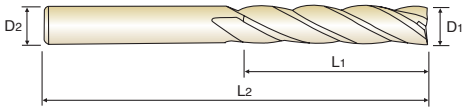
4G MILL END MILLS

SEME72 SERIES PLAIN SHANK / GLATTER ZYLINDERSCHAFT

CARBIDE, 4 FLUTE LONG LENGTH
VOLLHARTMETALL, 4 SCHNEIDEN LANG

- 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.
- Available various length of cut and overall length products.

- 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.
- Erhältlich in verschiebenen Schneiden- und Gesamtlängen.



MG HM | 4 | 30° | PLAIN

P.812, 813

Unit : mm

EDP No.	Mill Diameter D1	Shank Diameter D2	Length of Cut L1	Overall Length L2
★ SEME7201003E	1.0	6	3	60
★ SEME7201004E	1.0	6	4	60
★ SEME7201005E	1.0	6	5	60
★ SEME7201006E	1.0	6	6	60
SEME7201007E	1.0	6	7	60
SEME7201008E	1.0	6	8	60
SEME7201010E	1.0	6	10	60
SEME7201012E	1.0	6	12	60
SEME7201204E	1.2	6	4	60
SEME7201206E	1.2	6	6	60
SEME7201208E	1.2	6	8	60
SEME7201210E	1.2	6	10	60
SEME7201212E	1.2	6	12	60
★ SEME7201506E	1.5	6	6	60
SEME7201508E	1.5	6	8	60
SEME7201510E	1.5	6	10	60
SEME7201512E	1.5	6	12	60
SEME7201514E	1.5	6	14	60
SEME7201516E	1.5	6	16	60
★ SEME7202008E	2.0	6	8	60
★ SEME7202010E	2.0	6	10	60
★ SEME7202012E	2.0	6	12	60
★ SEME7202014E	2.0	6	14	60
SEME7202016E	2.0	6	16	60
★ SEME7202510E	2.5	6	10	60
★ SEME7202512E	2.5	6	12	60
SEME7202516E	2.5	6	16	60
SEME7202520E	2.5	6	20	60

▶ ★ 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

SEME72 SERIES PLAIN SHANK / GLATTER ZYLINDERSCHAFT

CARBIDE, 4 FLUTE LONG LENGTH
VOLLHARTMETALL, 4 SCHNEIDEN LANG

- 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.
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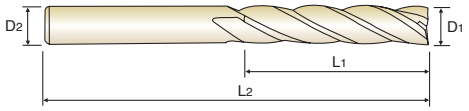
- Aufgrund einer neuartigen Beschichtung und neuer Werkzeuggeometrien hervorragende Schnittleistung und Verschleißfestigkeit
- Hervorragende Leistung bei der Zerspanung von vorvergüteten Stählen bis HRc55, welche im Werkzeug- und Formenbau Verwendung finden.
- Erhältlich in verschiebenen Schneiden- und Gesamtlängen.



MG HM | 4 | 30° | PLAIN

P.812, 813

Unit : mm

EDP No.	Mill Diameter D1	Shank Diameter D2	Length of Cut L1	Overall Length L2
SEME7202526E	2.5	6	26	60
SEME72030163SE	3.0	3	16	100
★ SEME7203010E	3.0	6	10	70
★ SEME7203012E	3.0	6	12	70
SEME7203014E	3.0	6	14	70
★ SEME7203016E	3.0	6	16	70
★ SEME7203020E	3.0	6	20	70
★ SEME7203026E	3.0	6	26	70
★ SEME7203030E	3.0	6	30	70
SEME72040204SE	4.0	4	20	100
★ SEME7204012E	4.0	6	12	70
★ SEME7204016E	4.0	6	16	70
★ SEME7204020E	4.0	6	20	70
★ SEME7204026E	4.0	6	26	70
★ SEME7204030E	4.0	6	30	70
★ SEME7205020E	5.0	6	20	70
★ SEME7205025E	5.0	6	25	70
SEME72050251 00E	5.0	6	25	100
★ SEME7205030E	5.0	6	30	80
SEME7205035E	5.0	6	35	90
SEME7205040E	5.0	6	40	100
★ SEME7206015E	6.0	6	15	60
SEME7206015080E	6.0	6	15	80
★ SEME7206020E	6.0	6	20	70
★ SEME7206020090E	6.0	6	20	90
★ SEME7206025E	6.0	6	25	75
★ SEME7206030E	6.0	6	30	80
★ SEME7206030100E	6.0	6	30	100

▶ ★ 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

SEME72 SERIES PLAIN SHANK / GLATTER ZYLINDERSCHAFT

CARBIDE, 4 FLUTE LONG LENGTH
VOLLHARTMETALL, 4 SCHNEIDEN LANG

- Due to new coating and new tool geometry, outstanding cutting ability and wear resistance.
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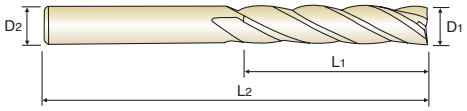

MG HM | 4 | 30° | PLAIN

P.812, 813

Unit : mm

EDP No.	Mill Diameter D1	Shank Diameter D2	Length of Cut L1	Overall Length L2
SEME7206030150E	6.0	6	30	150
★ SEME7206035E	6.0	6	35	90
★ SEME7206040E	6.0	6	40	90
★ SEME7206040120E	6.0	6	40	120
★ SEME7206045E	6.0	6	45	150
★ SEME7208025E	8.0	8	25	80
★ SEME7208030E	8.0	8	30	80
SEME7208030100E	8.0	8	30	100
★ SEME7208035E	8.0	8	35	90
★ SEME7208040E	8.0	8	40	90
SEME7208040120E	8.0	8	40	120
SEME7208040150E	8.0	8	40	150
★ SEME7208045E	8.0	8	45	100
★ SEME7208050E	8.0	8	50	100
★ SEME7208050150E	8.0	8	50	150
★ SEME7210030E	10.0	10	30	80
★ SEME7210030100E	10.0	10	30	100
★ SEME7210035E	10.0	10	35	90
★ SEME7210040E	10.0	10	40	90
SEME7210040120E	10.0	10	40	120
★ SEME7210045E	10.0	10	45	100
★ SEME7210050E	10.0	10	50	100
SEME7210050150E	10.0	10	50	150
SEME7210050200E	10.0	10	50	200
SEME7210055E	10.0	10	55	150
SEME7210060E	10.0	10	60	110
SEME7210060200E	10.0	10	60	200
★ SEME7212035E	12.0	12	35	90

▶ ★ 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

SEME72 SERIES PLAIN SHANK / GLATTER ZYLINDERSCHAFT

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VOLLHARTMETALL, 4 SCHNEIDEN LANG

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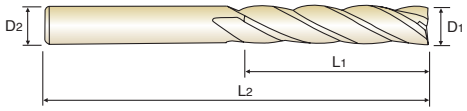

MG HM | 4 | 30° | PLAIN

P.812, 813

Unit : mm

EDP No.	Mill Diameter D1	Shank Diameter D2	Length of Cut L1	Overall Length L2
★ SEME7212040E	12.0	12	40	100
SEME7212040120E	12.0	12	40	120
★ SEME7212045E	12.0	12	45	130
★ SEME7212050E	12.0	12	50	100
SEME7212050150E	12.0	12	50	150
★ SEME7212055E	12.0	12	55	110
★ SEME7212060E	12.0	12	60	110
★ SEME7212060150E	12.0	12	60	150
SEME7212060200E	12.0	12	60	200
SEME7212065E	12.0	12	65	150
SEME7212070E	12.0	12	70	120
SEME7212070200E	12.0	12	70	200
★ SEME7214050E	14.0	16	50	110
SEME7214060E	14.0	16	60	150
SEME7216040E	16.0	16	40	150
★ SEME7216050E	16.0	16	50	110
SEME7216050150E	16.0	16	50	150
★ SEME7216060E	16.0	16	60	120
★ SEME7216070E	16.0	16	70	130
★ SEME7216070150E	16.0	16	70	150
SEME7216070200E	16.0	16	70	200
SEME7216080E	16.0	16	80	150
SEME7216090E	16.0	16	90	150
SEME72160110E	16.0	16	110	200
SEME72160120E	16.0	16	120	250
SEME7218050E	18.0	20	50	120
SEME7218070E	18.0	20	70	130
SEME72180100E	18.0	20	100	200

▶ ★ 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

SEME72 SERIES PLAIN SHANK / GLATTER ZYLINDERSCHAFT

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VOLLHARTMETALL, 4 SCHNEIDEN LANG

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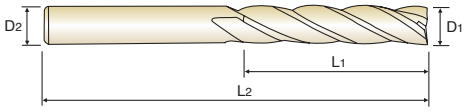


MG HM | 4 | 30° | PLAIN

P.812, 813

Unit : mm

EDP No.	Mill Diameter D1	Shank Diameter D2	Length of Cut L1	Overall Length L2
SEME7220050E	20.0	20	50	110
SEME7220050150E	20.0	20	50	150
★ SEME7220060E	20.0	20	60	130
SEME7220070E	20.0	20	70	130
SEME7220080E	20.0	20	80	150
SEME7220090E	20.0	20	90	150
★ SEME7220090200E	20.0	20	90	200
SEME72200110E	20.0	20	110	200
SEME72200120E	20.0	20	120	250
SEME7222075E	22.0	20	75	150
SEME72220110E	22.0	20	110	200
SEME7225070E	25.0	25	70	150
★ SEME7225090E	25.0	25	90	150
SEME72250110E	25.0	25	110	200
SEME72250120	25.0	25	120	250

▶ ★ Stock Item

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	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 LONG LENGTH
VOLLHARTMETALL, 4 SCHNEIDEN

SEME72 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			
DIA.	LOC	RPM	FEED	Vc	fz	RPM	FEED	Vc	fz	RPM	FEED	Vc	fz
1.0	3	19200	180	60	0.002	10940	70	34	0.002	6720	35	21	0.001
1.0	4	19200	180	60	0.002	10940	70	34	0.002	6720	35	21	0.001
1.0	5	19200	180	60	0.002	10940	70	34	0.002	6720	35	21	0.001
1.0	6	17280	145	54	0.002	9850	60	31	0.002	6050	30	19	0.001
1.0	7	17280	145	54	0.002	9850	60	31	0.002	6050	30	19	0.001
1.0	8	17280	130	54	0.002	9850	50	31	0.001	6050	25	19	0.001
1.0	10	17280	130	54	0.002	9850	50	31	0.001	6050	25	19	0.001
1.0	12	15360	100	48	0.002	8760	40	28	0.001	5380	20	17	0.001
1.2	4	16200	205	61	0.003	9230	80	35	0.002	5670	40	21	0.002
1.2	6	16200	205	61	0.003	9230	80	35	0.002	5670	40	21	0.002
1.2	8	14580	165	55	0.003	8310	65	31	0.002	5100	35	19	0.002
1.2	10	14580	145	55	0.002	8310	60	31	0.002	5100	30	19	0.001
1.2	12	14580	145	55	0.002	8310	60	31	0.002	5100	30	19	0.001
1.5	6	13800	215	65	0.004	7870	85	37	0.003	4830	45	23	0.002
1.5	8	12420	195	59	0.004	7080	80	33	0.003	4350	40	20	0.002
1.5	10	12420	175	59	0.004	7080	70	33	0.002	4350	35	20	0.002
1.5	12	12420	155	59	0.003	7080	60	33	0.002	4350	30	20	0.002
1.5	14	12420	155	59	0.003	7080	60	33	0.002	4350	30	20	0.002
1.5	16	11040	120	52	0.003	6290	50	30	0.002	3860	25	18	0.002
2.0	8	10580	240	66	0.006	6050	95	38	0.004	3780	55	24	0.004
2.0	10	10580	240	66	0.006	6050	95	38	0.004	3780	55	24	0.004
2.0	12	9530	195	60	0.005	5440	80	34	0.004	3400	45	21	0.003
2.0	14	9530	195	60	0.005	5440	80	34	0.004	3400	45	21	0.003
2.0	16	9530	175	60	0.005	5440	70	34	0.003	3400	40	21	0.003
2.5	10	8990	260	71	0.007	5170	110	41	0.005	3210	60	25	0.005
2.5	12	8990	260	71	0.007	5170	110	41	0.005	3210	60	25	0.005
2.5	16	8090	210	64	0.006	4650	85	37	0.005	2890	50	23	0.004
2.5	20	8090	185	64	0.006	4650	80	37	0.004	2890	45	23	0.004
2.5	26	7200	145	57	0.005	4130	60	32	0.004	2570	35	20	0.003
3.0	10	7400	275	70	0.009	4280	120	40	0.007	2640	65	25	0.006
3.0	12	7400	275	70	0.009	4280	120	40	0.007	2640	65	25	0.006
3.0	14	7400	275	70	0.009	4280	120	40	0.007	2640	65	25	0.006
3.0	16	6660	250	63	0.009	3860	110	36	0.007	2380	60	22	0.006
3.0	20	6660	225	63	0.008	3860	95	36	0.006	2380	55	22	0.006
3.0	26	6660	200	63	0.008	3860	85	36	0.006	2380	50	22	0.005
3.0	30	6660	200	63	0.008	3860	85	36	0.006	2380	50	22	0.005
4.0	12	6000	335	75	0.014	3410	140	43	0.010	2150	70	27	0.008
4.0	16	6000	335	75	0.014	3410	140	43	0.010	2150	70	27	0.008
4.0	20	6000	335	75	0.014	3410	140	43	0.010	2150	70	27	0.008
4.0	26	5400	270	68	0.013	3070	110	39	0.009	1930	60	24	0.008
4.0	30	5400	270	68	0.013	3070	110	39	0.009	1930	60	24	0.008
5.0	20	5120	430	80	0.021	2900	170	46	0.015	1900	85	30	0.011
5.0	25	5120	430	80	0.021	2900	170	46	0.015	1900	85	30	0.011
5.0	30	4610	350	72	0.019	2610	135	41	0.013	1710	70	27	0.010
5.0	35	4610	350	72	0.019	2610	135	41	0.013	1710	70	27	0.010
5.0	40	4610	310	72	0.017	2610	120	41	0.011	1710	60	27	0.009
6.0	15	4420	515	83	0.029	2520	215	48	0.021	1640	110	31	0.017
6.0	20	4420	515	83	0.029	2520	215	48	0.021	1640	110	31	0.017
6.0	25	4420	515	83	0.029	2520	215	48	0.021	1640	110	31	0.017
6.0	30	4420	440	83	0.025	2520	185	48	0.018	1640	90	31	0.014
6.0	35	3970	395	75	0.025	2270	165	43	0.018	1480	85	28	0.014
6.0	40	3970	350	75	0.022	2270	145	43	0.016	1480	75	28	0.013
6.0	45	3970	350	75	0.022	2270	145	43	0.016	1480	75	28	0.013

DIA. = Diameter
LOC = Length of Cut
RPM = rev./min.
FEED = mm/min.
Vc = m/min.
fz = mm/t

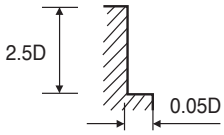
4G MILL END MILLS

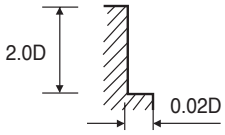
RECOMMENDED CUTTING CONDITIONS
EMPFOHLENE SCHNEIDKONDITIONEN

CARBIDE, 4 FLUTE LONG LENGTH
VOLLHARTMETALL, 4 SCHNEIDEN

SEME72 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			
DIA.	LOC	RPM	FEED	Vc	fz	RPM	FEED	Vc	fz	RPM	FEED	Vc	fz
8.0	25	3360	550	84	0.041	1900	215	48	0.028	1260	110	32	0.022
8.0	30	3360	550	84	0.041	1900	215	48	0.028	1260	110	32	0.022
8.0	35	3360	550	84	0.041	1900	215	48	0.028	1260	110	32	0.022
8.0	40	3360	470	84	0.035	1900	185	48	0.024	1260	90	32	0.018
8.0	45	3020	420	76	0.035	1710	165	43	0.024	1130	85	28	0.019
8.0	50	3020	375	76	0.031	1710	145	43	0.021	1130	75	28	0.017
10.0	30	2820	550	89	0.049	1640	215	52	0.033	1010	110	32	0.027
10.0	35	2820	550	89	0.049	1640	215	52	0.033	1010	110	32	0.027
10.0	40	2820	550	89	0.049	1640	215	52	0.033	1010	110	32	0.027
10.0	45	2820	470	89	0.042	1640	185	52	0.028	1010	90	32	0.022
10.0	50	2820	470	89	0.042	1640	185	52	0.028	1010	90	32	0.022
10.0	55	2540	420	80	0.041	1480	165	46	0.028	910	85	29	0.023
10.0	60	2540	375	80	0.037	1480	145	46	0.024	910	75	29	0.021
12.0	35	2300	430	87	0.047	1390	190	52	0.034	840	85	32	0.025
12.0	40	2300	430	87	0.047	1390	190	52	0.034	840	85	32	0.025
12.0	45	2300	365	87	0.040	1390	165	52	0.030	840	70	32	0.021
12.0	50	2300	365	87	0.040	1390	165	52	0.030	840	70	32	0.021
12.0	55	2300	365	87	0.040	1390	165	52	0.030	840	70	32	0.021
12.0	60	2300	325	87	0.035	1390	145	52	0.026	840	65	32	0.019
12.0	65	2070	290	78	0.035	1250	130	47	0.026	760	55	29	0.018
12.0	70	2070	290	78	0.035	1250	130	47	0.026	760	55	29	0.018
14.0	50	2120	345	93	0.041	1230	145	54	0.029	760	65	33	0.021
14.0	60	2120	345	93	0.041	1230	145	54	0.029	760	65	33	0.021
16.0	40	1940	385	98	0.050	1070	150	54	0.035	670	70	34	0.026
16.0	50	1940	385	98	0.050	1070	150	54	0.035	670	70	34	0.026
16.0	60	1940	325	98	0.042	1070	130	54	0.030	670	60	34	0.022
16.0	70	1940	325	98	0.042	1070	130	54	0.030	670	60	34	0.022
16.0	80	1940	290	98	0.037	1070	115	54	0.027	670	55	34	0.021
16.0	90	1750	260	88	0.037	960	100	48	0.026	600	50	30	0.021
16.0	110	1750	260	88	0.037	960	100	48	0.026	600	50	30	0.021
16.0	120	1750	260	88	0.037	960	100	48	0.026	600	50	30	0.021
18.0	50	1680	330	95	0.049	940	130	53	0.035	590	65	33	0.028
18.0	70	1680	280	95	0.042	940	110	53	0.029	590	55	33	0.023
18.0	100	1510	225	85	0.037	850	85	48	0.025	530	45	30	0.021
20.0	50	1420	275	89	0.048	820	110	52	0.034	500	55	31	0.028
20.0	60	1420	275	89	0.048	820	110	52	0.034	500	55	31	0.028
20.0	70	1420	235	89	0.041	820	90	52	0.027	500	45	31	0.023
20.0	80	1420	235	89	0.041	820	90	52	0.027	500	45	31	0.023
20.0	90	1420	205	89	0.036	820	80	52	0.024	500	40	31	0.020
20.0	110	1270	185	80	0.036	730	75	46	0.026	450	35	28	0.019
20.0	120	1270	185	80	0.036	730	75	46	0.026	450	35	28	0.019
22.0	75	1260	205	87	0.041	820	90	57	0.027	500	45	35	0.023
22.0	110	1260	180	87	0.036	820	80	57	0.024	500	40	35	0.020
25.0	70	1100	215	86	0.049	820	110	64	0.034	500	55	39	0.028
25.0	90	1100	185	86	0.042	820	90	64	0.027	500	45	39	0.023
25.0	110	1100	185	86	0.042	820	90	64	0.027	500	45	39	0.023
25.0	120	1100	160	86	0.036	820	80	64	0.024	500	40	39	0.020





DIA. = Diameter
LOC = Length of Cut
RPM = rev./min.
FEED = mm/min.
Vc = m/min.
fz = mm/t