

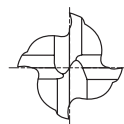
CARBIDE

HSS

**TANK-POWER  
END MILLS****E9938** SERIESFLAT SHANK  
SEITLICHE MITNAHMEFLÄCHEN**GA938** SERIESFLAT SHANK  
SEITLICHE MITNAHMEFLÄCHEN**PREMIUM HSS-PM, 4 FLUTE SHORT LENGTH**  
**PREMIUM HSS-PM, 4 SCHNEIDEN KURZ**

- ▶ Recommended for pocketing, cam milling, die sinking and slotting..
- ▶ Designed for high speed cutting of difficult - to - cut materials.
- ▶ YG-1's new developed TANK-POWER Coating suitable for high speed cutting.

- ▶ Empfohlen für Taschenfräsen, Nockenfräsen, Gussformen und Nutenfräsen.
- ▶ Geeignet für Hochgeschwindigkeitsfräsen von schwer zu zerspanenden Materialien.
- ▶ Neuentwickelte Beschichtung für Hochgeschwindigkeitsfräsen.



YPM

DIN  
844

4

30°

DIN  
1835B

P.892

Unit : mm

EDP No.		Mill Diameter	Shank Diameter	Length of Cut	Overall Length
UNCOATED	TANK-POWER COATED				
E9938010	GA938010	1.0	6	3	49
E9938020	GA938020	2.0	6	7	51
E9938030	GA938030	3.0	6	8	52
E9938040	GA938040	4.0	6	11	55
E9938050	GA938050	5.0	6	13	57
E9938060	GA938060	6.0	6	13	57
E9938070	GA938070	7.0	10	16	66
E9938080	GA938080	8.0	10	19	69
E9938090	GA938090	9.0	10	19	69
E9938100	GA938100	10.0	10	22	72
E9938120	GA938120	12.0	12	26	83
E9938140	GA938140	14.0	12	26	83
E9938160	GA938160	16.0	16	32	92
E9938180	GA938180	18.0	16	32	92
E9938200	GA938200	20.0	20	38	104
E9938220	GA938220	22.0	20	38	104
E9938250	GA938250	25.0	25	45	121

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

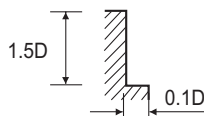
TECHNICAL  
DATA

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

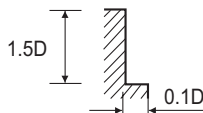

**PREMIUM HSS-PM, 4 FLUTE - SIDE CUTTING  
PREMIUM HSS-PM, 4 SCHNEIDEN - SEITENFRÄSEN**
**GA938, GAA31 SERIES**

MATERIAL	STRUCTURAL STEELS CARBON STEELS		STRUCTURAL STEELS CARBON STEELS CAST IRONS		CARBON STEELS ALLOY STEELS TOOL STEELS		PREHARDENED STEELS ALLOY STEELS TOOL STEELS		ALLOY STEELS TOOL STEELS AUSTENITIC STAINLESS STEELS	
HARDNESS			~ HRC20		HRC20 ~ HRC30		HRC30 ~ HRC35		HRC35 ~ HRC40	
STRENGTH	~ 500N/mm <sup>2</sup>		500 ~ 800N/mm <sup>2</sup>		800 ~ 1000N/mm <sup>2</sup>		1000 ~ 1100N/mm <sup>2</sup>		1100 ~ 1300N/mm <sup>2</sup>	
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
2.0	9200	290	8400	240	6100	170	4100	125	3300	85
3.0	6600	410	6000	350	4400	250	2700	180	2400	125
4.0	5300	480	4700	400	3600	300	2300	200	2000	150
5.0	4400	510	4000	420	2900	320	2000	220	1700	160
6.0	3900	540	3600	450	2600	330	1800	230	1450	180
8.0	3100	570	2600	480	2000	370	1400	240	1150	185
10.0	2300	630	2100	530	1600	380	1000	265	890	200
12.0	2000	570	1800	480	1400	370	890	240	720	185
14.0	1800	550	1600	460	1100	350	790	230	630	170
16.0	1600	510	1400	430	1000	340	680	220	550	165
18.0	1500	460	1250	400	890	310	630	195	500	150
20.0	1250	440	1050	370	780	275	530	175	440	140
22.0	1050	410	950	320	680	255	470	160	400	130
25.0	1000	370	840	305	630	230	420	150	360	125


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

**PREMIUM HSS-PM, 4 FLUTE - SIDE CUTTING  
PREMIUM HSS-PM, 4 SCHNEIDEN - SEITENFRÄSEN**
**E9938, E9A31 SERIES**

MATERIAL	CARBON STEELS ALLOY STEELS TOOL STEELS		STRUCTURAL STEELS CARBON STEELS CAST IRONS		CARBON STEELS ALLOY STEELS TOOL STEELS		PREHARDENED STEELS ALLOY STEELS TOOL STEELS		ALLOY STEELS TOOL STEELS AUSTENITIC STAINLESS STEELS	
HARDNESS			~ HRC20		HRC20 ~ HRC30		HRC30 ~ HRC35		HRC35 ~ HRC40	
STRENGTH	~ 500N/mm <sup>2</sup>		500 ~ 800N/mm <sup>2</sup>		800 ~ 1000N/mm <sup>2</sup>		1000 ~ 1100N/mm <sup>2</sup>		1100 ~ 1300N/mm <sup>2</sup>	
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
2.0	6300	180	5700	150	4000	110	2800	75	2300	55
3.0	4500	260	4000	210	3000	155	2000	110	1650	80
4.0	3600	300	3200	250	2400	190	1600	125	1350	95
5.0	3000	310	2700	265	2000	195	1400	135	1125	100
6.0	2600	330	2400	275	1800	205	1200	140	975	110
8.0	2100	360	1800	300	1400	230	900	150	750	115
10.0	1600	390	1400	330	1100	235	710	165	600	125
12.0	1300	360	1200	300	900	230	600	150	495	115
14.0	1200	340	1100	285	780	215	530	140	430	105
16.0	1100	310	900	265	680	205	450	135	375	100
18.0	1000	280	850	250	600	190	430	120	340	95
20.0	850	270	710	230	540	175	360	110	300	85
22.0	710	260	640	200	460	160	320	100	270	80
25.0	680	230	570	190	430	140	280	95	240	80


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