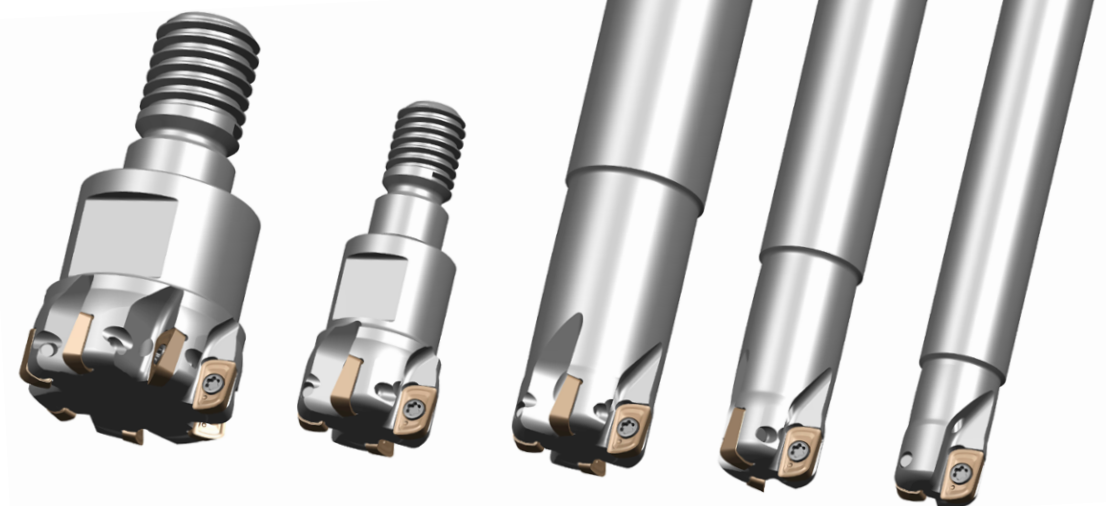




NEW PRODUCT RELEASE

PIONEERS OF MULTI-MAT™



NEW HIGH FEED MILLING LINE

NEW HIGH FEED MILLING INSERT

LT 3130



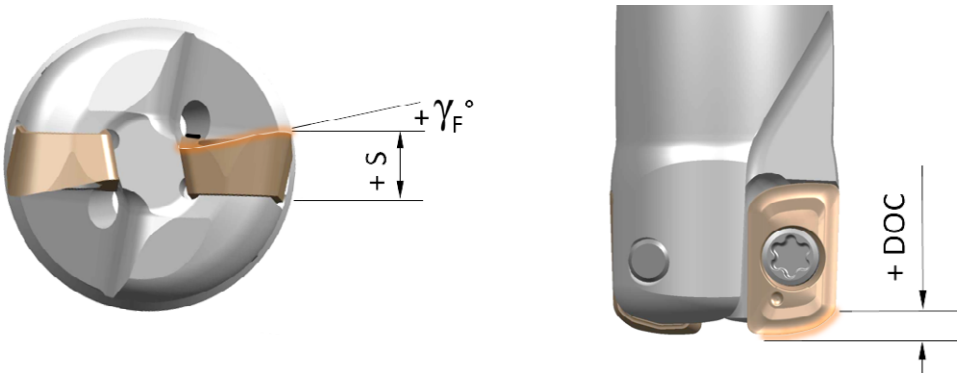
LT 3000



The LT 910 range of milling cutters are designed for outstanding performance, maximizing chip removal rates and delivering the best utilization of a wide range of machines, by using the High Feed milling process.

The two geometries sharp XPKT and reinforced XPKW, available in our grades MultiMat™ LT 3000 MAGIA and LT 3130 MAGIA PRO are able to deliver high performance on all kind of Steels, Stainless Steels, Cast Irons, Aluminum, Super Alloys and Hardened Materials.

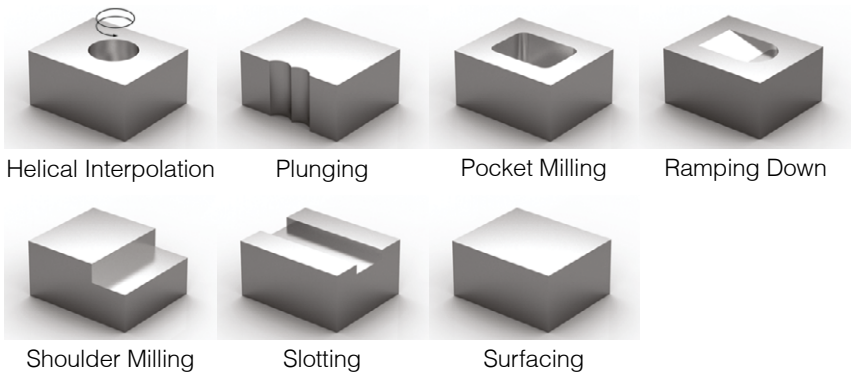
Suitable for many kinds of operations such as plunge milling, face milling, side milling, ramping, pocketing, slotting and helical interpolation.



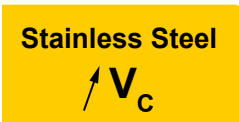
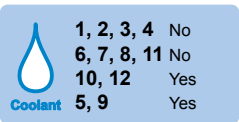
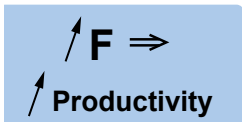
ADVANTAGES

- γ_F° Positive radial rake angle and helical design for reduced cutting forces
- Increased height (+S) for higher chip loading
- Depth of Cut (+DOC) up to 0.7mm
- High teeth density, even in the smallest cutter diameter 10mm / Z=2 (High productivity)

APPLICATION GUIDE

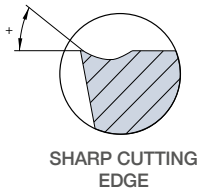


MACHINING RECOMMENDATIONS



PRODUCT RANGE

X P K T



MAGIA PRO

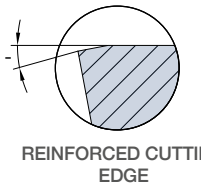
DESIGNATION	GRADE	RADIUS (mm)	CUTTING EDGES	CUTTER LINE	MATERIAL RECOM-MENDATION	CATALOG #
XPKT 0602-HF	LT 3130	1.20	2	LT 910		M0005548

MAGIA

DESIGNATION	GRADE	RADIUS (mm)	CUTTING EDGES	CUTTER LINE	MATERIAL RECOM-MENDATION	CATALOG #
XPKT 0602-HF	LT 3000	1.20	2	LT 910		M0005549

For materials with hardness up to 320HB and to avoid vibration (e.g. Long Overhangs)

X P K W



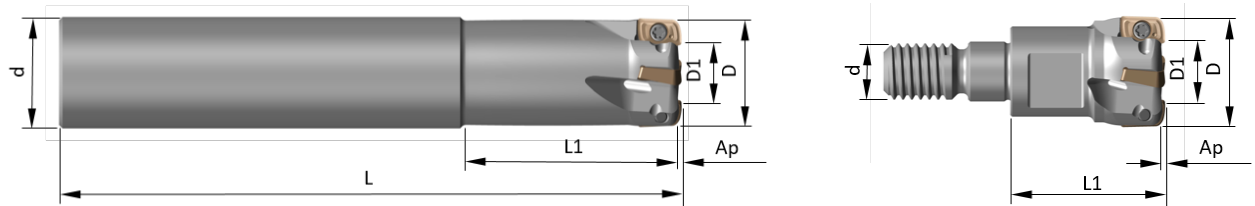
MAGIA PRO

DESIGNATION	GRADE	RADIUS (mm)	CUTTING EDGES	CUTTER LINE	MATERIAL RECOM-MENDATION	CATALOG #
XPKW 0602-HF	LT 3130	1.20*	2	LT 910		M0005544

MAGIA

DESIGNATION	GRADE	RADIUS (mm)	CUTTING EDGES	CUTTER LINE	MATERIAL RECOM-MENDATION	CATALOG #
XPKW 0602-HF	LT 3000	1.20	2	LT 910		M0005545

For materials hardness higher than 320HB.



End Mill Cylindrical Shank

DESIGNATION	D	D1	d	L	L1	Ap	Z	α°	CATALOG #
LT 910 C-W-D010/2	10	4.7	10	72	16	0.7	2	1.25	M2005574
LT 910 C-W-D012/3	12	6.7	12	80	26	0.7	3	2.50	M2005573
LT 910 CL-W-D012/3	12	6.7	10	120	13.5	0.7	3	2.50	M2005568
LT 910 C-W-D016/4	16	10.7	16	90	32	0.7	4	2.00	M2005572
LT 910 CL-W-D016/3	16	10.7	14	160	13.5	0.7	3	2.00	M2005583
LT 910 C-W-D020/5	20	14.7	20	100	40	0.7	5	1.25	M2005571
LT 910 CL-W-D020/4	20	14.7	18	200	13.5	0.7	4	1.25	M2005581
LT 910 C-W-D025/7	25	19.7	20	120	40	0.7	4	0.90	M2005570
LT 910 CL-W-D025/6	25	19.7	20	220	15	0.7	4	0.90	M2005580

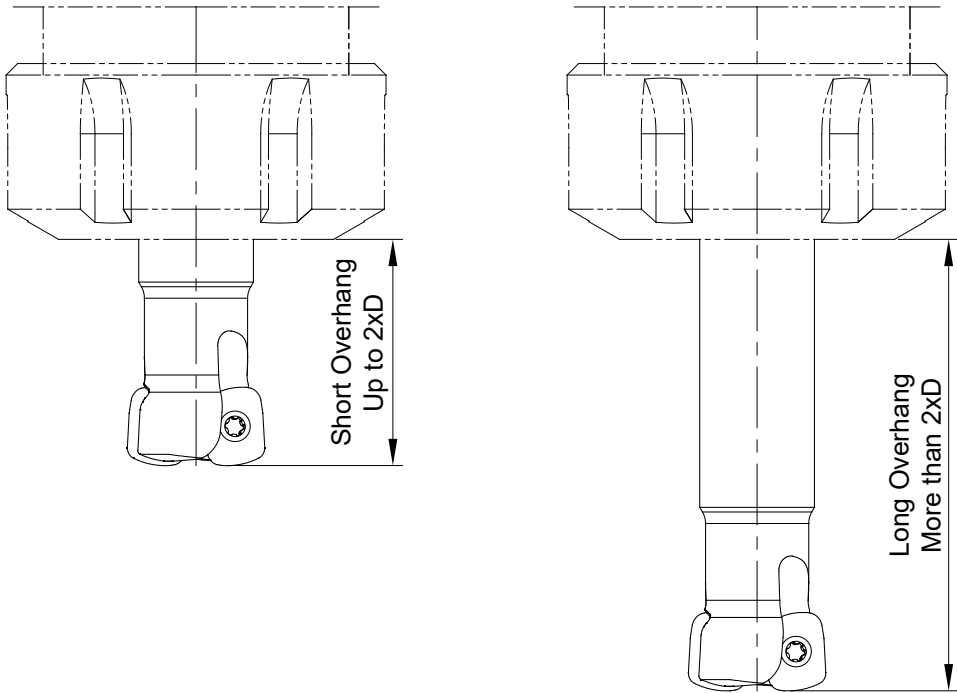
Screw Coupling

DESIGNATION	D	D1	d	L1	Ap	Z	α°	CATALOG #
LT 910 S-W-D10/2	10	4.7	M6	19	0.7	2	1.25	M2005578
LT 910 S-W-D12/3	12	6.7	M6	19	0.7	3	2.50	M2003088
LT 910 S-W-D16/4	16	10.7	M8	22	0.7	4	2.00	M2005577
LT 910 S-W-D20/5	20	14.7	M10	25	0.7	5	1.25	M2005576
LT 910 S-W-D25/7	25	19.7	M12	25	0.7	7	0.90	M2005559
LT 910 S-W-D32/8	32	26.7	M16	30	0.7	8	0.70	M2005558

CUTTING PARAMETERS - UP TO 0.7 x D

Material Group	Lamina Gr. N°	Material Examples	Hardness	Suggested Vc [mm/min]	Suggested Feed/Tooth for D.O.C. (Ap) 0.3mm - 0.7 mm					Maximum Feed/Tooth for D.O.C. (Ap) 0.3mm - 0.7mm					Feed/Z	
					0.3	0.4	0.5	0.6	0.7	0.3	0.4	0.5	0.6	0.7	Plunging	Suggested Insert
Non Alloyed	1	C35, Ck45, 1020, 1045, 1060, 28Mn6	125 HB	250	1.55	1.09	1.00	0.54	0.46	2.16	1.53	1.40	0.76	0.65	0.07	XPKT 0602-HF LT 3130
			190 HB	220												
			250 HB	200												
Low Alloyed	2	42CrMo4, St50, Ck60, 4140, 4340, 100Cr6	180 HB	200	1.32	0.93	0.85	0.46	0.39	1.84	1.30	1.19	0.64	0.55	0.06	XPKT 0602-HF LT 3130
			230 HB	180												
			280 HB	150												XPKW 0602-HF LT 3130
			350 HB	140												
High Alloyed	3	X40CrMoV5, H13, M42, D3, S6-5-2, 12Ni19	220 HB	130	1.11	0.79	0.72	0.39	0.33	1.56	1.10	1.01	0.55	0.47	0.05	XPKW 0602-HF LT 3130
			280 HB	120												
			320 HB	100												
			350 HB	80												
Austenitic	4	304, 316, X5CrNi18-9	180 HB	220	0.71	0.50	0.46	0.25	0.21	0.99	0.70	0.64	0.35	0.30	0.06	XPKT 0602-HF LT 3000
			240 HB	190												
Duplex	5	X2CrNiN23-4, S31500	290 HB	100	0.51	0.36	0.33	0.18	0.15	0.71	0.50	0.46	0.25	0.21	0.05	XPKT 0602-HF LT 3000
			310 HB	90												
Ferritic & Martensitic	6	410, X6Cr17, 17-4PH, 430	200 HB	190	0.51	0.36	0.33	0.18	0.15	0.71	0.50	0.46	0.25	0.21	0.05	XPKT 0602-HF LT 3130
			42 HRc	130												
Grey	7	GG20, GG40, EN-GJL-250, N030B	150 HB	200	1.55	1.09	1.00	0.54	0.46	2.16	1.53	1.40	0.76	0.65	0.07	XPKW 0602-HF LT 3000
			200 HB	180												
			250 HB	160												
Malleable & Nodular	8	GGG40, GGG70, 50005	150 HB	180	1.32	0.94	0.86	0.46	0.40	1.85	1.31	1.20	0.65	0.56	0.06	XPKW 0602-HF LT 3000
			200 HB	150												
			250 HB	130	1.21	0.86	0.79	0.43	0.36	1.70	1.20	1.10	0.60	0.51	0.06	XPKW 0602-HF LT 3000
Fe, Ni & Co based	9	Incoloy 800	240 HB	32	0.36	0.25	0.23	-	-	0.50	0.35	0.32	-	-	0.05	XPKT 0602-HF LT 3000
		Inconel 700	250 HB	30												
		Stellite 21	350 HB	30												
Ti based	10	TiAl6V4	-	55	0.29	0.20	0.18	.	.	0.40	0.28	0.26	-	-	0.05	XPKT 0602-HF LT 3000
		T40	-	40												
Steel	11	X100 CrMo13, 440C, G-X260NiCr42	45 HRc	60	0.71	0.50	0.46	-	-	0.99	0.70	0.64	-	-	0.04	XPKW 0602-HF LT 3000
			50 HRc	55	0.43	-	-	-	-	0.60	-	-	-	-	0.04	XPKW 0602-HF LT 3000
			55 HRc	50	0.36	-	-	-	-	0.50	-	-	-	-	0.04	XPKW 0602-HF LT 3000
		Ni-Hard 2	400 HB	50												
White Cast Iron		G-X300CrMo15	55 HRc	40												
NF Al (>8%Si)	12	AISi12	130 HB	280	0.77	0.55	0.50	0.27	0.23	1.08	0.76	0.70	0.38	0.32	0.08	XPKT 0602-HF LT 3000

All cutting parameters are start values and they are valid for stable conditions and Short Overhang (Up to 2xD).
For Long Overhangs (more than 2xD), they must be adjusted according to the application.
During Ramping Down, reduce feed/tooth = 50%.
For slotting reduce feed/tooth = 25% - 50%.



HOW TO ASSEMBLE LT 910 CUTTERS
TO AVOID PREMATURE BREAKAGE

When using the cutter **for the first time**, the following start procedure should be followed:

1. Start the milling operation and stop it after 10-20 seconds of machining
2. Tighten the screw again using the pre-set torque screw driver (0.4Nm)
3. Re-start the milling operation
4. This procedure will guarantee a precise and real torque force on the screw.

This procedure needs to be done only the first time you use a new LT 910 milling cutter.
After this, your cutter should work without issue even after loading new inserts or starting and restarting the machining process.

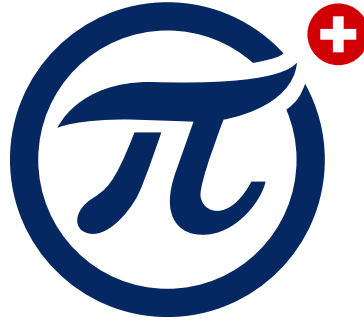
Due to the small size of these inserts, it is vital that you only use a pre-set torque wrench (0.4Nm) at all times for assembly and adjustment.

SPARE PARTS	CATALOG #
Screw	M2001640
Screwdriver	M2002922
Preset Adapter 0.4NM	M2002923
Torx Plus Bit	M2003064

It is also recommended that when mounting, the insert should be held in place with your finger



Keep the insert positioned with the finger, when tightening the screw.



LAMINA
TECHNOLOGIES

HEADQUARTERS

Lamina Technologies SA Switzerland

Rue Pythagore, 2
1400 Yverdon-les-Bains
Switzerland
T. +41 (0)24 423 55 55
F. +41 (0)24 423 54 44
info@lamina-tech.ch
www.lamina-tech.ch

SUBSIDIARIES

Lamina Technologies Deutschland GmbH

Athenslebener Weg 33
39418 Staßfurt
Germany
T. +49 (3925) 329 277
F. +49 (3925) 329 278
info@lamina-tech.de
www.lamina-tech.ch

Lamina Technologies do Brasil Ltda.

Avenida Macuco, 726 Cj
1603/1604, 04523-001
Moema, São Paulo
Brazil
T. +55 11 2344 7890
F. +55 11 2344 7888
info@lamina-tech.ch
www.lamina-tech.ch

Lamina Teknolojileri Kesici Takımlar

Cihangir Mahallesi, Petrol
Ofisi Caddesi
Şehit Komando Onbaşı Uğur
Hancı Sokak No. 5
Avcılar, İstanbul
Turkey 34310
T. +90 212 292 09 21
F. +90 212 292 59 51
info@lamina-tech.ch
www.lamina-tech.ch

Lamina Technologies France

15 Rue Bernard Palissy
Entrepot Jeantet STJ
25300 Granges Narboz
France
T./F. +33 (0) 381 49 67 30
info@lamina-tech.fr
www.lamina-tech.ch

Lamina Technologii LLC Russia

Kantemirovskaya str. 58
Office 6023
115477 Russia, Moscow
T./F. +7 499 653 93 56
info@lamina-russia.ru
www.lamina-tech.ch

Lamina Trading (Shanghai) Co., Ltd

Room 340, Building No.1
No. 526 Fute 3rd Road East
Pilot Free Trade Zone
200131 Shanghai
China
T. +86 21 22876501
info-cn@lamina-tech.ch
www.lamina-tech.ch