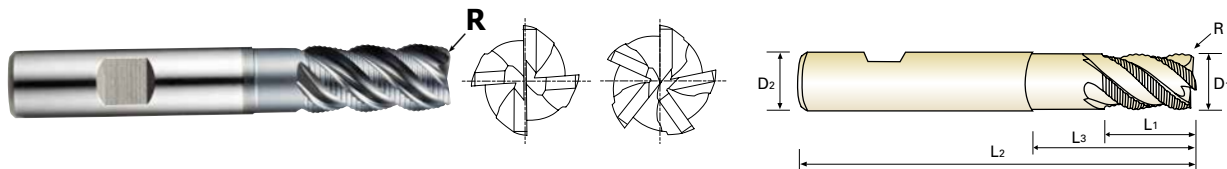


PM60, MULTI FLUTE MULTIPLE HELIX SHORT LENGTH CORNER RADIUS ROUGHING - FINE (Center Cut)

🇩🇪 PM60, Mehrschneiden, mit ungleichem Drall, kurz, Eckenradius, Feinkordel-Schruppfräser, Zentrumschnitt
🇫🇷 Revêtue YG-AlCrN - PM60, multi-dents, hélice multiple, série courte, rayonnée, ravageuse, pas fins (Coupe au centre)
🇮🇹 Rivestita PM60, MULTI TAGLIENTE ELICA VARIABILE SERIE CORTA TORICA PER SGROSSATURA - BOMBATO FINE (Tagliante al centro)



PM 60
4-5
44°/44.5° / 45°
HR
FLAT
P.634

Unit : mm

EDP No.	Corner Radius	Mill Diameter	Shank diameter	Length of Cut	Length Below Shank	Overall length	No. of Flute
	R	D1(js12)	D2(h6)	L1	L3	L2	
GYF95060	R0.5	6.0	6	13	-	57	4
GYF95070	R0.5	7.0	10	16	-	66	4
GYF95080	R0.5	8.0	10	19	-	69	4
GYF95090	R0.5	9.0	10	19	-	69	4
GYF95100	R0.5	10.0	10	22	31	72	4
GYF95120	R0.5	12.0	12	26	37	83	4
GYF95140	R1.0	14.0	12	26	-	83	5
GYF95160	R1.0	16.0	16	32	44	92	5
GYF95180	R1.0	18.0	16	32	-	92	5
GYF95200	R1.0	20.0	20	38	54	104	5
GYF95250	R1.0	25.0	25	45	63	121	5

Tolerances according to DIN 7160 & 7161

Tolerance range in μm			
Nominal-Diameter in mm			
	over 6 to 10	over 10 to 18	over 18 to 30
js12	± 75	± 90	± 105
h6	0 - 9	0 - 11	0 - 13

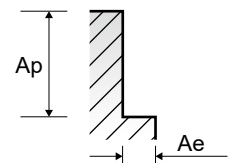
◎ : Excellent ○ : Good

ISO Material Description	P											M				K					
	Non-alloy steel					Low alloy steel				High alloyed steel, and tool steel		Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron			
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
HRc	13	25	28	32	10	29	32	38	15	35	15	23	10	10	26	3	25		21		
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230	
Recommend	◎	◎	◎	◎	◎	◎	◎	◎	○	◎	○	◎	◎	◎	◎	◎	◎	◎	◎	◎	
ISO Material Description	N									S						H					
	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)		Non Metallic Materials		Heat Resistant Super Alloys						Titanium Alloys		Hardened steel	Chilled Cast Iron	Hardened Cast Iron	
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc											15	30	25	38	34			55	60	42	55
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400 Rm	1050 Rm	550	630	400	550
Recommend						○	○	○												○	

GYF95 SERIES MULTI FLUTE ROUGHING - SIDE CUTTING

Vc = m/min.
fz = mm/tooth
RPM = rev./min.
FEED = mm/min.

ISO	VDI 3323	Material Description	Ae	Ap	Parameter	6.0	8.0	10.0	12.0	14.0	16.0	18.0	20.0	25.0	
						Vc	fz	RPM	FEED	Vc	fz	RPM	FEED	Vc	fz
P	1	Non-alloy steel	0.5D	1.5D	Vc	76	87	86	87	89	87	85	87	90	
					fz	0.02	0.03	0.055	0.065	0.059	0.069	0.079	0.088	0.105	
					RPM	4032	3462	2737	2308	2024	1731	1503	1385	1146	
	2		Vc	60	69	68	65	66	69	72	68	68			
			fz	0.021	0.03	0.053	0.069	0.063	0.069	0.074	0.087	0.106			
			RPM	3183	2745	2165	1724	1501	1373	1273	1082	866			
	3		Vc	43	51	47	49	48	48	50	48	47			
			fz	0.018	0.028	0.046	0.063	0.061	0.069	0.075	0.086	0.107			
			RPM	2281	2029	1496	1300	1091	955	884	764	598			
	4		Vc	43	51	47	49	48	48	50	48	47			
			fz	0.018	0.028	0.046	0.063	0.061	0.069	0.075	0.086	0.107			
			RPM	2281	2029	1496	1300	1091	955	884	764	598			
5	Vc	35	38	40	40	40	40	40	40	41					
	fz	0.02	0.03	0.045	0.061	0.057	0.066	0.073	0.081	0.1					
	RPM	1857	1512	1273	1061	909	796	707	637	522					
6	Vc	60	69	68	65	66	69	72	68	68					
	fz	0.021	0.03	0.053	0.069	0.063	0.069	0.074	0.087	0.106					
	RPM	3183	2745	2165	1724	1501	1373	1273	1082	866					
7	Vc	43	51	47	49	48	48	50	48	47					
	fz	0.018	0.028	0.046	0.063	0.061	0.069	0.075	0.086	0.107					
	RPM	2281	2029	1496	1300	1091	955	884	764	598					
8-9	Vc	35	38	40	40	40	40	40	40	41					
	fz	0.02	0.03	0.045	0.061	0.057	0.066	0.073	0.081	0.1					
	RPM	1857	1512	1273	1061	909	796	707	637	522					
10	Vc	60	69	68	65	66	69	72	68	68					
	fz	0.021	0.03	0.053	0.069	0.063	0.069	0.074	0.087	0.106					
	RPM	3183	2745	2165	1724	1501	1373	1273	1082	866					
11.1	Vc	35	38	40	40	40	40	40	40	41					
	fz	0.02	0.03	0.045	0.061	0.057	0.066	0.073	0.081	0.1					
	RPM	1857	1512	1273	1061	909	796	707	637	522					
11.2	Vc	25	27	28	28	28	28	28	28	28					
	fz	0.02	0.029	0.044	0.06	0.056	0.065	0.072	0.08	0.1					
	RPM	1326	1074	891	743	637	557	495	446	357					
M	14.1	Stainless steel	0.5D	1.5D	Vc	39	43	43	43	44	43	45	44	44	
					fz	0.019	0.03	0.045	0.064	0.059	0.069	0.075	0.084	0.104	
					RPM	2069	1711	1369	1141	1000	855	796	700	560	
K	15-20	Grey cast iron Nodular cast iron Malleable cast iron	0.5D	1.5D	Vc	60	69	68	65	66	69	72	68	68	
					fz	0.021	0.03	0.053	0.069	0.063	0.069	0.074	0.087	0.106	
					RPM	3183	2745	2165	1724	1501	1373	1273	1082	866	
H	40	Chilled Cast Iron	0.3D	1.5D	Vc	25	27	28	28	28	28	28	28	28	
					fz	0.02	0.029	0.044	0.06	0.056	0.065	0.072	0.08	0.1	
					RPM	1326	1074	891	743	637	557	495	446	357	



SELECTION GUIDE



SERIES	GYG77 GYF97	GYG72 GYF99	GYG01
FLUTE	2	2	3
HELIX ANGLE	30°	30°	30°
CUTTING EDGE SHAPE	BALL NOSE	SQUARE	SQUARE
SIZE MIN	R0.5	D1.0	D1.0
SIZE MAX	R12.5	D25.0	D25.0
PAGE	618	619	620

COATED PM60 ONLY ONE END MILLS

Perfect solution to protect Carbide chipping problems under vibrations



Please visit globalyg1.com/mat for material search

◎ : Excellent ○ : Good

Recommended cutting conditions : P 628

SHORT LENGTH	SHORT LENGTH	SHORT LENGTH (Center Cut)
Y-Coating	Y-Coating	Y-Coating



ISO	VDI 3323	Material Description	Composition / Structure / Heat Treatment	HB	HRc	◎	◎	◎	
P	1	Non-alloy steel	About 0.15% C Annealed	125		◎	◎	◎	
	2		About 0.45% C Annealed	190	13	◎	◎	◎	
	3		About 0.45% C Quenched & Tempered	250	25	◎	◎	◎	
	4		About 0.75% C Annealed	270	28	◎	◎	◎	
	5		About 0.75% C Quenched & Tempered	300	32	◎	◎	◎	
	6	Low alloy steel	Annealed	180	10	◎	◎	◎	
	7		Quenched & Tempered	275	29	◎	◎	◎	
	8		Quenched & Tempered	300	32	◎	◎	◎	
	9		Quenched & Tempered	350	38	○	○	○	
	10		High alloyed steel, and tool steel	Annealed	200	15	◎	◎	◎
	11			Quenched & Tempered	325	35	○	○	○
M	12	Stainless steel	Ferritic / Martensitic Annealed	200	15	◎	◎	◎	
	13		Martensitic Quenched & Tempered	240	23	◎	◎	◎	
	14		Austenitic	180	10	◎	◎	◎	
K	15	Grey cast iron	Pearlitic / ferritic	180	10	◎	◎	◎	
	16		Pearlitic (Martensitic)	260	26	◎	◎	◎	
	17	Nodular cast iron	Ferritic	160	3	◎	◎	◎	
	18		Pearlitic	250	25	◎	◎	◎	
	19		Ferritic	130		◎	◎	◎	
	20		Pearlitic	230	21	◎	◎	◎	
N	21	Aluminum-wrought alloy	Not Curable	60					
	22		Curable Hardened	100					
	23	Aluminum-cast, alloyed	≤ 12% Si, Not Curable	75					
	24		≤ 12% Si, Curable Hardened	90					
	25		> 12% Si, Not Curable	130					
	26		Copper and Copper Alloys (PB>1%)	110		○	○	○	
	27	Copper and Copper Alloys (Bronze / Brass)	CuZn, CuSnZn (Brass)	90		○	○	○	
	28		CuSn, lead-free copper and electrolytic copper	100		○	○	○	
	29		Non Metallic Materials	Duroplastic, Fiber Reinforced Plastic Rubber, Wood, etc.					
	S	31	Heat Resistant Super Alloys	Fe Based Annealed	200	15			
32		Cured		280	30				
33		Annealed		250	25				
34		Ni or Co Based Cured		350	38				
35		Cast	320	34					
36		Titanium Alloys	Pure Titanium	400 Rm					
37			Alpha + Beta Alloys Hardened	1050 Rm					
H	38	Hardened steel	Hardened	550	55				
	39		Hardened	630	60				
	40	Chilled Cast Iron	Cast	400	42	○	○	○	
	41	Hardened Cast Iron	Hardened	550	55				

GYG74 GYF96	GYG52	GYG76 GYG02	GYF95	GYF94	GYF98	GYG03
4	4	4	Multi Flute	Multi Flute	Multi Flute	Multi Flute
30°	35°/37°	30°	4F: 44°/45° 5F: 44°/44.5°/45°	30°	30°	30°
SQUARE	SQUARE	SQUARE	CORNER RADIUS ROUGHING	ROUGHING	ROUGHING	ROUGHING
D1.0	D3.0	D2.0	D6.0	D6.0	D6.0	D6.0
D25.0	D25.0	D25.0	D25.0	D25.0	D25.0	D25.0
621	622	623	624	625	626	627
SHORT LENGTH (Center Cut)	SHORT LENGTH (Center Cut)	LONG LENGTH (Center Cut)	SHORT LENGTH (Center Cut)	SHORT LENGTH (Center Cut)	LONG LENGTH (Center Cut)	SHORT LENGTH (Center Cut)
Y-Coating	Y-Coating	Y-Coating	Y-Coating	Y-Coating	Y-Coating	Y-Coating

⊙	⊙	⊙	⊙	⊙	⊙	⊙	1
⊙	⊙	⊙	⊙	⊙	⊙	⊙	2
⊙	⊙	⊙	⊙	⊙	⊙	⊙	3
⊙	⊙	⊙	⊙	⊙	⊙	⊙	4
⊙	⊙	⊙	⊙	⊙	⊙	⊙	5
⊙	⊙	⊙	⊙	⊙	⊙	⊙	6 P
⊙	⊙	⊙	⊙	⊙	⊙	⊙	7
⊙	⊙	⊙	⊙	⊙	⊙	⊙	8
○	○	○	○	○	○	○	9
⊙	⊙	⊙	⊙	⊙	⊙	⊙	10
○	○	○	○	○	○	○	11
⊙	⊙	⊙	⊙	⊙	⊙	⊙	12
⊙	⊙	⊙	⊙	⊙	⊙	⊙	13 M
⊙	⊙	⊙	⊙	⊙	⊙	⊙	14
⊙	⊙	⊙	⊙	⊙	⊙	⊙	15
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END MILLS

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MODULAR
END MILLS

X5070
END MILLS

4G MILL
END MILLS

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PRO
END MILLS

TitaNox-
POWER
END MILLS

JET-POWER
END MILLS

V7 PLUS
END MILLS

ALU-POWER
HPC
END MILLS

ALU-
POWER
END MILLS

D-POWER
GRAPHITE
END MILLS

D-POWER
CFRP
END MILLS

ROUTERS

CRX S
END MILLS

K-2
END MILLS

ONLY ONE
COATED PM60
END MILLS

TANK-
POWER
END MILLS

GENERAL
HSS
END MILLS

MILLING
CUTTERS

TECHNICAL
DATA