



Leading Through Innovation



HSS PM60



ONLY ONE COATED PM60 END MILLS

Only One, beschichtete Pulvermetall PM60 Schaftfräser

- Perfect Solution of Carbide Chipping under Vibrations
- Perfekte Lösung bei Zerspanung unter Vibrationen

SELECTION GUIDE



**COATED PM60
ONLY ONE
END MILLS**

Perfect solution to protect Carbide chipping problems under vibrations



◎ : Excellent ○ : Good

Recommended cutting conditions : p. C644

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	R10.0	D25.0	D25.0
PAGE	C634	C635	C636
	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	GYG77	GYG72	GYG01	
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	Malleable cast iron	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 (Bronze / Brass)	Cutting Alloys, PB>1%	110		○	○	○	
	27		CuZn, CuSnZn (Brass)	90		○	○	○	
	28	Non Metallic Materials	CuSn, lead-free copper and electrolytic copper	100		○	○	○	
	29		Duroplastic, Fiber Reinforced Plastic						
	30	Rubber, Wood, etc.							
S	31	Heat Resistant Super Alloys	Fe Based	Annealed	200	15			
	32			Cured	280	30			
	33		Ni or Co Based	Annealed	250	25			
	34			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
C637	C638	C639	C640	C641	C642	C643
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



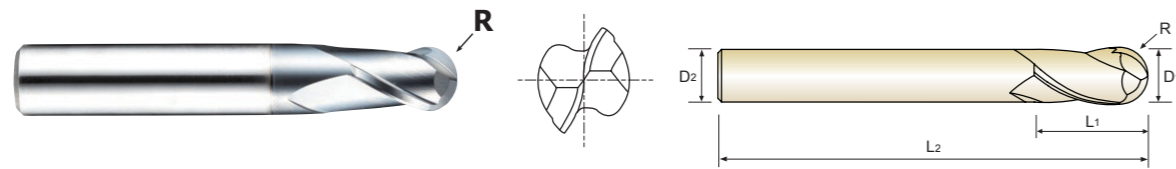
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◎	◎	◎	◎	◎	◎	◎	3
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○	○	○	○	○	○	○	27
○	○	○	○	○	○	○	28
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							32
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							37
							38
○	○	○	○	○	○	○	39
							40
							41



PLAIN SHANK **GYG77** SERIES
 FLAT SHANK **GYF97** SERIES

PM60, 2 FLUTE BALL NOSE SHORT LENGTH

- PM60, 2 SCHNEIDEN, STIRNRADIUS KURZ
- REVÊTUE YG-ALCRN - PM60, 2 DENTS, SÉRIE COURTE, HÉMISPHERIQUE
- RIVESTITA PM60, 2 TAGLIENTE SERIE CORTA SEMISFERICA



Unit : mm

EDP No.		Radius of Ball Nose	Mill Diameter	Shank Diameter		Length of Cut	Overall Length
PLAIN	FLAT	R(±0.02)	D1	D2	L1	L2	
GYG77010	GYF97010	R0.5	1.0	6	2.5	47	
GYG77020	GYF97020	R1.0	2.0	6	4	48	
GYG77030	GYF97030	R1.5	3.0	6	5	49	
-	GYF97040	R2.0	4.0	6	7	51	
-	GYF97050	R2.5	5.0	6	8	52	
GYG77060	GYF97060	R3.0	6.0	6	8	52	
-	GYF97070	R3.5	7.0	8	10	60	
GYG77080	GYF97080	R4.0	8.0	8	11	61	
GYG77090	GYF97090	R4.5	9.0	10	11	61	
-	GYF97100	R5.0	10.0	10	13	63	
GYG77120	GYF97120	R6.0	12.0	12	16	73	
-	GYF97140	R7.0	14.0	12	16	73	
GYG77160	GYF97160	R8.0	16.0	16	19	79	
-	GYF97200	R10.0	20.0	20	22	88	

Mill Dia. Tolerance (mm)	Shank Dia. Tolerance
0 ~ -0.03	h6

◎ : 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	38	10	29	32	38	15	35	15	23	10	10	26	3	25	13	21
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230
Recommend	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎

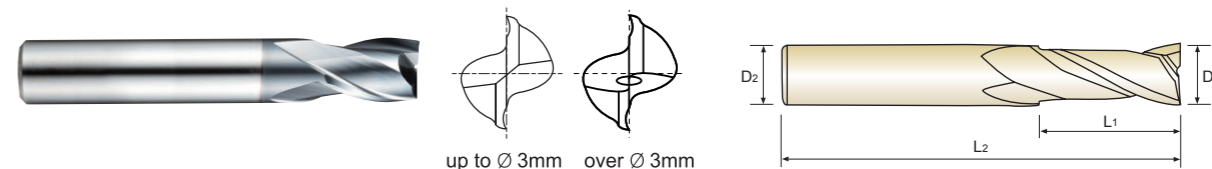
ISO Material Description	N				S						H										
	Aluminum-wrought alloy		Aluminum-cast, alloyed		Copper and Copper Alloys (Bronze / Brass)			Non Metallic Materials			Heat Resistant Super Alloys			Titanium Alloys		Hardened steel	Chilled Cast Iron	Hardened Cast Iron			
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRC	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400 Rm	1050 Rm	550	630	400	550
Recommend						○	○	○													○



PLAIN SHANK **GYG72** SERIES
 FLAT SHANK **GYF99** SERIES

PM60, 2 FLUTE SHORT LENGTH

- PM60, 2 SCHNEIDEN, KURZ, ZENTRUMSCHNITT
- REVÊTUE YG-ALCRN - PM60, 2 DENTS, SÉRIE COURTE (COUPE AU CENTRE)
- RIVESTITA PM60, 2 TAGLIENTI SERIE CORTA (TAGLIENTE AL CENTRO)



Unit : mm

EDP No.		Mill Diameter	Shank Diameter		Length of Cut	Overall Length
PLAIN	FLAT	D1	D2	L1	L2	
-	GYF99010	1.0	6	2.5	47	
-	GYF99020	2.0	6	4	48	
GYG72030	GYF99030	3.0	6	5	49	
GYG72040	GYF99040	4.0	6	7	51	
GYG72050	GYF99050	5.0	6	8	52	
GYG72060	GYF99060	6.0	6	8	52	
GYG72070	GYF99070	7.0	8	10	60	
GYG72080	GYF99080	8.0	8	11	61	
GYG72090	GYF99090	9.0	10	11	61	
GYG72100	GYF99100	10.0	10	13	63	
GYG72120	GYF99120	12.0	12	16	73	
-	GYF99140	14.0	12	16	73	
GYG72160	GYF99160	16.0	16	19	79	
GYG72180	GYF99180	18.0	16	19	79	
GYG72200	GYF99200	20.0	20	22	88	
GYG72220	GYF99220	22.0	20	22	88	
GYG72250	-	25.0	25	26	102	

Mill Dia. Tolerance (mm)	Shank Dia. Tolerance
0 ~ -0.03	h6

◎ : 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	38	10	29	32	38	15	35	15	23	10	10	26	3	25	13	21
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230
Recommend	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎

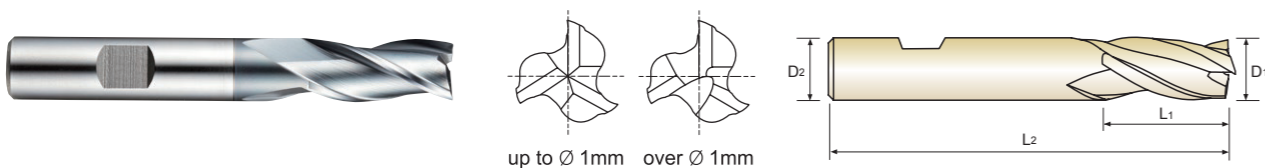
ISO Material Description	N				S						H										
	Aluminum-wrought alloy		Aluminum-cast, alloyed		Copper and Copper Alloys (Bronze / Brass)			Non Metallic Materials			Heat Resistant Super Alloys			Titanium Alloys		Hardened steel	Chilled Cast Iron	Hardened Cast Iron			
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRC	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400 Rm	1050 Rm	550	630	400	550
Recommend						○	○	○													○



FLAT SHANK **GYG01** SERIES

PM60, 3 FLUTE SHORT LENGTH (Center Cut)

- PM60, 3 SCHNEIDEN, KURZ, ZENTRUMSCHNITT
- REVÊTUE YG-ALCRN - PM60, 3 DENTS, SÉRIE COURTE (COUPE AU CENTRE)
- RIVESTITA PM60, 3 TAGLIENTI SERIE CORTA (TAGLIENTE AL CENTRO)



Unit : mm

EDP No.	Mill Diameter		Shank Diameter		Length of Cut		Overall Length	
	D1	D2	D2	D1	L1	L2	L2	L1
GYG01010	1.0	6	6	1.0	3	47	47	3
GYG01020	2.0	6	6	2.0	7	51	51	7
GYG01030	3.0	6	6	3.0	8	52	52	8
GYG01040	4.0	6	6	4.0	11	55	55	11
GYG01050	5.0	6	6	5.0	13	57	57	13
GYG01060	6.0	6	6	6.0	13	57	57	13
GYG01070	7.0	8	8	7.0	16	66	66	16
GYG01080	8.0	8	8	8.0	19	69	69	19
GYG01090	9.0	10	10	9.0	19	69	69	19
GYG01100	10.0	10	10	10.0	22	72	72	22
GYG01120	12.0	12	12	12.0	26	83	83	26
GYG01140	14.0	12	12	14.0	26	83	83	26
GYG01160	16.0	16	16	16.0	32	92	92	32
GYG01180	18.0	16	16	18.0	32	92	92	32
GYG01200	20.0	20	20	20.0	38	104	104	38
GYG01220	22.0	20	20	22.0	38	104	104	38
GYG01250	25.0	25	25	25.0	45	121	121	45

Mill Dia. Tolerance (mm)	Shank Dia. Tolerance
0 ~ -0.03	h6

◎ : 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	30	10	29	32	38	15	35	15	23	10	10	26	3	25	130	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	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400 Rm	1050 Rm	550	630	400	550
Recommend	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎



PLAIN SHANK **GYG74** SERIES
FLAT SHANK **GYF96** SERIES

PM60, 4 FLUTE SHORT LENGTH (Center Cut)

- PM60, 4 SCHNEIDEN, KURZ, ZENTRUMSCHNITT
- REVÊTUE YG-ALCRN - PM60, 4 DENTS, SÉRIE COURTE (COUPE AU CENTRE)
- RIVESTITA PM60, 4 TAGLIENTI SERIE CORTA (TAGLIENTE AL CENTRO)



Unit : mm

EDP No.		Mill Diameter		Shank Diameter		Length of Cut		Overall Length	
PLAIN	FLAT	D1	D2	D2	D1	L1	L2	L2	L1
GYG74010	GYF96010	1.0	6	6	1.0	3	49	49	3
GYG74020	GYF96020	2.0	6	6	2.0	7	51	51	7
GYG74030	GYF96030	3.0	6	6	3.0	8	52	52	8
GYG74040	GYF96040	4.0	6	6	4.0	11	55	55	11
GYG74050	GYF96050	5.0	6	6	5.0	13	57	57	13
GYG74060	GYF96060	6.0	6	6	6.0	13	57	57	13
-	GYF96070	7.0	8	8	-	16	66	66	16
GYG74080	GYF96080	8.0	8	8	8.0	19	69	69	19
GYG74090	GYF96090	9.0	10	10	9.0	19	69	69	19
GYG74100	GYF96100	10.0	10	10	10.0	22	72	72	22
GYG74120	GYF96120	12.0	12	12	12.0	26	83	83	26
GYG74140	GYF96140	14.0	12	12	14.0	26	83	83	26
GYG74160	GYF96160	16.0	16	16	16.0	32	92	92	32
GYG74180	GYF96180	18.0	16	16	18.0	32	92	92	32
GYG74200	GYF96200	20.0	20	20	20.0	38	104	104	38
-	GYF96220	22.0	20	20	-	38	104	104	38
-	GYF96250	25.0	25	25	-	45	121	121	45

Mill Dia. Tolerance (mm)	Shank Dia. Tolerance
0 ~ -0.03	h6

◎ : 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	30	10	29	32	38	15	35	15	23	10	10	26	3	25	130	21
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230
Recommend	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎

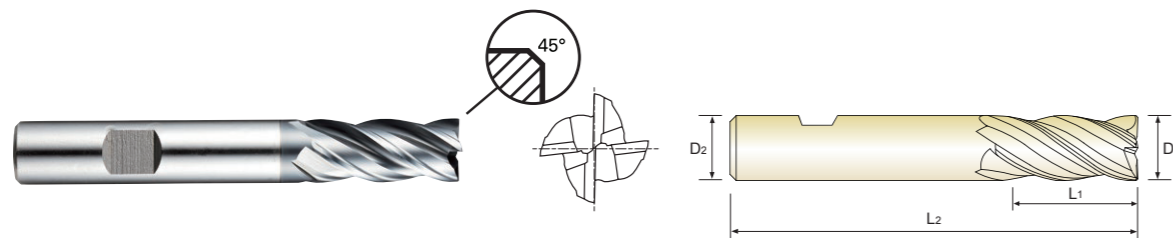
ISO Material Description	N					S					H										
	Aluminum-wrought alloy		Aluminum-cast, alloyed		Copper and Copper Alloys (Bronze / Brass)	Non Metallic Materials		Heat Resistant Super Alloys			Titanium Alloys		Hardened steel	Chilled Cast Iron	Hardened Cast Iron						
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRC	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400 Rm	1050 Rm	550	630	400	550
Recommend	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎

YG ONLY ONE
COATED PM60 END MILLS

FLAT SHANK **GYG52** SERIES

PM60, 4 FLUTE MULTIPLE HELIX SHORT LENGTH (Center Cut)

- PM60, 4 SCHNEIDEN, MIT UNGLEICHEM DRALL, KURZ, ZENTRUMSCHNITT
- REVÊTUE YG-ALCRN - PM60, 4 DENTS, HÉLICE MULTIPLE, SÉRIE COURTE (COUPE AU CENTRE)
- RIVESTITA PM60, 4 TAGLIENTI ELICA VARIABILE SERIE CORTA (TAGLIENTE AL CENTRO)

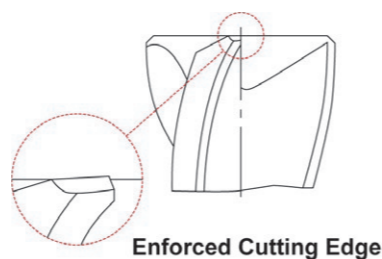


PM 60 4 35°/37° FLAT C x 45° Coating Y p.C649

Unit : mm

EDP No.	Mill Diameter	Shank Diameter	Length of Cut	Overall Length	Chamfer
	D1	D2	L1	L2	
GYG52030	3.0	6	8	52	0.1
GYG52040	4.0	6	11	55	0.1
GYG52050	5.0	6	13	57	0.1
GYG52060	6.0	6	13	57	0.1
GYG52070	7.0	8	16	66	0.1
GYG52080	8.0	8	19	69	0.1
GYG52100	10.0	10	22	72	0.1
GYG52120	12.0	12	26	83	0.1
GYG52140	14.0	12	26	83	0.2
GYG52160	16.0	16	32	92	0.2
GYG52180	18.0	16	32	92	0.2
GYG52200	20.0	20	38	104	0.2
GYG52220	22.0	20	38	104	0.2
GYG52250	25.0	25	45	121	0.2

Mill Dia. Tolerance (mm)	Shank Dia. Tolerance
0 ~ -0.03	h6



◎ : 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	30	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																					
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400 Rm	1050 Rm	550	630	400	550
Recommend						○	○	○													

YG ONLY ONE
COATED PM60 END MILLS

PLAIN SHANK **GYG76** SERIES
FLAT SHANK **GYG02** SERIES

PM60, 4 FLUTE LONG LENGTH (Center Cut)

- PM60, 4 Schneiden, lang, Zentrumschnitt
- Revêtue YG-AICrN - PM60, 4 dents, série longue (Coupe au centre)
- Rivestita PM60, 4 TAGLIENTI SERIE LUNGA (Tagliente al centro)



PM 60 4 30° PLAIN FLAT Coating Y p.C648

Unit : mm

EDP No.		Mill Diameter	Shank Diameter	Length of Cut	Overall Length
PLAIN	FLAT	D1	D2	L1	L2
-	GYG02020	2.0	6	10	54
GYG76030	GYG02030	3.0	6	12	56
GYG76040	GYG02040	4.0	6	19	63
GYG76050	GYG02050	5.0	6	24	68
GYG76060	GYG02060	6.0	6	24	68
GYG76070	GYG02070	7.0	8	30	80
GYG76080	GYG02080	8.0	8	38	88
-	GYG02090	9.0	10	38	88
GYG76100	GYG02100	10.0	10	45	95
GYG76120	GYG02120	12.0	12	53	110
GYG76140	GYG02140	14.0	12	53	110
GYG76160	GYG02160	16.0	16	63	123
-	GYG02180	18.0	16	63	123
-	GYG02200	20.0	20	75	141
-	GYG02220	22.0	20	75	141
-	GYG02250	25.0	25	90	166

Mill Dia. Tolerance (mm)	Shank Dia. Tolerance
0 ~ -0.03	h6

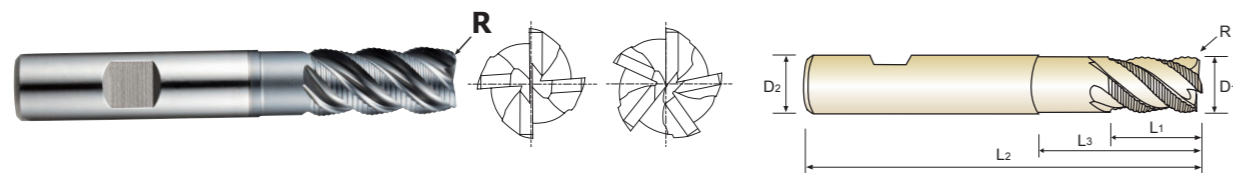
◎ : Excellent ○ : Good

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	30	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																					
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400 Rm	1050 Rm	550	630	400	550
Recommend						○	○	○													

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

- PM60, MEHRSCHEIDEN, 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 (TAGLIENTE AL CENTRO)



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

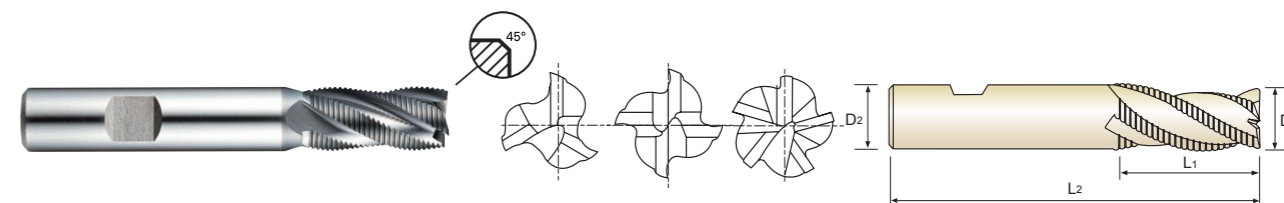
◎ : Excellent ○ : Good

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	38	10	29	32	38	45	15	35	23	10	10	26	3	25	21	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	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400 Rm	1050 Rm	550	630	400	550	
Recommend						○	○	○														

PM60, MULTI FLUTE SHORT LENGTH ROUGHING - FINE (Center Cut)

- PM60, MEHRSCHEIDEN, KURZ, FEINKORDEL-SCHRUPPFRÄSER, ZENTRUMSCHNITT
- REVÊTUE YG-ALCRN - PM60, MULTI-DENTS, SÉRIE COURTE, RAVAGEUSE, PAS FINS (COUPE AU CENTRE)
- RIVESTITA PM60, MULTI TAGLIENTE SERIE CORTA PER SGROSSATURA - BOMBATO FINE (TAGLIENTE AL CENTRO)

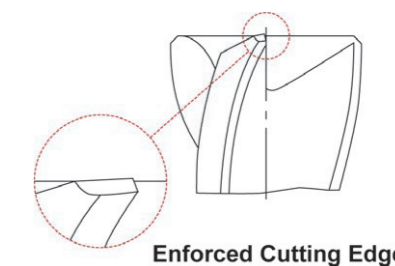


Unit : mm

EDP No.	Mill Diameter	Shank Diameter	Length of Cut	Overall Length	No. of Flute	Chamfer
	D1(js12)	D2(h6)	L1	L2		
GYF94060	6.0	6	13	57	3	0.18
GYF94070	7.0	10	16	66	3	0.18
GYF94080	8.0	10	19	69	3	0.18
GYF94090	9.0	10	19	69	3	0.18
GYF94100	10.0	10	22	72	4	0.18
GYF94120	12.0	12	26	83	4	0.18
GYF94140	14.0	12	26	83	4	0.25
GYF94160	16.0	16	32	92	4	0.25
GYF94180	18.0	16	32	92	4	0.25
GYF94200	20.0	20	38	104	4	0.25
GYF94250	25.0	25	45	121	5	0.36

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	38	10	29	32	38	45	15	35	23	10	10	26	3	25	21	21	
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230	
Recommend	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	

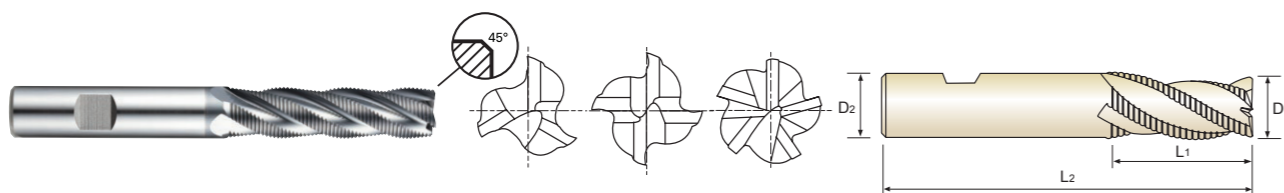
ISO Material Description	N					S					H											
	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)			Non Metallic Materials		Heat Resistant Super Alloys					Titanium Alloys		Hardened steel		Chilled Cast Iron		Hardened Cast Iron
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	
HRc	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400 Rm	1050 Rm	550	630	400	550	
Recommend						○	○	○														



FLAT SHANK **GYF98** SERIES

PM60, MULTI FLUTE LONG LENGTH ROUGHING - FINE (Center Cut)

- PM60, MEHRSCHEIDEN, LANG, FEINKORDEL-SCHRUPPFRÄSER, ZENTRUMSCHNITT
- REVÊTUE YG-ALCRN - PM60, MULTI-DENTS, SÉRIE LONGUE, RAVAGEUSE, PAS FINS (COUPE AU CENTRE)
- RIVESTITA PM60, MULTI TAGLIENTE SERIE LUNGA PER SGROSSATURA - BOMBATO FINE (TAGLIENTE AL CENTRO)

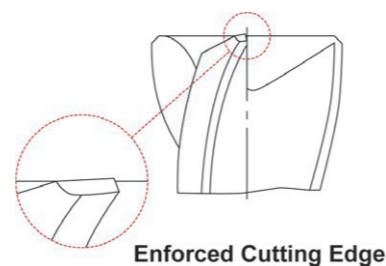


Unit : mm

EDP No.	Mill Diameter	Shank Diameter	Length of Cut	Overall Length	No. of Flute	Chamfer
	D1(js12)	D2(h6)	L1	L2		
GYF98060	6.0	6	24	68	3	0.18
GYF98070	7.0	10	30	80	3	0.18
GYF98080	8.0	10	38	88	3	0.18
GYF98090	9.0	10	38	88	3	0.18
GYF98100	10.0	10	45	95	4	0.18
GYF98120	12.0	12	53	110	4	0.18
GYF98140	14.0	12	53	110	4	0.25
GYF98160	16.0	16	63	123	4	0.25
GYF98180	18.0	16	63	123	4	0.25
GYF98200	20.0	20	75	141	4	0.25
GYF98250	25.0	25	90	166	5	0.36

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	35	38	42	48	52	58	62	68	72	78	82	88	92	98	102	108
HB	125	190	250	270	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050
Recommend	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎

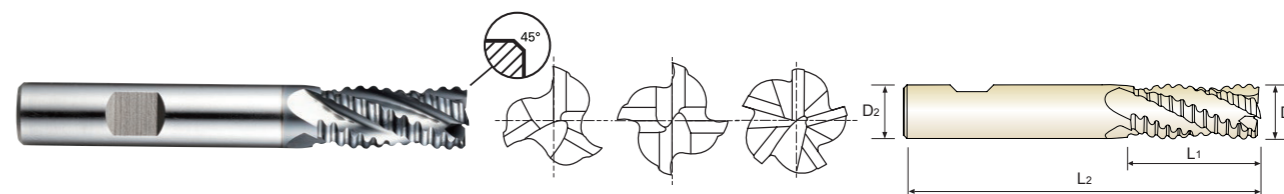
ISO Material Description	N					S					H										
	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)		Non Metallic Materials			Heat Resistant Super Alloys					Titanium Alloys		Hardened steel	Chilled Cast Iron	Hardened Cast Iron	
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400 Rm	1050 Rm	550	630	400	550
Recommend	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎



FLAT SHANK **GYG03** SERIES

PM60, MULTI FLUTE SHORT LENGTH ROUGHING - COARSE (Center Cut)

- PM60, MEHRSCHEIDEN, KURZ, SCHRUPPFRÄSER, ZENTRUMSCHNITT
- REVÊTUE YG-ALCRN - PM60, MULTI-DENTS, SÉRIE COURTE, RAVAGEUSE, PAS GROSSIERS (COUPE AU CENTRE)
- RIVESTITA PM60, MULTI TAGLIENTE SERIE CORTA PER SGROSSATURA - BOMBATO GROSSO (TAGLIENTE AL CENTRO)

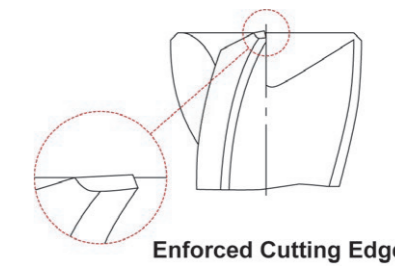


Unit : mm

EDP No.	Mill Diameter	Shank Diameter	Length of Cut	Overall Length	No. of Flute	Chamfer
	D1(js12)	D2(h6)	L1	L2		
GYG03060	6.0	6	13	57	3	0.25
GYG03070	7.0	10	16	66	3	0.25
GYG03080	8.0	10	19	69	3	0.25
GYG03090	9.0	10	19	69	3	0.36
GYG03100	10.0	10	22	72	4	0.36
GYG03120	12.0	12	26	83	4	0.56
GYG03140	14.0	12	26	83	4	0.6
GYG03160	16.0	16	32	92	4	0.6
GYG03180	18.0	16	32	92	4	0.6
GYG03200	20.0	20	38	104	4	0.6
GYG03250	25.0	25	45	121	5	0.6

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	35	38	42	48	52	58	62	68	72	78	82	88	92	98	102	108
HB	125	190	250	270	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050
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	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400 Rm	1050 Rm	550	630	400	550
Recommend	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎

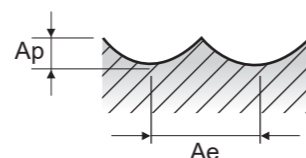


RECOMMENDED CUTTING CONDITIONS
EMPFOLHENE SCHNEIDPARAMETER

GYG77 , GYF97 SERIES 2 FLUTE BALL NOSE

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

ISO	VDI 3323	Material Description	Ae	Ap	Parameter	Diameter (Ø)									
						3.0	4.0	6.0	8.0	10.0	12.0	16.0	20.0	25.0	
P	1	Non-alloy steel	0.5D	0.2D	Vc	83	90	100	101	104	104	103	102	90	
					fz	0.023	0.036	0.054	0.079	0.109	0.115	0.141	0.156	0.162	
					RPM	8807	7162	5305	4019	3310	2759	2049	1623	1146	
					FEED	405	516	573	635	722	634	578	506	371	
	2		Vc	66	70	79	78	79	81	78	75	70			
			fz	0.020	0.032	0.046	0.067	0.095	0.097	0.123	0.140	0.140			
			RPM	7003	5570	4191	3104	2515	2149	1552	1194	891			
			FEED	280	357	386	416	478	417	382	334	250			
	3-4		Vc	44	45	52	54	53	54	54	52	44			
			fz	0.016	0.026	0.039	0.056	0.082	0.083	0.1	0.11	0.125			
			RPM	4669	3581	2759	2149	1687	1432	1074	828	560			
			FEED	149	186	215	241	277	238	215	182	140			
5	Vc	23	24	27	27	26	26	27	24	24					
	fz	0.014	0.023	0.035	0.047	0.073	0.071	0.090	0.099	0.100					
	RPM	2440	1910	1432	1074	828	690	537	430	306					
	FEED	68	88	100	101	121	98	97	85	61					
6	Vc	66	70	79	78	79	81	78	75	70					
	fz	0.020	0.032	0.046	0.067	0.095	0.097	0.123	0.140	0.140					
	RPM	7003	5570	4191	3104	2515	2149	1552	1194	891					
	FEED	280	357	386	416	478	417	382	334	250					
7	Vc	44	45	52	54	53	54	54	52	44					
	fz	0.016	0.026	0.039	0.056	0.082	0.083	0.1	0.11	0.125					
	RPM	4669	3581	2759	2149	1687	1432	1074	828	560					
	FEED	149	186	215	241	277	238	215	182	140					
8-9	Vc	23	24	27	27	26	26	27	24	24					
	fz	0.014	0.023	0.035	0.047	0.073	0.071	0.090	0.099	0.100					
	RPM	2440	1910	1432	1074	828	690	537	430	306					
	FEED	68	88	100	101	121	98	97	85	61					
10	Vc	66	70	79	78	79	81	78	75	70					
	fz	0.020	0.032	0.046	0.067	0.095	0.097	0.123	0.140	0.140					
	RPM	7003	5570	4191	3104	2515	2149	1552	1194	891					
	FEED	280	357	386	416	478	417	382	334	250					
11.1	Vc	23	24	27	27	26	26	27	24	24					
	fz	0.014	0.023	0.035	0.047	0.073	0.071	0.090	0.099	0.100					
	RPM	2440	1910	1432	1074	828	690	537	430	306					
	FEED	68	88	100	101	121	98	97	85	61					
11.2	Vc	16	17	19	19	18	18	19	16	16					
	fz	0.013	0.024	0.035	0.047	0.075	0.071	0.088	0.1	0.095					
	RPM	1698	1353	1008	756	573	477	378	302	204					
	FEED	44	65	71	71	86	67	60	39	39					
M	14.1	Stainless steel	0.5D	0.2D	Vc	25	27	30	28	29	30	26			
K	15-20	Grey cast iron Nodular cast iron Malleable cast iron	0.5D	0.2D	fz	0.013	0.023	0.036	0.049	0.072	0.075	0.093	0.099		
					RPM	2653	2149	1592	1194	891	769	597	477	331	
					FEED	69	99	115	117	128	115	111	95	65	
					Vc	66	70	79	78	79	81	78	75	70	
H	40	Chilled Cast Iron	0.3D	0.2D	fz	0.02	0.032	0.046	0.067	0.095	0.097	0.123	0.14	0.14	
					RPM	7003	5570	4191	3104	2515	2149	1552	1194	891	
					FEED	280	357	386	416	478	417	382	334	250	
					Vc	16	17	19	19	18	18	19	19	16	
H	40	Chilled Cast Iron	0.3D	0.2D	fz	0.013	0.024	0.035	0.047	0.075	0.071	0.088	0.1	0.095	
					RPM	1698	1353	1008	756	573	477	378	302	204	
					FEED	44	65	71	71	86	67	60	39	39	



RECOMMENDED CUTTING CONDITIONS
EMPFOLHENE SCHNEIDPARAMETER

GYG72 , GYF99 SERIES 2 FLUTE - SLOTTING

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

ISO	VDI 3323	Material Description	Ae	Ap	Parameter	Diameter (Ø)														
						2.0	3.0	4.0	5.0	6.0	8.0	10.0	12.0	14.0	16.0	18.0	20.0	22.0	25.0	
P	1	Non-alloy steel	1.0D	0.5D	Vc	53	57	65	74	79	78	79	81	84	81	78	72	70	71	
					fz	0.008	0.016	0.027	0.033	0.038	0.053	0.071	0.076	0.083	0.099	0.105	0.116	0.109	0.103	
					RPM	8435	6048	5173	4711	4191	3104	2515	2149	1910	1611	1379	1146	1013	904	
					FEED	135	194	279	311	319	329	357	327	317	319	290	266	221	186	
	2		Vc	44	46	54	61	66	66	68	66	66	69	64	59	59	60			
			fz	0.008	0.016	0.024	0.031	0.036	0.055	0.074	0.083	0.083	0.085	0.103	0.106	0.106	0.112			
			RPM	7003	4881	4297	3883	3501	2626	2165	1751	1501	1373	1132	939	854	764			
			FEED	112	156	206	241	252	289	320	291	249	233	199	181	171				
	3-4		Vc	37	38	48	49	52	54	55	52	53	54	54	53	50	46			
			fz	0.008	0.017	0.025	0.035	0.042	0.056	0.079	0.091	0.098	0.1	0.1	0.107	0.104	0.119			
			RPM	5889	4032	3287	3119	2759	2149	1751	1379	1205	1074	955	844	723	586			
			FEED	94	137	191	218	232	241	277	251	236	215	191	181	150	139			
5	Vc	24	26	30	32	33	35	34	34	34	34	34	33	33	34					
	fz	0.011	0.017	0.023	0.029	0.037	0.051	0.069	0.079	0.086	0.09	0.1	0.104	0.099	0.105					
	RPM	3820	2759	2387	2037	1751	1393	1082	902	750	676	601	525	477	433					
	FEED	84	94	110	118	130	142	149	142	129	122	120	109	95	91					
6	Vc	44	46	54	61	66	66	68	66	66	69	64	59	59	60					
	fz	0.008	0.016	0.024	0.031	0.036	0.055	0.074	0.083	0.083	0.085	0.103	0.106	0.106	0.112					
	RPM	7003	4881	4297	3883	3501	2626	2165	1751	1501	1373	1132	939	854	764					
	FEED	112	156	206	241	252	289	320	291	249	233	199	181	171						
7	Vc	37	38	48	49	52	54	55	52	53	54	54	53	50	46					
	fz	0.008	0.017	0.025	0.035	0.042	0.056	0.079	0.091	0.098	0.1	0.1	0.107	0.104	0.119					
	RPM	5889	4032	3287	3119	2759	2149	1751	1379	1205	1074	955	844	723	586					
	FEED	94	137	191	218	232	241	277	251	236	215	191	181	150	139					
8	Vc	24	26	30	32	33	35	34	34	34	34	34	33	33	34					
	fz	0.011	0.017	0.023	0.029	0.037	0.051	0.069	0.079	0.086	0.09	0.1	0.104	0.099	0.105					
	RPM	3820	2759	2387	2037	1751	1393	1082	902	750	676	601	525	477	433					
	FEED	84	94	110	118	130	142	149	142	129	122	120	109	95	91					
9	Vc	15	20	24	25	26	27	26	26	26	27	27	27	26	24					
	fz	0.01	0.017	0.023	0.028	0.036	0.047	0.071	0.071	0.079	0.09	0.094	0.099	0.086	0.1					
	RPM	2387	2122	1910	1592	1379	1074	828	690	591	537	477	430	376	306					
	FEED	48	72	88	89	99	101	118	98	93	97	90	85	65	61					
10	Vc	44	46	54	61	66	66	68	66	66	69	64	59	59	60					
	fz	0.008	0.016	0.024	0.031	0.036	0.055	0.074	0.083	0.083	0.085	0.103	0.106	0.106	0.112					
	RPM	7003	4881	4297	3883	3501	2626	2165	1751	1501	1373	1132	939	854	764					
	FEED	112	156	206	241	252	289	320	291	249	233	199	181	171						
11.1	Vc	24	26	30	32	33	35	34	34	34	34	34	33	33	34					
	fz	0.011	0.017	0.023	0.029	0.037	0.051	0.069	0.079	0.086	0.09	0.1	0.104	0.099	0.105					
	RPM	3820	2759	2387	2037	1751	1393	1082	902	750	676	601	525	477	433					
	FEED	84	94	110	118	130	142	149	142	129	122	120	109	95	91					
11.2	Vc	11	14	17	18	18	19	19	18	18	19	19	19	19	16					
	fz	0.01	0.018	0.024	0.029	0.036	0.047	0.072	0.071	0.077	0.088	0.096	0.1	0.083	0.095					
	RPM	1751	1485	1353	1146	955	756	605	477	409	378	336	302	275	204					
	FEED	35	53	65	66	69	71	87	68	63	67	65	60	46	39					
M	14.1	Stainless steel	1.0D	0.5D	Vc	17	22	27	28	29	30	29	29	29	30	30	26			
					fz	0.01	0.018	0.024	0.028	0.036	0.047	0.071	0.071	0.08	0.091	0.094	0.			

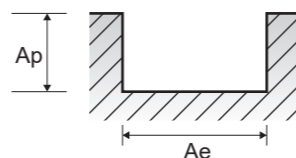
YG ONLY ONE COATED PM60 END MILLS

**RECOMMENDED CUTTING CONDITIONS
EMPFOHLENE SCHNEIDPARAMETER**

GYG01 SERIES 3 FLUTE - SLOTTING

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

ISO	VDI 3323	Material Description	Ae	Ap	Parameter	Diameter (Ø)															
						2.0	3.0	4.0	5.0	6.0	8.0	10.0	12.0	14.0	16.0	18.0	20.0	22.0	25.0		
P	1	Non-alloy steel	1.0D	0.5D	Vc	49	52	65	72	76	78	79	81	84	81	78	72	70	71		
					fz	0.004	0.007	0.011	0.014	0.023	0.031	0.04	0.051	0.052	0.06	0.07	0.08	0.091	0.107		
					RPM	7799	5517	5173	4584	4032	3104	2515	2149	1910	1611	1379	1146	1013	904		
	2		1.0D	0.5D	Vc	41	44	54	60	63	66	68	66	71	69	61	60	61	60		
					fz	0.003	0.007	0.011	0.013	0.023	0.032	0.039	0.053	0.055	0.06	0.072	0.081	0.089	0.11		
					RPM	6525	4669	4297	3820	3342	2626	2165	1751	1614	1373	1079	955	883	764		
	3-4		1.0D	0.5D	Vc	36	38	45	49	52	54	53	54	53	54	54	53	50	46		
					fz	0.003	0.005	0.009	0.012	0.021	0.028	0.038	0.047	0.053	0.056	0.063	0.067	0.083	0.107		
					RPM	5730	4032	3581	3119	2759	2149	1687	1432	1205	1074	955	844	723	586		
	5		1.0D	0.5D	Vc	23	25	29	32	33	35	34	34	35	34	34	33	33	34		
					fz	0.004	0.007	0.009	0.012	0.021	0.029	0.044	0.052	0.055	0.06	0.064	0.069	0.08	0.093		
					RPM	3661	2653	2308	2037	1751	1393	1082	902	796	676	601	525	477	433		
6	1.0D	0.5D	Vc	41	44	54	60	63	66	68	66	71	69	61	60	61	60				
			fz	0.003	0.007	0.011	0.013	0.023	0.032	0.039	0.053	0.055	0.06	0.072	0.081	0.089	0.11				
			RPM	6525	4669	4297	3820	3342	2626	2165	1751	1614	1373	1079	955	883	764				
7	1.0D	0.5D	Vc	36	38	45	49	52	54	53	54	53	54	53	50	46					
			fz	0.003	0.005	0.009	0.012	0.021	0.028	0.038	0.047	0.053	0.056	0.063	0.067	0.083	0.107				
			RPM	5730	4032	3581	3119	2759	2149	1687	1432	1205	1074	955	844	723	586				
8	1.0D	0.5D	Vc	23	25	29	32	33	35	34	34	35	34	34	33	33	34				
			fz	0.004	0.007	0.009	0.012	0.021	0.029	0.044	0.052	0.055	0.06	0.064	0.069	0.08	0.093				
			RPM	3661	2653	2308	2037	1751	1393	1082	902	796	676	601	525	477	433				
9	1.0D	0.3D	Vc	14	20	23	25	25	27	26	26	27	27	27	26	24					
			fz	0.005	0.008	0.012	0.014	0.023	0.031	0.045	0.052	0.056	0.063	0.066	0.074	0.088	0.111				
			RPM	2228	2122	1830	1592	1326	1074	828	690	591	537	477	430	376	306				
10	1.0D	0.5D	Vc	41	44	54	60	63	66	68	66	71	69	61	60	61	60				
			fz	0.003	0.007	0.011	0.013	0.023	0.032	0.039	0.053	0.055	0.06	0.072	0.081	0.089	0.11				
			RPM	6525	4669	4297	3820	3342	2626	2165	1751	1614	1373	1079	955	883	764				
11.1	1.0D	0.5D	Vc	23	25	29	32	33	35	34	34	35	34	34	33	33	34				
			fz	0.004	0.007	0.009	0.012	0.021	0.029	0.044	0.052	0.055	0.06	0.064	0.069	0.08	0.093				
			RPM	3661	2653	2308	2037	1751	1393	1082	902	796	676	601	525	477	433				
11.2	1.0D	0.3D	Vc	10	14	16	17	17	19	18	18	19	19	19	19	16					
			fz	0.005	0.009	0.012	0.014	0.024	0.031	0.044	0.051	0.056	0.063	0.066	0.072	0.086	0.111				
			RPM	1592	1485	1273	1082	902	756	573	477	409	378	336	302	275	204				
M 14.1	1.0D	0.5D	Vc	41	44	54	60	63	66	68	66	71	69	61	60	61	60				
			fz	0.003	0.007	0.011	0.013	0.023	0.032	0.039	0.053	0.055	0.06	0.072	0.081	0.089	0.11				
			RPM	6525	4669	4297	3820	3342	2626	2165	1751	1614	1373	1079	955	883	764				
K 15-20	1.0D	0.5D	Vc	41	44	54	60	63	66	68	66	71	69	61	60	61	60				
			fz	0.003	0.007	0.011	0.013	0.023	0.032	0.039	0.053	0.055	0.06	0.072	0.081	0.089	0.11				
			RPM	6525	4669	4297	3820	3342	2626	2165	1751	1614	1373	1079	955	883	764				
H 40	1.0D	0.3D	Vc	10	14	16	17	17	19	18	18	19	19	19	19	16					
			fz	0.005	0.009	0.012	0.014	0.024	0.031	0.044	0.051	0.056	0.063	0.066	0.072	0.086	0.111				
			RPM	1592	1485	1273	1082	902	756	573	477	409	378	336	302	275	204				



YG ONLY ONE COATED PM60 END MILLS

**RECOMMENDED CUTTING CONDITIONS
EMPFOHLENE SCHNEIDPARAMETER**

GYG01 SERIES 3 FLUTE - SIDE CUTTING

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

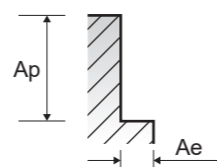
ISO	VDI 3323	Material Description	Ae	Ap	Parameter	Diameter (Ø)															
						2.0	3.0	4.0	5.0	6.0	8.0	10.0	12.0	14.0	16.0	18.0	20.0	22.0	25.0		
P	1	Non-alloy steel	0.1D	1.5D	Vc	62	66	78	89	95	97	94	95	95	97	92	94	95	94		
					fz	0.004	0.008	0.012	0.015	0.024	0.034	0.047	0.056	0.065	0.069	0.076	0.08	0.089	0.11		
					RPM	9868	7003	6207	5666	5040	3860	2992	2520	2160	1930	1627	1496	1375	1197		
	2		0.1D	1.5D	Vc	51	54	66	75	81	78	79	81	79	78	78	79	79	79		
					fz	0.004	0.008	0.012	0.015	0.023	0.035	0.046	0.056	0.063	0.071	0.077	0.081	0.094	0.109		
					RPM	8117	5730	5252	4775	4297	3104	2515	2149	1796	1552	1379	1257	1143	1006		
	3-4		0.1D	1.5D	Vc	41	43	53	55	59	60	60	63	61	60	61	59	62	60		
					fz	0.004	0.007	0.01	0.014	0.025	0.033	0.043	0.055	0.06	0.067	0.073	0.082	0.088	0.11		
					RPM	6525	4562	4218	3501	3130	2387	1910	1671	1387	1194	1079	939	897	764		
	5		0.1D	1.5D	Vc	29	31	35	38	41	39	38	41	41	40	40	39	39	39		
					fz	0.004	0.008	0.011	0.014	0.023	0.036	0.05	0.056	0.06	0.072	0.074	0.081	0.092	0.107		
					RPM	4615	3289	2785	2419	2175	1552	1210	1088	932	796	707	621	564	497		
6	0.1D	1.5D	Vc	51	54	66	75	81	78	79	81	79	78	78	79	79	79				
			fz	0.004	0.008	0.012	0.015	0.023	0.035	0.046	0.056	0.063	0.071	0.077	0.081	0.094	0.109				
			RPM	8117	5730	5252	4775	4297	3104	2515	2149	1796	1552	1379	1257	1143	1006				
7	0.1D	1.5D	Vc	41	43	53	55	59	60	60	63	61	60	61	59	62	60				
			fz	0.004	0.007	0.01	0.014	0.025	0.033	0.043	0.055	0.06	0.067	0.073	0.082	0.088	0.11				
			RPM	6525	4562	4218	3501	3130	2387	1910	1671	1387	1194	1079	939	897	764				
8	0.1D	1.5D	Vc	29	31	35	38	41	39	38	41	41	40	40	39	39	39				
			fz	0.004	0.008	0.011	0.014	0.023	0.036	0.05	0.056	0.06	0.072	0.074	0.081	0.092	0.107				
			RPM	4615	3289	2785	2419	2175	1552	1210	1088	932	796	707	621	564	497				
9	0.05D	1.5D	Vc	18	25	29	32	34	33	34	34	33	33	34	33	33	34				
			fz	0.006	0.01	0.013	0.015	0.022	0.035	0.047	0.056	0.064	0.071	0.072	0.082	0.09	0.112				
			RPM	2865	2653	2308	2037	1804	1313	1082	902	750	657	601	525	477	433				
10	0.1D	1.5D	Vc	51	54	66	75	81	78	79	81	79	78	78	79	79	79				
			fz	0.004	0.008	0.012	0.015	0.023	0.035	0.046	0.056	0.063	0.071	0.077	0.081	0.094	0.109				
			RPM	8117	5730	5252	4775	4297	3104	2515	2149	1796	1552	1379	1257	1143	1006				
11.1	0.1D	1.5D	Vc	29	31	35	38	41	39	38	41	41	40	40	39	39	39				
			fz	0.004	0.008	0.011	0.014	0.023	0.036	0.05	0.056	0.06	0.072	0.074	0.081	0.092	0.107				
			RPM	4615	3289	2785	2419	2175	1552	1210	1088	932	796	707	621	564	497				
11.2	0.05D	1.5D	Vc	13	17	20	22	24	23	24	23	23	23	24	23	23	24				
			fz	0.006	0.01	0.014	0.015	0.022	0.036	0.047	0.056	0.063	0.072	0.071	0.081	0.088	0.111				
			RPM	2069	1804	1592	1401	1273	915	764	610	523	458	424	366	333	306				
M 14.1	0.1D	1.5D	Vc	20	27	32	35	37	36												

GYG74 , GYF96 , GYG76 , GYG02 SERIES

4 FLUTE - SIDE CUTTING

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

ISO	VDI 3323	Material Description	Ae	Ap	Parameter	Diameter (Ø)															
						2.0	3.0	4.0	5.0	6.0	8.0	10.0	12.0	14.0	16.0	18.0	20.0	22.0	25.0		
P	1	Non-alloy steel	0.1D	1.5D	Vc	69	75	80	83	88	93	87	90	95	97	102	94	87	94		
					fz	0.008	0.015	0.023	0.029	0.035	0.046	0.068	0.071	0.076	0.079	0.076	0.088	0.097	0.093		
					RPM	10982	7958	6366	5284	4669	3700	2769	2387	2160	1930	1804	1496	1259	1197		
	FEED		351	477	586	613	654	681	753	678	657	610	548	527	488	445					
	2		Vc	63	68	71	75	81	78	79	81	84	84	85	79	79	79				
			fz	0.007	0.015	0.021	0.026	0.031	0.046	0.063	0.067	0.072	0.077	0.08	0.088	0.084	0.09				
			RPM	10027	7215	5650	4775	4297	3104	2515	2149	1910	1671	1503	1257	1143	1006				
	FEED		281	433	475	497	533	571	634	576	550	515	481	443	384	362					
	3-4		Vc	46	50	54	55	59	60	60	63	58	60	61	59	57	60				
			fz	0.007	0.014	0.021	0.028	0.032	0.046	0.059	0.066	0.08	0.085	0.086	0.088	0.093	0.09				
RPM		7321	5305	4297	3501	3130	2387	1910	1671	1319	1194	1079	939	825	764						
FEED	205	297	361	392	401	439	451	441	422	406	371	331	307	275							
5	Vc	31	31	35	38	41	42	38	40	42	41	43	40	39	39						
	fz	0.008	0.017	0.022	0.028	0.032	0.043	0.067	0.068	0.072	0.081	0.077	0.082	0.085	0.09						
	RPM	4934	3289	2785	2419	2175	1671	1210	1061	955	816	760	637	564	497						
FEED	158	224	245	271	278	287	324	289	275	264	234	209	192	179							
6	Vc	63	68	71	75	81	78	79	81	84	84	85	79	79	79						
	fz	0.007	0.015	0.021	0.026	0.031	0.046	0.063	0.067	0.072	0.077	0.08	0.088	0.084	0.09						
	RPM	10027	7215	5650	4775	4297	3104	2515	2149	1910	1671	1503	1257	1143	1006						
FEED	281	433	475	497	533	571	634	576	550	515	481	443	384	362							
7	Vc	46	50	54	55	59	60	60	63	58	60	61	59	57	60						
	fz	0.007	0.014	0.021	0.028	0.032	0.046	0.059	0.066	0.08	0.085	0.086	0.088	0.093	0.09						
	RPM	7321	5305	4297	3501	3130	2387	1910	1671	1319	1194	1079	939	825	764						
FEED	205	297	361	392	401	439	451	441	422	406	371	331	307	275							
8	Vc	31	31	35	38	41	42	38	40	42	41	43	40	39	39						
	fz	0.008	0.017	0.022	0.028	0.032	0.043	0.067	0.068	0.072	0.081	0.077	0.082	0.085	0.09						
	RPM	4934	3289	2785	2419	2175	1671	1210	1061	955	816	760	637	564	497						
FEED	158	224	245	271	278	287	324	289	275	264	234	209	192	179							
9	Vc	25	27	30	32	33	35	34	32	33	33	34	33	33	34						
	fz	0.006	0.013	0.019	0.023	0.031	0.04	0.056	0.064	0.067	0.076	0.075	0.08	0.081	0.087						
	RPM	3979	2865	2387	2037	1751	1393	1082	849	750	657	601	525	477	433						
FEED	95	149	181	187	217	223	242	217	201	200	180	168	155	151							
10	Vc	63	68	71	75	81	78	79	81	84	84	85	79	79	79						
	fz	0.007	0.015	0.021	0.026	0.031	0.046	0.063	0.067	0.072	0.077	0.08	0.088	0.084	0.09						
	RPM	10027	7215	5650	4775	4297	3104	2515	2149	1910	1671	1503	1257	1143	1006						
FEED	281	433	475	497	533	571	634	576	550	515	481	443	384	362							
11.1	Vc	31	31	35	38	41	42	38	40	42	41	43	40	39	39						
	fz	0.008	0.017	0.022	0.028	0.032	0.043	0.067	0.068	0.072	0.081	0.077	0.082	0.085	0.09						
	RPM	4934	3289	2785	2419	2175	1671	1210	1061	955	816	760	637	564	497						
FEED	158	224	245	271	278	287	324	289	275	264	234	209	192	179							
11.2	Vc	17	19	21	22	23	24	24	23	23	23	24	23	23	24						
	fz	0.006	0.013	0.019	0.024	0.031	0.04	0.057	0.065	0.068	0.076	0.074	0.081	0.081	0.088						
	RPM	2706	2016	1671	1401	1220	955	764	610	523	458	424	366	333	306						
FEED	65	105	127	134	151	153	174	159	142	139	126	119	108	108							
M	14.1	Stainless steel	0.1D	1.5D	Vc	27	30	33	35	36	38	37	36	37	37	36	37	37			
					fz	0.006	0.013	0.019	0.023	0.031	0.039	0.056	0.063	0.067	0.075	0.076	0.08	0.08	0.088		
					RPM	4297	3183	2626	2228	1910	1512	1178	955	841	736	654	573	535	471		
FEED	103	166	200	205	237	236	264	241	225	221	199	183	171	166							
K	15-20	Grey cast iron Nodular cast iron Malleable cast iron	0.1D	1.5D	Vc	63	68	71	75	81	78	79	81	84	84	85	79	79			
					fz	0.007	0.015	0.021	0.026	0.031	0.046	0.063	0.067	0.072	0.077	0.08	0.088	0.084	0.09		
					RPM	10027	7215	5650	4775	4297	3104	2515	2149	1910	1671	1503	1257	1143	1006		
FEED	281	433	475	497	533	571	634	576	550	515	481	443	384	362							
H	40	Chilled Cast Iron	0.05D	1.5D	Vc	17	19	21	22	23	24	24	23	23	24	23	23	24			
					fz	0.006	0.013	0.019	0.024	0.031	0.04	0.057	0.065	0.068	0.076	0.074	0.081	0.081	0.088		
					RPM	2706	2016	1671	1401	1220	955	764	610	523	458	424	366	333	306		
FEED	65	105	127	134	151	153	174	159	142	139	126	119	108	108							



GYG52 SERIES

4 FLUTE - SLOTTING, SIDE CUTTING

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

ISO	VDI 3323	Material Description	Slotting		Side Cutting		Parameter	Diameter (Ø)															
			Ae	Ap	Ae	Ap		3.0	4.0	5.0	6.0	8.0	10.0	12.0	14.0	16.0	18.0	20.0	25.0				
P	1-2	Non-alloy steel	1.0D	0.5D	0.3D	1.5D	Vc	70	70	70	70	70	77	77	77	77	77	77	77	77			
							fz	0.005	0.008	0.012	0.016	0.028	0.039	0.047	0.049	0.053	0.059	0.065	0.063				
							RPM	7427	5570	4456	3714	2785	2451	2042	1751	1532	1362	1225	980				
	FEED		149	178	214	238	312	382	384	343	325	321	319	247									
	3-4		Vc	64	63	63	64	64	70	70	70	70	70	70	70	70							
			fz	0.005	0.008	0.011	0.016	0.028	0.039	0.047	0.049	0.053	0.059	0.065	0.063								
			RPM	6791	5013	4011	3395	2546	2228	1857	1592	1393	1238	1114	891								
	FEED		6791	5013	4011	3395	2546	2228	1857	1592	1393	1238	1114	891									
	5		Vc	44	44	44	44	44	49	49	49	49	49	49	49	49							
			fz	0.005	0.008	0.011	0.016	0.028	0.039	0.047	0.049	0.053	0.059	0.065	0.063								
RPM		4669	3501	2801	2334	1751	1560	1300	1114	975	867	780	624										
FEED	93	112	123	149	196	237	244	223	203	204	206	162											
6	Vc	70	70	70	70	70	77	77	77	77	77	77	77	77									
	fz	0.005	0.008	0.012	0.016	0.028	0.039	0.047	0.049	0.053	0.059	0.065	0.063										
	RPM	7427	5570	4456	3714	2785	2451	2042	1751	1532	1362	1225	980										
FEED	149	178	214	238	312	382	384	343	325	321	319	247											
7	Vc	64	63	63	64	64	70	70	70	70	70	70	70	70									
	fz	0.005	0.008	0.011	0.016	0.028	0.039	0.047	0.049	0.053	0.059	0.065	0.063										
	RPM	6791	5013	4011	3395	2546	2228	1857	1592	1393	1238	1114	891										
FEED	136	160	176	217	285	348	349	312	295	292	290	225											
8	Vc	44	44	44	44	44	49	49	49	49	49	49	49	49									
	fz	0.005	0.008	0.011	0.016	0.028	0.039	0.047	0.049	0.053	0.059	0.065	0.063										
	RPM	4669	3501	2801	2334	1751	1560	1300	1114	975	867	780	624										
FEED	93	112	123	149	196	237	244	223	203	204	206	162											
9	Vc	27	27	27	27	27	30	29	29	29	30	29	30	29									
	fz	0.004	0.007	0.01	0.014	0.024	0.032	0.04	0.041	0.044	0.05	0.056	0.054										
	RPM	2865	2149	1719	1432	1074	955	769	659	597	513	47											

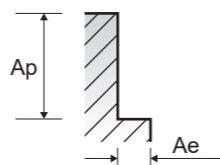
YG ONLY ONE COATED PM60 END MILLS

**RECOMMENDED CUTTING CONDITIONS
EMPFOHLENE SCHNEIDPARAMETER**

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	Diameter (Ø)									
						6.0	8.0	10.0	12.0	14.0	16.0	18.0	20.0	25.0	
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	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		
					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		
					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	



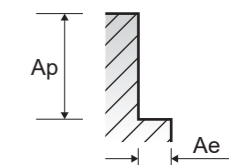
YG ONLY ONE COATED PM60 END MILLS

**RECOMMENDED CUTTING CONDITIONS
EMPFOHLENE SCHNEIDPARAMETER**

GYF94, GYF98, GYG03 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	Diameter (Ø)									
						6.0	8.0	10.0	12.0	14.0	16.0	18.0	20.0	25.0	
P	1	Non-alloy steel	0.5D	1.5D	Vc	63	72	72	72	74	72	71	72	75	
					fz	0.027	0.041	0.055	0.065	0.074	0.087	0.099	0.111	0.105	
					RPM	3342	2865	2292	1910	1682	1432	1256	1146	955	
	2		Vc	50	57	57	54	55	57	61	57	57			
			fz	0.027	0.04	0.053	0.069	0.078	0.087	0.092	0.109	0.106			
			RPM	2653	2268	1814	1432	1251	1134	1079	907	726			
	3-4		Vc	36	42	40	41	40	40	41	40	39			
			fz	0.024	0.038	0.047	0.064	0.076	0.087	0.094	0.107	0.106			
			RPM	1910	1671	1273	1088	909	796	725	637	497			
	5		Vc	29	32	34	34	33	33	33	33	34			
			fz	0.027	0.04	0.044	0.06	0.071	0.081	0.091	0.101	0.1			
			RPM	1538	1273	1082	902	750	657	584	525	433			
6	Vc	50	57	57	54	55	57	61	57	57					
	fz	0.027	0.04	0.053	0.069	0.078	0.087	0.092	0.109	0.106					
	RPM	2653	2268	1814	1432	1251	1134	1079	907	726					
7	Vc	36	42	40	41	40	40	41	40	39					
	fz	0.024	0.038	0.047	0.064	0.076	0.087	0.094	0.107	0.106					
	RPM	1910	1671	1273	1088	909	796	725	637	497					
8-9	Vc	29	32	34	34	33	33	33	33	34					
	fz	0.027	0.04	0.044	0.06	0.071	0.081	0.091	0.101	0.1					
	RPM	1538	1273	1082	902	750	657	584	525	433					
10	Vc	50	57	57	54	55	57	61	57	57					
	fz	0.027	0.04	0.053	0.069	0.078	0.087	0.092	0.109	0.106					
	RPM	2653	2268	1814	1432	1251	1134	1079	907	726					
11.1	Vc	29	32	34	34	33	33	33	33	34					
	fz	0.027	0.04	0.044	0.06	0.071	0.081	0.091	0.101	0.1					
	RPM	1538	1273	1082	902	750	657	584	525	433					
11.2	Vc	21	22	24	23	23	23	23	23	24					
	fz	0.028	0.04	0.045	0.06	0.071	0.082	0.091	0.101	0.1					
	RPM	1114	875	764	610	523	458	407	366	306					
M	14.1	Stainless steel	0.5D	1.5D	Vc	33	36	36	36	37	36	37	36		
					fz	0.025	0.039	0.045	0.064	0.074	0.085	0.093	0.106	0.102	
					RPM	1751	1432	1146	955	841	716	654	573	471	
K	15-20	Grey cast iron Nodular cast iron Malleable cast iron	0.5D	1.5D	Vc	50	57	57	54	55	57	61	57		
					fz	0.027	0.04	0.053	0.069	0.078	0.087	0.092	0.109	0.106	
					RPM	2653	2268	1814	1432	1251	1134	1079	907	726	
H	40	Chilled Cast Iron	0.3D	1.5D	Vc	21	22	24	23	23	23	23	23		
					fz	0.028	0.04	0.045	0.06	0.071	0.082	0.091	0.101	0.1	
					RPM	1114	875	764	610	523	458	407	366	306	





Global Cutting Tool Leader **YG-1**



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