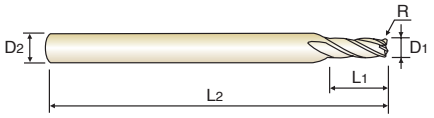
4G MILL END MILLS

SEME01 SERIES PLAIN SHANK / GLATTER ZYLINDERSCHAFT

CARBIDE, 4 FLUTE MULTIPLE HELIX CORNER RADIUS (Short, Regular, Long Shank)
VOLLHARTMETALL, 4 SCHNEIDEN MEHRSPIRAL ECKENRADIUS

- Due to new coating and new tool geometry, outstanding cutting ability and wear resistance.
- Excellent performance when cutting prehardened steels, up to HRc55 which are used for molds & dies.
- Due to Multiple Helix for 3.0mm and over 3.0mm diameter end mills, vibration can be minimized at cutting, and wear of cutting tool can be decreased too.
- Available various products like short, regular and long shank end millls etc.

- Aufgrund einer neuartigen Beschichtung und neuer Werkzeuggeometrien hervorragende Schnittleistung und Verschleißfestigkeit
- Hervorragende Leistung bei der Zerspanung von vorvergüteten Stählen bis HRc55, welche im Werkzeug- und Formenbau Verwendung finden.
- Aufgrund der Multi-Helix (M-Helix) bei Schaftfräsern ≥ 3,0mm ø werden Vibrationen zuverlässig verhindert und gleichzeitig der Schneidkantenverschleiß verringert.
- Erhältlich in den Schaft-Ausführungen: standard und lang.



MG HM | 4 | M-Helix | R ±0.02 | PLAIN | P.801

D≥3

Unit : mm

EDP No.	Corner Radius R	Mill Diameter D1	Shank Diameter D2	Length of Cut L1	Overall Length L2	Remark
SEME01010005E	R0.05	1.0	6	2.5	50	-
★ SEME0101001E	R0.1	1.0	6	2.5	50	-
SEME0101002E	R0.2	1.0	6	2.5	50	-
SEME0101003E	R0.3	1.0	6	2.5	50	-
SEME01012005E	R0.05	1.2	6	3	50	-
SEME0101201E	R0.1	1.2	6	3	50	-
SEME0101202E	R0.2	1.2	6	3	50	-
SEME0101203E	R0.3	1.2	6	3	50	-
SEME01015005E	R0.05	1.5	6	4	50	-
SEME0101501E	R0.1	1.5	6	4	50	-
SEME0101502E	R0.2	1.5	6	4	50	-
SEME0101503E	R0.3	1.5	6	4	50	-
SEME0101505E	R0.5	1.5	6	4	50	-
★ SEME0102001E	R0.1	2.0	6	6	50	-
★ SEME0102002E	R0.2	2.0	6	6	50	-
SEME0102003E	R0.3	2.0	6	6	50	-
SEME0102005E	R0.5	2.0	6	6	50	-
SEME0102501E	R0.1	2.5	6	7	60	-
SEME0102502E	R0.2	2.5	6	7	60	-
SEME0102503E	R0.3	2.5	6	7	60	-
SEME0102505E	R0.5	2.5	6	7	60	-
SEME0103001E	R0.1	3.0	6	8	60	-
★ SEME0103002E	R0.2	3.0	6	8	60	-
★ SEME0103003E	R0.3	3.0	6	8	60	-
★ SEME0103005E	R0.5	3.0	6	8	60	-
SEME0103010E	R1.0	3.0	6	8	60	-
SEME0103501E	R0.1	3.5	6	10	70	-
SEME0103502E	R0.2	3.5	6	10	70	-
SEME0103503E	R0.3	3.5	6	10	70	-
SEME0103505E	R0.5	3.5	6	10	70	-

▶ ★ Stock Item

◎ : Excellent ○ : Good

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

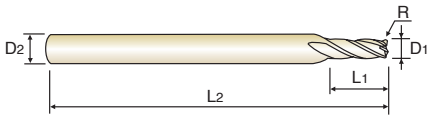
4G MILL END MILLS

SEME01 SERIES PLAIN SHANK / GLATTER ZYLINDERSCHAFT

CARBIDE, 4 FLUTE MULTIPLE HELIX CORNER RADIUS (Short, Regular, Long Shank)
VOLLHARTMETALL, 4 SCHNEIDEN MEHRSPIRAL ECKENRADIUS

- Due to new coating and new tool geometry, outstanding cutting ability and wear resistance.
- Excellent performance when cutting prehardened steels, up to HRc55 which are used for molds & dies.
- Due to Multiple Helix for 3.0mm and over 3.0mm diameter end mills, vibration can be minimized at cutting, and wear of cutting tool can be decreased too.
- Available various products like short, regular and long shank end millls etc.

- Aufgrund einer neuartigen Beschichtung und neuer Werkzeuggeometrien hervorragende Schnittleistung und Verschleißfestigkeit
- Hervorragende Leistung bei der Zerspanung von vorvergüteten Stählen bis HRc55, welche im Werkzeug- und Formenbau Verwendung finden.
- Aufgrund der Multi-Helix (M-Helix) bei Schaftfräsern ≥ 3,0mm ø werden Vibrationen zuverlässig verhindert und gleichzeitig der Schneidkantenverschleiß verringert.
- Erhältlich in den Schaft-Ausführungen: standard und lang.



MG HM | 4 | M-Helix (D≥3) | R ±0.02 | PLAIN | P.801

Unit : mm

EDP No.	Corner Radius R	Mill Diameter D1	Shank Diameter D2	Length of Cut L1	Overall Length L2	Remark
SEME01040014SE	R0.1	4.0	4	10	70	4mm Shank
SEME01040024SE	R0.2	4.0	4	10	70	4mm Shank
SEME01040034SE	R0.3	4.0	4	10	70	4mm Shank
SEME01040054SE	R0.5	4.0	4	10	70	4mm Shank
SEME01040104SE	R1.0	4.0	4	10	70	4mm Shank
SEME01040011004SE	R0.1	4.0	4	10	100	4mm Shank
SEME01040021004SE	R0.2	4.0	4	10	100	4mm Shank
SEME01040031004SE	R0.3	4.0	4	10	100	4mm Shank
SEME01040051004SE	R0.5	4.0	4	10	100	4mm Shank
SEME01040101004SE	R1.0	4.0	4	10	100	4mm Shank
SEME0104001E	R0.1	4.0	6	10	70	Regular
★ SEME0104002E	R0.2	4.0	6	10	70	Regular
★ SEME0104003E	R0.3	4.0	6	10	70	Regular
★ SEME0104005E	R0.5	4.0	6	10	70	Regular
★ SEME0104010E	R1.0	4.0	6	10	70	Regular
SEME0104501E	R0.1	4.5	6	11	80	-
SEME0104502E	R0.2	4.5	6	11	80	-
SEME0104503E	R0.3	4.5	6	11	80	-
SEME0104505E	R0.5	4.5	6	11	80	-
SEME0105001E	R0.1	5.0	6	13	90	-
SEME0105002E	R0.2	5.0	6	13	90	-
★ SEME0105003E	R0.3	5.0	6	13	90	-
★ SEME0105005E	R0.5	5.0	6	13	90	-
SEME0105010E	R1.0	5.0	6	13	90	-
SEME0105501E	R0.1	5.5	6	13	90	-
SEME0105502E	R0.2	5.5	6	13	90	-
SEME0105503E	R0.3	5.5	6	13	90	-
SEME0105505E	R0.5	5.5	6	13	90	-
SEME0105510E	R1.0	5.5	6	13	90	-
SEME0106001060E	R0.1	6.0	6	15	60	Short

▶ ★ Stock Item

◎ : Excellent ○ : Good

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

4G MILL END MILLS

SEME01 SERIES PLAIN SHANK / GLATTER ZYLINDERSCHAFT

CARBIDE, 4 FLUTE MULTIPLE HELIX CORNER RADIUS (Short, Regular, Long Shank)
VOLLHARTMETALL, 4 SCHNEIDEN MEHRSPIRAL ECKENRADIUS

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- Due to Multiple Helix for 3.0mm and over 3.0mm diameter end mills, vibration can be minimized at cutting, and wear of cutting tool can be decreased too.
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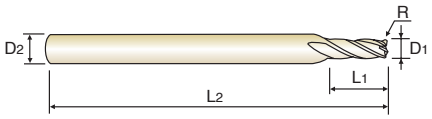
- Aufgrund der Multi-Helix (M-Helix) bei Schaftfräsern ≥ 3,0mm ø werden Vibrationen zuverlässig verhindert und gleichzeitig der Schneidkantenverschleiß verringert.
- Erhältlich in den Schaft-Ausführungen: standard und lang.



MG HM | 4 | M-Helix | R ±0.02 | PLAIN | P.801

D≥3

Unit : mm

EDP No.	Corner Radius R	Mill Diameter D1	Shank Diameter D2	Length of Cut L1	Overall Length L2	Remark
SEME0106002060E	R0.2	6.0	6	15	60	Short
SEME0106001E	R0.1	6.0	6	15	90	Regular
★ SEME0106002E	R0.2	6.0	6	15	90	Regular
★ SEME0106003E	R0.3	6.0	6	15	90	Regular
★ SEME0106005E	R0.5	6.0	6	15	90	Regular
★ SEME0106010E	R1.0	6.0	6	15	90	Regular
SEME0106015E	R1.5	6.0	6	15	90	Regular
SEME0106020E	R2.0	6.0	6	15	90	Regular
SEME0106005110E	R0.5	6.0	6	15	110	Long Shank
SEME0106010110E	R1.0	6.0	6	15	110	Long Shank
SEME0106005130E	R0.5	6.0	6	15	130	Long Shank
SEME0106010130E	R1.0	6.0	6	15	130	Long Shank
SEME0107001E	R0.1	7.0	8	16	90	-
SEME0107002E	R0.2	7.0	8	16	90	-
SEME0107003E	R0.3	7.0	8	16	90	-
SEME0107005E	R0.5	7.0	8	16	90	-
SEME0107010E	R1.0	7.0	8	16	90	-
SEME0107020E	R2.0	7.0	8	16	90	-
★ SEME0108003070E	R0.3	8.0	8	20	70	Short
★ SEME0108005070E	R0.5	8.0	8	20	70	Short
★ SEME0108010070E	R1.0	8.0	8	20	70	Short
SEME0108001E	R0.1	8.0	8	20	100	Regular
★ SEME0108002E	R0.2	8.0	8	20	100	Regular
★ SEME0108003E	R0.3	8.0	8	20	100	Regular
★ SEME0108005E	R0.5	8.0	8	20	100	Regular
★ SEME0108010E	R1.0	8.0	8	20	100	Regular
★ SEME0108015E	R1.5	8.0	8	20	100	Regular
★ SEME0108020E	R2.0	8.0	8	20	100	Regular
SEME0108025E	R2.5	8.0	8	20	100	Regular
SEME0108030E	R3.0	8.0	8	20	100	Regular

▶ ★ Stock Item

◎ : Excellent ○ : Good

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

4G MILL END MILLS

SEME01 SERIES PLAIN SHANK / GLATTER ZYLINDERSCHAFT

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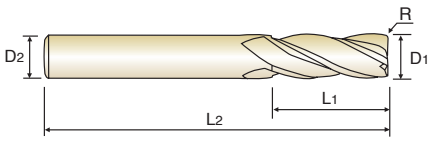

MG HM | 4 | M-Helix | R ±0.02 | PLAIN | P.801

D≥3

Unit : mm

EDP No.	Corner Radius R	Mill Diameter D1	Shank Diameter D2	Length of Cut L1	Overall Length L2	Remark
SEME0108005120E	R0.5	8.0	8	20	120	Long Shank
SEME0108010120E	R1.0	8.0	8	20	120	Long Shank
SEME0108005150E	R0.5	8.0	8	20	150	Long Shank
SEME0108010150E	R1.0	8.0	8	20	150	Long Shank
SEME0110003075E	R0.3	10.0	10	25	75	Short
★ SEME0110005075E	R0.5	10.0	10	25	75	Short
SEME0110010075E	R1.0	10.0	10	25	75	Short
SEME0110001E	R0.1	10.0	10	25	100	Regular
SEME0110002E	R0.2	10.0	10	25	100	Regular
★ SEME0110003E	R0.3	10.0	10	25	100	Regular
★ SEME0110005E	R0.5	10.0	10	25	100	Regular
★ SEME0110010E	R1.0	10.0	10	25	100	Regular
★ SEME0110015E	R1.5	10.0	10	25	100	Regular
★ SEME0110020E	R2.0	10.0	10	25	100	Regular
SEME0110025E	R2.5	10.0	10	25	100	Regular
SEME0110030E	R3.0	10.0	10	25	100	Regular
SEME0110040E	R4.0	10.0	10	25	100	Regular
SEME0110005130E	R0.5	10.0	10	22	130	Long Shank
SEME0110010130E	R1.0	10.0	10	22	130	Long Shank
SEME0110005150E	R0.5	10.0	10	22	150	Long Shank
SEME0110010150E	R1.0	10.0	10	22	150	Long Shank
SEME0111002E	R0.2	11.0	12	25	110	-
SEME0111003E	R0.3	11.0	12	25	110	-
SEME0111005E	R0.5	11.0	12	25	110	-
SEME0111010E	R1.0	11.0	12	25	110	-
SEME0111020E	R2.0	11.0	12	25	110	-
SEME0112003080E	R0.3	12.0	12	30	80	Short
★ SEME0112005080E	R0.5	12.0	12	30	80	Short
★ SEME0112010080E	R1.0	12.0	12	30	80	Short
SEME0112001E	R0.1	12.0	12	30	110	Regular

▶ ★ Stock Item

◎ : Excellent ○ : Good

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

4G MILL END MILLS

SEME01 SERIES PLAIN SHANK / GLATTER ZYLINDERSCHAFT

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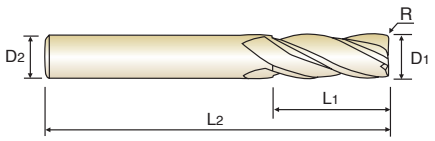


MG HM | 4 | M-Helix | R ±0.02 | PLAIN | P.801

D≥3

Unit : mm

EDP No.	Corner Radius R	Mill Diameter D1	Shank Diameter D2	Length of Cut L1	Overall Length L2	Remark
SEME0112002E	R0.2	12.0	12	30	110	Regular
SEME0112003E	R0.3	12.0	12	30	110	Regular
★ SEME0112005E	R0.5	12.0	12	30	110	Regular
★ SEME0112010E	R1.0	12.0	12	30	110	Regular
★ SEME0112015E	R1.5	12.0	12	30	110	Regular
★ SEME0112020E	R2.0	12.0	12	30	110	Regular
SEME0112025E	R2.5	12.0	12	30	110	Regular
SEME0112030E	R3.0	12.0	12	30	110	Regular
SEME0112040E	R4.0	12.0	12	30	110	Regular
SEME0112050E	R5.0	12.0	12	30	110	Regular
SEME0112005130E	R0.5	12.0	12	30	130	Long Shank
SEME0112010130E	R1.0	12.0	12	30	130	Long Shank
SEME0112005150E	R0.5	12.0	12	30	150	Long Shank
SEME0112010150E	R1.0	12.0	12	30	150	Long Shank
SEME0114005E	R0.5	14.0	16	35	150	-
SEME0114010E	R1.0	14.0	16	35	150	-
SEME0114020E	R2.0	14.0	16	35	150	-
★ SEME0116005E	R0.5	16.0	16	32	150	-
★ SEME0116010E	R1.0	16.0	16	32	150	-
★ SEME0116015E	R1.5	16.0	16	32	150	-
★ SEME0116020E	R2.0	16.0	16	32	150	-
SEME0120005E	R0.5	20.0	20	38	150	-
★ SEME0120010E	R1.0	20.0	20	38	150	-
SEME0120015E	R1.5	20.0	20	38	150	-
★ SEME0120020E	R2.0	20.0	20	38	150	-

▶ ★ Stock Item

Mill Dia. Tolerance (mm)	Corner Radius Tolerance (mm)	Shank Dia. Tolerance
0~−0.03	±0.02	h6

◎ : Excellent ○ : Good

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

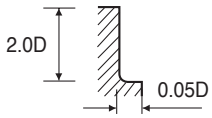
4G MILL END MILLS

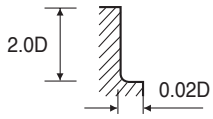
RECOMMENDED CUTTING CONDITIONS
EMPFOHLENE SCHNEIDKONDITIONEN

CARBIDE, 4 FLUTE MULTIPLE HELIX CORNER RADIUS
VOLLHARTMETALL, 4 SCHNEIDEN MEHRSPIRAL ECKENRADIUS

SEME01 SERIES

MATERIAL	NON-ALLOYED STEELS ALLOY STEELS CAST IRON				ALLOY STEELS HEAT RESISTANT STEELS				HARDENED STEELS			
HARDNESS	~ HRc 35				HRc 35 ~ HRc 45				HRc 45 ~ HRc 55			
STRENGTH	~ 1100N/mm²				1110 ~ 1500N/mm²				1500 ~ 2000N/mm²			
DIAMETER	RPM	FEED	Vc	fz	RPM	FEED	Vc	fz	RPM	FEED	Vc	fz
1.0	27600	300	87	0.003	18000	220	57	0.003	11000	120	35	0.003
1.2	24800	305	93	0.003	15750	225	59	0.004	9750	120	37	0.003
1.5	22000	310	104	0.004	13500	230	64	0.004	8500	120	40	0.004
2.0	18000	320	113	0.004	11560	240	73	0.005	7200	130	45	0.005
2.5	15000	330	118	0.006	9500	250	75	0.007	6100	130	48	0.005
3.0	13240	340	125	0.006	8560	260	81	0.008	5280	130	50	0.006
3.5	11980	380	132	0.008	7690	280	85	0.009	4790	135	53	0.007
4.0	10720	420	135	0.010	6820	300	86	0.011	4300	140	54	0.008
4.5	9940	425	141	0.011	6310	330	89	0.013	4050	155	57	0.010
5.0	9160	430	144	0.012	5800	360	91	0.016	3800	170	60	0.011
5.5	8530	430	147	0.013	5420	360	94	0.017	3540	170	61	0.012
6.0	7900	430	149	0.014	5040	360	95	0.018	3280	170	62	0.013
7.0	6950	445	153	0.016	4420	360	97	0.020	2900	170	64	0.015
8.0	6000	460	151	0.019	3800	360	96	0.024	2520	170	63	0.017
10.0	5040	460	158	0.023	3280	360	103	0.027	2020	170	63	0.021
11.0	4580	410	158	0.022	3030	340	105	0.028	1850	155	64	0.021
12.0	4120	360	155	0.022	2780	320	105	0.029	1680	140	63	0.021
14.0	3610	320	159	0.022	2440	275	107	0.028	1480	125	65	0.021
16.0	3100	280	156	0.023	2100	230	106	0.027	1280	115	64	0.022
20.0	2520	230	158	0.023	1640	180	103	0.027	1000	90	63	0.023





* 1.5XD Axial cutting depth should be for diameter over 16mm

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