

ebaboard EP 138 - milling parameters



ebalta

Technical datas	Machining 1	Machining 2	Machining 3	Machining 4	Machining 5	Machining 6	Machining 7
Strategie	Roughing Z - constant	Profile roughing	Roughing Pocket	Roughing Residual material Z - constant	Finishing face milling	Finishing Z - constant	Engraving
Type of milling cutter	EMZ90 V22.042TH050 (1043249)	EBG V16.016AN140	DHC Ø12 INOX	EBG V12.012AN120-C (6128023)	EBG V10.010AN120-C (6130578)	EBG R08.008AP100-C (9148824)	Airline ball (1121894)
indexable inserts	VCGT 220530-ALM (1069759)	WPB 16 AF 30	-	WPB 12 CF 20 (6128107)	WPB 10 CF 10 (6129238)	WPR 08 DN (6131629)	-
Cutting diameter [mm]	42	16	12	12	10	8	2
Number of tool cutting edges	3	2	4	2	2	2	2
Radius [mm]	3	3	0	2	1	4	1
Cutting speed vc [m/min]	600	500	340	500	450	380	100
Revolutions n [1/min]	4547	9947	9000	13262	1432	15120	15900
feed per tooth fz [mm]	0,5	0,4	0,15	0,3	0,15	0,2	0,1
Feed rate vf [mm/min]	8	7957	5304	7957	4297	6050	3180
Axial depth of cut ap [mm]	5	2,5	10	2	0,5	0,2	0,3
Radial depth of cut ae [mm]	30	3	6	8	6	0,5	0
Run time [min]	6	10	1	1	3,5	90	1
Dustformation	high	high	middle	middle	low	low	none

$$vc = \frac{n \cdot \pi \cdot d}{1000} \quad [\text{m/min}]$$

$$n = \frac{vc \cdot 1000}{d \cdot \pi} \quad [1/\text{min}]$$

$$fz = \frac{vf}{z \cdot n} \quad [\text{mm}]$$

$$vf = n \cdot fz \cdot z \quad [\text{mm/min}]$$