

CARBIDE



Being the best through innovation



V7 Mill STEEL

V7 FRÄSER

- Steels in Heavy and Silent Cutting Materials up to HRc40. Designed as Unequal Leads.
- Für Stähle in schwerem und ruhigem Schnitt bis zu HRc40. Ungleiche Teilung

SELECTION GUIDE

ITEM	MODEL	DESCRIPTION	SIZE		PAGE
			MIN	MAX	
METRIC					
EMD42 EMD43		CARBIDE, 4 FLUTE MULTIPLE HELIX SHORT LENGTH VOLLHARTMETALL, 4 SCHNEIDEN KURZ	D3.0	D20.0	716
EMD44 EMD45		CARBIDE, 4 FLUTE MULTIPLE HELIX SHORT LENGTH CORNER RADIUS VOLLHARTMETALL, 4 SCHNEIDEN KURZ ECKENRADIUS	D3.0	D20.0	717
EMD38 EMD39		CARBIDE, 4 FLUTE MULTIPLE HELIX LONG LENGTH VOLLHARTMETALL, 4 SCHNEIDEN LANG	D3.0	D25.0	718
EMD40 EMD41		CARBIDE, 4 FLUTE MULTIPLE HELIX LONG LENGTH CORNER RADIUS VOLLHARTMETALL, 4 SCHNEIDEN LANG ECKENRADIUS	D3.0	D25.0	719
INCH					
EMD46 EMD47		CARBIDE, 4 FLUTE MULTIPLE HELIX REGULAR LENGTH VOLLHARTMETALL, 4 SCHNEIDEN STANDARD	D1/8"	D1"	720
EMD48 EMD49		CARBIDE, 4 FLUTE MULTIPLE HELIX REGULAR LENGTH CORNER RADIUS VOLLHARTMETALL, 4 SCHNEIDEN STANDARD ECKENRADIUS	D1/8"	D1"	721
RECOMMENDED CUTTING CONDITIONS EMPFOHLENE SCHNEIDKONDITIONEN					722

V7 Mill STEEL END MILLS

◎ : Excellent, ○ : Good

Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		High Hardened Steels	Copper	Graphite	Cast Iron	Aluminum	Stainless Steels	Titanium	Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							

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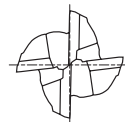
PLAIN SHANK
GLATTER ZYLINDERSCHAFT

FLAT SHANK
SEITLICHEN MITNAHMEFLÄCHEN

CARBIDE, 4 FLUTE MULTIPLE HELIX SHORT LENGTH VOLLHARTMETALL, 4 SCHNEIDEN KURZ

- ▶ Special flute geometry and multiple helix eliminate vibrations
- ▶ Designed to machine mild steels, cast irons, tool steels, and low hardened steels up to HRc 40.
- ▶ Excellent work piece finishes.
- ▶ Higher speeds, deeper cuts, and higher metal removal rates.

- ▶ Besondere Nutenform und variable Drallsteigung verhindern Vibrationen.
- ▶ Für die Bearbeitung von Baustahl, Guss, Werkzeugstahl und niedrig legierten Stählen bis HRc40.
- ▶ Ausgezeichnete Werkstückoberfläche.
- ▶ Höhere Schnittgeschwindigkeit, tieferer Schnitt und größeres Entspannungsvolumen.



Unit : mm

EDP No.		Mill Diameter	Shank Diameter	Length of Cut	Overall Length
PLAIN	FLAT				
EMD42030	EMD43030	3.0	6	5	50
EMD42040	EMD43040	4.0	6	8	54
EMD42050	EMD43050	5.0	6	9	54
EMD42060	EMD43060	6.0	6	10	54
EMD42080	EMD43080	8.0	8	12	58
EMD42100	EMD43100	10.0	10	14	66
EMD42120	EMD43120	12.0	12	16	73
EMD42140	EMD43140	14.0	14	18	75
EMD42160	EMD43160	16.0	16	22	82
EMD42180	EMD43180	18.0	18	24	84
EMD42200	EMD43200	20.0	20	26	92

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

◎ : Excellent ○ : Good

Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		High Hardened Steels	Copper	Graphite	Cast Iron	Aluminum	Stainless Steels	Titanium	Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	◎	○	○				○				

CARBIDE, 4 FLUTE MULTIPLE HELIX SHORT LENGTH CORNER RADIUS VOLLHARTMETALL, 4 SCHNEIDEN KURZ ECKENRADIUS

- ▶ Special flute geometry and multiple helix eliminate vibrations
- ▶ Designed to machine mild steels, cast irons, tool steels, and low hardened steels up to HRC 40.
- ▶ Excellent work piece finishes.
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- ▶ Für die Bearbeitung von Baustahl, Guss, Werkzeugstahl und niedrig legierten Stählen bis HRC40.
- ▶ Ausgezeichnete Werkstückoberfläche.
- ▶ Höhere Schnittgeschwindigkeit, tieferer Schnitt und größeres Entspannungsvolumen.



Unit : mm

EDP No.		Corner Radius R	Mill Diameter	Shank Diameter	Length of Cut	Overall Length
PLAIN	FLAT					
EMD44030	EMD45030	RO.3	3.0	6	5	50
EMD44040	EMD45040	RO.3	4.0	6	8	54
EMD44050	EMD45050	RO.3	5.0	6	9	54
EMD44060	EMD45060	RO.4	6.0	6	10	54
EMD44080	EMD45080	RO.4	8.0	8	12	58
EMD44100	EMD45100	RO.4	10.0	10	14	66
EMD44120	EMD45120	RO.6	12.0	12	16	73
EMD44140	EMD45140	RO.6	14.0	14	18	75
EMD44160	EMD45160	RO.8	16.0	16	22	82
EMD44180	EMD45180	RO.8	18.0	18	24	84
EMD44200	EMD45200	RO.8	20.0	20	26	92

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

◎ : Excellent ○ : Good

Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		High Hardened Steels	Copper	Graphite	Cast Iron	Aluminum	Stainless Steels	Titanium	Inconel
~HB225	HB225~325	HRC30~40	HRc40~45	HRc45~55	HRC55~70							
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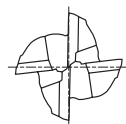
PLAIN SHANK
GLATTER ZYLINDERSCHAFT

FLAT SHANK
SEITLICHEN MITNAHMEFLÄCHEN

CARBIDE, 4 FLUTE MULTIPLE HELIX LONG LENGTH VOLLHARTMETALL, 4 SCHNEIDEN LANG

- ▶ Special flute geometry and multiple helix eliminate vibrations
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- ▶ Für die Bearbeitung von Baustahl, Guss, Werkzeugstahl und niedrig legierten Stählen bis HRc40.
- ▶ Ausgezeichnete Werkstückoberfläche.
- ▶ Höhere Schnittgeschwindigkeit, tieferer Schnitt und größeres Entspannungsvolumen.



Unit : mm

EDP No.		Mill Diameter	Shank Diameter	Length of Cut	Overall Length
PLAIN	FLAT				
EMD38030	EMD39030	3.0	6	8	57
EMD38040	EMD39040	4.0	6	11	57
EMD38050	EMD39050	5.0	6	13	57
EMD38060	EMD39060	6.0	6	13	57
EMD38080	EMD39080	8.0	8	19	63
EMD38100	EMD39100	10.0	10	22	72
EMD38120	EMD39120	12.0	12	26	83
EMD38140	EMD39140	14.0	14	26	83
EMD38160	EMD39160	16.0	16	32	92
EMD38180	EMD39180	18.0	18	32	92
EMD38200	EMD39200	20.0	20	38	104
EMD38250	EMD39250	25.0	25	38	104

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

Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		High Hardened Steels	Copper	Graphite	Cast Iron	Aluminum	Stainless Steels	Titanium	Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
○	○	○	○	○				○				

◎ : Excellent ○ : Good

CARBIDE, 4 FLUTE MULTIPLE HELIX LONG LENGTH CORNER RADIUS VOLLHARTMETALL, 4 SCHNEIDEN LANG ECKENRADIUS

- ▶ Special flute geometry and multiple helix eliminate vibrations
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- ▶ Für die Bearbeitung von Baustahl, Guss, Werkzeugstahl und niedrig legierten Stählen bis HRc40.
- ▶ Ausgezeichnete Werkstückoberfläche.
- ▶ Höhere Schnittgeschwindigkeit, tieferer Schnitt und größeres Entspannungsvolumen.



P.722

Unit : mm

EDP No.		Corner Radius R	Mill Diameter	Shank Diameter	Length of Cut	Overall Length
PLAIN	FLAT					
EMD40030	EMD41030	RO.3	3.0	6	8	57
EMD40040	EMD41040	RO.3	4.0	6	11	57
EMD40050	EMD41050	RO.3	5.0	6	13	57
EMD40060	EMD41060	RO.4	6.0	6	13	57
EMD40080	EMD41080	RO.4	8.0	8	19	63
EMD40100	EMD41100	RO.4	10.0	10	22	72
EMD40120	EMD41120	RO.6	12.0	12	26	83
EMD40140	EMD41140	RO.6	14.0	14	26	83
EMD40160	EMD41160	RO.8	16.0	16	32	92
EMD40180	EMD41180	RO.8	18.0	18	32	92
EMD40200	EMD41200	RO.8	20.0	20	38	104
EMD40250	EMD41250	RO.8	25.0	25	38	104

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

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Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		High Hardened Steels	Copper	Graphite	Cast Iron	Aluminum	Stainless Steels	Titanium	Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
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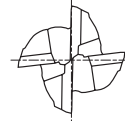
PLAIN SHANK
GLATTER ZYLINDERSCHAFT

FLAT SHANK
SEITLICHEN MITNAHMEFLÄCHEN

CARBIDE, 4 FLUTE MULTIPLE HELIX REGULAR LENGTH VOLLHARTMETALL, 4 SCHNEIDEN STANDARD

- ▶ Special flute geometry and multiple helix eliminate vibrations
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Unit : inch

EDP No.		Mill Diameter	Shank Diameter	Length of Cut	Overall Length
PLAIN	FLAT				
EMD46008	-	1/8	1/8	3/8	1-1/2
EMD46010	-	5/32	3/16	7/16	2
EMD46012	-	3/16	3/16	7/16	2
EMD46014	-	7/32	1/4	7/16	2-1/2
EMD46016	-	1/4	1/4	1/2	2-1/2
EMD46018	-	9/32	5/16	5/8	2-1/2
EMD46020	-	5/16	5/16	13/16	2-1/2
EMD46022	EMD47022	11/32	3/8	13/16	2-1/2
EMD46024	EMD47024	3/8	3/8	7/8	2-1/2
EMD46026	EMD47026	13/32	7/16	15/16	2-3/4
EMD46028	EMD47028	7/16	7/16	1	2-3/4
EMD46030	EMD47030	15/32	1/2	1	3
EMD46032	EMD47032	1/2	1/2	1	3
EMD46036	EMD47036	9/16	9/16	1-1/8	3-1/2
EMD46040	EMD47040	5/8	5/8	1-1/4	3-1/2
EMD46048	EMD47048	3/4	3/4	1-1/2	4
EMD46064	EMD47064	1	1	1-1/2	4

Mill Dia. Tolerance(inch)	Shank Dia. Tolerance(inch)
0 ~ -.0012	0 ~ -.0003

Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		High Hardened Steels	Copper	Graphite	Cast Iron	Aluminum	Stainless Steels	Titanium	Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
○	○	○	○	○				○				

◎ : Excellent ○ : Good

CARBIDE, 4 FLUTE MULTIPLE HELIX REGULAR LENGTH CORNER RADIUS VOLLHARTMETALL, 4 SCHNEIDEN STANDARD ECKENRADIUS

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- ▶ Höhere Schnittgeschwindigkeit, tieferer Schnitt und größeres Entspannungsvolumen.



Unit : inch

EDP No.		Corner Radius R	Mill Diameter	Shank Diameter	Length of Cut	Overall Length
PLAIN	FLAT					
EMD48008	-	R.010	1/8	1/8	3/8	1-1/2
EMD48012	-	R.010	3/16	3/16	7/16	2
EMD48016	-	R.015	1/4	1/4	1/2	2-1/2
EMD48020	-	R.015	5/16	5/16	13/16	2-1/2
EMD48024	EMD49024	R.015	3/8	3/8	7/8	2-1/2
EMD48028	EMD49028	R.015	7/16	7/16	1	2-3/4
EMD48032	EMD49032	R.025	1/2	1/2	1	3
EMD48036	EMD49036	R.025	9/16	9/16	1-1/8	3-1/2
EMD48040	EMD49040	R.035	5/8	5/8	1-1/4	3-1/2
EMD48048	EMD49048	R.035	3/4	3/4	1-1/2	4
EMD48064	EMD49064	R.035	1	1	1-1/2	4

Mill Dia. Tolerance(inch)	Shank Dia. Tolerance(inch)
0 ~ -.0012	0 ~ -.0003

◎ : Excellent ○ : Good

Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		High Hardened Steels	Copper	Graphite	Cast Iron	Aluminum	Stainless Steels	Titanium	Inconel
~HB225	HB225~325	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
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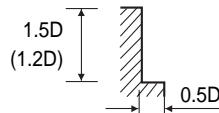
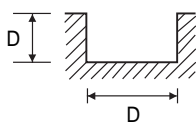


RECOMMENDED CUTTING CONDITIONS
EMPFOHLENE SCHNEIDKONDITIONEN

CARBIDE, 4 FLUTE
VOLLHARTMETALL, 4 SCHNEIDEN

EMD42, EMD43, EMD44, EMD45, EMD38, EMD39, EMD40, EMD41, EMD46, EMD47, EMD48, EMD49 SERIES

MATERIAL	ALLOY STEELS CAST IRON		ALLOY STEELS CAST IRON	
	RPM	FEED	RPM	FEED
HARDNESS	~ HB 300		HB 300 ~ HB 380	
STRENGTH	~ 1000N/mm ²		1000 ~ 1300N/mm ²	
DIAMETER	RPM	FEED	RPM	FEED
3.0	13475	275	9430	190
4.0	10105	330	7070	230
5.0	8085	370	5660	260
6.0	6735	435	4715	305
8.0	5050	555	3535	385
10.0	4455	690	3115	480
12.0	3710	695	2600	485
14.0	3180	620	2225	435
16.0	2785	590	1950	410
18.0	2475	585	1730	410
20.0	2225	580	1560	405
25.0	1780	450	1245	315



* () : Short length Type

RPM = rev./min.
 FEED = mm/min.