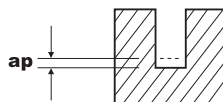


# EM883, EM8A1 SERIES

MATERIAL	NON-ALLOYED STEELS ALLOY STEELS CAST IRON					ALLOY STEELS HEAT RESISTANT STEELS				
	~ HRC30					HRC30 ~ HRC45				
HARDNESS	~ 1000N/mm <sup>2</sup>					1000 ~ 1500N/mm <sup>2</sup>				
STRENGTH										
DIAMETER	RPM	FEED	ap (mm)	Vc	fz	RPM	FEED	ap (mm)	Vc	fz
0.4	31000~40000	200~440	0.007~0.018	39~50	0.003~0.006	22500~28000	85~340	0.007~0.018	28~35	0.002~0.006
0.5	31000~40000	200~440	0.009~0.022	49~63	0.003~0.006	22500~28000	85~340	0.009~0.022	35~44	0.002~0.006
0.6	31000~40000	250~570	0.011~0.026	58~75	0.004~0.007	22500~28000	110~430	0.011~0.026	42~53	0.002~0.008
0.7	31000~40000	250~570	0.012~0.031	68~88	0.004~0.007	22500~28000	110~430	0.012~0.031	49~62	0.002~0.008
0.8	27000~35000	280~630	0.014~0.035	68~88	0.005~0.009	19500~24500	120~480	0.014~0.035	49~62	0.003~0.010
0.9	25000~31500	280~720	0.030~0.060	71~98	0.006~0.010	17500~22500	160~540	0.030~0.060	49~64	0.005~0.012
1.0	22500~28000	280~810	0.045~0.090	71~88	0.006~0.014	15700~20000	190~600	0.045~0.090	49~63	0.006~0.015
1.2	18500~22500	280~900	0.055~0.100	70~85	0.008~0.020	13000~16500	190~600	0.055~0.100	49~62	0.007~0.018
1.4	16000~20000	280~900	0.062~0.125	70~88	0.009~0.023	11500~14000	190~600	0.062~0.125	51~62	0.008~0.021
1.5	14500~18500	280~900	0.070~0.135	68~87	0.010~0.024	10500~13500	190~600	0.070~0.135	49~64	0.009~0.022
1.6	14000~18000	280~900	0.075~0.145	70~90	0.010~0.025	10200~12800	190~600	0.075~0.145	51~64	0.009~0.023
1.8	13000~16500	280~900	0.080~0.160	74~93	0.011~0.027	9200~11500	190~600	0.080~0.160	52~65	0.010~0.026
2.0	12000~14500	280~900	0.090~0.180	75~91	0.012~0.031	8300~10500	190~600	0.090~0.180	52~66	0.011~0.029
2.5	9500~12000	280~900	0.112~0.235	75~94	0.015~0.038	6700~8500	190~600	0.112~0.235	53~67	0.014~0.035
3.0	8000~10000	280~900	0.135~0.270	75~94	0.018~0.045	5500~7000	190~600	0.135~0.270	52~66	0.017~0.043
4.0	6000~7500	280~900	0.180~0.360	75~94	0.023~0.060	4100~5300	190~600	0.180~0.360	52~67	0.023~0.057
5.0	4800~6000	280~900	0.225~0.450	75~94	0.029~0.075	3300~4200	190~600	0.225~0.450	52~66	0.029~0.071
6.0	4000~5000	280~900	0.270~0.540	75~94	0.035~0.090	2800~3500	190~600	0.270~0.540	53~66	0.034~0.086

MATERIAL	HARDENED STEELS				
	HRC45 ~ HRC55				
STRENGTH	1500 ~ 2000N/mm <sup>2</sup>				
DIAMETER	RPM	FEED	ap (mm)	Vc	fz
0.4	14300~17000	30~90	0.004~0.008	18~21	0.001~0.003
0.5	14300~17000	30~90	0.004~0.009	22~27	0.001~0.003
0.6	14300~17000	40~110	0.005~0.011	27~32	0.001~0.003
0.7	14300~17000	40~110	0.006~0.013	31~37	0.001~0.003
0.8	12500~14800	45~125	0.007~0.015	31~37	0.002~0.004
0.9	11000~12500	55~130	0.008~0.016	31~35	0.003~0.005
1.0	10000~12500	65~130	0.009~0.018	31~39	0.003~0.005
1.2	8300~10500	65~130	0.010~0.022	31~40	0.004~0.006
1.4	7200~9000	65~130	0.012~0.025	32~40	0.005~0.007
1.5	6700~8200	65~130	0.014~0.028	32~39	0.005~0.008
1.6	6400~8000	65~130	0.015~0.030	32~40	0.005~0.008
1.8	5700~7200	65~130	0.016~0.032	32~41	0.006~0.009
2.0	5300~6600	65~130	0.018~0.035	33~41	0.006~0.010
2.5	4300~5300	65~130	0.022~0.045	34~42	0.008~0.012
3.0	3500~4400	65~130	0.028~0.055	33~41	0.009~0.015
4.0	2600~3300	65~130	0.036~0.072	33~41	0.013~0.020
5.0	2100~2600	65~130	0.045~0.090	33~41	0.015~0.025
6.0	1750~2600	65~130	0.054~0.108	33~49	0.019~0.025

(Depth of Cut per one pass)



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