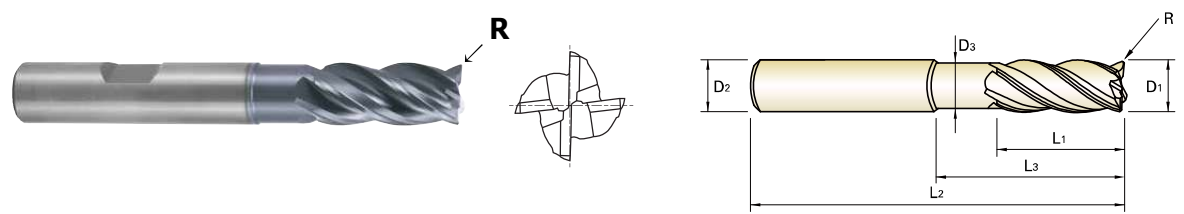


**CARBIDE, 4 FLUTE CORNER RADIUS with EXTENDED NECK**  
 ● VOLLHARTMETALL, 4 SCHNEIDEN ECKENRADIUS mit ABGESETZTEM HALS  
 ○ CARBURE, 4 DENTS, DÉTALONNÉE, RAYONNÉE  
 ○ MD, 4 TAGLIENTI CON SCARICO ESTESO TORICA

- ▶ Special flute geometry and multiple helix eliminate vibrations
- ▶ Excellent performance for Stainless Steels, Mild Steels, Cast Iron, Low/Medium hardness materials under HRC40
- ▶ Die spezielle Schneidengeometrie und der ungleiche Drill verhindern Vibrationen
- ▶ Exzellente Leistung in Edeltählen, Baustählen, Guss und Stählen unter 40HRC



CARBIDE 4 35°/37° PLAIN FLAT P.459

EDP No.		Corner Radius	Mill Diameter	Shank Diameter	Length of Cut	Length Below Shank	Overall Length	Neck Diameter
PLAIN	FLAT	R	D1	D2	L1	L3	L2	D3
GMF62030	GMF63030	R0.3	3.0	6	7	12	54	2.7
GMF62901	GMF63901	R0.5	3.0	6	7	12	54	2.7
GMF62902	GMF63902	R0.3	3.0	6	7	17	57	2.7
GMF62903	GMF63903	R0.5	3.0	6	7	17	57	2.7
GMF62040	GMF63040	R0.3	4.0	6	8	15	57	3.7
GMF62904	GMF63904	R0.5	4.0	6	8	15	57	3.7
GMF62905	GMF63905	R0.3	4.0	6	8	22	63	3.7
GMF62906	GMF63906	R0.5	4.0	6	8	22	63	3.7
GMF62050	GMF63050	R0.3	5.0	6	10	17	57	4.7
GMF62907	GMF63907	R0.5	5.0	6	10	17	57	4.7
GMF62908	GMF63908	R0.3	5.0	6	10	27	67	4.7
GMF62909	GMF63909	R0.5	5.0	6	10	27	67	4.7
GMF62060	GMF63060	R0.3	6.0	6	10	15	57	5.5
GMF62910	GMF63910	R0.5	6.0	6	10	15	57	5.5
GMF62911	GMF63911	R1.0	6.0	6	10	15	57	5.5
GMF62912	GMF63912	R0.3	6.0	6	10	20	62	5.5
GMF62913	GMF63913	R0.5	6.0	6	10	20	62	5.5
GMF62914	GMF63914	R1.0	6.0	6	10	20	62	5.5
GMF62915	GMF63915	R0.3	6.0	6	10	32	74	5.5
GMF62916	GMF63916	R0.5	6.0	6	10	32	74	5.5
GMF62917	GMF63917	R1.0	6.0	6	10	32	74	5.5
GMF62080	GMF63080	R0.5	8.0	8	12	20	63	7.5
GMF62918	GMF63918	R1.0	8.0	8	12	20	63	7.5
GMF62919	GMF63919	R0.5	8.0	8	12	30	73	7.5

Mill Dia. Tolerance (mm)	Shank Dia. Tolerance
Up to Ø12	0 ~ - 0.02
Over Ø12	0 ~ - 0.03

h5  
\* Shank Dia. ≥ Ø12 : h6

▶ NEXT PAGE

◎ : 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											○	○	○	○	○	○	○				

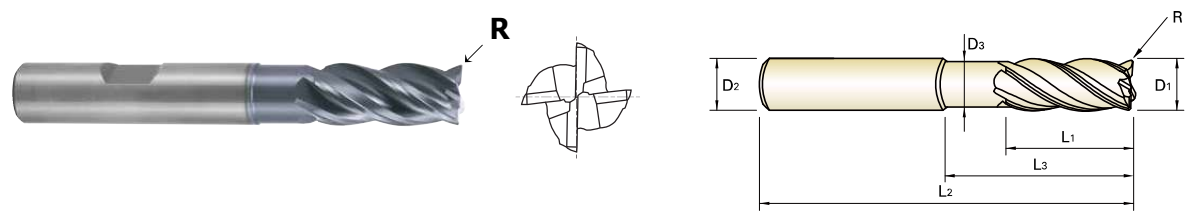


PLAIN SHANK **GMF62** SERIES  
 FLAT SHANK **GMF63** SERIES

**CARBIDE, 4 FLUTE CORNER RADIUS with EXTENDED NECK**

- **VOLLHARTMETALL, 4 SCHNEIDEN ECKENRADIUS mit ABGESETZTEM HALS**
- **CARBURE, 4 DENTS, DÉTALONNÉE, RAYONNÉE**
- **MD, 4 TAGLIENTI CON SCARICO ESTESO TORICA**

- ▶ Special flute geometry and multiple helix eliminate vibrations
- ▶ Die spezielle Schneidengeometrie und der ungleiche Drill verhindern Vibrationen
- ▶ Excellent performance for Stainless Steels, Mild Steels, Cast Iron, Low/Medium hardness materials under HRC40
- ▶ Exzellente Leistung in Edelmetallen, Baustählen, Guss und Stählen unter 40HRC



EDP No.		Corner Radius	Mill Diameter	Shank Diameter	Length of Cut	Length Below Shank	Overall Length	Neck Diameter
PLAIN	FLAT	R	D1	D2	L1	L3	L2	D3
GMF62920	GMF63920	R1.0	8.0	8	12	30	73	7.5
GMF62921	GMF63921	R0.5	8.0	8	12	46	90	7.5
GMF62922	GMF63922	R1.0	8.0	8	12	46	90	7.5
GMF62100	GMF63100	R0.5	10.0	10	14	25	72	9.2
GMF62923	GMF63923	R1.0	10.0	10	14	25	72	9.2
GMF62924	GMF63924	R0.5	10.0	10	14	35	82	9.2
GMF62925	GMF63925	R1.0	10.0	10	14	35	82	9.2
GMF62926	GMF63926	R0.5	10.0	10	14	55	102	9.2
GMF62927	GMF63927	R1.0	10.0	10	14	55	102	9.2
GMF62120	GMF63120	R0.5	12.0	12	16	30	83	11.0
GMF62928	GMF63928	R1.0	12.0	12	16	30	83	11.0
GMF62929	GMF63929	R2.0	12.0	12	16	30	83	11.0
GMF62930	GMF63930	R0.5	12.0	12	16	40	93	11.0
GMF62931	GMF63931	R1.0	12.0	12	16	40	93	11.0
GMF62932	GMF63932	R2.0	12.0	12	16	40	93	11.0
GMF62933	GMF63933	R0.5	12.0	12	16	64	117	11.0
GMF62934	GMF63934	R1.0	12.0	12	16	64	117	11.0
GMF62935	GMF63935	R2.0	12.0	12	16	64	117	11.0
GMF62160	GMF63160	R1.0	16.0	16	22	38	92	15.0
GMF62936	GMF63936	R2.0	16.0	16	22	38	92	15.0
GMF62937	GMF63937	R3.0	16.0	16	22	38	92	15.0
GMF62938	GMF63938	R1.0	16.0	16	22	55	109	15.0
GMF62939	GMF63939	R2.0	16.0	16	22	55	109	15.0
GMF62940	GMF63940	R3.0	16.0	16	22	55	109	15.0

Unit : mm

Mill Dia. Tolerance (mm)	Shank Dia. Tolerance
Up to Ø12	0 ~ - 0.02
Over Ø12	0 ~ - 0.03
h5	
* Shank Dia. ≥ Ø12 : h6	

▶ NEXT PAGE

◎ : 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											○	○	○	○	○	○	○				

**GMF52 GMF53 GMF54 GMF55 GMF56 GMF57 GMF58 GMF59 GMF60 GMF61 GMF62 GMF63**

**4 FLUTE - SIDE & SLOTTING**

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

ISO	VDI 3323	Material Description	Ae		Ap		Parameter	Diameter (Ø)																		
			Side	Slotting	Side	Slotting		3.0	4.0	5.0	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	RPM	FEED	Vc	fz	RPM	FEED	Vc	fz	RPM
<b>P</b>	1-4	Non-alloy steel	0.5D	1.0D	1.5D (1.2D)	1.0D (0.8D)		152	152	152	152	152	168	168	168	168	168	168	168	168	168	168	168	168	168	
	5	Low alloy steel	0.5D	1.0D	1.5D (1.2D)	1.0D (0.8D)		107	107	107	107	107	117	117	117	117	117	117	117	117	117	117	117	117	117	
	6-7		0.5D	1.0D	1.5D (1.2D)	1.0D (0.8D)		152	152	152	152	152	168	168	168	168	168	168	168	168	168	168	168	168	168	
	8-9		0.5D	1.0D	1.5D (1.2D)	1.0D (0.8D)		107	107	107	107	107	117	117	117	117	117	117	117	117	117	117	117	117	117	117
	10-11.1		High alloyed steel, and tool steel	0.5D	1.0D	1.5D (1.2D)	1.0D (0.8D)		64	64	64	64	64	70	70	70	70	70	70	70	70	70	70	70	70	70
<b>M</b>	12-13	Stainless steel	0.5D	1.0D	1.5D (1.2D)	1.0D (0.8D)		148	148	148	148	148	148	148	148	148	148	148	148	148	148	148	148	148	148	
	14.1		0.5D	1.0D	1.5D (1.2D)	1.0D (0.8D)		106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	
	14.2		0.5D	1.0D	1.5D (1.2D)	1.0D (0.8D)		95	95	95	95	95	95	95	95	95	95	95	95	95	95	95	95	95	95	
<b>K</b>	15-20	Grey cast iron	0.5D	1.0D	1.5D (1.2D)	1.0D (0.8D)		112	112	112	112	112	123	123	123	123	123	123	123	123	123	123	123	123	123	
<b>S</b>	31-35	Heat Resistant Super Alloys	0.25D	1.0D	1.0D	0.5D		26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	
	36-37	Titanium Alloys	0.4D	1.0D	1.0D	0.5D		58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	

\*( ) : Short length & Neck type

