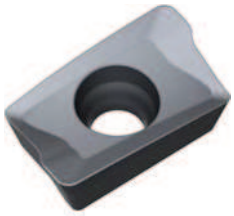
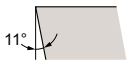
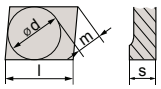


A P K T

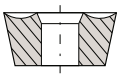
Shape



Clearance Angle



Tolerance
d ± 0.05
m ± 0.013
s ± 0.025



Fixing
Chip breaker

	Insert Designation	Grade	l	s	r	Direction	Catalog Nr.
From Q1-2013 NEW	**APKT 100304 PDTR**	**LT 30**	10.39	3.53	0.4	Right	M0002920
NEW	**APKT 1003 PDTR**	**LT 30**	10.39	3.53	0.8	Right	M0002918
From Q1-2013 NEW	**APKT 100312 PDTR**	**LT 30**	10.39	3.53	1.2	Right	M0002921
	APKT 100332 PDTR[1]	**LT 30**	10.39	3.53	3.2	Right	M0002922
	APKT 100340 PDTR[1]	**LT 30**	10.39	3.53	4.0	Right	M0002923
	APLX 1003 PDTR*	**LT 30**	10.39	3.53	0.54	Right	M0000454
	APLX 100308 PDTR*	**LT 30**	10.39	3.53	0.8	Right	M0001151

[1] Replacing APLX 100332 and APLX 100340 respectively; no change in cutter bodies

* These two items are available until mid 2013 including their cutter bodies (LT 740 serie) and will be phased out after.

Application Guide

Multi purpose 90° Milling insert. Suitable for Roughing to Finishing-Slotting, Shoulder and Face Milling operations.

Surfacing Insert Lead angle 90°

F ⇒
Productivity

Coolant

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

Stainless Steel
V_c

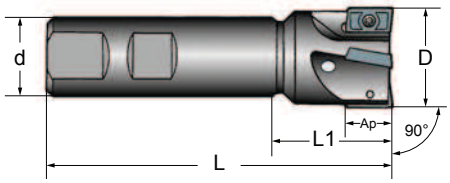
Machine Recommendations Guide. Details on page 10

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	2	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	85	9	2	12	M2002806
LT 741 CL-W-D016/2	16	16	40	150	9	2	12	M2002817
LT 741 CL-W-D018/2	18	20	30	85	9	2	12	M2002807
LT 741 C-W-D020/3	20	20	25	90	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	25	32	95	9	5	3	M2002814
LT 741 WL-W-D032/4	32	32	32	200	9	4	3	M2002820

APKT

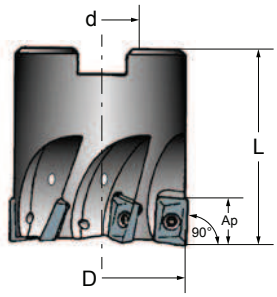
Screw: **M2002181**
Key set: **M2000601**



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

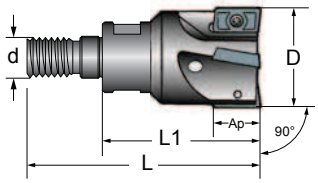
* On request **Screw: M2002181** **Key: M2000601**



Screw coupling for APKT 1003 PDTR

Cutter Designation	D	d	L	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	M22	35	9	4	5	M2002964

* On request **Screw: M2002181** **Key: M2000601**



APKT 1003 PDTR LT 30

Material Group		Gr. N°	VDI Group	Material Examples*	Hardness	D.O.C. [mm]		Feed [mm/tooth]		V_c [m/min]		Optimal cutting conditions		
						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	0.5	9.0	0.13	0.26	190	330	2.0	0.17	250
			2		190 HB		9.0		0.26		300			220
			3		250 HB		9.0		0.26		250			200
	Low alloyed	2	6	42CrMo4, St50, Ck60, 4140, 4340, 100Cr6	180 HB	0.5	9.0	0.11	0.21	150	240	2.0	0.15	200
			4,6		230 HB		9.0		0.21	150	210		0.15	180
			5,7		280 HB		9.0		0.18	130	190		0.13	150
			8		350 HB		9.0		0.18	130	170		0.13	140
	High alloyed	3	10	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
			10		280 HB		6.4		0.18	90	130		0.13	120
			11		320 HB		6.4		0.15	60	110		0.12	100
			11		350 HB		6.4		0.15	60	90		0.12	80
Stainless Steel	Austenitic	4	14	304, 316, X5CrNi18-9	180 HB	0.5	9.0	0.11	0.21	190	250	2.0	0.15	220
			14		240 HB		9.0	0.08	0.18	160	210			190
	Duplex	5	14	X2CrNiN23-4, S31500	290 HB	0.5	6.4	0.08	0.15	70	130	1.5	0.12	100
			14		310 HB		6.4		0.15		120			90
	Ferritic & Martensitic	6	12	410, X6Cr17, 17-4 PH, 430	200 HB	0.5	9.0	0.11	0.21	150	210	2.0	0.15	190
			13		42 HRc		6.4		0.16	90	150	1.5	0.12	130
Cast Iron	Grey	7	15	GG20, GG40, EN-GJL-250, No30B	150 HB	0.5	9.0	0.13	0.26	150	240	2.0	0.17	200
			15		200 HB		9.0		0.26		220			180
			16		250 HB		9.0		0.26		190			160
	Malleable & Nodular	8	17,19	GGG40, GGG70, 50005	150 HB	0.5	9.0	0.11	0.23	100	200	2.0	0.15	180
			17,19		200 HB		9.0		0.23		180			150
			18,20		250 HB		9.0		0.23		150			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		6.4		0.15		45			30
			34	Stellite 21	350 HB		6.4		0.15		45			30
	Ti based	10	36	TiAl6V4	-	0.5	6.4	0.08	0.16	40	65	1.5	0.13	55
			37	T40	-		6.4		0.15	30	55		0.12	40
Hardened Mat.	Steel	11	38	X100CrMo13, 440C, G-X260NiCr42	45 HRc	0.5	3.2	0.07	0.15	40	80	1.0	0.10	60
			38		50 HRc		1.9		0.13		70	0.8	0.09	55
			38		55 HRc		1.0		0.11		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
	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

Material Group		Gr. N°	VDI Group	Material Examples*	Hardness	D.O.C. [mm]		Feed [mm/tooth]		V_c [m/min]		Optimal cutting conditions		
						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	0.5	9.0	0.11	0.20	190	330	2.0	0.14	250
			2		190 HB		9.0		0.20		300			220
			3		250 HB		9.0		0.20		250			200
	Low alloyed	2	6	42CrMo4, St50, Ck60, 4140, 4340, 100Cr6	180 HB	0.5	9.0	0.09	0.16	150	240	2.0	0.12	200
			4,6		230 HB		9.0		0.16	150	210		0.12	180
			5,7		280 HB		9.0		0.14	130	190		0.11	150
			8		350 HB		9.0		0.14	130	170		0.11	140
	High alloyed	3	10	X40CrMoV5, H13, M42, D3, S6-5-2, 12Ni19	220 HB	0.5	6.4	0.07	0.14	90	150	1.5	0.11	130
			10		280 HB		6.4		0.14	90	130		0.11	120
			11		320 HB		6.4		0.11	60	110		0.10	100
			11		350 HB		6.4		0.11	60	90		0.10	80
Stainless Steel	Austenitic	4	14	304, 316, X5CrNi18-9	180 HB	0.5	9.0	0.09	0.16	190	250	2.0	0.12	220
			14		240 HB		9.0	0.07	0.14	160	210			190
	Duplex	5	14	X2CrNiN23-4, S31500	290 HB	0.5	6.4	0.07	0.11	70	130	1.5	0.10	100
			14		310 HB		6.4		0.11		120			90
	Ferritic & Martensitic	6	12	410, X6Cr17, 17-4 PH, 430	200 HB	0.5	9.0	0.09	0.16	150	210	2.0	0.12	190
			13		42 HRc		6.4		0.12	90	150	1.5	0.10	130
Cast Iron	Grey	7	15	GG20, GG40, EN-GJL-250, No30B	150 HB	0.5	9.0	0.11	0.20	150	240	2.0	0.14	200
			15		200 HB		9.0		0.20		220			180
			16		250 HB		9.0		0.20		190			160
	Malleable & Nodular	8	17,19	GGG40, GGG70, 50005	150 HB	0.5	9.0	0.09	0.17	100	200	2.0	0.12	180
			17,19		200 HB		9.0		0.17		180			150
			18,20		250 HB		9.0		0.17		150			130
High Temp.Alloys	Fe, Ni & Co based	9	31,32	Incoloy 800	240 HB	0.5	6.4	0.07	0.11	25	45	1.5	0.10	32
			33	Inconel 700	250 HB		6.4		0.11		45			30
			34	Stellite 21	350 HB		6.4		0.11		45			30
	Ti based	10	36	TiAl6V4	-	0.5	6.4	0.07	0.12	40	65	1.5	0.11	55
			37	T40	-		6.4		0.11	30	55		0.10	40
Hardened Mat.	Steel	11	38	X100CrMo13, 440C, G-X260NiCr42	45 HRc	0.5	3.2	0.06	0.11	40	80	1.0	0.09	60
			38		50 HRc		1.9		0.10		70	0.8	0.08	55
			38		55 HRc		1.0		0.09		60	0.5	0.07	50
	Chilled Cast Iron		40	Ni-Hard 2	400 HB	0.5	2.6	0.06	0.11	40	80	0.8	0.09	50
	White Cast Iron		41	G-X300CrMo15	55 HRc	0.5	1.0	0.06	0.09	30	60	0.5	0.07	40
NF	Al (>8%Si)	12	25	AlSi12	130 HB	0.5	9.0	0.11	0.20	200	400	2.0	0.16	280

LAMINA TECHNOLOGIES

APKT 100312 PDTR LT 30

Material Group		Gr. N°	VDI Group	Material Examples*	Hardness	D.O.C. [mm]		Feed [mm/tooth]		V_c [m/min]		Optimal cutting conditions		
						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	0.5	9.0	0.13	0.28	190	330	2.0	0.20	250
			2		190 HB		9.0		0.28		300			220
			3		250 HB		9.0		0.28		250			200
	Low alloyed	2	6	42CrMo4, St50, 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		9.0		0.22	150	210		0.18	180
			5,7		280 HB		9.0		0.19	130	190		0.16	150
			8		350 HB		9.0		0.19	130	170		0.16	140
	High alloyed	3	10	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		6.4		0.19	90	130		0.16	120
			11		320 HB		6.4		0.16	60	110		0.14	100
			11		350 HB		6.4		0.16	60	90		0.14	80
Stainless Steel	Austenitic	4	14	304, 316, X5CrNi18-9	180 HB	0.5	9.0	0.11	0.22	190	250	2.0	0.18	220
			14		240 HB		9.0	0.08	0.19	160	210			190
	Duplex	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		6.4		0.16		120			90
	Ferritic & Martensitic	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		6.4		0.18	90	150	1.5	0.14	130
Cast Iron	Grey	7	15	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		9.0		0.28		220			180
			16		250 HB		9.0		0.28		190			160
	Malleable & Nodular	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		9.0		0.25		180			150
			18,20		250 HB		9.0		0.25		150			130
High Temp.Alloys	Fe, Ni & Co based	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		6.4		0.16		45			30
			34	Stellite 21	350 HB		6.4		0.16		45			30
	Ti based	10	36	TiAl6V4	-	0.5	6.4	0.08	0.18	40	65	1.5	0.16	55
			37	T40	-		6.4		0.16	30	55		0.14	40
Hardened Mat.	Steel	11	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		1.9		0.14		70	0.8	0.11	55
			38		55 HRc		1.0		0.12		60	0.5	0.11	50
	Chilled Cast Iron		40	Ni-Hard 2	400 HB	0.5	2.6	0.07	0.16	40	80	0.8	0.12	50
	White Cast Iron		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 100332 PDTR LT 30

Material Group		Gr. N°	VDI Group	Material Examples*	Hardness	D.O.C. [mm]		Feed [mm/tooth]		V_c [m/min]		Optimal cutting conditions		
						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	0.5	9.0	0.13	0.28	190	330	1.0	0.29	250
			2		190 HB		9.0		0.28		300			220
			3		250 HB		9.0		0.28		250			200
	Low alloyed	2	6	42CrMo4, St50, Ck60, 4140, 4340, 100Cr6	180 HB	0.5	9.0	0.11	0.22	150	240	1.0	0.25	200
			4,6		230 HB		9.0		0.22	150	210		0.25	180
			5,7		280 HB		9.0		0.19	130	190		0.22	150
			8		350 HB		9.0		0.19	130	170		0.22	140
	High alloyed	3	10	X40CrMoV5, H13, M42, D3, S6-5-2, 12Ni19	220 HB	0.5	6.4	0.08	0.19	90	150	1.0	0.22	130
			10		280 HB		6.4		0.19	90	130		0.22	120
			11		320 HB		6.4		0.16	60	110		0.20	100
			11		350 HB		6.4		0.16	60	90		0.20	80
Stainless Steel	Austenitic	4	14	304, 316, X5CrNi18-9	180 HB	0.5	9.0	0.11	0.22	190	250	1.0	0.25	220
			14		240 HB		9.0	0.08	0.19	160	210		0.25	190
	Duplex	5	14	X2CrNiN23-4, S31500	290 HB	0.5	6.4	0.08	0.16	70	130	1.0	0.20	100
			14		310 HB		6.4		0.16		120			90
	Ferritic & Martensitic	6	12	410, X6Cr17, 17-4 PH, 430	200 HB	0.5	9.0	0.11	0.22	150	210	1.0	0.25	190
			13		42 HRc		6.4		0.18	90	150		0.20	130
Cast Iron	Grey	7	15	GG20, GG40, EN-GJL-250, No30B	150 HB	0.5	9.0	0.13	0.28	150	240	1.0	0.29	200
			15		200 HB		9.0		0.28		220			180
			16		250 HB		9.0		0.28		190			160
	Malleable & Nodular	8	17,19	GGG40, GGG70, 50005	150 HB	0.5	9.0	0.11	0.25	100	200	1.0	0.25	180
			17,19		200 HB		9.0		0.25		180			150
			18,20		250 HB		9.0		0.25		150			130
High Temp.Alloys	Fe, Ni & Co based	9	31,32	Incoloy 800	240 HB	0.5	6.4	0.08	0.16	25	45	1.0	0.20	32
			33	Inconel 700	250 HB		6.4		0.16		45			30
			34	Stellite 21	350 HB		6.4		0.16		45			30
	Ti based	10	36	TiAl6V4	-	0.5	6.4	0.08	0.18	40	65	1.0	0.22	55
			37	T40	-		6.4		0.16	30	55		0.20	40
Hardened Mat.	Steel	11	38	X100CrMo13, 440C, G-X260NiCr42	45 HRc	0.4	3.2	0.07	0.16	40	80	0.7	0.17	60
			38		50 HRc		1.9		0.14		70		0.16	55
			38		55 HRc		1.0		0.12		60		0.15	50
	Chilled Cast Iron		40	Ni-Hard 2	400 HB	0.4	2.6	0.07	0.16	40	80	0.7	0.17	50
	White Cast Iron		41	G-X300CrMo15	55 HRc	0.4	1.0	0.07	0.12	30	60	0.7	0.15	40
NF	Al (>8%Si)	12	25	AlSi12	130 HB	0.5	9.0	0.13	0.28	200	400	1.0	0.31	280

LAMINA TECHNOLOGIES

APKT 100340 PDTR LT 30

Material Group		Gr. N°	VDI Group	Material Examples*	Hardness	D.O.C. [mm]		Feed [mm/tooth]		V_c [m/min]		Optimal cutting conditions		
						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	0.5	9.0	0.13	0.46	190	330	1.0	0.35	250
			2		190 HB		9.0		0.46		300			220
			3		250 HB		9.0		0.46		250			200
	Low alloyed	2	6	42CrMo4, St50, 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		9.0		0.36	150	210		0.30	180
			5,7		280 HB		9.0		0.32	130	190		0.27	150
			8		350 HB		9.0		0.32	130	170		0.27	140
	High alloyed	3	10	X40CrMoV5, H13, M42, D3, S6-5-2, 12Ni19	220 HB	0.5	6.4	0.08	0.32	90	150	1.0	0.27	130
			10		280 HB		6.4		0.32	90	130		0.27	120
			11		320 HB		6.4		0.26	60	110		0.24	100
			11		350 HB		6.4		0.26	60	90		0.24	80
Stainless Steel	Austenitic	4	14	304, 316, X5CrNi18-9	180 HB	0.5	9.0	0.11	0.36	190	250	1.0	0.30	220
			14		240 HB		9.0	0.08	0.32	160	210			190
	Duplex	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		6.4		0.26		120			90
	Ferritic & Martensitic	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		6.4		0.29	90	150		0.24	130
Cast Iron	Grey	7	15	GG20, GG40, EN-GJL-250, No30B	150 HB	0.5	9.0	0.13	0.46	150	240	1.0	0.35	200
			15		200 HB		9.0		0.46		220			180
			16		250 HB		9.0		0.46		190			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		9.0		0.41		180			150
			18,20		250 HB		9.0		0.41		150			130
High Temp.Alloys	Fe, Ni & Co based	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		6.4		0.26		45			30
			34	Stellite 21	350 HB		6.4		0.26		45			30
	Ti based	10	36	TiAl6V4	-	0.5	6.4	0.08	0.29	40	65	1.0	0.27	55
			37	T40	-		6.4		0.26	30	55		0.24	40
Hardened Mat.	Steel	11	38	X100CrMo13, 440C, G-X260NiCr42	45 HRc	0.4	3.2	0.07	0.26	40	80	0.7	0.21	60
			38		50 HRc		1.9		0.23		70		0.20	55
			38		55 HRc		1.0		0.20		60		0.18	50
	Chilled Cast Iron		40	Ni-Hard 2	400 HB	0.4	2.6	0.07	0.26	40	80	0.7	0.21	50
	White Cast Iron		41	G-X300CrMo15	55 HRc	0.4	1.0	0.07	0.20	30	60	0.7	0.18	40
NF	Al (>8%Si)	12	25	AlSi12	130 HB	0.5	9.0	0.13	0.46	200	400	1.0	0.38	280