	0.15	0.55	150	240	1.0	0.34	200			
		4,6		230 HB	0.5	2.5	0.15	0.55	150	210	1.0	0.34	180			
		5,7		280 HB	0.5	2.5	0.15	0.48	130	190	1.0	0.31	150			
	High Alloyed	3	10	X40CrMoV5, H13, M42, D3, S6-5-2, 12Ni19	220 HB	0.5	1.8	0.12	0.48	90	150	0.8	0.31	130		
					280 HB	0.5	1.8	0.12	0.48	90	130	0.8	0.31	120		
					320 HB	0.5	1.8	0.12	0.40	60	110	0.8	0.27	100		
					350 HB	0.5	1.8	0.12	0.40	60	90	0.8	0.27	80		
	Cast Iron	Grey	7	GG20, GG40, EN-GJL-250, No30B	150 HB	0.5	2.5	0.18	0.70	150	240	1.0	0.39	200		
200 HB					0.5	2.5	0.18	0.70	150	220	1.0	0.39	180			
250 HB					0.5	2.5	0.18	0.70	150	190	1.0	0.39	160			
Malleable & Nodular		8	17,19	GGG40, GGG70, 50005	150 HB	0.5	2.5	0.15	0.62	100	200	1.0	0.34	180		
					200 HB	0.5	2.5	0.15	0.62	100	180	1.0	0.34	150		
					250 HB	0.5	2.5	0.15	0.62	100	150	1.0	0.34	130		
Hardened Mat.	Steel	11	X100CrMo13, 440C, G-X260NiCr42	45 HRc	0.3	0.9	0.10	0.40	40	80	0.5	0.24	60			
				50 HRc	0.3	0.7	0.10	0.35	40	70	0.4	0.22	55			
				55 HRc	0.3	0.6	0.10	0.31	40	60	0.3	0.20	50			
				Chilled Cast Iron	40	Ni-Hard 2	400 HB	0.3	0.7	0.10	0.40	40	80	0.4	0.24	50
							White Cast Iron	41	G-X300CrMo15	55 HRc	0.3	0.6	0.10	0.31	30	60

RDMW 1204 M0 – LT 30 | LT 3000

Material Group	Gr. N°	VDI Group	Material Examples	Hardness	D.O.C [mm]		Feed [mm/rev]		V _c [m/min]		Suggested Starting Parameters				
					min	max	min	max	min	max	D.O.C	Feed	V _c		
Steel	Non Alloyed	1	C35, Ck45, 1020, 1045, 1060, 28Mn6	125 HB	0.5	2.5	0.18	0.70	190	330	1.0	0.39	250		
		2		190 HB	0.5	2.5	0.18	0.70	190	300	1.0	0.39	220		
		3		250 HB	0.5	2.5	0.18	0.70	190	250	1.0	0.39	200		
	Low Alloyed	2	6	42CrMo4, St50, Ck60, 4140, 4340, 100Cr6	180 HB	0.5	2.5	0.15	0.55	150	240	1.0	0.34	200	
			4,6		230 HB	0.5	2.5	0.15	0.55	150	210	1.0	0.34	180	
			5,7		280 HB	0.5	2.5	0.15	0.48	130	190	1.0	0.31	150	
			8		350 HB	0.5	2.5	0.15	0.48	130	170	1.0	0.31	140	
	High Alloyed	3	10	X40CrMoV5, H13, M42, D3, S6-5-2, 12Ni19	220 HB	0.5	1.8	0.12	0.48	90	150	0.8	0.31	130	
			10		280 HB	0.5	1.8	0.12	0.48	90	130	0.8	0.31	120	
			11		320 HB	0.5	1.8	0.12	0.40	60	110	0.8	0.27	100	
Cast Iron	Grey	7	GG20, GG40, EN-GJL-250, No30B	150 HB	0.5	2.5	0.18	0.70	150	240	1.0	0.39	200		
				15	200 HB	0.5	2.5	0.18	0.70	150	220	1.0	0.39	180	
				16	250 HB	0.5	2.5	0.18	0.70	150	190	1.0	0.39	160	
	Malleable & Nodular	8	GGG40, GGG70, 50005	17,19	150 HB	0.5	2.5	0.15	0.62	100	200	1.0	0.34	180	
				17,19	200 HB	0.5	2.5	0.15	0.62	100	180	1.0	0.34	150	
				18,20	250 HB	0.5	2.5	0.15	0.62	100	150	1.0	0.34	130	
	Hardened Mat.	Steel	11	X100CrMo13, 440C, G-X260NiCr42	38	45 HRc	0.3	0.9	0.10	0.40	40	80	0.5	0.24	60
					38	50 HRc	0.3	0.7	0.10	0.35	40	70	0.4	0.22	55
					38	55 HRc	0.3	0.6	0.10	0.31	40	60	0.3	0.20	50
Chilled Cast Iron				40	Ni-Hard 2	400 HB	0.3	0.7	0.10	0.40	40	80	0.4	0.24	50
						White Cast Iron	41	G-X300CrMo15	55 HRc	0.3	0.6	0.10	0.31	30	60

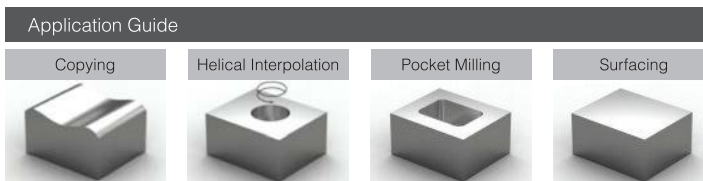
**R****D****M****X****Shape****Clearance Angle****Tolerance**
 $d \pm 0.05$
 $s \pm 0.13$
**Fixing,
Chipbreaker**

LT 30 Multi-Mat™ General Usage – Standard					
Insert Designation	l	s	r	Direction	Catalog Nr.
RDMX 10T3 M0 LT 30	10	3.97	-	Neutral	M0001552
RDMX 1204 M0 LT 30	12	4.76	-	Neutral	M0001553

LT 3000 Multi-Mat™ General Usage – Premium					
Insert Designation	l	s	r	Direction	Catalog Nr.
RDMX 10T3 M0 LT 3000	10	3.97	-	Neutral	M0003409
RDMX 1204 M0 LT 3000	12	4.76	-	Neutral	M0003410

RDMX

TOOLS & TOOLING


**Machining
Recommendations**
F ⇒
 ↑ **Productivity**
Coolant
 1, 2, 3, 4 No
 6, 7, 8, 11 No
 10, 12 Yes
 5, 9 Yes

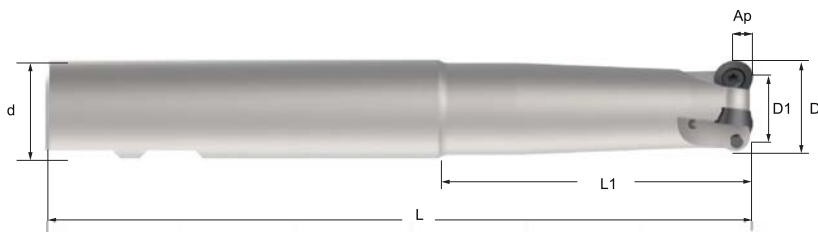
Stainless Steel
 ↑ **V_C**

End Mill for RDMX 10T3 M0

Cutter Designation	D	D1	d	L	L1	Ap	z	α	Catalog Nr.
LT 100 WL-W-D020/2	20	10	20	180	80	5	2	12	M2000683
LT 100 WL-W D025/3	25	15	25	180	60	5	3	8	M2000684
LT 100 WL-W D032/3	32	22	32	180	80	5	3	5	M2000685

Screw: M2000597

Key: M2000602

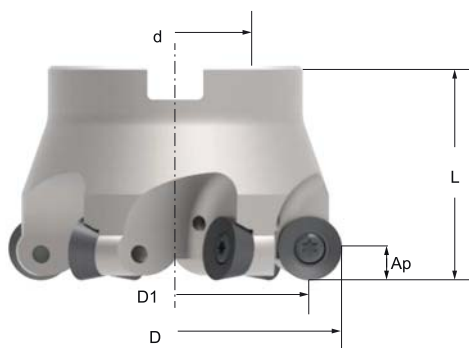


Shell Mill for RDMX 1204 M0

Cutter Designation	D	D1	d	L	Ap	z	α	Catalog Nr.
LT 120 M-W-D040/4	40	28	16	40	6	4	7	M2000691
LT 120 M-W-D050/4	50	38	22	40	6	4	5	M2001780
LT 120 M-W-D063/5	63	51	22	40	6	5	3.5	M2000689
LT 120 M-W-D080/6	80	68	27	50	6	6	2.5	M2000690
LT 120 M-W-D100/7	100	88	40	50	6	7	1.5	M2000688

Screw: M2000597

Key: M2000602

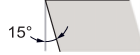
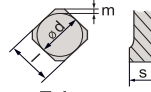


RDMX 10T3 M0 – LT 30 | LT 3000

Material Group	Gr. N°	VDI Group	Material Examples	Hardness	D.O.C (mm)		Feed (mm/rev)		V _c (m/min)		Suggested Starting Parameters		
					min	max	min	max	min	max	D.O.C	Feed	V _c
Steel	Non Alloyed	1	C35, Ck45, 1020, 1045, 1060, 28Mn6	125 HB	0.5	2.5	0.18	0.64	190	330	1.000	0.345	250
		190 HB		0.5	2.5	0.18	0.64	190	300	1.000	0.345	220	
		250 HB		0.5	2.5	0.18	0.64	190	250	1.000	0.345	200	
	Low Alloyed	2	42CrMo4, S150, Ck60, 4140, 4340, 100Cr6	180 HB	0.5	2.5	0.15	0.50	150	240	1.000	0.300	200
				230 HB	0.5	2.5	0.15	0.50	150	210	1.000	0.300	180
				280 HB	0.5	2.5	0.15	0.44	130	190	1.000	0.270	150
				350 HB	0.5	2.5	0.15	0.44	130	170	1.000	0.270	140
	High Alloyed	3	X40CrMoV5, H13, M42, D3, S6-5-2, 12Ni19	220 HB	0.5	1.8	0.12	0.44	90	150	0.750	0.270	130
				280 HB	0.5	1.8	0.12	0.44	90	130	0.750	0.270	120
				320 HB	0.5	1.8	0.12	0.36	60	110	0.750	0.240	100
				350 HB	0.5	1.8	0.12	0.36	60	90	0.750	0.240	80
Stainless Steel	Austenitic	4	304, 316, X5CrNi18-9	180 HB	0.5	2.5	0.15	0.50	190	250	1.000	0.300	220
				240 HB	0.5	2.5	0.12	0.44	160	210	1.000	0.300	190
	Duplex	5	X2CrNiN23-4, S31500	290 HB	0.5	2.0	0.12	0.36	70	130	0.750	0.240	100
				310 HB	0.5	2.0	0.12	0.36	70	120	0.750	0.240	90
	Ferritic & Martensitic	6	410, X6Cr17, 17-4 PH, 430	200 HB	0.5	2.5	0.15	0.50	150	210	1.000	0.300	190
				42 HRc	0.5	2.0	0.15	0.40	90	150	0.750	0.240	130
Cast Iron	Grey	7	GG20, GG40, EN-GJL-250, No30B	150 HB	0.5	2.5	0.18	0.64	150	240	1.000	0.345	200
				200 HB	0.5	2.5	0.18	0.64	150	220	1.000	0.345	180
				250 HB	0.5	2.5	0.18	0.64	150	190	1.000	0.345	160
	Malleable & Nodular	8	GGG40, GGG70, 50005	150 HB	0.5	2.5	0.15	0.56	100	200	1.000	0.300	180
				200 HB	0.5	2.5	0.15	0.56	100	180	1.000	0.300	150
				250 HB	0.5	2.5	0.15	0.56	100	150	1.000	0.300	130
High Temp. Alloys	Fe, Ni & Co Based	9	Incoloy 800, Inconel 700, Stellite 21	240 HB	0.5	2.0	0.12	0.36	25	45	0.750	0.240	32
				250 HB	0.5	2.0	0.12	0.36	25	45	0.750	0.240	30
				350 HB	0.5	2.0	0.12	0.36	25	45	0.750	0.240	30
	Ti Based	10	TiAl6V4, T40	-	0.5	2.0	0.12	0.40	40	65	0.750	0.270	55
				-	0.5	2.0	0.12	0.36	30	55	0.750	0.240	40
				-	0.5	2.0	0.12	0.36	30	55	0.750	0.240	40
Hardened Mat.	Steel	11	X100CrMo13, 440C, G-X260NiCr42	45 HRc	0.3	0.9	0.10	0.36	40	80	0.500	0.210	60
				50 HRc	0.3	0.7	0.10	0.32	40	70	0.375	0.195	55
				55 HRc	0.3	0.6	0.10	0.28	40	60	0.250	0.180	50
	Chilled Cast Iron	40	Ni-Hard 2	400 HB	0.3	0.7	0.10	0.36	40	80	0.375	0.210	50
				400 HB	0.3	0.7	0.10	0.36	40	80	0.375	0.210	50
	White Cast Iron	41	G-X300CrMo15	55 HRc	0.3	0.6	0.10	0.28	30	60	0.250	0.180	40
Al (>8%Si)	12	25	AlSi12	130 HB	0.5	2.5	0.18	0.64	200	400	1.000	0.375	280

RDMX 1204 M0 – LT 30 | LT 3000

Material Group	Gr. N°	VDI Group	Material Examples	Hardness	D.O.C [mm]		Feed [mm/rev]		V _c [m/min]		Suggested Starting Parameters		
					min	max	min	max	min	max	D.O.C	Feed	V _c
Steel	Non Alloyed	1	C35, Ck45, 1020, 1045, 1060, 28Mn6	125 HB	0.5	3.0	0.25	0.74	190	330	1.3	0.35	250
				190 HB	0.5	3.0	0.25	0.74	190	300	1.3	0.35	220
				250 HB	0.5	3.0	0.25	0.74	190	250	1.3	0.35	200
	Low Alloyed	2	42CrMo4, S150, Ck60, 4140, 4340, 100Cr6	180 HB	0.5	3.0	0.21	0.58	150	240	1.3	0.30	200
				230 HB	0.5	3.0	0.21	0.58	150	210	1.3	0.30	180
				280 HB	0.5	3.0	0.21	0.51	130	190	1.3	0.27	150
				350 HB	0.5	3.0	0.21	0.51	130	170	1.3	0.27	140
	High Alloyed	3	X40CrMoV5, H13, M42, D3, S6-5-2, 12N19	220 HB	0.5	2.2	0.17	0.51	90	150	1.0	0.27	130
				280 HB	0.5	2.2	0.17	0.51	90	130	1.0	0.27	120
				320 HB	0.5	2.2	0.17	0.41	60	110	1.0	0.24	100
				350 HB	0.5	2.2	0.17	0.41	60	90	1.0	0.24	80
Stainless Steel	Austenitic	4	304, 316, X5CrNi18-9	180 HB	0.5	3.0	0.21	0.58	190	250	1.3	0.30	220
				240 HB	0.5	3.0	0.17	0.51	160	210	1.3	0.30	190
	Duplex	5	X2CrNiN23-4, S31500	290 HB	0.5	2.4	0.17	0.41	70	130	1.0	0.24	100
				310 HB	0.5	2.4	0.17	0.41	70	120	1.0	0.24	90
	Ferritic & Martensitic	6	410, X6Cr17, 17-4 PH, 430	200 HB	0.5	3.0	0.21	0.58	150	210	1.3	0.30	190
				42 HRc	0.5	2.4	0.21	0.46	90	150	1.0	0.24	130
Cast Iron	Grey	7	GG20, GG40, EN-GJL-250, No30B	150 HB	0.5	3.0	0.25	0.74	150	240	1.3	0.35	200
				200 HB	0.5	3.0	0.25	0.74	150	220	1.3	0.35	180
				250 HB	0.5	3.0	0.25	0.74	150	190	1.3	0.35	160
Malleable & Nodular	8	GGG40, GGG70, 50005	150 HB	0.5	3.0	0.21	0.64	100	200	1.3	0.30	180	
			200 HB	0.5	3.0	0.21	0.64	100	180	1.3	0.30	150	
			250 HB	0.5	3.0	0.21	0.64	100	150	1.3	0.30	130	
High Temp. Alloys	Fe, Ni & Co Based	9	31,32 Incoloy 800	0.5	2.4	0.17	0.41	25	45	1.0	0.24	32	
			33 Inconel 700	0.5	2.4	0.17	0.41	25	45	1.0	0.24	30	
			34 Stellite 21	0.5	2.4	0.17	0.41	25	45	1.0	0.24	30	
	Ti Based	10	36 TiAl6V4	-	0.5	2.4	0.17	0.46	40	65	1.0	0.27	55
37 T40	-	0.5	2.4	0.17	0.41	30	55	1.0	0.24	40			
Hardened Mat.	Steel	11	X100CrMo13, 440C, G-X260NiCr42	45 HRc	0.3	1.1	0.14	0.41	40	80	0.7	0.21	60
				50 HRc	0.3	0.9	0.14	0.37	40	70	0.5	0.20	55
				55 HRc	0.3	0.8	0.14	0.32	40	60	0.3	0.18	50
	Chilled Cast Iron	11	40 Ni-Hard 2	400 HB	0.3	0.9	0.14	0.41	40	80	0.5	0.21	50
	White Cast Iron	11	41 G-X300CrMo15	55 HRc	0.3	0.8	0.14	0.32	30	60	0.3	0.18	40
NF	Al (>8%Si)	12	25 AISI12	130 HB	0.5	3.0	0.25	0.74	200	400	1.3	0.38	280

**S****D****K****T****Shape****Clearance Angle**
Tolerance
 $d \pm 0.08$
 $m \pm 0.013$
 $s \pm 0.025$
**Fixing,
Chipbreaker**

LT 30		Multi-Mat™ General Usage – Standard				
Insert Designation	l	s	r	Direction	Catalog Nr.	
SDKT 1204 AETN LT 30	12.7	4.76	-	Neutral	M0000171	

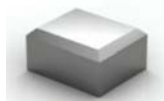
LT 3000		Multi-Mat™ General Usage – Premium				
Insert Designation	l	s	r	Direction	Catalog Nr.	
SDKT 1204 AETN LT 3000	12.7	4.76	-	Neutral	M0003411	

SDKT

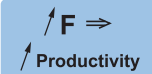
TOOLS & TOOLING

Application Guide

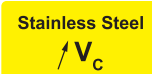
Chamfering



Surfacing

Machining
Recommendations

Coolant	1, 2, 3, 4	No
	6, 7, 8, 11	No
	10, 12	Yes
	5, 9	Yes

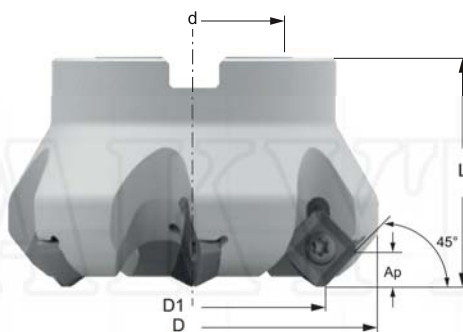


Shell Mill for SDKT 1204 AETN							
Cutter Designation	D	D1	d	L	Ap	z	Catalog Nr.
LT 670 M-W-D050/4*	63	50	22	48	6	4	M2000553
LT 670 M-W-D063/5*	76	63	22	48	6	5	M2000555
LT 670 M-W-D080/6*	93	80	27	50	6	6	M2000556
LT 670 M-W-D100/6*	113	100	32	50	6	6	M2000557
LT 670 M-W-D125/7*	138	125	40	63	6	7	M2000558
LT 670 M-W-D160/8*	173	160	40	63	6	8	M2000559

* On request

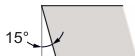
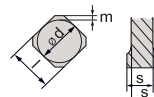
Screw: M2000598

Key: M2000603

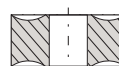


SDKT 1204 AETN – LT 30 | LT 3000

Material Group	Gr. N°	VDI Group	Material Examples	Hardness	D.O.C (mm)		Feed (mm/rev)		V _c (m/min)		Suggested Starting Parameters			
					min	max	min	max	min	max	D.O.C	Feed	V _c	
Steel	Non Alloyed	1	1	C35, Ck45,	125 HB	0.5	7.0	0.18	0.53	190	330	3.0	0.39	250
			2	1020, 1045,	190 HB	0.5	7.0	0.18	0.53	190	300	3.0	0.39	220
			3	1060, 28Mn6	250 HB	0.5	7.0	0.18	0.53	190	250	3.0	0.39	200
	Low Alloyed	2	6	42CrMo4,	180 HB	0.5	7.0	0.15	0.41	150	240	3.0	0.34	200
			4,6	Sf50, Ck60,	230 HB	0.5	7.0	0.15	0.41	150	210	3.0	0.34	180
			5,7	4140, 4340,	280 HB	0.5	7.0	0.15	0.36	130	190	3.0	0.31	150
			8	100Cr6	350 HB	0.5	7.0	0.15	0.36	130	170	3.0	0.31	140
	High Alloyed	3	10	X40CrMoV5, H13, M42, D3, S6-5-2, 12Ni19	220 HB	0.5	5.0	0.12	0.36	90	150	2.3	0.31	130
			10		280 HB	0.5	5.0	0.12	0.36	90	130	2.3	0.31	120
			11		320 HB	0.5	5.0	0.12	0.30	60	110	2.3	0.27	100
			11		350 HB	0.5	5.0	0.12	0.30	60	90	2.3	0.27	80
Stainless Steel	Austenitic	4	304, 316, X5CrNi18-9	180 HB	0.5	7.0	0.15	0.36	190	250	3.0	0.31	220	
				240 HB	0.5	7.0	0.12	0.33	160	210	3.0	0.31	190	
	Duplex	5	X2CrNi23-4, S31500	290 HB	0.5	5.0	0.12	0.30	70	130	2.3	0.27	100	
				310 HB	0.5	5.0	0.12	0.30	70	120	2.3	0.27	90	
	Ferritic & Martensitic	6	410, X6Cr17, 17-4 PH, 430	200 HB	0.5	7.0	0.15	0.36	150	210	3.0	0.31	190	
				42 HRc	0.5	5.0	0.15	0.30	90	150	2.3	0.27	130	
Cast Iron	Grey	7	GG20, GG40, EN-GJL-250, No30B	150 HB	0.5	7.0	0.18	0.53	150	240	3.0	0.39	200	
				200 HB	0.5	7.0	0.18	0.53	150	220	3.0	0.39	180	
				250 HB	0.5	7.0	0.18	0.53	150	190	3.0	0.39	160	
	Malleable & Nodular	8	GGG40, GGG70, 50005	150 HB	0.5	7.0	0.15	0.46	100	200	3.0	0.34	180	
				200 HB	0.5	7.0	0.15	0.46	100	180	3.0	0.34	150	
				250 HB	0.5	7.0	0.15	0.46	100	150	3.0	0.34	130	
High Temp. Alloys	Fe, Ni & Co Based	9	31,32	Incoloy 800	240 HB	0.5	5.0	0.12	0.30	25	45	2.3	0.27	32
			33	Inconel 700	250 HB	0.5	5.0	0.12	0.30	25	45	2.3	0.27	30
			34	Stellite 21	350 HB	0.5	5.0	0.12	0.30	25	45	2.3	0.27	30
	Ti Based	10	36	TiAl6V4	-	0.5	5.0	0.12	0.33	40	65	2.3	0.31	55
			37	T40	-	0.5	5.0	0.12	0.30	30	55	2.3	0.27	40
			Hardened Mat.	11	Steel	38	X100CrMo13,	45 HRc	0.5	2.5	0.10	0.30	40	80
38	440C,	50 HRc				0.5	1.8	0.10	0.26	40	70	1.1	0.22	55
38	G-X260NiCr42	55 HRc				0.5	1.5	0.10	0.23	40	60	0.8	0.20	50
Chilled Cast Iron	40	Ni-Hard 2			400 HB	0.5	2.0	0.10	0.30	40	80	1.1	0.24	50
	White Cast Iron	41			G-X300CrMo15	55 HRc	0.5	1.5	0.10	0.23	30	60	0.8	0.20
Al (>8%Si)	12	25	AlSi12	130 HB	0.5	7.0	0.18	0.53	200	400	3.0	0.43	280	

**S****D****K****X****Shape****Clearance Angle****Tolerance**

$d \pm 0.08$
 $m \pm 0.013$
 $s \pm 0.025$

**Fixing,
Chipbreaker**

LT 30 Multi-Mat™ General Usage – Standard					
Insert Designation	l	s	R prog.	Direction	Catalog Nr.
SDKX 0904-HF LT 30	9.52	4.76	2.0	Right	M0003095
SDKX 1205-HF LT 30	12.7	5.56	2.5	Right	M0003096

LT 30 Multi-Mat™ General Usage – Standard					
Insert Designation	l	s	R prog.	Direction	Catalog Nr.
SDKX 0904-HF LT 3000	9.52	4.76	2.0	Right	M0003413
SDKX 1205-HF LT 3000	12.7	5.56	2.5	Right	M0003412

TOOLS & TOOLING

Application Guide				Machining Recommendations
Copying 	Helical Interpolation 	Plunging 	Pocket Milling 	 Productivity
Ramping Down 	Surfacing 			
				Stainless Steel

End Mill for SDKX 0904 HF

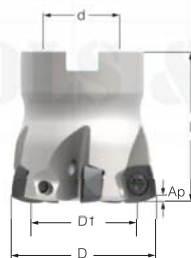
Cutter Designation	D	D1	d	L	L1	Ap	z	α	Catalog Nr.
LT 902 WL-W-D025/2	25	9.6	25	120	60	1.5	2	3.5	M2003351
LT 902 W-W-D025/2	25	9.6	25	120	60	1.5	2	3.5	M2003350
LT 902 WL-W-D032/3	32	16.6	32	120	60	1.5	3	2.0	M2003353
LT 902 W-W-D032/3	32	16.6	32	200	60	1.5	3	2.0	M2003352



Screw: M2001420
Key: M2000602

Shell Mill for SDKX 0904 HF

Cutter Designation	D	D1	d	L	Ap	z	α	Catalog Nr.
LT 902 M-W-D040/5	40	24.6	16	40	1.5	5	0.8	M2003341
LT 902 M-W-D042/5	42	26.6	16	40	1.5	5	0.8	M2003342
LT 902 M-W-D050/6	50	34.6	22	40	1.5	6	0.7	M2003343
LT 902 M-W-D052/6	52	36.6	22	40	1.5	6	0.7	M2003344
LT 902 M-W-D063/6	63	47.6	22	40	1.5	6	0.6	M2003345
LT 902 M-W-D066/6	66	50.6	22	40	1.5	6	0.6	M2003346



Screw: M2001420
Key: M2000602

Screw Coupling for SDKX 0904 HF

Cutter Designation	D	D1	d	L1	Ap	z	α	Catalog Nr.
LT 902 S-W-D025/2	25	9.6	M12	35	1.5	2	3.5	M2003347
LT 902 S-W-D032/3	32	16.6	M16	35	1.5	3	2.0	M2003348
LT 902 S-W-D035/4	35	19.6	M16	35	1.5	4	1.5	M2003349



Screw: M2001420
Key: M2000602

End Mill for SDKX 1205 HF

Cutter Designation	D	D1	d	L	L1	Ap	z	α	Catalog Nr.
LT 903 W-W-D032/2	32	11	32	200	60	2	2	2.0	M2003366
LT 903 WL-W-D032/2	32	11	32	200	60	2	2	2.0	M2003365

Screw: M2000597

Key: M2000602

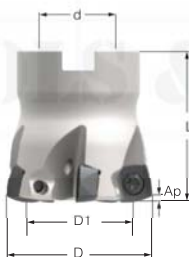


Shell Mill for SDKX 1205 HF

Cutter Designation	D	D1	d	L	Ap	z	α	Catalog Nr.
LT 903 M-W-D050/4	50	29	22	40	2	4	0.8	M2003361
LT 903 M-W-D050/5	50	29	22	40	2	5	0.8	M2003357
LT 903 M-W-D052/5	50	31	22	40	2	5	0.8	M2003358
LT 903 M-W-D063/5	52	42	22	40	2	5	0.6	M2003662
LT 903 M-W-D063/6	63	42	22	40	2	6	0.6	M2003360
LT 903 M-W-D066/6	66	45	22	40	2	6	0.6	M2003361

Screw: M2000597

Key: M2000602



Screw Coupling for SDKX 1205 HF

Cutter Designation	D	D1	d	L1	Ap	z	α	Catalog Nr.
LT 903 S-W-D032/2	32	11	M16	35	2	2	2.0	M2003362
LT 903 S-W-D035/2	35	14	M16	35	2	2	1.5	M2003364
LT 903 S-W-D040/4	40	19	M16	40	2	4	0.8	M2003354
LT 903 S-W-D042/4*	42	21	M16	35	2	4	0.8	M2003356

*On request



Screw: M2000597

Key: M2000602

SDKX 0904 HF – LT 30 | LT 3000

Material Group	Gr. N°	VDI Group	Material Examples	Hardness	D.O.C (mm)		Feed (mm/rev)		V _c (m/min)		Suggested Starting Parameters				
					min	max	min	max	min	max	D.O.C	Feed	V _c		
Steel	Non-alloyed	1	1	C35, Ck45,	125 HB	0.5	0.8	0.30	2.00	190	330	1.4	1.80	250	
		2	2	1020, 1045,	190 HB	0.5	0.8	0.30	2.00	190	300	1.4	1.80	220	
		3	3	1060, 28Mn6	250 HB	0.5	0.8	0.30	2.00	190	250	1.4	1.80	200	
	Low alloyed	2	6	42CrMo4,	180 HB	0.5	0.7	0.30	1.80	150	240	1.1	1.70	200	
			4,6	S150, Ck60,	230 HB	0.5	0.7	0.30	1.80	150	210	1.1	1.70	180	
			5,7	4140, 4340,	280 HB	0.5	0.7	0.30	1.80	130	190	1.1	1.70	150	
			8	100Cr6	350 HB	0.5	0.7	0.30	1.80	130	170	1.1	1.70	140	
	High Alloyed	3	10	X40CrMoV5, H13, M42, D3, S6-5-2, 12N119	220 HB	0.5	0.7	0.30	1.60	90	150	0.8	1.50	130	
			10		280 HB	0.5	0.7	0.30	1.60	90	130	0.8	1.50	120	
			11		320 HB	0.5	0.7	0.30	1.60	60	110	0.8	1.20	100	
			11		350 HB	0.5	0.7	0.30	1.60	60	90	0.8	1.20	80	
Stainless Steel	High Alloyed	4	304, 316, X5CrNi18-9	14	180 HB	0.5	1.2	0.30	1.00	190	250	1.2	1.00	220	
				14	240 HB	0.5	1.2	0.30	1.00	160	210	1.2	1.00	190	
	Duplex	5	X2CrNiN23-4, S31500	14	290 HB	0.5	0.9	0.30	0.60	70	130	0.9	0.60	100	
				14	310 HB	0.5	0.9	0.30	0.60	70	120	0.9	0.60	90	
	Ferritic & Martensitic	6	410, X6Cr17, 17-4 PH, 430	12	200 HB	0.5	1.2	0.30	0.70	150	210	1.2	0.70	190	
				13	42 HRc	0.5	1.0	0.30	0.60	90	150	1.0	0.60	130	
Cast Iron	Grey	7	GG20, GG40, EN-GJL-250, No30B	15	150 HB	0.5	1.5	0.30	2.00	150	240	1.5	1.80	200	
				15	200 HB	0.5	1.5	0.30	2.00	150	220	1.5	1.80	180	
				16	250 HB	0.5	1.5	0.30	2.00	150	190	1.5	1.80	160	
Malleable & Nodular	8	GGG40, GGG70, 50005	17,19	150 HB	0.5	1.5	0.30	1.80	100	200	1.5	1.60	180		
			17,19	200 HB	0.5	1.5	0.30	1.80	100	180	1.5	1.60	150		
			18,20	250 HB	0.5	1.5	0.30	1.80	100	150	1.5	1.60	130		
High Temp. Alloys	Fe, Ni & Co based	9	Incoloy 800	31,32	240 HB	0.5	1.3	0.30	0.80	25	45	1.3	0.60	32	
				33	250 HB	0.5	1.3	0.30	0.80	25	45	1.3	0.60	30	
				34	350 HB	0.5	1.3	0.30	0.80	25	45	1.3	0.60	30	
	Ti based	10	TiAl6V4	36	-	0.5	1.3	0.30	0.70	40	65	1.3	0.60	55	
37				T40	-	0.5	1.3	0.30	0.70	30	55	1.3	0.60	40	
Hardened Mat.	Steel	11	X100CrMo13, 440C, G-X260NiCr42	38	45 HRc	0.3	0.6	0.30	1.20	40	80	1.2	1.00	60	
				38	50 HRc	0.3	0.5	0.30	1.00	40	70	1.0	0.90	55	
				38	55 HRc	0.3	0.5	0.30	0.80	40	60	0.9	0.70	50	
				40	Ni-Hard 2	400 HB	0.3	0.5	0.30	0.80	40	80	1.0	0.80	50
				41	G-X300CrMo15	55 HRc	0.3	0.5	0.30	0.80	30	60	0.9	0.80	40
Chilled Cast Iron White Cast Iron	12	25	AlSi12	130 HB	0.5	1.5	0.30	1.00	200	400	1.5	1.00	280		

SDKX 1205-HF – LT 30 | LT 3000

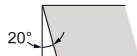
Material Group	Gr. N°	VDI Group	Material Examples	Hardness	D.O.C [mm]		Feed [mm/rev]		V _c [m/min]		Suggested Starting Parameters		
					min	max	min	max	min	max	D.O.C	Feed	V _c
Steel	Non Alloyed	1	C35, CK45, 1020, 1045, 1060, 28Mn6	125 HB	0.3	2.0	0.30	3.00	190	330	1.2	2.00	250
		2		190 HB	0.3	2.0	0.30	3.00	190	300	1.2	2.00	220
		3		250 HB	0.3	2.0	0.30	3.00	190	250	1.2	2.00	200
	Low Alloyed	2	42CrMo4, S150, CK60, 4140, 4340, 100Cr6	180 HB	0.3	1.6	0.30	2.80	150	240	0.9	1.80	200
				230 HB	0.3	1.6	0.30	2.80	150	210	0.9	1.80	180
				280 HB	0.3	1.6	0.30	2.80	130	190	0.9	1.60	150
				350 HB	0.3	1.6	0.30	2.50	130	170	0.9	1.60	140
	High Alloyed	3	X40CrMoV5, H13, M42, D3, S6-5-2, 12Ni19	220 HB	0.3	1.6	0.30	2.50	90	150	0.7	1.40	130
				280 HB	0.3	1.3	0.30	2.20	90	130	0.7	1.40	120
				320 HB	0.3	1.1	0.30	2.00	60	110	0.7	1.20	100
				350 HB	0.3	1.1	0.30	1.80	60	90	0.7	1.20	80
Stainless Steel	Austenitic	4	304, 316, X5CrNi18-9	180 HB	0.3	1.5	0.30	1.10	190	250	0.9	0.90	220
				240 HB	0.3	1.5	0.30	1.10	160	210	0.9	0.90	190
	Duplex	5	X2CrNiN23-4, S31500	290 HB	0.3	1.2	0.30	0.70	70	130	0.8	0.60	100
				310 HB	0.3	1.2	0.30	0.70	70	120	0.8	0.60	90
	Ferritic & Martensitic	6	410, X6Cr17, 17-4 PH, 430	200 HB	0.3	1.5	0.30	0.80	150	210	0.9	0.70	190
				42 HRc	0.3	1.1	0.30	0.70	90	150	0.8	0.60	130
Cast Iron	Grey	7	GG20, GG40, EN-GJL-250, No30B	150 HB	0.3	2.0	0.30	3.00	150	240	1.5	2.00	200
				200 HB	0.3	2.0	0.30	3.00	150	220	1.5	2.00	180
				250 HB	0.3	2.0	0.30	3.00	150	190	1.5	2.00	160
	Malleable & Nodular	8	GGG40, GGG70, 50005	150 HB	0.3	2.0	0.30	2.50	100	200	1.5	1.90	180
				200 HB	0.3	2.0	0.30	2.50	100	180	1.5	1.90	150
				250 HB	0.3	2.0	0.30	2.50	100	150	1.5	1.90	130
High Temp. Alloys	Fe, Ni & Co Based	9	Incoloy 800, Inconel 700, Stellite 21	240 HB	0.3	1.8	0.30	0.70	25	45	1.0	0.60	32
				250 HB	0.3	1.8	0.30	0.60	25	45	1.0	0.60	30
				350 HB	0.3	1.8	0.30	0.60	25	45	1.0	0.60	30
	Ti Based	10	TiAl6V4, T40	-	0.3	1.8	0.30	0.70	40	65	1.0	0.60	55
				-	0.3	2.0	0.30	0.60	30	55	1.0	0.60	40
				-	0.3	2.0	0.30	0.60	30	55	1.0	0.60	40
Hardened Mat.	Steel	11	X100CrMo13, 440C, G-X260NiCr42	45 HRc	0.3	0.8	0.30	1.40	40	80	0.6	1.00	60
				50 HRc	0.3	0.7	0.30	1.20	40	70	0.5	0.90	55
				55 HRc	0.3	0.6	0.30	1.00	40	60	0.4	0.80	50
	Chilled Cast Iron	40	Ni-Hard 2	400 HB	0.3	0.7	0.30	0.90	40	80	0.4	0.80	50
				55 HRc	0.3	0.6	0.30	0.90	30	60	0.4	0.80	40
	White Cast Iron	41	G-X300CrMo15	55 HRc	0.3	0.6	0.30	0.90	30	60	0.4	0.80	40
Al (>8%Si)	12	25	AlSi12	130 HB	0.3	2.0	0.30	1.20	200	400	2.0	1.00	280



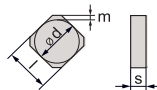
SEKN



Shape



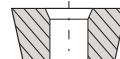
Clearance Angle



Tolerance

 $m \pm 0.013$
 $s \pm 0.025$

 For $l = 12$, $d \pm 0.08$

 For $l = 15$, $d \pm 0.10$
Fixing,
Chipbreaker

LT 30 Multi-Mat™ General Usage – Standard		l	s	r	Direction	Catalog Nr.
SEKN 1203 AFTN	LT 30	12.7	3.18	0.39	Neutral	M0000041
SEKN 1204 AFTN	LT 30	12.7	4.76	0.39	Neutral	M0000042
SEKN 1504 AFTN	LT 30	15.88	4.76	1.1	Neutral	M0000450

SEKN

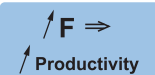
TOOLS & TOOLING

Application Guide

Chamfering



Surfacing

Machining
Recommendations

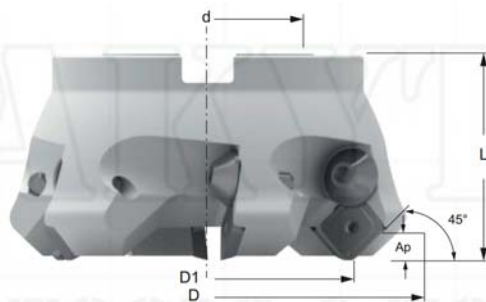
Coolant	1, 2, 3, 4	No
	6, 7, 8, 11	No
	10, 12	Yes
	5, 9	Yes

Shell Mill for SEKN 1203 AFTN							
Cutter Designation	D	D1	d	L	Ap	z	Catalog Nr.
LT 550 M-D-D050/4*	63	50	22	48	6	4	M2000563
LT 550 M-D-D063/5*	76	63	22	48	6	5	M2000564
LT 550 M-D-D080/6*	93	80	27	50	6	6	M2000565
LT 550 M-D-D100/6*	113	100	32	50	6	6	M2000566
LT 550 M-D-D125/7*	138	125	40	63	6	7	M2000567
LT 550 M-D-D160/7*	173	160	40	63	6	7	M2000568
LT 550 M-D-D200/10*	213	200	60	63	6	10	M2000569
LT 550 M-D-D250/13*	263	250	60	63	6	13	M2000570

* On request

Screw: M2000608

Key: M2000609



SEKN 1203 AFTN – LT 30

Material Group	Gr. N°	VDI Group	Material Examples	Hardness	D.O.C (mm)		Feed (mm/rev)		V _c (m/min)		Suggested Starting Parameters					
					min	max	min	max	min	max	D.O.C	Feed	V _c			
Steel	Non-alloyed	1	C35, Ck45, 1020, 1045, 1060, 28Mn6	125 HB	0.5	7.0	0.18	0.46	190	330	3.0	0.34	250			
				190 HB	0.5	7.0	0.18	0.46	190	300	3.0	0.34	220			
				250 HB	0.5	7.0	0.18	0.46	190	250	3.0	0.34	200			
	Low alloyed	2	42CrMo4, S150, Ck60, 4140, 4340, 100Cr6	180 HB	0.5	7.0	0.15	0.36	150	240	3.0	0.30	200			
				230 HB	0.5	7.0	0.15	0.36	150	210	3.0	0.30	180			
				280 HB	0.5	7.0	0.15	0.32	130	190	3.0	0.27	150			
				350 HB	0.5	7.0	0.15	0.32	130	170	3.0	0.27	140			
	High Alloyed	3	X40CrMoV5, H13, M42, D3, S6-5-2, 12N19	220 HB	0.5	5.0	0.12	0.32	90	150	2.3	0.27	130			
				280 HB	0.5	5.0	0.12	0.32	90	130	2.3	0.27	120			
				320 HB	0.5	5.0	0.12	0.26	60	110	2.3	0.24	100			
				350 HB	0.5	5.0	0.12	0.26	60	90	2.3	0.24	80			
Stainless Steel	High Alloyed	4	304, 316, X5CrNi18-9	180 HB	0.5	7.0	0.15	0.32	190	250	3.0	0.27	220			
				240 HB	0.5	7.0	0.12	0.29	160	210	3.0	0.27	190			
	Duplex	5	X2CrNiN23-4, S31500	290 HB	0.5	5.0	0.12	0.26	70	130	2.3	0.24	100			
				310 HB	0.5	5.0	0.12	0.26	70	120	2.3	0.24	90			
	Ferritic & Martensitic	6	410, X6Cr17, 17-4 PH, 430	200 HB	0.5	7.0	0.15	0.32	150	210	3.0	0.27	190			
				42 HRc	0.5	5.0	0.15	0.26	90	150	2.3	0.24	130			
	Cast Iron	Grey	7	GG20, GG40, EN-GJL-250, No30B	150 HB	0.5	7.0	0.18	0.46	150	240	3.0	0.34	200		
					200 HB	0.5	7.0	0.18	0.46	150	220	3.0	0.34	180		
					250 HB	0.5	7.0	0.18	0.46	150	190	3.0	0.34	160		
		Malleable & Nodular	8	GGG40, GGG70, 50005	150 HB	0.5	7.0	0.15	0.41	100	200	3.0	0.30	180		
200 HB					0.5	7.0	0.15	0.41	100	180	3.0	0.30	150			
250 HB					0.5	7.0	0.15	0.41	100	150	3.0	0.30	130			
High Temp. Alloys	Fe, Ni & Co based	9	Incoloy 800	240 HB	0.5	5.0	0.12	0.26	25	45	2.3	0.24	32			
				250 HB	0.5	5.0	0.12	0.26	25	45	2.3	0.24	30			
				350 HB	0.5	5.0	0.12	0.26	25	45	2.3	0.24	30			
	Ti based	10	TiAl6V4	-	0.5	5.0	0.12	0.29	40	65	2.3	0.27	55			
				-	0.5	5.0	0.12	0.26	30	55	2.3	0.24	40			
				Hardened Mat.	11	X100CrMo13, 440C, G-X260NiCr42	45 HRc	0.5	2.5	0.10	0.26	40	80	1.5	0.21	60
							50 HRc	0.5	1.8	0.10	0.23	40	70	1.1	0.19	55
55 HRc	0.5	1.5	0.10				0.20	40	60	0.8	0.18	50				
400 HB	0.5	2.0	0.10				0.26	40	80	1.1	0.21	50				
55 HRc	0.5	1.5	0.10				0.20	30	60	0.8	0.18	40				
White Cast Iron	41	G-X300CrMo15	55 HRc	0.5	1.5	0.10	0.20	30	60	0.8	0.18	40				
NF	Al (>8%Si)	12	AlSi12	130 HB	0.5	7.0	0.18	0.46	200	400	3.0	0.37	280			

SEKN 1204 AFTN – LT 30

Material Group	Gr. №	VDI Group	Material Examples	Hardness	D.O.C [mm]		Feed [mm/rev]		V _c [m/min]		Suggested Starting Parameters			
					min	max	min	max	min	max	D.O.C	Feed	V _c	
Steel	Non Alloyed	1	C35, Ck45, 1020, 1045, 1060, 28Mn6	125 HB	0.5	7.0	0.18	0.46	190	330	3.0	0.34	250	
		2		190 HB	0.5	7.0	0.18	0.46	190	300	3.0	0.34	220	
		3		250 HB	0.5	7.0	0.18	0.46	190	250	3.0	0.34	200	
	Low Alloyed	2	42CrMo4, S150, Ck60, 4140, 4340, 100Cr6	180 HB	0.5	7.0	0.15	0.36	150	240	3.0	0.30	200	
		4,6		230 HB	0.5	7.0	0.15	0.36	150	210	3.0	0.30	180	
		5,7		280 HB	0.5	7.0	0.15	0.32	130	190	3.0	0.27	150	
		8		350 HB	0.5	7.0	0.15	0.32	130	170	3.0	0.27	140	
	High Alloyed	3	X40CrMoV5, H13, M42, D3, S6-5-2, 12Ni19	220 HB	0.5	5.0	0.12	0.32	90	150	2.3	0.27	130	
		10		280 HB	0.5	5.0	0.12	0.32	90	130	2.3	0.27	120	
		11		320 HB	0.5	5.0	0.12	0.26	60	110	2.3	0.24	100	
		11		350 HB	0.5	5.0	0.12	0.26	60	90	2.3	0.24	80	
Stainless Steel	Austenitic	4	304, 316, X5CrNi18-9	180 HB	0.5	7.0	0.15	0.32	190	250	3.0	0.27	220	
		14		240 HB	0.5	7.0	0.12	0.29	160	210	3.0	0.27	190	
	Duplex	5	X2CrNiN23-4, S31500	290 HB	0.5	5.0	0.12	0.26	70	130	2.3	0.24	100	
		14		310 HB	0.5	5.0	0.12	0.26	70	120	2.3	0.24	90	
	Ferritic & Martensitic	6	410, X6Cr17, 17-4 PH, 430	200 HB	0.5	7.0	0.15	0.32	150	210	3.0	0.27	190	
		13		42 HRc	0.5	5.0	0.15	0.26	90	150	2.3	0.24	130	
Cast Iron	Grey	7	GG20, GG40, EN-GJL-250, No30B	150 HB	0.5	7.0	0.18	0.46	150	240	3.0	0.34	200	
		15		200 HB	0.5	7.0	0.18	0.46	150	220	3.0	0.34	180	
		16		250 HB	0.5	7.0	0.18	0.46	150	190	3.0	0.34	160	
	Malleable & Nodular	8	GGG40, GGG70, 50005	150 HB	0.5	7.0	0.15	0.41	100	200	3.0	0.30	180	
		17,19		200 HB	0.5	7.0	0.15	0.41	100	180	3.0	0.30	150	
		18,20		250 HB	0.5	7.0	0.15	0.41	100	150	3.0	0.30	130	
High Temp. Alloys	Fe, Ni & Co Based	9	Incoloy 800, Inconel 700, Stellite 21	240 HB	0.5	5.0	0.12	0.26	25	45	2.3	0.24	32	
		33		250 HB	0.5	5.0	0.12	0.26	25	45	2.3	0.24	30	
		34		350 HB	0.5	5.0	0.12	0.26	25	45	2.3	0.24	30	
	Ti Based	10	TiAl6V4, T40	-	0.5	5.0	0.12	0.29	40	65	2.3	0.27	55	
37		-		0.5	5.0	0.12	0.26	30	55	2.3	0.24	40		
Hardened Mat.	Steel	11	X100CrMo13, 440C, G-X260NiCr42	45 HRc	0.5	2.5	0.10	0.26	40	80	1.5	0.21	60	
		38		50 HRc	0.5	1.8	0.10	0.23	40	70	1.1	0.19	55	
		38		55 HRc	0.5	1.5	0.10	0.20	40	60	0.8	0.18	50	
	Chilled Cast Iron White Cast Iron	40	Ni-Hard 2	400 HB	0.5	2.0	0.10	0.26	40	80	1.1	0.21	50	
		41	G-X300CrMo15	55 HRc	0.5	1.5	0.10	0.20	30	60	0.8	0.18	40	
	NF	Al (>8%Si)	12	25	AlSi12	130 HB	0.5	7.0	0.18	0.46	200	400	3.0	0.37

SEKN 1504 AFTN – LT 30

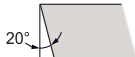
Material Group	Gr. N°	VDI Group	Material Examples	Hardness	D.O.C (mm)		Feed (mm/rev)		V _c (m/min)		Suggested Starting Parameters		
					min	max	min	max	min	max	D.O.C	Feed	V _c
Steel	Non-alloyed	1	C35, Ck45, 1020, 1045, 1060, 28Mn6	125 HB	0.5	9.0	0.18	0.50	190	330	4.0	0.37	250
				190 HB	0.5	9.0	0.18	0.50	190	300	4.0	0.37	220
				250 HB	0.5	9.0	0.18	0.50	190	250	4.0	0.37	200
	Low alloyed	2	42CrMo4, S150, Ck60, 4140, 4340, 100Cr6	180 HB	0.5	9.0	0.15	0.39	150	240	4.0	0.32	200
				230 HB	0.5	9.0	0.15	0.39	150	210	4.0	0.32	180
				280 HB	0.5	9.0	0.15	0.34	130	190	4.0	0.29	150
				350 HB	0.5	9.0	0.15	0.34	130	170	4.0	0.29	140
	High Alloyed	3	X40CrMoV5, H13, M42, D3, S6-5-2, 12Ni19	220 HB	0.5	6.4	0.12	0.34	90	150	3.0	0.29	130
				280 HB	0.5	6.4	0.12	0.34	90	130	3.0	0.29	120
				320 HB	0.5	6.4	0.12	0.28	60	110	3.0	0.26	100
				350 HB	0.5	6.4	0.12	0.28	60	90	3.0	0.26	80
Stainless Steel	High Alloyed	4	304, 316, X5CrNi18-9	180 HB	0.5	9.0	0.15	0.34	190	250	4.0	0.29	220
				240 HB	0.5	9.0	0.12	0.31	160	210	4.0	0.29	190
	Duplex	5	X2CrNi23-4, S31500	290 HB	0.5	6.4	0.12	0.28	70	130	3.0	0.26	100
				310 HB	0.5	6.4	0.12	0.28	70	120	3.0	0.26	90
	Ferritic & Martensitic	6	410, X6Cr17, 17-4 PH, 430	200 HB	0.5	9.0	0.15	0.34	150	210	4.0	0.29	190
				42 HRc	0.5	6.4	0.15	0.28	90	150	3.0	0.26	130
Cast Iron	Grey	7	GG20, GG40, EN-GJL-250, No30B	150 HB	0.5	9.0	0.18	0.50	150	240	4.0	0.37	200
				200 HB	0.5	9.0	0.18	0.50	150	220	4.0	0.37	180
				250 HB	0.5	9.0	0.18	0.50	150	190	4.0	0.37	160
	Malleable & Nodular	8	GGG40, GGG70, 50005	150 HB	0.5	9.0	0.15	0.43	100	200	4.0	0.32	180
				200 HB	0.5	9.0	0.15	0.43	100	180	4.0	0.32	150
				250 HB	0.5	9.0	0.15	0.43	100	150	4.0	0.32	130
High Temp. Alloys	Fe, Ni & Co based	9	Incoley 800	240 HB	0.5	6.4	0.12	0.28	25	45	3.0	0.26	32
				250 HB	0.5	6.4	0.12	0.28	25	45	3.0	0.26	30
				350 HB	0.5	6.4	0.12	0.28	25	45	3.0	0.26	30
	Ti based	10	TiAl6V4	-	0.5	6.4	0.12	0.31	40	65	3.0	0.29	55
				-	0.5	6.4	0.12	0.28	30	55	3.0	0.26	40
				-	0.5	6.4	0.12	0.28	30	55	3.0	0.26	40
Hardened Mat.	Steel	11	X100CrMo13, 440C, G-X260NiCr42	45 HRc	0.5	3.2	0.10	0.28	40	80	2.0	0.22	60
				50 HRc	0.5	1.9	0.10	0.25	40	70	1.5	0.21	55
				55 HRc	0.5	1.6	0.10	0.22	40	60	1.0	0.19	50
	Chilled Cast Iron	40	Ni-Hard 2	400 HB	0.5	2.6	0.10	0.28	40	80	1.5	0.22	50
				55 HRc	0.5	1.6	0.10	0.22	30	60	1.0	0.19	40
	White Cast Iron	41	G-X300CrMo15	55 HRc	0.5	1.6	0.10	0.22	30	60	1.0	0.19	40
NF	Al (>8%Si)	12	AlSi12	130 HB	0.5	9.0	0.18	0.50	200	400	4.0	0.40	280



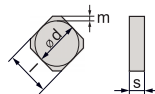
SEKR



Shape

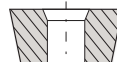


Clearance Angle



Tolerance

$d \pm 0.08$
 $m \pm 0.013$
 $s \pm 0.025$



Insert Type

Clamping,
Chipbreaker

LT 30 Multi-Mat™ General Usage – Standard						
Insert Designation	l	s	r	Direction	Catalog Nr.	
SEKR 1203 AFTN LT 30	12.7	3.18	0.39	Neutral	M0000043	
SEKR 1204 AFTN LT 30	12.7	4.76	0.40	Neutral	M0000044	

Application Guide

Chamfering



Surfacing



Machining Recommendations



↑ **Productivity**



1, 2, 3, 4 No
6, 7, 8, 11 No
10, 12 Yes
Coolant 5, 9 Yes

Stainless Steel

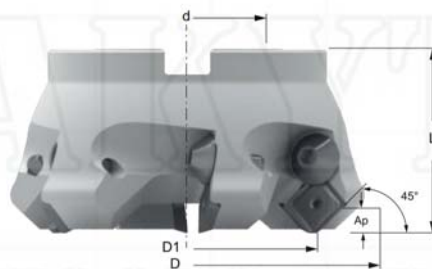


Shell Mill for SEKR 1203 AFTN							
Cutter Designation	D	D1	d	L	Ap	z	Catalog Nr.
LT 550 M-D-D050/4*	63	50	22	48	6	4	M2000563
LT 550 M-D-D063/5*	76	63	22	48	6	5	M2000564
LT 550 M-D-D080/6*	93	80	27	50	6	6	M2000565
LT 550 M-D-D100/6*	113	100	32	50	6	6	M2000566
LT 550 M-D-D125/7*	138	125	40	63	6	7	M2000567
LT 550 M-D-D160/7*	173	160	40	63	6	7	M2000568
LT 550 M-D-D200/10*	213	200	60	63	6	10	M2000569
LT 550 M-D-D250/13*	263	250	60	63	6	13	M2000570

* On request

Screw: M2000608

Key: M2000609



SEKR

SEKR 1203 AFTN – LT 30

Material Group	Gr. №	VDI Group	Material Examples	Hardness	D.O.C [mm]		Feed [mm/rev]		V _c [m/min]		Suggested Starting Parameters			
					min	max	min	max	min	max	D.O.C	Feed	V _c	
Steel	Non Alloyed	1	C35, Ck45, 1020, 1045, 1060, 28Mn6	125 HB	0.5	7.0	0.18	0.46	190	330	3.0	0.34	250	
		2		190 HB	0.5	7.0	0.18	0.46	190	300	3.0	0.34	220	
		3		250 HB	0.5	7.0	0.18	0.46	190	250	3.0	0.34	200	
	Low Alloyed	2	42CrMo4, St50, Ck60, 4140, 4340, 100Cr6	180 HB	0.5	7.0	0.15	0.36	150	240	3.0	0.30	200	
		4,6		230 HB	0.5	7.0	0.15	0.36	150	210	3.0	0.30	180	
		5,7		280 HB	0.5	7.0	0.15	0.32	130	190	3.0	0.27	150	
		8		350 HB	0.5	7.0	0.15	0.32	130	170	3.0	0.27	140	
	High Alloyed	3	X40CrMoV5, H13, M42, D3, S6-5-2, 12Ni19	220 HB	0.5	5.0	0.12	0.32	90	150	2.3	0.27	130	
		10		280 HB	0.5	5.0	0.12	0.32	90	130	2.3	0.27	120	
		11		320 HB	0.5	5.0	0.12	0.26	60	110	2.3	0.24	100	
		11		350 HB	0.5	5.0	0.12	0.26	60	90	2.3	0.24	80	
Stainless Steel	Austenitic	4	304, 316, X5CrNi18-9	180 HB	0.5	7.0	0.15	0.32	190	250	3.0	0.27	220	
		14		240 HB	0.5	7.0	0.12	0.29	160	210	3.0	0.27	190	
	Duplex	5	X2CrNiN23-4, S31500	290 HB	0.5	5.0	0.12	0.26	70	130	2.3	0.24	100	
		14		310 HB	0.5	5.0	0.12	0.26	70	120	2.3	0.24	90	
	Ferritic & Martensitic	6	410, X6Cr17, 17-4 PH, 430	200 HB	0.5	7.0	0.15	0.32	150	210	3.0	0.27	190	
		13		42 HRc	0.5	5.0	0.15	0.26	90	150	2.3	0.24	130	
Cast Iron	Grey	7	GG20, GG40, EN-GJL-250, No30B	150 HB	0.5	7.0	0.18	0.46	150	240	3.0	0.34	200	
		15		200 HB	0.5	7.0	0.18	0.46	150	220	3.0	0.34	180	
		16		250 HB	0.5	7.0	0.18	0.46	150	190	3.0	0.34	160	
	Malleable & Nodular	8	GGG40, GGG70, 50005	150 HB	0.5	7.0	0.15	0.41	100	200	3.0	0.30	180	
		17,19		200 HB	0.5	7.0	0.15	0.41	100	180	3.0	0.30	150	
		18,20		250 HB	0.5	7.0	0.15	0.41	100	150	3.0	0.30	130	
High Temp. Alloys	Fe, Ni & Co Based	9	Incoloy 800, Inconel 700, Stellite 21	240 HB	0.5	5.0	0.12	0.26	25	45	2.3	0.24	32	
		33		250 HB	0.5	5.0	0.12	0.26	25	45	2.3	0.24	30	
		34		350 HB	0.5	5.0	0.12	0.26	25	45	2.3	0.24	30	
	Ti Based	10	TiAl6V4, T40	-	0.5	5.0	0.12	0.29	40	65	2.3	0.27	55	
		36		-	0.5	5.0	0.12	0.26	30	55	2.3	0.24	40	
		37		-	0.5	5.0	0.12	0.26	30	55	2.3	0.24	40	
Hardened Mat.	Steel	11	X100CrMo13, 440C, G-X260NiCr42	45 HRc	0.5	2.5	0.10	0.26	40	80	1.5	0.21	60	
		38		50 HRc	0.5	1.8	0.10	0.23	40	70	1.1	0.19	55	
		38		55 HRc	0.5	1.5	0.10	0.20	40	60	0.8	0.18	50	
	Chilled Cast Iron White Cast Iron	40	Ni-Hard 2	400 HB	0.5	2.0	0.10	0.26	40	80	1.1	0.21	50	
		41	G-X300CrMo15	55 HRc	0.5	1.5	0.10	0.20	30	60	0.8	0.18	40	
NF	Al (>8%Si)	12	25	AlSi12	130 HB	0.5	7.0	0.18	0.46	200	400	3.0	0.37	280

SEKR 1204 AFTN – LT 30

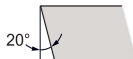
Material Group	Gr. N°	VDI Group	Material Examples	Hardness	D.O.C (mm)		Feed (mm/rev)		V _c (m/min)		Suggested Starting Parameters					
					min	max	min	max	min	max	D.O.C	Feed	V _c			
Steel	Non-alloyed	1	C35, Ck45, 1020, 1045, 1060, 28Mn6	125 HB	0.5	7.0	0.18	0.46	190	330	3.0	0.34	250			
				190 HB	0.5	7.0	0.18	0.46	190	300	3.0	0.34	220			
				250 HB	0.5	7.0	0.18	0.46	190	250	3.0	0.34	200			
	Low alloyed	2	42CrMo4, S150, Ck60, 4140, 4340, 100Cr6	180 HB	0.5	7.0	0.15	0.36	150	240	3.0	0.30	200			
				230 HB	0.5	7.0	0.15	0.36	150	210	3.0	0.30	180			
				280 HB	0.5	7.0	0.15	0.32	130	190	3.0	0.27	150			
				350 HB	0.5	7.0	0.15	0.32	130	170	3.0	0.27	140			
	High Alloyed	3	X40CrMoV5, H13, M42, D3, S6-5-2, 12N19	220 HB	0.5	5.0	0.12	0.32	90	150	2.3	0.27	130			
				280 HB	0.5	5.0	0.12	0.32	90	130	2.3	0.27	120			
				320 HB	0.5	5.0	0.12	0.26	60	110	2.3	0.24	100			
				350 HB	0.5	5.0	0.12	0.26	60	90	2.3	0.24	80			
Stainless Steel	High Alloyed	4	304, 316, X5CrNi18-9	180 HB	0.5	7.0	0.15	0.32	190	250	3.0	0.27	220			
				240 HB	0.5	7.0	0.12	0.29	160	210	3.0	0.27	190			
	Duplex	5	X2CrNiN23-4, S31500	290 HB	0.5	5.0	0.12	0.26	70	130	2.3	0.24	100			
				310 HB	0.5	5.0	0.12	0.26	70	120	2.3	0.24	90			
	Ferritic & Martensitic	6	410, X6Cr17, 17-4 PH, 430	200 HB	0.5	7.0	0.15	0.32	150	210	3.0	0.27	190			
				42 HRc	0.5	5.0	0.15	0.26	90	150	2.3	0.24	130			
	Cast Iron	Grey	7	GG20, GG40, EN-GJL-250, No30B	150 HB	0.5	7.0	0.18	0.46	150	240	3.0	0.34	200		
					200 HB	0.5	7.0	0.18	0.46	150	220	3.0	0.34	180		
					250 HB	0.5	7.0	0.18	0.46	150	190	3.0	0.34	160		
		Malleable & Nodular	8	GGG40, GGG70, 50005	150 HB	0.5	7.0	0.15	0.41	100	200	3.0	0.30	180		
200 HB					0.5	7.0	0.15	0.41	100	180	3.0	0.30	150			
250 HB					0.5	7.0	0.15	0.41	100	150	3.0	0.30	130			
High Temp. Alloys	Fe, Ni & Co based	9	Incoloy 800, Inconel 700, Stellite 21	240 HB	0.5	5.0	0.12	0.26	25	45	2.3	0.24	32			
				250 HB	0.5	5.0	0.12	0.26	25	45	2.3	0.24	30			
				350 HB	0.5	5.0	0.12	0.26	25	45	2.3	0.24	30			
	Ti based	10	TiAl6V4, T40	-	0.5	5.0	0.12	0.29	40	65	2.3	0.27	55			
				-	0.5	5.0	0.12	0.26	30	55	2.3	0.24	40			
				Hardened Mat.	11	X100CrMo13, 440C, G-X260NiCr42, Ni-Hard 2, G-X300CrMo15	45 HRc	0.5	2.5	0.10	0.26	40	80	1.5	0.21	60
							50 HRc	0.5	1.8	0.10	0.23	40	70	1.1	0.19	55
55 HRc	0.5	1.5	0.10				0.20	40	60	0.8	0.18	50				
400 HB	0.5	2.0	0.10				0.26	40	80	1.1	0.21	50				
55 HRc	0.5	1.5	0.10				0.20	30	60	0.8	0.18	40				
Chilled Cast Iron White Cast Iron	12	25	AlSi12	130 HB	0.5	7.0	0.18	0.46	200	400	3.0	0.37	280			



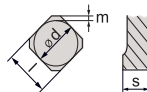
SEKT



Shape

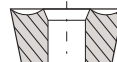


Clearance Angle



Tolerance

d ± 0.08
m ± 0.013
s ± 0.025

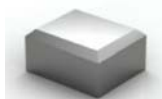
Fixing,
Chipbreaker

LT 30		Multi-Mat™ General Usage – Standard				
Insert Designation	l	s	r	Direction	Catalog Nr.	
SEKT 12T3 AGSN LT 30	13.4	3.97	1.2	Neutral	M0000455	
SEKT 1204 AFTN LT 30	12.7	4.76	0.85	Neutral	M0000045	

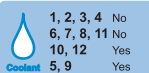
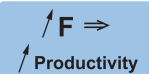
LT 3000		Multi-Mat™ General Usage – Premium				
Insert Designation	l	s	r	Direction	Catalog Nr.	
SEKT 12T3 AGSN LT 3000	13.4	3.97	1.2	Neutral	M0002231	
SEKT 1204 AFTN LT 3000	12.7	4.76	0.85	Neutral	M0002230	

Application Guide

Chamfering



Surfacing

Machining
Recommendations

Shell Mill for SEKT 1204 AFTN

Cutter Designation	D	D1	d	L	Ap	z	Catalog Nr.
LT 600 M-W-D040/3	53	40	16	40	6	3	M2000546
LT 600 M-W-D050/4	63	50	22	48	6	4	M2000547
LT 600 M-W-D063/5	76	63	22	48	6	5	M2000548
LT 600 M-W-D080/6	93	80	27	50	6	6	M2000549
LT 600 M-W-D100/6	113	100	32	50	6	6	M2000500
LT 600 M-W-D125/7	138	125	40	63	6	7	M2000551
LT 600 M-W-D160/8	173	160	40	63	6	8	M2000552

Screw: M2000599

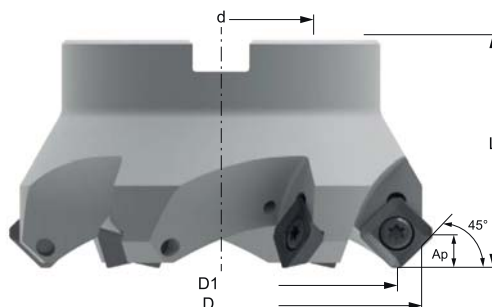
Key: M2000603

Shell Mill for SEKT 12T3 AFTN

Cutter Designation	D	D1	d	L	Ap	z	Catalog Nr.
LT 610 M-W-D040/3	53	40	16	40	6	3	M2001431
LT 610 M-W-D050/4	63	50	22	48	6	4	M2001382
LT 610 M-W-D063/5	76	63	22	48	6	5	M2001383
LT 610 M-W-D080/6	93	80	27	50	6	6	M2001384
LT 610 M-W-D100/6	113	100	32	50	6	6	M2001432
LT 610 M-W-D125/7	138	125	40	63	6	7	M2001433
LT 610 M-W-D160/8	173	160	40	63	6	8	M2001434

Screw: M2000602

Key: M2001418



SEKT 1204 AFTN – LT 30 | LT 3000

Material Group	Gr. №	VDI Group	Material Examples	Hardness	D.O.C [mm]		Feed [mm/rev]		V _c [m/min]		Suggested Starting Parameters				
					min	max	min	max	min	max	D.O.C	Feed	V _c		
Steel	Non Alloyed	1	1	C35, Ck45,	125 HB	0.5	7.0	0.18	0.46	190	330	3.0	0.34	250	
		2	2	1020, 1045,	190 HB	0.5	7.0	0.18	0.46	190	300	3.0	0.34	220	
		3	3	1060, 28Mn6	250 HB	0.5	7.0	0.18	0.46	190	250	3.0	0.34	200	
	Low Alloyed	2	6	4	42CrMo4,	180 HB	0.5	7.0	0.15	0.36	150	240	3.0	0.30	200
			4,6	5	S150, Ck60,	230 HB	0.5	7.0	0.15	0.36	150	210	3.0	0.30	180
			5,7	6	4140, 4340,	280 HB	0.5	7.0	0.15	0.32	130	190	3.0	0.27	150
			8	7	100Cr6	350 HB	0.5	7.0	0.15	0.32	130	170	3.0	0.27	140
	High Alloyed	3	10	10	X40CrMoV5,	220 HB	0.5	5.0	0.12	0.32	90	150	2.3	0.27	130
			10	11	H13, M42, D3,	280 HB	0.5	5.0	0.12	0.32	90	130	2.3	0.27	120
			11	12	S6-5-2, 12Ni19	320 HB	0.5	5.0	0.12	0.26	60	110	2.3	0.24	100
			11	13		350 HB	0.5	5.0	0.12	0.26	60	90	2.3	0.24	80
Stainless Steel	Austenitic	4	14	304, 316,	180 HB	0.5	7.0	0.15	0.32	190	250	3.0	0.27	220	
			14	X5CrNi18-9	240 HB	0.5	7.0	0.12	0.29	160	210	3.0	0.27	190	
	Duplex	5	14	X2CrNiN23-4,	290 HB	0.5	5.0	0.12	0.26	70	130	2.3	0.24	100	
			14	S31500	310 HB	0.5	5.0	0.12	0.26	70	120	2.3	0.24	90	
	Ferritic & Martensitic	6	12	410, X6Cr17,	200 HB	0.5	7.0	0.15	0.32	150	210	3.0	0.27	190	
			13	17-4 PH, 430	42 HRc	0.5	5.0	0.15	0.26	90	150	2.3	0.24	130	
Cast Iron	Grey	7	15	GG20, GG40,	150 HB	0.5	7.0	0.18	0.46	150	240	3.0	0.34	200	
			15	EN-GJL-250,	200 HB	0.5	7.0	0.18	0.46	150	220	3.0	0.34	180	
			16	No30B	250 HB	0.5	7.0	0.18	0.46	150	190	3.0	0.34	160	
Malleable & Nodular	8	17,19	GGG40, GGG70,	150 HB	0.5	7.0	0.15	0.41	100	200	3.0	0.30	180		
		17,19	50005	200 HB	0.5	7.0	0.15	0.41	100	180	3.0	0.30	150		
		18,20		250 HB	0.5	7.0	0.15	0.41	100	150	3.0	0.30	130		
High Temp. Alloys	Fe, Ni & Co Based	9	31,32	Incoloy 800	240 HB	0.5	5.0	0.12	0.26	25	45	2.3	0.24	32	
			33	Inconel 700	250 HB	0.5	5.0	0.12	0.26	25	45	2.3	0.24	30	
			34	Stellite 21	350 HB	0.5	5.0	0.12	0.26	25	45	2.3	0.24	30	
Ti Based	10	36	TiAl6V4	-	0.5	5.0	0.12	0.29	40	65	2.3	0.27	55		
		37	T40	-	0.5	5.0	0.12	0.26	30	55	2.3	0.24	40		
Hardened Mat.	Steel	11	38	X100CrMo13,	45 HRc	0.5	2.5	0.10	0.26	40	80	1.5	0.21	60	
			38	440C,	50 HRc	0.5	1.8	0.10	0.23	40	70	1.1	0.19	55	
			38	G-X260NiCr42	55 HRc	0.5	1.5	0.10	0.20	40	60	0.8	0.18	50	
	Chilled Cast Iron White Cast Iron	11	40	Ni-Hard 2	400 HB	0.5	2.0	0.10	0.26	40	80	1.1	0.21	50	
			41	G-X300CrMo15	55 HRc	0.5	1.5	0.10	0.20	30	60	0.8	0.18	40	
NF	Al (>8%Si)	12	25	AlSi12	130 HB	0.5	7.0	0.18	0.46	200	400	3.0	0.37	280	

SEKT 12T3 AGSN – LT 30 | LT 3000

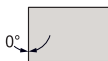
Material Group	Gr. N°	VDI Group	Material Examples	Hardness	D.O.C (mm)		Feed (mm/rev)		V _c (m/min)		Suggested Starting Parameters			
					min	max	min	max	min	max	D.O.C	Feed	V _c	
Steel	Non-alloyed	1	C35, Ck45, 1020, 1045, 1060, 28Mn6	125 HB	0.5	7.0	0.18	0.46	190	330	3.0	0.34	250	
		2		190 HB	0.5	7.0	0.18	0.46	190	300	3.0	0.34	220	
		3		250 HB	0.5	7.0	0.18	0.46	190	250	3.0	0.34	200	
	Low alloyed	2	42CrMo4, St50, Ck60, 4140, 4340, 100Cr6	180 HB	0.5	7.0	0.15	0.36	150	240	3.0	0.30	200	
				230 HB	0.5	7.0	0.15	0.36	150	210	3.0	0.30	180	
				280 HB	0.5	7.0	0.15	0.32	130	190	3.0	0.27	150	
				350 HB	0.5	7.0	0.15	0.32	130	170	3.0	0.27	140	
	High Alloyed	3	X40CrMoV5, H13, M42, D3, S6-5-2, 12Ni19	220 HB	0.5	5.0	0.12	0.32	90	150	2.3	0.27	130	
				280 HB	0.5	5.0	0.12	0.32	90	130	2.3	0.27	120	
				320 HB	0.5	5.0	0.12	0.26	60	110	2.3	0.24	100	
				350 HB	0.5	5.0	0.12	0.26	60	90	2.3	0.24	80	
Stainless Steel	High Alloyed	4	304, 316, X5CrNi18-9	180 HB	0.5	7.0	0.15	0.32	190	250	3.0	0.27	220	
				240 HB	0.5	7.0	0.12	0.29	160	210	3.0	0.27	190	
	Duplex	5	X2CrNiN23-4, S31500	290 HB	0.5	5.0	0.12	0.26	70	130	2.3	0.24	100	
				310 HB	0.5	5.0	0.12	0.26	70	120	2.3	0.24	90	
	Ferritic & Martensitic	6	410, X6Cr17, 17-4 PH, 430	200 HB	0.5	7.0	0.15	0.32	150	210	3.0	0.27	190	
				42 HRc	0.5	5.0	0.15	0.26	90	150	2.3	0.24	130	
Cast Iron	Grey	7	GG20, GG40, EN-GJL-250, No30B	150 HB	0.5	7.0	0.18	0.46	150	240	3.0	0.34	200	
				200 HB	0.5	7.0	0.18	0.46	150	220	3.0	0.34	180	
				250 HB	0.5	7.0	0.18	0.46	150	190	3.0	0.34	160	
	Malleable & Nodular	8	GGG40, GGG70, 50005	150 HB	0.5	7.0	0.15	0.41	100	200	3.0	0.30	180	
				200 HB	0.5	7.0	0.15	0.41	100	180	3.0	0.30	150	
				250 HB	0.5	7.0	0.15	0.41	100	150	3.0	0.30	130	
High Temp. Alloys	Fe, Ni & Co based	9	Incoloy 800	240 HB	0.5	5.0	0.12	0.26	25	45	2.3	0.24	32	
				250 HB	0.5	5.0	0.12	0.26	25	45	2.3	0.24	30	
				350 HB	0.5	5.0	0.12	0.26	25	45	2.3	0.24	30	
	Ti based	10	TiAl6V4	-	0.5	5.0	0.12	0.29	40	65	2.3	0.27	55	
				-	0.5	5.0	0.12	0.26	30	55	2.3	0.24	40	
Hardened Mat.	Steel	11	X100CrMo13, 440C, G-X260NiCr42	45 HRc	0.5	2.5	0.10	0.26	40	80	1.5	0.21	60	
				50 HRc	0.5	1.8	0.10	0.23	40	70	1.1	0.19	55	
				55 HRc	0.5	1.5	0.10	0.20	40	60	0.8	0.18	50	
	Chilled Cast Iron	40	Ni-Hard 2	400 HB	0.5	2.0	0.10	0.26	40	80	1.1	0.21	50	
				55 HRc	0.5	1.5	0.10	0.20	30	60	0.8	0.18	40	
	White Cast Iron	41	G-X300CrMo15	55 HRc	0.5	1.5	0.10	0.20	30	60	0.8	0.18	40	
NF	Al (>8%Si)	12	25	AlSi12	130 HB	0.5	7.0	0.18	0.46	200	400	3.0	0.37	280



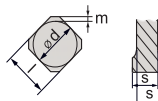
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Shape

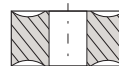


Clearance Angle



Tolerance

d ± 0.05
m ± 0.013
s ± 0.025

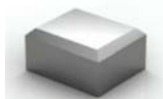
Fixing,
Chipbreaker

LT 30 Multi-Mat™ General Usage – Standard						
Insert Designation	l	s	r	Direction	Catalog Nr.	
SNKX 1205-45 LT 30	12.70	6.20	0.85	Neutral	M0003221	
SNKX 1607-45 LT 30	16.70	7.70	0.80	Neutral	M0002205	

LT 3000 Multi-Mat™ General Usage – Premium						
Insert Designation	l	s	r	Direction	Catalog Nr.	
SNKX 1205-45 LT 3000	12.70	6.20	0.85	Neutral	M0003415	
SNKX 1607-45 LT 3000	16.70	7.70	0.80	Neutral	M0002237	

Application Guide

Chamfering



Surfacing

Machining
Recommendations

↑ Productivity



1, 2, 3, 4 No
6, 7, 8, 11 No
10, 12 Yes
Coolant 5, 9 Yes

Stainless Steel



Shell Mill for SNKX 1205-45°

Cutter Designation	D	D1	d	L	Ap	z	Catalog Nr.
LT 946 M-W-D050/4	-	50	22	48	6	4	M2003223
LT 946 M-W-D063/6	-	63	22	48	6	6	M2003224
LT 946 M-W-D080/7	-	80	27	50	6	7	M2003225
LT 946 M-W-D100/8	-	100	32	50	6	8	M2003226
LT 946 M-W-D125/10	-	125	40	63	6	10	M2003227
LT 946 M-W-D160/12	-	160	40	63	6	12	M2003228

Screw: M2002101

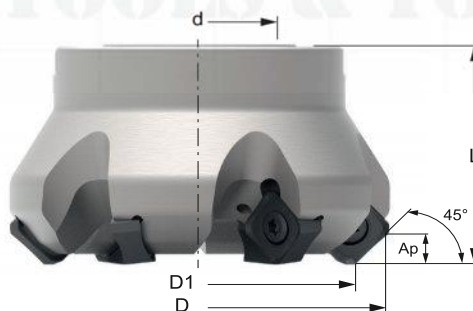
Key: M2002911

Shell Mill for SNKX 1604-45°

Cutter Designation	D	D1	d	L	Ap	z	Catalog Nr.
LT 947 M-W-D050/4	69	50	22	50	7	4	M2002200
LT 947 M-W-D063/5	82	63	22	50	7	5	M2002201
LT 947 M-W-D080/6	99	80	27	50	7	6	M2002202
LT 947 M-W-D100/7	119	100	32	63	7	7	M2002203
LT 947 M-W-D125/8	144	125	40	63	7	8	M2002204

Screw: M2002101

Key: M2002911



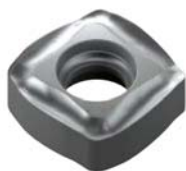
SNKX 45

SNKX 1205-45° – LT 30 | LT 3000

Material Group	Gr. N°	VDI Group	Material Examples	Hardness	D.O.C [mm]		Feed [mm/rev]		V _c [m/min]		Suggested Starting Parameters				
					min	max	min	max	min	max	D.O.C	Feed	V _c		
Steel	Non Alloyed	1	1	C35, Ck45,	125 HB	0.5	5.0	0.16	0.34	190	330	3.0	0.30	250	
		2	2	1020, 1045,	190 HB	0.5	5.0	0.16	0.34	190	300	3.0	0.30	220	
		3	3	1060, 28Mn6	250 HB	0.5	5.0	0.16	0.34	190	250	3.0	0.30	200	
	Low Alloyed	2	6	4	42CrMo4,	180 HB	0.5	5.0	0.14	0.28	150	240	3.0	0.26	200
			4,6	5	S150, Ck60,	230 HB	0.5	5.0	0.14	0.28	150	210	3.0	0.26	180
			5,7	6	4140, 4340,	280 HB	0.5	5.0	0.14	0.26	130	190	3.0	0.24	150
			8	7	100Cr6	350 HB	0.5	5.0	0.14	0.26	130	170	3.0	0.24	140
	High Alloyed	3	10	10	X40CrMoV5,	220 HB	0.5	5.0	0.11	0.28	90	150	3.0	0.26	130
			10	11	H13, M42, D3,	280 HB	0.5	5.0	0.11	0.28	90	130	3.0	0.26	120
			11	12	S6-5-2, 12N19	320 HB	0.5	5.0	0.11	0.24	60	110	3.0	0.22	100
			11	13		350 HB	0.5	5.0	0.11	0.24	60	90	3.0	0.22	80
Stainless Steel	Austenitic	4	14	304, 316,	180 HB	0.5	5.0	0.14	0.30	190	250	3.0	0.26	220	
			14	X5CrNi18-9	240 HB	0.5	5.0	0.11	0.30	160	210	3.0	0.26	190	
	Duplex	5	14	X2CrNi23-4,	290 HB	0.5	4.0	0.11	0.25	70	130	2.5	0.22	100	
			14	S31500	310 HB	0.5	4.0	0.11	0.25	70	120	2.5	0.22	90	
	Ferritic & Martensitic	6	12	410, X6Cr17,	200 HB	0.5	5.0	0.14	0.30	150	210	3.0	0.26	190	
			13	17-4 PH, 430	42 HRc	0.5	4.0	0.14	0.25	90	150	3.0	0.22	130	
Cast Iron	Grey	7	15	GG20, GG40,	150 HB	0.5	5.0	0.17	0.34	150	240	3.0	0.30	200	
			15	EN-GJL-250,	200 HB	0.5	5.0	0.17	0.34	150	220	3.0	0.30	180	
			16	No30B	250 HB	0.5	5.0	0.17	0.34	150	190	3.0	0.30	160	
Malleable & Nodular	8	17,19	GGG40, GGG70,	150 HB	0.5	5.0	0.14	0.30	100	200	3.0	0.27	180		
		17,19	50005	200 HB	0.5	5.0	0.14	0.30	100	180	3.0	0.27	150		
		18,20		250 HB	0.5	5.0	0.14	0.30	100	150	3.0	0.27	130		
High Temp. Alloys	Fe, Ni & Co Based	9	31,32	Incoloy 800	240 HB	0.5	4.0	0.11	0.20	25	45	2.5	0.18	32	
			33	Inconel 700	250 HB	0.5	4.0	0.11	0.20	25	45	2.5	0.18	30	
			34	Stellite 21	350 HB	0.5	4.0	0.11	0.20	25	45	2.5	0.18	30	
Ti Based	10	36	TiAl6V4	-	0.5	4.0	0.11	0.25	40	65	2.5	0.23	55		
		37	T40	-	0.5	4.0	0.11	0.23	30	55	2.5	0.20	40		
Hardened Mat.	Steel	11	38	X100CrMo13,	45 HRc	0.4	2.0	0.10	0.22	40	80	1.3	0.18	60	
			38	440C,	50 HRc	0.4	2.0	0.10	0.20	40	70	1.3	0.16	55	
			38	G-X260NiCr42	55 HRc	0.4	1.0	0.10	0.18	40	60	1.0	0.15	50	
	Chilled Cast Iron White Cast Iron	11	40	Ni-Hard 2	400 HB	0.4	2.0	0.10	0.22	40	80	1.3	0.19	50	
			41	G-X300CrMo15	55 HRc	0.4	1.0	0.10	0.20	30	60	1.0	0.17	40	
NF	Al (>8%Si)	12	25	AlSi12	130 HB	0.5	5.0	0.17	0.36	200	400	3.0	0.30	280	

SNKX 1607-45° – LT 30 | LT 3000

Material Group	Gr. N°	VDI Group	Material Examples	Hardness	D.O.C (mm)		Feed (mm/rev)		V _c (m/min)		Suggested Starting Parameters			
					min	max	min	max	min	max	D.O.C	Feed	V _c	
Steel	Non-alloyed	1	1	C35, Ck45,	125 HB	0.5	6.5	0.16	0.58	190	330	4.0	0.46	250
			2	1020, 1045,	190 HB	0.5	6.5	0.16	0.58	190	300	4.0	0.46	220
			3	1060, 28Mn6	250 HB	0.5	6.5	0.16	0.58	190	250	4.0	0.46	200
	Low alloyed	2	6	42CrMo4,	180 HB	0.5	6.5	0.14	0.50	150	240	4.0	0.40	200
			4,6	Sf50, Ck60,	230 HB	0.5	6.5	0.14	0.50	150	210	4.0	0.40	180
			5,7	4140, 4340,	280 HB	0.5	6.5	0.14	0.44	130	190	4.0	0.36	150
			8	100Cr6	350 HB	0.5	6.5	0.14	0.44	130	170	4.0	0.36	140
	High Alloyed	3	10	X40CrMoV5, H13, M42, D3, S6-5-2, 12Ni19	220 HB	0.5	6.5	0.11	0.44	90	150	3.0	0.36	130
			10		280 HB	0.5	6.5	0.11	0.44	90	130	3.0	0.36	120
			11		320 HB	0.5	6.5	0.11	0.36	60	110	3.0	0.32	100
			11		350 HB	0.5	6.5	0.11	0.36	60	90	3.0	0.32	80
Stainless Steel	High Alloyed	4	14	304, 316,	180 HB	0.5	6.5	0.14	0.44	190	250	4.0	0.34	220
			14	X5CrNi18-9	240 HB	0.5	6.5	0.11	0.40	160	210	4.0	0.34	190
	Duplex	5	14	X2CrNi23-4,	290 HB	0.5	5.0	0.11	0.36	70	130	3.0	0.30	100
			14	S31500	310 HB	0.5	5.0	0.11	0.36	70	120	3.0	0.30	90
	Ferritic & Martensitic	6	12	410, X6Cr17,	200 HB	0.5	6.5	0.14	0.44	150	210	4.0	0.34	190
			13	17-4 PH, 430	42 HRc	0.5	5.0	0.14	0.40	90	150	3.0	0.30	130
Cast Iron	Grey	7	15	GG20, GG40,	150 HB	0.5	6.5	0.17	0.58	150	240	4.0	0.46	200
			15	EN-GJL-250, No30B	200 HB	0.5	6.5	0.17	0.58	150	220	4.0	0.46	180
			16		250 HB	0.5	6.5	0.17	0.58	150	190	4.0	0.46	160
Malleable & Nodular	8	17,19	GGG40, GGG70, 50005	150 HB	0.5	6.5	0.14	0.52	100	200	4.0	0.40	180	
		17,19		200 HB	0.5	6.5	0.14	0.52	100	180	4.0	0.40	150	
		18,20		250 HB	0.5	6.5	0.14	0.52	100	150	4.0	0.40	130	
High Temp. Alloys	Fe, Ni & Co based	9	31,32	Incoloy 800	240 HB	0.5	5.0	0.11	0.36	25	45	3.0	0.30	32
			33	Inconel 700	250 HB	0.5	5.0	0.11	0.36	25	45	3.0	0.30	30
			34	Stellite 21	350 HB	0.5	5.0	0.11	0.36	25	45	3.0	0.30	30
	Ti based	10	36	TiAl6V4	-	0.5	5.0	0.11	0.40	40	65	3.0	0.34	55
37			T40	-	0.5	5.0	0.11	0.36	30	55	3.0	0.30	40	
Hardened Mat.	Steel	11	38	X100CrMo13,	45 HRc	0.4	3.0	0.10	0.36	40	80	2.0	0.28	60
			38	440C,	50 HRc	0.4	3.0	0.10	0.32	40	70	1.5	0.26	55
			38	G-X260NiCr42	55 HRc	0.4	1.5	0.10	0.28	40	60	1.0	0.24	50
	Chilled Cast Iron	40	Ni-Hard 2	400 HB	0.4	3.0	0.10	0.36	40	80	1.5	0.28	50	
			White Cast Iron	41	G-X300CrMo15	55 HRc	0.4	1.5	0.10	0.28	30	60	1.0	0.24
	Al (>8%Si)	12		25	AlSi12	130 HB	0.5	6.5	0.17	0.60	200	400	4.0	0.50



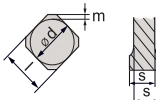
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Shape

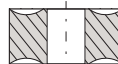


Clearance Angle



Tolerance

$d \pm 0.05$
 $m \pm 0.013$
 $s \pm 0.025$

Fixing,
Chipbreaker

LT 30 Multi-Mat™ General Usage – Standard					
Insert Designation	l	s	R prog.	Direction	Catalog Nr.
SNKX 09T3-HF LT 30	9.67	3.71	4.2	Right	M0002115

LT 3000 Multi-Mat™ General Usage – Premium					
Insert Designation	l	s	R prog.	Direction	Catalog Nr.
SNKX 09T3-HF LT 3000	9.67	3.71	4.2	Right	M0002236

Application Guide

Copying



Helical Interpolation



Pocket Milling



Ramping Down



Surfacing

Machining
Recommendations

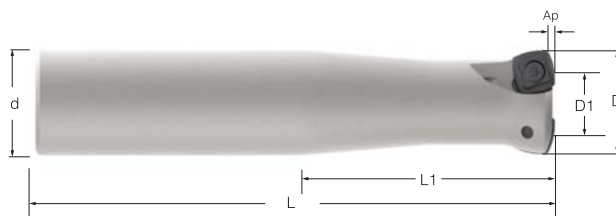
Productivity



1, 2, 3, 4 No
 6, 7, 8, 11 No
 10, 12 Yes
 Coolant 5, 9 Yes

End Mill for SNKX 09T3-HF

Cutter Designation	D	D1	d	L	L1	Ap	z	α	Catalog Nr.
LT 900 WL-W-D025/2	25	13.5	25	200	60	1	2	3.5	M2002117
LT 900 W-W-D025/3	25	13.5	25	120	60	1	3	3.5	M2002118
LT 900 WL-W-D032/3	32	20.5	32	200	60	1	3	2.0	M2002120
LT 900 W-W-D032/4	32	20.5	32	120	60	1	4	2.0	M2002119



Screw: M2002101
Key: M2002911

Shell Mill for SNKX 09T3-HF

Cutter Designation	D	D1	d	L	Ap	z	α	Catalog Nr.
LT 900 M-W-D040/5	40	28.5	16	40	1	5	3.5	M2002121
LT 900 M-W-D042/5	42	30.5	16	40	1	5	3.2	M2002122
LT 900 M-W-D050/6	50	38.5	22	40	1	6	2.5	M2002123
LT 900 M-W-D052/6	52	40.5	22	40	1	5	2.2	M2002124
LT 900 M-W-D063/6	63	51.5	22	40	1	6	1.8	M2002125
LT 900 M-W-D066/6	66	54.5	22	40	1	6	1.7	M2002127



Screw: M2002101
Key: M2002911

Screw Coupling for SNKX 09T3-HF

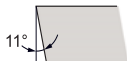
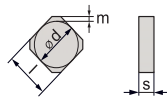
Cutter Designation	D	D1	d	L1	Ap	z	α	Catalog Nr.
LT 900 S-W-D025/3	25	13.5	M12	35	1	3	3.5	M2002128
LT 900 S-W-D032/4	32	20.5	M16	35	1	4	2.0	M2002129
LT 900 S-W-D035/4	35	23.5	M16	35	1	4	1.5	M2002130



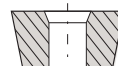
Screw: M2002101
Key: M2002911

SNKX 09T3-HF – LT 30 | LT 3000

Material Group	Gr. N°	VDI Group	Material Examples	Hardness	D.O.C [mm]		Feed [mm/rev]		V _c [m/min]		Suggested Starting Parameters			
					min	max	min	max	min	max	D.O.C	Feed	V _c	
Steel	Non Alloyed	1	C35, Ck45, 1020, 1045, 1060, 28Mn6	125 HB	0.1	1.0	0.27	2.10	190	330	0.6	1.10	250	
		2		190 HB	0.1	1.0	0.27	1.95	190	300	0.6	1.10	220	
		3		250 HB	0.1	1.0	0.27	1.50	190	250	0.6	1.10	200	
	Low Alloyed	2	42CrMo4, St50, Ck60, 4140, 4340, 100Cr6	180 HB	0.1	1.0	0.25	1.95	150	240	0.5	1.00	200	
		4,6		230 HB	0.1	1.0	0.25	1.70	150	210	0.5	1.00	180	
		5,7		280 HB	0.1	1.0	0.23	1.60	130	190	0.5	0.90	150	
	High Alloyed	3	10	350 HB	0.1	1.0	0.23	1.50	130	170	0.5	0.90	140	
				220 HB	0.1	1.0	0.20	1.70	90	150	0.5	0.90	130	
				280 HB	0.1	1.0	0.20	1.60	90	130	0.5	0.90	120	
				320 HB	0.1	0.8	0.20	1.50	60	110	0.4	0.80	100	
Cast Iron	Grey	7	GG20, GG40, EN-GJL-250, No30B	350 HB	0.1	0.8	0.20	1.40	60	90	0.4	0.80	80	
				150 HB	0.1	1.0	0.20	2.40	150	240	0.6	1.10	200	
				200 HB	0.1	1.0	0.20	2.40	150	220	0.6	1.10	180	
	Malleable & Nodular	8	GGG40, GGG70, 50005	250 HB	0.1	1.0	0.20	2.40	150	190	0.6	1.10	160	
				150 HB	0.1	1.0	0.20	1.80	100	200	0.5	1.00	180	
				200 HB	0.1	1.0	0.20	1.80	100	180	0.5	1.00	150	
	Hardened Mat.	Steel	11	X100CrMo13, 440C, G-X260NiCr42	250 HB	0.1	1.0	0.20	1.80	100	150	0.5	1.00	130
					45 HRc	0.1	0.6	0.16	1.10	40	80	0.4	0.70	80
					50 HRc	0.1	0.5	0.16	1.00	40	70	0.3	0.65	55
		Chilled Cast Iron	40	Ni-Hard 2	55 HRc	0.1	0.4	0.16	0.90	40	60	0.3	0.60	50
400 HB					0.1	0.6	0.16	1.10	40	80	0.4	0.70	50	
White Cast Iron		41	G-X300CrMo15	55 HRc	0.1	0.4	0.16	0.90	30	60	0.3	0.60	40	

**S****P****K****N****Shape****Clearance Angle****Tolerance**

$m \pm 0.013$ $s \pm 0.025$
 For $l = 12$, $d \pm 0.08$
 For $l = 15$, $d \pm 0.10$

**Fixing,
Chipbreaker**

LT 30 Multi-Mat™ General Usage – Standard					
Insert Designation	l	s	r	Direction	Catalog Nr.
SPKN 1203 EDTR LT 30	12.7	3.21	1.2	Right	M0000046
SPKN 1204 EDTR LT 30	12.7	4.76	1.2	Right	M0000047
SPKN 1504 EDTR LT 30	15.88	4.76	1.6	Right	M0001673

AKYTEC
 TOOLS & TOOLING

SPKN

Application Guide

Surfacing

Machining
Recommendations

Productivity

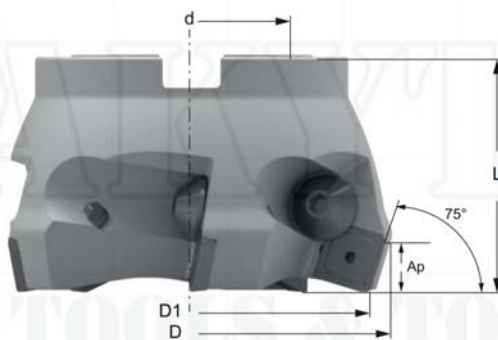

1, 2, 3, 4 No
 6, 7, 8, 11 No
 10, 12 Yes
 Coolant 5, 9 Yes

Shell Mill for SPKN 1203 EDTR							
Cutter Designation	D	D1	d	L	Ap	z	Catalog Nr.
LT 750 M-D-D063/4*	69	63	22	40	9	4	M2000571
LT 750 M-D-D080/5*	86	80	27	50	9	5	M2000572
LT 750 M-D-D100/7*	106	100	32	50	9	7	M2000574
LT 750 M-D-D125/8*	131	125	40	63	9	8	M2000575
LT 750 M-D-D160/10*	166	160	40	63	9	10	M2000576
LT 750 M-D-D200/12*	206	200	63	63	9	12	M2000577
LT 750 M-D-D250/14*	256	250	63	63	9	14	M2000578

* On request

Screw: M2000606

Key: M2000609



SPKN 1203 EDTR – LT 30

Material Group	Gr. N°	VDI Group	Material Examples	Hardness	D.O.C [mm]		Feed [mm/rev]		V _c [m/min]		Suggested Starting Parameters			
					min	max	min	max	min	max	D.O.C	Feed	V _c	
Steel	Non Alloyed	1	C35, Ck45, 1020, 1045, 1060, 28Mn6	125 HB	0.5	7.0	0.18	0.43	190	330	3.0	0.30	250	
				190 HB	0.5	7.0	0.18	0.43	190	300	3.0	0.30	220	
				250 HB	0.5	7.0	0.18	0.43	190	250	3.0	0.30	200	
	Low Alloyed	2	42CrMo4, St50, Ck60, 4140, 4340, 100Cr6	180 HB	0.5	7.0	0.15	0.34	150	240	3.0	0.26	200	
				230 HB	0.5	7.0	0.15	0.34	150	210	3.0	0.26	180	
				280 HB	0.5	7.0	0.15	0.30	130	190	3.0	0.23	150	
				350 HB	0.5	7.0	0.15	0.30	130	170	3.0	0.23	140	
	High Alloyed	3	X40CrMoV5, H13, M42, D3, S6-5-2, 12Ni19	220 HB	0.5	5.0	0.12	0.30	90	150	2.3	0.23	130	
				280 HB	0.5	5.0	0.12	0.30	90	130	2.3	0.23	120	
				320 HB	0.5	5.0	0.12	0.24	60	110	2.3	0.21	100	
				350 HB	0.5	5.0	0.12	0.24	60	90	2.3	0.21	80	
Cast Iron	Grey	7	GG20, GG40, EN-GJL-250, No30B	150 HB	0.5	7.0	0.18	0.43	150	240	3.0	0.30	200	
				200 HB	0.5	7.0	0.18	0.43	150	220	3.0	0.30	180	
				250 HB	0.5	7.0	0.18	0.43	150	190	3.0	0.30	160	
	Malleable & Nodular	8	GGG40, GGG70, 50005	150 HB	0.5	7.0	0.15	0.38	100	200	3.0	0.26	180	
				200 HB	0.5	7.0	0.15	0.38	100	180	3.0	0.26	150	
				250 HB	0.5	7.0	0.15	0.38	100	150	3.0	0.26	130	
	Hardened Mat.	Steel	11	X100CrMo13, 440C, G-X260NiCr42	45 HRc	0.5	2.5	0.10	0.24	40	80	1.5	0.18	60
					50 HRc	0.5	1.8	0.10	0.22	40	70	1.1	0.17	55
					55 HRc	0.5	1.5	0.10	0.19	40	60	0.8	0.16	50
Chilled Cast Iron		40	Ni-Hard 2	400 HB	0.5	2.0	0.10	0.24	40	80	1.1	0.18	50	
				41	G-X300CrMo15	55 HRc	0.5	1.5	0.10	0.19	30	60	0.8	0.16
White Cast Iron														

SPKN 1204 EDTR – LT 30 | LT 3000

Material Group	Gr. N°	VDI Group	Material Examples	Hardness	D.O.C [mm]		Feed [mm/rev]		V _c [m/min]		Suggested Starting Parameters					
					min	max	min	max	min	max	D.O.C	Feed	V _c			
Steel	Non Alloyed	1	C35, Ck45, 1020, 1045, 1060, 28Mn6	125 HB	0.5	7.0	0.18	0.43	190	330	3.0	0.30	250			
				190 HB	0.5	7.0	0.18	0.43	190	300	3.0	0.30	220			
				250 HB	0.5	7.0	0.18	0.43	190	250	3.0	0.30	200			
	Low Alloyed	2	42CrMo4, St50, Ck60, 4140, 4340, 100Cr6	180 HB	0.5	7.0	0.15	0.34	150	240	3.0	0.26	200			
				230 HB	0.5	7.0	0.15	0.34	150	210	3.0	0.26	180			
				280 HB	0.5	7.0	0.15	0.30	130	190	3.0	0.23	150			
				350 HB	0.5	7.0	0.15	0.30	130	170	3.0	0.23	140			
	High Alloyed	3	X40CrMoV5, H13, M42, D3, S6-5-2, 12Ni19	220 HB	0.5	5.0	0.12	0.30	90	150	2.3	0.23	130			
				280 HB	0.5	5.0	0.12	0.30	90	130	2.3	0.23	120			
				320 HB	0.5	5.0	0.12	0.24	60	110	2.3	0.21	100			
350 HB				0.5	5.0	0.12	0.24	60	90	2.3	0.21	80				
Cast Iron	Grey	7	GG20, GG40, EN-GJL-250, No30B	150 HB	0.5	7.0	0.18	0.43	150	240	3.0	0.30	200			
				200 HB	0.5	7.0	0.18	0.43	150	220	3.0	0.30	180			
				250 HB	0.5	7.0	0.18	0.43	150	190	3.0	0.30	160			
	Malleable & Nodular	8	GGG40, GGG70, 50005	150 HB	0.5	7.0	0.15	0.38	100	200	3.0	0.26	180			
				200 HB	0.5	7.0	0.15	0.38	100	180	3.0	0.26	150			
				250 HB	0.5	7.0	0.15	0.38	100	150	3.0	0.26	130			
Hardened Mat.	Steel	11	X100CrMo13, 440C, G-X260NiCr42	45 HRc	0.5	2.5	0.10	0.24	40	80	1.5	0.18	60			
				50 HRc	0.5	1.8	0.10	0.22	40	70	1.1	0.17	55			
				55 HRc	0.5	1.5	0.10	0.19	40	60	0.8	0.16	50			
				Chilled Cast Iron	40	Ni-Hard 2	400 HB	0.5	2.0	0.10	0.24	40	80	1.1	0.18	50
							White Cast Iron	41	G-X300CrMo15	55 HRc	0.5	1.5	0.10	0.19	30	60

SPKN 1504 EDTR – LT 30

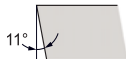
Material Group	Gr. N°	VDI Group	Material Examples	Hardness	D.O.C [mm]		Feed [mm/rev]		V _c [m/min]		Suggested Starting Parameters		
					min	max	min	max	min	max	D.O.C	Feed	V _c
Steel	Non Alloyed	1	C35, Ck45, 1020, 1045, 1060, 28Mn6	125 HB	0.5	9.0	0.18	0.43	190	330	4.0	0.30	250
				190 HB	0.5	9.0	0.18	0.43	190	300	4.0	0.30	220
				250 HB	0.5	9.0	0.18	0.43	190	250	4.0	0.30	200
	Low Alloyed	2	42CrMo4, S150, Ck60, 4140, 4340, 100Cr6	180 HB	0.5	9.0	0.15	0.34	150	240	4.0	0.26	200
				230 HB	0.5	9.0	0.15	0.34	150	210	4.0	0.26	180
				280 HB	0.5	9.0	0.15	0.30	130	190	4.0	0.23	150
				350 HB	0.5	9.0	0.15	0.30	130	170	4.0	0.23	140
	High Alloyed	3	X40CrMoV5, H13, M42, D3, S6-5-2, 12Ni19	220 HB	0.5	6.5	0.12	0.30	90	150	3.0	0.23	130
				280 HB	0.5	6.5	0.12	0.30	90	130	3.0	0.23	120
				320 HB	0.5	6.5	0.12	0.24	60	110	3.0	0.21	100
				350 HB	0.5	6.5	0.12	0.24	60	90	3.0	0.21	80
Cast Iron	Grey	7	GG20, GG40, EN-GJL-250, No30B	150 HB	0.5	9.0	0.18	0.43	150	240	4.0	0.30	200
				200 HB	0.5	9.0	0.18	0.43	150	220	4.0	0.30	180
				250 HB	0.5	9.0	0.18	0.43	150	190	4.0	0.30	160
	Malleable & Nodular	8	GGG40, GGG70, 50005	150 HB	0.5	9.0	0.15	0.38	100	200	4.0	0.26	180
				200 HB	0.5	9.0	0.15	0.38	100	180	4.0	0.26	150
				250 HB	0.5	9.0	0.15	0.38	100	150	4.0	0.26	130
Hardened Mat.	Steel	11	X100CrMo13, 440C, G-X260NiCr42	45 HRc	0.5	3.2	0.10	0.24	40	80	2.0	0.18	60
				50 HRc	0.5	2.3	0.10	0.22	40	70	1.5	0.17	55
				55 HRc	0.5	1.9	0.10	0.19	40	60	1.0	0.16	50
	Chilled Cast Iron	40	Ni-Hard 2	400 HB	0.5	2.6	0.10	0.24	40	80	1.5	0.18	50
				41	G-X300CrMo15	55 HRc	0.5	1.9	0.10	0.19	30	60	1.0



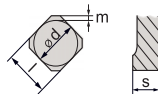
S P K R



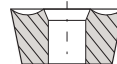
Shape



Clearance Angle



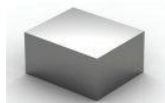
Tolerance

d \pm 0.08m \pm 0.013s \pm 0.025Fixing,
Chipbreaker

LT 30 Multi-Mat™ General Usage – Standard					
Insert Designation	l	s	r	Direction	Catalog Nr.
SPKR 1203 EDTR LT 30	12.70	3.21	1.2	Right	M0000048
SPKR 1204 EDTR LT 30	12.70	4.76	1.2	Right	M0000049

Application Guide

Surfacing



Machining Recommendations

F \Rightarrow

Productivity

	1, 2, 3, 4	No
	6, 7, 8, 11	No
	10, 12	Yes
Coolant	5, 9	Yes

Stainless Steel

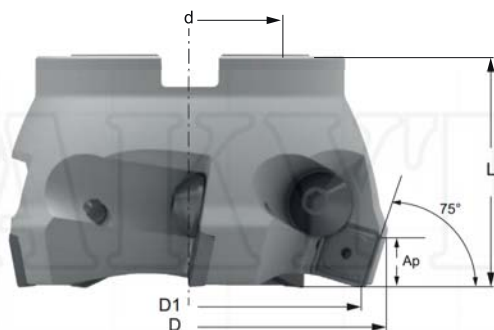
V_C

Shell Mill for SPKR 1203 EDTR							
Cutter Designation	D	D1	d	L	Ap	z	Catalog Nr.
LT 750 M-D-D063/4*	69	63	22	40	9	4	M2000571
LT 750 M-D-D080/5*	86	80	27	50	9	5	M2000572
LT 750 M-D-D100/7*	106	100	32	50	9	7	M2000574
LT 750 M-D-D125/8*	131	125	40	63	9	8	M2000575
LT 750 M-D-D160/10*	166	160	40	63	9	10	M2000576
LT 750 M-D-D200/12*	206	200	63	63	9	12	M2000577
LT 750 M-D-D250/14*	256	250	63	63	9	14	M2000578

* On request

Screw: M2000606

Key: M2000609



TOOLS & TOOLING

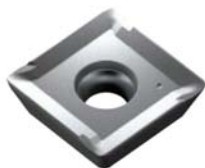
SPKR

SPKR 1203 EDTR – LT 30

Material Group	Gr. №	VDI Group	Material Examples	Hardness	D.O.C [mm]		Feed [mm/rev]		V _c [m/min]		Suggested Starting Parameters			
					min	max	min	max	min	max	D.O.C	Feed	V _c	
Steel	Non Alloyed	1	C35, Ck45, 1020, 1045, 1060, 28Mn6	125 HB	0.5	7.0	0.18	0.38	190	330	3.0	0.26	250	
		2		190 HB	0.5	7.0	0.18	0.38	190	300	3.0	0.26	220	
		3		250 HB	0.5	7.0	0.18	0.38	190	250	3.0	0.26	200	
	Low Alloyed	2	42CrMo4, S150, Ck60, 4140, 4340, 100Cr6	180 HB	0.5	7.0	0.15	0.30	150	240	3.0	0.23	200	
		4,6		230 HB	0.5	7.0	0.15	0.30	150	210	3.0	0.23	180	
		5,7		280 HB	0.5	7.0	0.15	0.26	130	190	3.0	0.21	150	
		8		350 HB	0.5	7.0	0.15	0.26	130	170	3.0	0.21	140	
	High Alloyed	3	X40CrMoV5, H13, M42, D3, S6-5-2, 12Ni19	220 HB	0.5	5.0	0.12	0.26	90	150	2.3	0.21	130	
		10		280 HB	0.5	5.0	0.12	0.26	90	130	2.3	0.21	120	
		11		320 HB	0.5	5.0	0.12	0.22	60	110	2.3	0.18	100	
		11		350 HB	0.5	5.0	0.12	0.22	60	90	2.3	0.18	80	
Stainless Steel	Austenitic	4	304, 316, X5CrNi18-9	180 HB	0.5	7.0	0.15	0.26	190	250	3.0	0.21	220	
		14		240 HB	0.5	7.0	0.12	0.24	160	210	3.0	0.21	190	
	Duplex	5	X2CrNi23-4, S31500	290 HB	0.5	5.0	0.12	0.22	70	130	2.3	0.18	100	
		14		310 HB	0.5	5.0	0.12	0.22	70	120	2.3	0.18	90	
	Ferritic & Martensitic	6	410, X6Cr17, 17-4 PH, 430	200 HB	0.5	7.0	0.15	0.26	150	210	3.0	0.21	190	
		13		42 HRc	0.5	5.0	0.15	0.22	90	150	2.3	0.18	130	
Cast Iron	Grey	7	GG20, GG40, EN-GJL-250, No30B	150 HB	0.5	7.0	0.18	0.38	150	240	3.0	0.26	200	
		15		200 HB	0.5	7.0	0.18	0.38	150	220	3.0	0.26	180	
		16		250 HB	0.5	7.0	0.18	0.38	150	190	3.0	0.26	160	
Malleable & Nodular	8	GGG40, GGG70, 50005	150 HB	0.5	7.0	0.15	0.34	100	200	3.0	0.23	180		
	17,19		200 HB	0.5	7.0	0.15	0.34	100	180	3.0	0.23	150		
	18,20		250 HB	0.5	7.0	0.15	0.34	100	150	3.0	0.23	130		
High Temp. Alloys	Fe, Ni & Co Based	9	Incoloy 800, Inconel 700, Stellite 21	240 HB	0.5	5.0	0.12	0.22	25	45	2.3	0.18	32	
		33		250 HB	0.5	5.0	0.12	0.22	25	45	2.3	0.18	30	
		34		350 HB	0.5	5.0	0.12	0.22	25	45	2.3	0.18	30	
Ti Based	10	TiAl6V4, T40	-	0.5	5.0	0.12	0.24	40	65	2.3	0.21	55		
	37		-	0.5	5.0	0.12	0.22	30	55	2.3	0.18	40		
Hardened Mat.	Steel	11	X100CrMo13, 440C, G-X260NiCr42	45 HRc	0.5	2.5	0.10	0.22	40	80	1.5	0.16	60	
		38		50 HRc	0.5	1.8	0.10	0.19	40	70	1.1	0.15	55	
		38		55 HRc	0.5	1.5	0.10	0.17	40	60	0.8	0.14	50	
	Chilled Cast Iron White Cast Iron	40	Ni-Hard 2	400 HB	0.5	2.0	0.10	0.22	40	80	1.1	0.16	50	
		41	G-X300CrMo15	55 HRc	0.5	1.5	0.10	0.17	30	60	0.8	0.14	40	
NF	Al (>8%Si)	12	25	AlSi12	130 HB	0.5	7.0	0.18	0.38	200	400	3.0	0.29	280

SPKR 1204 EDTR – LT 30

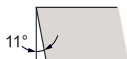
Material Group	Gr. N°	VDI Group	Material Examples	Hardness	D.O.C (mm)		Feed (mm/rev)		V _c (m/min)		Suggested Starting Parameters			
					min	max	min	max	min	max	D.O.C	Feed	V _c	
Steel	Non-alloyed	1	C35, Ck45, 1020, 1045, 1060, 28Mn6	125 HB	0.5	7.0	0.18	0.38	190	330	3.0	0.26	250	
				190 HB	0.5	7.0	0.18	0.38	190	300	3.0	0.26	220	
				250 HB	0.5	7.0	0.18	0.38	190	250	3.0	0.26	200	
	Low alloyed	2	42CrMo4, S150, Ck60, 4140, 4340, 100Cr6	180 HB	0.5	7.0	0.15	0.30	150	240	3.0	0.23	200	
				230 HB	0.5	7.0	0.15	0.30	150	210	3.0	0.23	180	
				280 HB	0.5	7.0	0.15	0.26	130	190	3.0	0.21	150	
				350 HB	0.5	7.0	0.15	0.26	130	170	3.0	0.21	140	
	High Alloyed	3	X40CrMoV5, H13, M42, D3, S6-5-2, 12N19	220 HB	0.5	5.0	0.12	0.26	90	150	2.3	0.21	130	
				280 HB	0.5	5.0	0.12	0.26	90	130	2.3	0.21	120	
				320 HB	0.5	5.0	0.12	0.22	60	110	2.3	0.18	100	
				350 HB	0.5	5.0	0.12	0.22	60	90	2.3	0.18	80	
Stainless Steel	High Alloyed	4	304, 316, X5CrNi18-9	180 HB	0.5	7.0	0.15	0.26	190	250	3.0	0.21	220	
				240 HB	0.5	7.0	0.12	0.24	160	210	3.0	0.21	190	
	Duplex	5	X2CrNiN23-4, S31500	290 HB	0.5	5.0	0.12	0.22	70	130	2.3	0.18	100	
				310 HB	0.5	5.0	0.12	0.22	70	120	2.3	0.18	90	
	Ferritic & Martensitic	6	410, X6Cr17, 17-4 PH, 430	200 HB	0.5	7.0	0.15	0.26	150	210	3.0	0.21	190	
				42 HRc	0.5	5.0	0.15	0.22	90	150	2.3	0.18	130	
	Cast Iron	Grey	7	GG20, GG40, EN-GJL-250, No30B	150 HB	0.5	7.0	0.18	0.38	150	240	3.0	0.26	200
					200 HB	0.5	7.0	0.18	0.38	150	220	3.0	0.26	180
					250 HB	0.5	7.0	0.18	0.38	150	190	3.0	0.26	160
		Malleable & Nodular	8	GGG40, GGG70, 50005	150 HB	0.5	7.0	0.15	0.34	100	200	3.0	0.23	180
200 HB					0.5	7.0	0.15	0.34	100	180	3.0	0.23	150	
250 HB					0.5	7.0	0.15	0.34	100	150	3.0	0.23	130	
High Temp. Alloys	Fe, Ni & Co based	9	Incoloy 800	240 HB	0.5	5.0	0.12	0.22	25	45	2.3	0.18	32	
				250 HB	0.5	5.0	0.12	0.22	25	45	2.3	0.18	30	
				350 HB	0.5	5.0	0.12	0.22	25	45	2.3	0.18	30	
	Ti based	10	TiAl6V4	-	0.5	5.0	0.12	0.24	40	65	2.3	0.21	55	
				-	0.5	5.0	0.12	0.22	30	55	2.3	0.18	40	
Hardened Mat.	Steel	11	X100CrMo13, 440C, G-X260NiCr42	45 HRc	0.5	2.5	0.10	0.22	40	80	1.5	0.16	60	
				50 HRc	0.5	1.8	0.10	0.19	40	70	1.1	0.15	55	
				55 HRc	0.5	1.5	0.10	0.17	40	60	0.8	0.14	50	
	Chilled Cast Iron	40	Ni-Hard 2	400 HB	0.5	2.0	0.10	0.22	40	80	1.1	0.16	50	
				55 HRc	0.5	1.5	0.10	0.17	30	60	0.8	0.14	40	
	White Cast Iron	41	G-X300CrMo15	55 HRc	0.5	1.5	0.10	0.17	30	60	0.8	0.14	40	
Al (>8%Si)	12	25	AlSi12	130 HB	0.5	7.0	0.18	0.38	200	400	3.0	0.29	280	



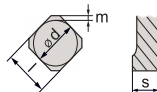
S P M T



Shape



Clearance Angle

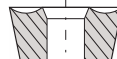


Tolerance

d ± 0.08

m ± 0.13

s ± 0.13

Fixing,
Chipbreaker

LT 30 Multi-Mat™ General Usage – Standard					
Insert Designation	l	s	r	Direction	Catalog Nr.
SPMT 060304 TN LT 30	6.35	3.2	0.4	Neutral	M0003100
SPMT 09T308 TN LT 30	9.53	3.71	0.8	Neutral	M0003063
SPMT 12T308 LT 30	13.29	3.97	0.8	Neutral	M0001226
SPMT 120408 TN LT 30	12.70	4.80	0.8	Neutral	M0003105

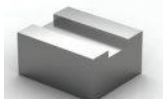
LT 3000 Multi-Mat™ General Usage – Premium					
Insert Designation	l	s	r	Direction	Catalog Nr.
SPMT 060304 TN LT 30	6.35	3.2	0.4	Neutral	M0003416
SPMT 09T308 TN LT 30	9.53	3.71	0.8	Neutral	M0003417
SPMT 12T308 LT 30	13.29	3.97	0.8	Neutral	M0003420
SPMT 120408 TN LT 30	12.70	4.80	0.8	Neutral	M0003419

Application Guide

Shoulder Milling



Slotting



Surfacing

Machining
Recommendations

↑ **Productivity**



1, 2, 3, 4 No
6, 7, 8, 11 No
10, 12 Yes
Coolant 5, 9 Yes

Stainless Steel



SPMT 060304 TN – LT 30 | LT 3000

Material Group	Gr. N°	VDI Group	Material Examples	Hardness	D.O.C [mm]		Feed [mm/rev]		V _c [m/min]		Suggested Starting Parameters				
					min	max	min	max	min	max	D.O.C	Feed	V _c		
Steel	Non-alloyed	1	1	C35, Ck45,	125 HB	0.3	6.0	0.06	0.12	190	330	2.4	0.10	250	
		2	2	1020, 1045,	190 HB	0.3	6.0	0.06	0.10	190	300	2.4	0.08	220	
		3	3	1060, 28Mn6	250 HB	0.3	6.0	0.06	0.10	190	250	2.4	0.08	200	
	Low alloyed	2	6	42CrMo4,	180 HB	0.3	6.0	0.06	0.12	150	240	2.4	0.10	200	
			4,6	Sf50, Ck60,	230 HB	0.3	6.0	0.06	0.10	150	210	2.4	0.08	180	
			5,7	4140, 4340,	280 HB	0.3	6.0	0.05	0.10	130	190	2.4	0.08	150	
			8	100Cr6	350 HB	0.3	6.0	0.05	0.10	130	170	2.4	0.08	140	
	High Alloyed	3	10	X40CrMoV5,	220 HB	0.3	4.3	0.06	0.08	90	150	1.8	0.07	130	
			10	H13, M42, D3,	280 HB	0.3	4.3	0.05	0.10	90	130	1.8	0.08	120	
			11	S6-5-2, 12Ni19	320 HB	0.3	4.3	0.05	0.08	60	110	1.8	0.06	100	
			11		350 HB	0.3	4.3	0.05	0.08	60	90	1.8	0.06	80	
Stainless Steel	High Alloyed	4	14	304, 316,	180 HB	0.3	6.0	0.06	0.08	190	250	2.4	0.07	220	
			14	X5CrNi18-9	240 HB	0.3	6.0	0.05	0.08	160	210	2.4	0.07	190	
	Duplex	5	14	X2CrNi23-4,	290 HB	0.3	4.3	0.05	0.08	70	130	1.8	0.07	100	
			14	S31500	310 HB	0.3	4.3	0.05	0.07	70	120	1.8	0.06	90	
	Ferritic & Martensitic	6	12	410, X6Cr17,	200 HB	0.3	6.0	0.05	0.08	150	210	2.4	0.07	190	
			13	17-4 PH, 430	42 HRc	0.3	4.3	0.05	0.07	90	150	1.8	0.06	130	
	Cast Iron	Grey	7	15	GG20, GG40,	150 HB	0.3	6.0	0.05	0.14	150	240	2.4	0.12	200
				15	EN-GJL-250,	200 HB	0.3	6.0	0.05	0.12	150	220	2.4	0.10	180
				16	No30B	250 HB	0.3	6.0	0.05	0.12	150	190	2.4	0.10	160
		Malleable & Nodular	8	17,19	GGG40, GGG70,	150 HB	0.3	6.0	0.05	0.14	100	200	2.4	0.12	180
17,19				50005	200 HB	0.3	6.0	0.05	0.12	100	180	2.4	0.10	150	
18,20					250 HB	0.3	6.0	0.05	0.12	100	150	2.4	0.10	130	
High Temp. Alloys	Fe, Ni & Co based	9	31,32	Incoloy 800	240 HB	0.3	4.3	0.04	0.08	25	45	1.8	0.06	32	
			33	Inconel 700	250 HB	0.3	4.3	0.04	0.08	25	45	1.8	0.06	30	
			34	Stellite 21	350 HB	0.3	4.3	0.04	0.08	25	45	1.8	0.06	30	
	Ti based	10	36	TiAl6V4	-	0.3	4.3	0.04	0.08	40	65	1.8	0.06	55	
			37	T40	-	0.3	4.3	0.04	0.08	30	55	1.8	0.06	40	
	Hardened Mat.	Steel	11	38	X100CrMo13,	45 HRc	0.3	2.1	0.04	0.10	40	80	1.2	0.08	60
				38	440C,	50 HRc	0.3	1.3	0.04	0.08	40	70	0.9	0.06	55
38				G-X260NiCr42	55 HRc	0.3	0.9	0.04	0.06	40	60	0.6	0.05	50	
40				Ni-Hard 2	400 HB	0.3	1.7	0.04	0.06	40	80	0.9	0.05	50	
41				G-X300CrMo15	55 HRc	0.3	0.9	0.04	0.06	30	60	0.6	0.05	40	
41															
MF	Al (>8%Si)	12	25	AlSi12	130 HB	0.3	6.0	0.08	0.14	200	400	2.4	0.12	280	

SPMT

SPMT 09T308 TN – LT 30 | LT 3000

Material Group	Gr. №	VDI Group	Material Examples	Hardness	D.O.C [mm]		Feed [mm/rev]		V _c [m/min]		Suggested Starting Parameters			
					min	max	min	max	min	max	D.O.C	Feed	V _c	
Steel	Non Alloyed	1	C35, Ck45, 1020, 1045, 1060, 28Mn6	125 HB	0.5	9.0	0.07	0.17	190	330	2.4	0.15	250	
		2		190 HB	0.5	9.0	0.06	0.15	190	300	2.4	0.13	220	
		3		250 HB	0.5	9.0	0.06	0.15	190	250	2.4	0.13	200	
	Low Alloyed	2	42CrMo4, St50, Ck60, 4140, 4340, 100Cr6	180 HB	0.5	9.0	0.07	0.17	150	240	2.4	0.15	200	
				230 HB	0.5	9.0	0.06	0.15	150	210	2.4	0.13	180	
				280 HB	0.5	9.0	0.05	0.13	130	190	2.4	0.11	150	
				350 HB	0.5	9.0	0.05	0.13	130	170	2.4	0.11	140	
	High Alloyed	3	X40CrMoV5, H13, M42, D3, S6-5-2, 12Ni19	220 HB	0.5	6.5	0.07	0.15	90	150	1.8	0.13	130	
				280 HB	0.5	6.5	0.05	0.13	90	130	1.8	0.11	120	
				320 HB	0.5	6.5	0.05	0.10	60	110	1.8	0.08	100	
				350 HB	0.5	6.5	0.05	0.10	60	90	1.8	0.08	80	
Stainless Steel	Austenitic	4	304, 316, X5CrNi18-9	180 HB	0.5	9.0	0.07	0.12	190	250	2.4	0.10	220	
				240 HB	0.5	9.0	0.05	0.10	160	210	2.4	0.08	190	
	Duplex	5	X2CrNiN23-4, S31500	290 HB	0.5	6.5	0.05	0.10	70	130	1.8	0.08	100	
				310 HB	0.5	6.5	0.05	0.08	70	120	1.8	0.07	90	
	Ferritic & Martensitic	6	410, X6Cr17, 17-4 PH, 430	200 HB	0.5	9.0	0.05	0.08	150	210	2.4	0.07	190	
				42 HRc	0.5	6.5	0.05	0.08	90	150	1.8	0.07	130	
Cast Iron	Grey	7	GG20, GG40, EN-GJL-250, No30B	150 HB	0.5	9.0	0.06	0.22	150	240	2.4	0.18	200	
				200 HB	0.5	9.0	0.06	0.22	150	220	2.4	0.18	180	
				250 HB	0.5	9.0	0.06	0.20	150	190	2.4	0.16	160	
Malleable & Nodular	8	GGG40, GGG70, 50005	150 HB	0.5	9.0	0.06	0.22	100	200	2.4	0.18	180		
			200 HB	0.5	9.0	0.05	0.22	100	180	2.4	0.18	150		
			250 HB	0.5	9.0	0.05	0.20	100	150	2.4	0.16	130		
High Temp. Alloys	Fe, Ni & Co Based	9	31,32 Incoloy 800	240 HB	0.5	6.5	0.04	0.12	25	45	1.8	0.10	32	
			33 Inconel 700	250 HB	0.5	6.5	0.04	0.12	25	45	1.8	0.10	30	
			34 Stellite 21	350 HB	0.5	6.5	0.04	0.12	25	45	1.8	0.10	30	
	Ti Based	10	36 TiAl6V4	-	0.5	6.5	0.04	0.12	40	65	1.8	0.10	55	
37 T40			-	0.5	6.5	0.04	0.12	30	55	1.8	0.10	40		
Hardened Mat.	Steel	11	X100CrMo13, 440C, G-X260NiCr42	45 HRc	0.5	3.2	0.04	0.12	40	80	1.2	0.10	60	
				50 HRc	0.5	1.9	0.04	0.10	40	70	0.9	0.08	55	
				55 HRc	0.5	1.3	0.04	0.08	40	60	0.6	0.06	50	
	Chilled Cast Iron White Cast Iron	40	Ni-Hard 2	400 HB	0.5	2.6	0.04	0.08	40	80	0.9	0.06	50	
				41 G-X300CrMo15	55 HRc	0.5	1.3	0.04	0.08	30	60	0.6	0.06	40
NF	Al (>8%Si)	12	25	AlSi12	130 HB	0.5	9.0	0.08	0.16	200	400	2.4	0.13	280

SPMT 120408 TN – LT 30 | LT 3000

Material Group	Gr. N°	VDI Group	Material Examples	Hardness	D.O.C (mm)		Feed (mm/rev)		V _c (m/min)		Suggested Starting Parameters			
					min	max	min	max	min	max	D.O.C	Feed	V _c	
Steel	Non-alloyed	1	C35, Ck45, 1020, 1045, 1060, 28Mn6	125 HB	0.5	9.0	0.13	0.29	190	330	3.0	0.18	250	
		2		190 HB	0.5	9.0	0.13	0.29	190	300	3.0	0.18	220	
		3		250 HB	0.5	9.0	0.13	0.29	190	250	3.0	0.18	200	
	Low alloyed	2	42CrMo4, St50, Ck60, 4140, 4340, 100Cr6	180 HB	0.5	9.0	0.11	0.23	150	240	3.0	0.16	200	
		4,6		230 HB	0.5	9.0	0.11	0.23	150	210	3.0	0.16	180	
		5,7		280 HB	0.5	9.0	0.11	0.20	130	190	3.0	0.14	150	
		8		350 HB	0.5	9.0	0.11	0.20	130	170	3.0	0.14	140	
	High Alloyed	3	X40CrMoV5, H13, M42, D3, S6-5-2, 12N119	220 HB	0.5	6.5	0.08	0.20	90	150	2.3	0.14	130	
		10		280 HB	0.5	6.5	0.08	0.20	90	130	2.3	0.14	120	
		11		320 HB	0.5	6.5	0.08	0.16	60	110	2.3	0.13	100	
		11		350 HB	0.5	6.5	0.08	0.16	60	90	2.3	0.13	80	
Stainless Steel	High Alloyed	4	304, 316, X5CrNi18-9	180 HB	0.5	9.0	0.11	0.23	190	250	3.0	0.16	220	
		14		240 HB	0.5	9.0	0.08	0.20	160	210	3.0	0.16	190	
	Duplex	5	X2CrNiN23-4, S31500	290 HB	0.5	6.5	0.08	0.16	70	130	2.3	0.13	100	
		14		310 HB	0.5	6.5	0.08	0.16	70	120	2.3	0.13	90	
	Ferritic & Martensitic	6	410, X6Cr17, 17-4 PH, 430	200 HB	0.5	9.0	0.11	0.23	150	210	3.0	0.16	190	
		13		42 HRc	0.5	6.5	0.11	0.18	90	150	2.3	0.13	130	
Cast Iron	Grey	7	GG20, GG40, EN-GJL-250, No30B	150 HB	0.5	9.0	0.13	0.29	150	240	3.0	0.18	200	
		15		200 HB	0.5	9.0	0.13	0.29	150	220	3.0	0.18	180	
		16		250 HB	0.5	9.0	0.13	0.29	150	190	3.0	0.18	160	
Malleable & Nodular	8	GGG40, GGG70, 50005	150 HB	0.5	9.0	0.11	0.25	100	200	3.0	0.16	180		
	17,19		200 HB	0.5	9.0	0.11	0.25	100	180	3.0	0.16	150		
	18,20		250 HB	0.5	9.0	0.11	0.25	100	150	3.0	0.16	130		
High Temp. Alloys	Fe, Ni & Co based	9	Incoloy 800	240 HB	0.5	6.5	0.08	0.16	25	45	2.3	0.13	32	
		33		Inconel 700	250 HB	0.5	6.5	0.08	0.16	25	45	2.3	0.13	30
		34		Stellite 21	350 HB	0.5	6.5	0.08	0.16	25	45	2.3	0.13	30
	Ti based	10	TiAl6V4	-	0.5	6.5	0.08	0.18	40	65	2.3	0.14	55	
		37		T40	-	0.5	6.5	0.08	0.16	30	55	2.3	0.13	40
Hardened Mat.	Steel	11	X100CrMo13, 440C, G-X260NiCr42	45 HRc	0.5	3.2	0.07	0.16	40	80	1.5	0.11	60	
		38		50 HRc	0.5	1.9	0.07	0.14	40	70	1.1	0.10	55	
		38		55 HRc	0.5	1.0	0.07	0.13	40	60	0.8	0.10	50	
	Chilled Cast Iron	40	Ni-Hard 2	400 HB	0.5	2.6	0.07	0.16	40	80	1.1	0.11	50	
		White Cast Iron	41	G-X300CrMo15	55 HRc	0.5	1.0	0.07	0.13	30	60	0.8	0.10	40
	NF		Al (>8%Si)	12	25	AlSi12	130 HB	0.5	9.0	0.13	0.29	200	400	3.0

SPMT 12T308 – LT 30 | LT 3000

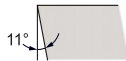
Material Group	Gr. N°	VDI Group	Material Examples	Hardness	D.O.C [mm]		Feed [mm/rev]		V _c [m/min]		Suggested Starting Parameters			
					min	max	min	max	min	max	D.O.C	Feed	V _c	
Steel	Non Alloyed	1	C35, Ck45, 1020, 1045, 1060, 28Mn6	125 HB	0.5	9.0	0.13	0.29	190	330	3.0	0.18	250	
		2		190 HB	0.5	9.0	0.13	0.29	190	300	3.0	0.18	220	
		3		250 HB	0.5	9.0	0.13	0.29	190	250	3.0	0.18	200	
	Low Alloyed	2	42CrMo4, St50, Ck60, 4140, 4340, 100Cr6	180 HB	0.5	9.0	0.11	0.23	150	240	3.0	0.16	200	
				230 HB	0.5	9.0	0.11	0.23	150	210	3.0	0.16	180	
				280 HB	0.5	9.0	0.11	0.20	130	190	3.0	0.14	150	
				350 HB	0.5	9.0	0.11	0.20	130	170	3.0	0.14	140	
	High Alloyed	3	X40CrMoV5, H13, M42, D3, S6-5-2, 12Ni19	220 HB	0.5	6.5	0.08	0.20	90	150	2.3	0.14	130	
				280 HB	0.5	6.5	0.08	0.20	90	130	2.3	0.14	120	
				320 HB	0.5	6.5	0.08	0.16	60	110	2.3	0.13	100	
				350 HB	0.5	6.5	0.08	0.16	60	90	2.3	0.13	80	
Stainless Steel	Austenitic	4	304, 316, X5CrNi18-9	180 HB	0.5	9.0	0.11	0.23	190	250	3.0	0.16	220	
				240 HB	0.5	9.0	0.08	0.20	160	210	3.0	0.16	190	
	Duplex	5	X2CrNiN23-4, S31500	290 HB	0.5	6.5	0.08	0.16	70	130	2.3	0.13	100	
				310 HB	0.5	6.5	0.08	0.16	70	120	2.3	0.13	90	
	Ferritic & Martensitic	6	410, X6Cr17, 17-4 PH, 430	200 HB	0.5	9.0	0.11	0.23	150	210	3.0	0.16	190	
				42 HRc	0.5	6.5	0.11	0.18	90	150	2.3	0.13	130	
Cast Iron	Grey	7	GG20, GG40, EN-GJL-250, No30B	150 HB	0.5	9.0	0.13	0.29	150	240	3.0	0.18	200	
				200 HB	0.5	9.0	0.13	0.29	150	220	3.0	0.18	180	
				250 HB	0.5	9.0	0.13	0.29	150	190	3.0	0.18	160	
Malleable & Nodular	8	GGG40, GGG70, 50005	150 HB	0.5	9.0	0.11	0.25	100	200	3.0	0.16	180		
			200 HB	0.5	9.0	0.11	0.25	100	180	3.0	0.16	150		
			250 HB	0.5	9.0	0.11	0.25	100	150	3.0	0.16	130		
High Temp. Alloys	Fe, Ni & Co Based	9	31,32 Incoloy 800	240 HB	0.5	6.5	0.08	0.16	25	45	2.3	0.13	32	
			33 Inconel 700	250 HB	0.5	6.5	0.08	0.16	25	45	2.3	0.13	30	
			34 Stellite 21	350 HB	0.5	6.5	0.08	0.16	25	45	2.3	0.13	30	
	Ti Based	10	36 TiAl6V4	-	0.5	6.5	0.08	0.18	40	65	2.3	0.14	55	
37 T40			-	0.5	6.5	0.08	0.16	30	55	2.3	0.13	40		
Hardened Mat.	Steel	11	X100CrMo13, 440C, G-X260NiCr42	45 HRc	0.5	3.2	0.07	0.16	40	80	1.5	0.11	60	
				50 HRc	0.5	1.9	0.07	0.14	40	70	1.1	0.10	55	
				55 HRc	0.5	1.0	0.07	0.13	40	60	0.8	0.10	50	
	Chilled Cast Iron White Cast Iron	40	Ni-Hard 2	400 HB	0.5	2.6	0.07	0.16	40	80	1.1	0.11	50	
				41 G-X300CrMo15	55 HRc	0.5	1.0	0.07	0.13	30	60	0.8	0.10	40
NF	Al (>8%Si)	12	25	AlSi12	130 HB	0.5	9.0	0.13	0.29	200	400	3.0	0.20	280



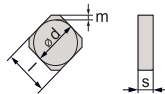
S P U N



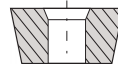
Shape



Clearance Angle



Tolerance

d \pm 0.13m \pm 0.20s \pm 0.13Fixing,
Chipbreaker

LT 30 Multi-Mat™ General Usage – Standard

Insert Designation	l	s	r	Direction	Catalog Nr.
SPUN 120308 LT 30	12.7	3.18	0.8	Neutral	M0000050

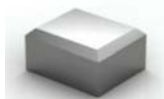
AKYTEC

TOOLS & TOOLING

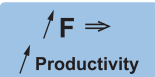
SPUN

Application Guide

Chamfering



Surfacing

Machining
Recommendations

Coolant	1, 2, 3, 4	No
	6, 7, 8, 11	No
	10, 12	Yes
	5, 9	Yes

Stainless Steel



SPUN 120308 – LT 30

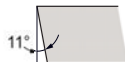
Material Group	Gr. N°	VDI Group	Material Examples	Hardness	D.O.C [mm]		Feed [mm/rev]		V _c [m/min]		Suggested Starting Parameters					
					min	max	min	max	min	max	D.O.C	Feed	V _c			
Steel	Non Alloyed	1	C35, Ck45, 1020, 1045, 1060, 28Mn6	125 HB	0.5	7.0	0.18	0.37	190	330	3.0	0.26	250			
				190 HB	0.5	7.0	0.18	0.37	190	300	3.0	0.26	220			
				250 HB	0.5	7.0	0.18	0.37	190	250	3.0	0.26	200			
	Low Alloyed	2	42CrMo4, S150, Ck60, 4140, 4340, 100Cr6	180 HB	0.5	7.0	0.15	0.29	150	240	3.0	0.23	200			
				230 HB	0.5	7.0	0.15	0.29	150	210	3.0	0.23	180			
				280 HB	0.5	7.0	0.15	0.25	130	190	3.0	0.21	150			
				350 HB	0.5	7.0	0.15	0.25	130	170	3.0	0.21	140			
	High Alloyed	3	X40CrMoV5, H13, M42, D3, S6-5-2, 12Ni19	220 HB	0.5	5.0	0.12	0.25	90	150	2.3	0.21	130			
				280 HB	0.5	5.0	0.12	0.25	90	130	2.3	0.21	120			
				320 HB	0.5	5.0	0.12	0.21	60	110	2.3	0.18	100			
				350 HB	0.5	5.0	0.12	0.21	60	90	2.3	0.18	80			
Cast Iron	Grey	7	GG20, GG40, EN-GJL-250, No30B	150 HB	0.5	7.0	0.18	0.37	150	240	3.0	0.26	200			
				200 HB	0.5	7.0	0.18	0.37	150	220	3.0	0.26	180			
				250 HB	0.5	7.0	0.18	0.37	150	190	3.0	0.26	160			
	Malleable & Nodular	8	GGG40, GGG70, 50005	150 HB	0.5	7.0	0.15	0.32	100	200	3.0	0.23	180			
				200 HB	0.5	7.0	0.15	0.32	100	180	3.0	0.23	150			
				250 HB	0.5	7.0	0.15	0.32	100	150	3.0	0.23	130			
Hardened Mat.	Steel	11	X100CrMo13, 440C, G-X260NiCr42	45 HRc	0.5	2.5	0.10	0.21	40	80	1.5	0.16	60			
				50 HRc	0.5	1.8	0.10	0.18	40	70	1.1	0.15	55			
				55 HRc	0.5	1.5	0.10	0.16	40	60	0.8	0.14	50			
				Chilled Cast Iron	40	Ni-Hard 2	400 HB	0.5	2.0	0.10	0.21	40	80	1.1	0.16	50
				White Cast Iron	41	G-X300CrMo15	55 HRc	0.5	1.5	0.10	0.16	30	60	0.8	0.14	40



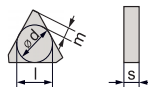
T P K N



Shape

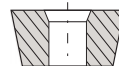


Clearance Angle



Tolerance

$m \pm 0,013$ $s \pm 0,025$
For $l = 16$, $d \pm 0,05$
For $l = 22$, $d \pm 0,08$

Fixing,
Chipbreaker

LT 30 Multi-Mat™ General Usage – Standard					
Insert Designation	l	s	r	Direction	Catalog Nr.
TPKN 1603 PDTR LT 30	14.52	3.18	1.2	Right	M0000051
TPKN 2204 PDTR LT 30	19.92	4.76	1.2	Right	M0000052

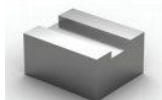
TPKN

Application Guide

Shoulder Milling




Slotting



Surfacing

Machining
Recommendations

$\nearrow F \Rightarrow$
 \nearrow Productivity

 1, 2, 3, 4 No
6, 7, 8, 11 No
10, 12 Yes
Coolant 5, 9 Yes

Stainless Steel

$\nearrow V_C$

Shell Mill for TPKN 1603 PDTR						
Cutter Designation	D	d	L	Ap	z	Catalog Nr.
LT 310 M-D063/4*	63	22	50	13	4	M2000699
LT 310 M-D080/5*	80	27	50	13	5	M2000700
LT 310 M-D100/6*	100	32	50	13	6	M2000701
LT 310 M-D125/6*	125	40	63	13	6	M2000702

* On request

Screw: On request

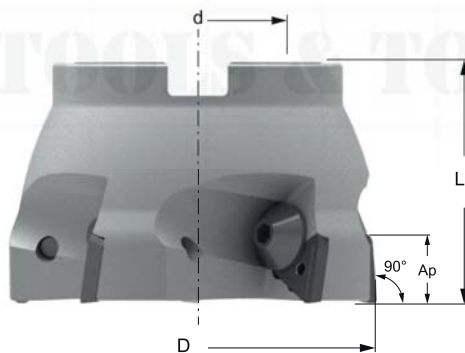
Key: M2000609

Shell Mill for TPKN 2204 PDTR						
Cutter Designation	D	d	L	Ap	z	Catalog Nr.
LT 320 M-D080/4*	80	27	50	18	4	M2000703
LT 320 M-D100/5*	100	32	50	18	5	M2000704
LT 320 M-D125/6*	125	40	63	18	6	M2000705
LT 320 M-D160/7*	160	40	63	18	7	M2000706

* On request

Screw: On request

Key: M2000609



TPKN 1603 PDTR – LT 30

Material Group	Gr. №	VDI Group	Material Examples	Hardness	D.O.C [mm]		Feed [mm/rev]		V _c [m/min]		Suggested Starting Parameters					
					min	max	min	max	min	max	D.O.C	Feed	V _c			
Steel	Non Alloyed	1	C35, Ck45, 1020, 1045, 1060, 28Mn6	125 HB	0.5	12.0	0.14	0.27	190	330	3.0	0.20	250			
				190 HB	0.5	12.0	0.14	0.27	190	300	3.0	0.20	220			
				250 HB	0.5	12.0	0.14	0.27	190	250	3.0	0.20	200			
	Low Alloyed	2	42CrMo4, St50, Ck60, 4140, 4340, 100Cr6	180 HB	0.5	12.0	0.12	0.21	150	240	3.0	0.17	200			
				230 HB	0.5	12.0	0.12	0.21	150	210	3.0	0.17	180			
				280 HB	0.5	12.0	0.12	0.19	130	190	3.0	0.15	150			
				350 HB	0.5	12.0	0.12	0.19	130	170	3.0	0.15	140			
	High Alloyed	3	X40CrMoV5, H13, M42, D3, S6-5-2, 12Ni19	220 HB	0.5	8.6	0.10	0.19	90	150	2.3	0.15	130			
				280 HB	0.5	8.6	0.10	0.19	90	130	2.3	0.15	120			
				320 HB	0.5	8.6	0.10	0.15	60	110	2.3	0.14	100			
				350 HB	0.5	8.6	0.10	0.15	60	90	2.3	0.14	80			
Cast Iron	Grey	7	GG20, GG40, EN-GJL-250, No30B	150 HB	0.5	12.0	0.14	0.27	150	240	3.0	0.20	200			
				200 HB	0.5	12.0	0.14	0.27	150	220	3.0	0.20	180			
				250 HB	0.5	12.0	0.14	0.27	150	190	3.0	0.20	160			
	Malleable & Nodular	8	GGG40, GGG70, 50005	150 HB	0.5	12.0	0.12	0.24	100	200	3.0	0.17	180			
				200 HB	0.5	12.0	0.12	0.24	100	180	3.0	0.17	150			
				250 HB	0.5	12.0	0.12	0.24	100	150	3.0	0.17	130			
Hardened Mat.	Steel	11	X100CrMo13, 440C, G-X260NiCr42	45 HRc	0.5	4.3	0.08	0.15	40	80	1.5	0.12	60			
				50 HRc	0.5	3.0	0.08	0.14	40	70	1.1	0.11	55			
				55 HRc	0.5	2.6	0.08	0.12	40	60	0.8	0.10	50			
				Chilled Cast Iron	40	Ni-Hard 2	400 HB	0.5	3.4	0.08	0.15	40	80	1.1	0.12	50
							White Cast Iron	41	G-X300CrMo15	55 HRc	0.5	2.6	0.08	0.12	30	60

TPKN 2204 PDTR – LT 30

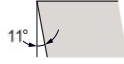
Material Group	Gr. N°	VDI Group	Material Examples	Hardness	D.O.C [mm]		Feed [mm/rev]		V _c [m/min]		Suggested Starting Parameters			
					min	max	min	max	min	max	D.O.C	Feed	V _c	
Steel	Non Alloyed	1	C35, Ck45, 1020, 1045, 1060, 28Mn6	125 HB	0.5	18.0	0.16	0.27	190	330	4.0	0.19	250	
				190 HB	0.5	18.0	0.16	0.27	190	300	4.0	0.19	220	
				250 HB	0.5	18.0	0.16	0.27	190	250	4.0	0.19	200	
	Low Alloyed	2	4,6 5,7 8	42CrMo4, St50, Ck60, 4140, 4340, 100Cr6	180 HB	0.5	18.0	0.14	0.21	150	240	4.0	0.17	200
					230 HB	0.5	18.0	0.14	0.21	150	210	4.0	0.17	180
					280 HB	0.5	18.0	0.14	0.19	130	190	4.0	0.15	150
					350 HB	0.5	18.0	0.14	0.19	130	170	4.0	0.15	140
	High Alloyed	3	10 10 11 11	X40CrMoV5, H13, M42, D3, S6-S-2, 12Ni19	220 HB	0.5	12.9	0.11	0.19	90	150	3.0	0.15	130
					280 HB	0.5	12.9	0.11	0.19	90	130	3.0	0.15	120
					320 HB	0.5	12.9	0.11	0.15	60	110	3.0	0.13	100
					350 HB	0.5	12.9	0.11	0.15	60	90	3.0	0.13	80
	Cast Iron	Grey	7	GG20, GG40, EN-GJL-250, No30B	150 HB	0.5	18.0	0.16	0.27	150	240	4.0	0.19	200
200 HB					0.5	18.0	0.16	0.27	150	220	4.0	0.19	180	
250 HB					0.5	18.0	0.16	0.27	150	190	4.0	0.19	160	
Malleable & Nodular		8	17,19 17,19 18,20	GGG40, GGG70, 50005	150 HB	0.5	18.0	0.14	0.24	100	200	4.0	0.17	180
					200 HB	0.5	18.0	0.14	0.24	100	180	4.0	0.17	150
					250 HB	0.5	18.0	0.14	0.24	100	150	4.0	0.17	130
Hardened Mat.	Steel	11	X100CrMo13, 440C, G-X260NiCr42	45 HRc	0.5	6.4	0.09	0.15	40	80	2.0	0.12	60	
				50 HRc	0.5	4.5	0.09	0.14	40	70	1.5	0.11	55	
				55 HRc	0.5	3.9	0.09	0.12	40	60	1.0	0.10	50	
	Chilled Cast Iron	40	Ni-Hard 2	400 HB	0.5	5.1	0.09	0.15	40	80	1.5	0.12	50	
				400 HB	0.5	5.1	0.09	0.15	40	80	1.5	0.12	50	
	White Cast Iron	41	G-X300CrMo15	55 HRc	0.5	3.9	0.09	0.12	30	60	1.0	0.10	40	



T P K R



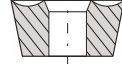
Shape



Clearance Angle



Tolerance
 $m \pm 0.013$ $s \pm 0.025$
 For $l = 16$, $d \pm 0.05$
 For $l = 22$, $d \pm 0.08$



**Fixing,
Chipbreaker**

LT 30 Multi-Mat™ General Usage – Standard					
Insert Designation	l	s	r	Direction	Catalog Nr.
TPKR 1603 PDTR LT 30	14.52	3.18	1.2	Right	M0000053
TPKR 2204 PDTR LT 30	19.92	4.76	1.2	Right	M0000983

TPKR

Application Guide

Shoulder Milling



Slotting



Surfacing



Machining Recommendations

F ⇒
Productivity

Coolant

1, 2, 3, 4	No
6, 7, 8, 11	No
10, 12	Yes
5, 9	Yes

Shell Mill for TPKR 1603 PDTR						
Cutter Designation	D	d	L	Ap	z	Catalog Nr.
LT 310 M-D063/4*	63	22	50	13	4	M2000699
LT 310 M-D080/5*	80	27	50	13	5	M2000700
LT 310 M-D100/6*	100	32	50	13	6	M2000701
LT 310 M-D125/6*	125	40	63	13	6	M2000702

* On request

Screw: On request

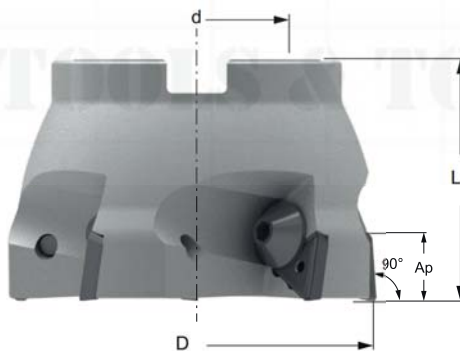
Key: M2000609

Shell Mill for TPKR 2204 PDTR						
Cutter Designation	D	d	L	Ap	z	Catalog Nr.
LT 320 M-D080/4*	80	27	50	18	4	M2000703
LT 320 M-D100/5*	100	32	50	18	5	M2000704
LT 320 M-D125/6*	125	40	63	18	6	M2000705
LT 320 M-D160/7*	160	40	63	18	7	M2000706

* On request

Screw: On request

Key: M2000609



TPKR 1603 PDTR – LT 30

Material Group	Gr. N°	VDI Group	Material Examples	Hardness	D.O.C (mm)		Feed (mm/rev)		V _c (m/min)		Suggested Starting Parameters				
					min	max	min	max	min	max	D.O.C	Feed	V _c		
Steel	Non-alloyed	1	1	C35, Ck45,	125 HB	0.5	12.0	0.13	0.22	190	330	3.0	0.17	250	
		2	2	1020, 1045,	190 HB	0.5	12.0	0.13	0.22	190	300	3.0	0.17	220	
		3	3	1060, 28Mn6	250 HB	0.5	12.0	0.13	0.22	190	250	3.0	0.17	200	
	Low alloyed	2	6	42CrMo4, S150, Ck60, 4140, 4340, 100Cr6	180 HB	0.5	12.0	0.11	0.18	150	240	3.0	0.15	200	
			4,6		230 HB	0.5	12.0	0.11	0.18	150	210	3.0	0.15	180	
			5,7		280 HB	0.5	12.0	0.11	0.15	130	190	3.0	0.13	150	
			8		350 HB	0.5	12.0	0.11	0.15	130	170	3.0	0.13	140	
	High Alloyed	3	10	X40CrMoV5, H13, M42, D3, S6-5-2, 12Ni19	220 HB	0.5	8.6	0.08	0.15	90	150	2.3	0.13	130	
			10		280 HB	0.5	8.6	0.08	0.15	90	130	2.3	0.13	120	
			11		320 HB	0.5	8.6	0.08	0.13	60	110	2.3	0.12	100	
			11		350 HB	0.5	8.6	0.08	0.13	60	90	2.3	0.12	80	
Stainless Steel	High Alloyed	4	304, 316, X5CrNi18-9	180 HB	0.5	12.0	0.11	0.15	190	250	3.0	0.13	220		
				14	240 HB	0.5	12.0	0.08	0.14	160	210	3.0	0.13	190	
	Duplex	5	X2CrNi23-4, S31500	290 HB	0.5	8.6	0.08	0.13	70	130	2.3	0.12	100		
				14	310 HB	0.5	8.6	0.08	0.13	70	120	2.3	0.12	90	
	Ferritic & Martensitic	6	410, X6Cr17, 17-4 PH, 430	200 HB	0.5	12.0	0.11	0.15	150	210	3.0	0.13	190		
				13	42 HRc	0.5	8.6	0.11	0.13	90	150	2.3	0.12	130	
	Cast Iron	Grey	7	GG20, GG40, EN-GJL-250, No30B	150 HB	0.5	12.0	0.13	0.22	150	240	3.0	0.17	200	
					15	200 HB	0.5	12.0	0.13	0.22	150	220	3.0	0.17	180
					16	250 HB	0.5	12.0	0.13	0.22	150	190	3.0	0.17	160
		Malleable & Nodular	8	GGG40, GGG70, 50005	150 HB	0.5	12.0	0.11	0.20	100	200	3.0	0.15	180	
17,19					200 HB	0.5	12.0	0.11	0.20	100	180	3.0	0.15	150	
18,20					250 HB	0.5	12.0	0.11	0.20	100	150	3.0	0.15	130	
High Temp. Alloys	Fe, Ni & Co based	9	Incoloy 800	240 HB	0.5	8.6	0.08	0.13	25	45	2.3	0.12	32		
				33	Inconel 700	250 HB	0.5	8.6	0.08	0.13	25	45	2.3	0.12	30
				34	Stellite 21	350 HB	0.5	8.6	0.08	0.13	25	45	2.3	0.12	30
	Ti based	10	TiAl6V4	-	0.5	8.6	0.08	0.14	40	65	2.3	0.13	55		
				36	-	0.5	8.6	0.08	0.13	30	55	2.3	0.12	40	
				37	T40	-	0.5	8.6	0.08	0.13	30	55	2.3	0.12	40
				37	T40	-	0.5	8.6	0.08	0.13	30	55	2.3	0.12	40
Hardened Mat.	Steel	11	X100CrMo13, 440C, G-X260NiCr42	45 HRc	0.5	4.3	0.07	0.13	40	80	1.5	0.10	60		
				38	50 HRc	0.5	3.0	0.07	0.11	40	70	1.1	0.09	55	
				38	55 HRc	0.5	2.6	0.07	0.10	40	60	0.8	0.09	50	
	Chilled Cast Iron White Cast Iron	11	Ni-Hard 2	400 HB	0.5	3.4	0.07	0.13	40	80	1.1	0.10	50		
				40	400 HB	0.5	3.4	0.07	0.13	40	80	1.1	0.10	50	
				41	G-X300CrMo15	55 HRc	0.5	2.6	0.07	0.10	30	60	0.8	0.09	40
NF	Al (>8%Si)	12	25	AlSi12	130 HB	0.5	12.0	0.13	0.22	200	400	3.0	0.18	280	

TPKR 2204 PDTR – LT 30

Material Group	Gr. N°	VDI Group	Material Examples	Hardness	D.O.C [mm]		Feed [mm/rev]		V _c [m/min]		Suggested Starting Parameters			
					min	max	min	max	min	max	D.O.C	Feed	V _c	
Steel	Non Alloyed	1	C35, Ck45, 1020, 1045, 1060, 28Mn6	125 HB	0.5	18.0	0.13	0.22	190	330	4.0	0.17	250	
		2		190 HB	0.5	18.0	0.13	0.22	190	300	4.0	0.17	220	
		3		250 HB	0.5	18.0	0.13	0.22	190	250	4.0	0.17	200	
	Low Alloyed	2	6	42CrMo4, S150, Ck60, 4140, 4340, 100Cr6	180 HB	0.5	18.0	0.11	0.18	150	240	4.0	0.15	200
			4,6		230 HB	0.5	18.0	0.11	0.18	150	210	4.0	0.15	180
			5,7		280 HB	0.5	18.0	0.11	0.15	130	190	4.0	0.13	150
			8		350 HB	0.5	18.0	0.11	0.15	130	170	4.0	0.13	140
	High Alloyed	3	10	X40CrMoV5, H13, M42, D3, S6-5-2, 12Ni19	220 HB	0.5	12.9	0.08	0.15	90	150	3.0	0.13	130
			10		280 HB	0.5	12.9	0.08	0.15	90	130	3.0	0.13	120
			11		320 HB	0.5	12.9	0.08	0.13	60	110	3.0	0.12	100
			11		350 HB	0.5	12.9	0.08	0.13	60	90	3.0	0.12	80
Stainless Steel	Austenitic	4	304, 316, X5CrNi18-9	180 HB	0.5	18.0	0.11	0.15	190	250	4.0	0.13	220	
				240 HB	0.5	18.0	0.08	0.14	160	210	4.0	0.13	190	
	Duplex	5	X2CrNi23-4, S31500	290 HB	0.5	12.9	0.08	0.13	70	130	3.0	0.12	100	
				310 HB	0.5	12.9	0.08	0.13	70	120	3.0	0.12	90	
	Ferritic & Martensitic	6	410, X6Cr17, 17-4 PH, 430	200 HB	0.5	18.0	0.11	0.15	150	210	4.0	0.13	190	
				42 HRc	0.5	12.9	0.11	0.13	90	150	3.0	0.12	130	
Cast Iron	Grey	7	GG20, GG40, EN-GJL-250, No30B	150 HB	0.5	18.0	0.13	0.22	150	240	4.0	0.17	200	
				200 HB	0.5	18.0	0.13	0.22	150	220	4.0	0.17	180	
				250 HB	0.5	18.0	0.13	0.22	150	190	4.0	0.17	160	
Malleable & Nodular	8	GGG40, GGG70, 50005	150 HB	0.5	18.0	0.11	0.20	100	200	4.0	0.15	180		
			200 HB	0.5	18.0	0.11	0.20	100	180	4.0	0.15	150		
			250 HB	0.5	18.0	0.11	0.20	100	150	4.0	0.15	130		
High Temp. Alloys	Fe, Ni & Co Based	9	31,32	Incoloy 800	240 HB	0.5	12.9	0.08	0.13	25	45	3.0	0.12	32
			33	Inconel 700	250 HB	0.5	12.9	0.08	0.13	25	45	3.0	0.12	30
			34	Stellite 21	350 HB	0.5	12.9	0.08	0.13	25	45	3.0	0.12	30
	Ti Based	10	36	TiAl6V4	-	0.5	12.9	0.08	0.14	40	65	3.0	0.13	55
37			T40	-	0.5	12.9	0.08	0.13	30	55	3.0	0.12	40	
Hardened Mat.	Steel	11	X100CrMo13, 440C, G-X260NiCr42	45 HRc	0.5	6.4	0.07	0.13	40	80	2.0	0.10	60	
				50 HRc	0.5	4.5	0.07	0.11	40	70	1.5	0.09	55	
				55 HRc	0.5	3.9	0.07	0.10	40	60	1.0	0.09	50	
	Chilled Cast Iron White Cast Iron	11	40	Ni-Hard 2	400 HB	0.5	5.1	0.07	0.13	40	80	1.5	0.10	50
				41	G-X300CrMo15	55 HRc	0.5	3.9	0.07	0.10	30	60	1.0	0.09
NF	Al (>8%Si)	12	25	AlSi12	130 HB	0.5	18.0	0.13	0.22	200	400	4.0	0.18	280



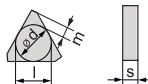
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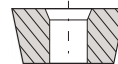
Shape



Clearance Angle



Tolerance

d \pm 0.08m \pm 0.13s \pm 0.13Fixing,
Chipbreaker

LT 30 Multi-Mat™ General Usage – Standard

Insert Designation	l	s	r	Direction	Catalog Nr.
TPUN 160308 LT 30	13.49	3.18	0.8	Right	M0000054

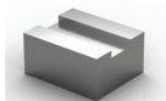
AKYTEC
TOOLS & TOOLING

Application Guide

Shoulder Milling



Slotting



Surfacing

Machining
Recommendations

Productivity



1, 2, 3, 4	No
6, 7, 8, 11	No
10, 12	Yes
Coolant 5, 9	Yes

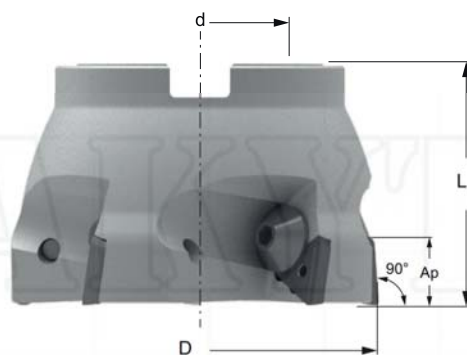
TPUN

Shell Mill for TPUN1603 PDTR						
Cutter Designation	D	d	L	Ap	z	Catalog Nr.
LT 310 M-D063/4*	63	22	50	13	4	M2000699
LT 310 M-D080/5*	80	27	50	13	5	M2000700
LT 310 M-D100/6*	100	32	50	13	6	M2000701
LT 310 M-D125/6*	125	40	63	13	6	M2000702

* On request

Screw: On request

Key: M2000609



TPUN 160308 NN PDTR – LT 30

Material Group	Gr. N°	VDI Group	Material Examples	Hardness	D.O.C [mm]		Feed [mm/rev]		V _c [m/min]		Suggested Starting Parameters				
					min	max	min	max	min	max	D.O.C	Feed	V _c		
Steel	Non Alloyed	1	1	C35, Ck45,	125 HB	0.5	12.0	0.14	0.27	190	330	3.0	0.20	250	
		2	2	1020, 1045,	190 HB	0.5	12.0	0.14	0.27	190	300	3.0	0.20	220	
		3	3	1060, 28Mn6	250 HB	0.5	12.0	0.14	0.27	190	250	3.0	0.20	200	
	Low Alloyed	2	6	42CrMo4,	180 HB	0.5	12.0	0.12	0.21	150	240	3.0	0.17	200	
		4,6	4,6	St50, Ck60,	230 HB	0.5	12.0	0.12	0.21	150	210	3.0	0.17	180	
		5,7	5,7	4140, 4340,	280 HB	0.5	12.0	0.12	0.19	130	190	3.0	0.15	150	
	High Alloyed	3	8	100Cr6	350 HB	0.5	12.0	0.12	0.19	130	170	3.0	0.15	140	
			10	10	X40CrMoV5,	220 HB	0.5	8.6	0.10	0.19	90	150	2.3	0.15	130
			11	11	H13, M42, D3,	280 HB	0.5	8.6	0.10	0.19	90	130	2.3	0.15	120
			11	11	S6-5-2, 12Ni19	320 HB	0.5	8.6	0.10	0.15	60	110	2.3	0.14	100
Cast Iron	Grey	7	15	GG20, GG40,	150 HB	0.5	12.0	0.14	0.27	150	240	3.0	0.20	200	
			15	15	EN-GJL-250,	200 HB	0.5	12.0	0.14	0.27	150	220	3.0	0.20	180
			16	16	No30B	250 HB	0.5	12.0	0.14	0.27	150	190	3.0	0.20	160
	Malleable & Nodular	8	17,19	17,19	GGG40, GGG70,	150 HB	0.5	12.0	0.12	0.24	100	200	3.0	0.17	180
			17,19	17,19	50005	200 HB	0.5	12.0	0.12	0.24	100	180	3.0	0.17	150
			18,20	18,20		250 HB	0.5	12.0	0.12	0.24	100	150	3.0	0.17	130
	Hardened Mat.	11	Steel	38	X100CrMo13,	45 HRc	0.5	4.3	0.08	0.15	40	80	1.5	0.12	60
				38	440C,	50 HRc	0.5	3.0	0.08	0.14	40	70	1.1	0.11	55
				38	G-X260NiCr42	55 HRc	0.5	2.6	0.08	0.12	40	60	0.8	0.10	50
Chilled Cast Iron			40	Ni-Hard 2	400 HB	0.5	3.4	0.08	0.15	40	80	1.1	0.12	50	
			White Cast Iron	41	G-X300CrMo15	55 HRc	0.5	2.6	0.08	0.12	30	60	0.8	0.10	40