

External Cylindrical grinding with Axial Feed

Material Ground	Abrasive Type	Parameters			
		Wheel peripheral Speed	Work piece Peripheral Speed	Work piece Traverse speed * (See Calculation) *	Depth of Cut 20% of Grit size Fepa**
Carbide	Diamond	.m/sec 20...30 SFM 4,000...6,000	m/min 10..20 in./min 400...800	inch/min 200...400	.025mm .001 inch
Hardened Steel	CBN	.m/sec 25...40 SFM 5,000..8,000	m/min 10...20 in./min 400...800	inch/min 200...400	.025mm .001 inch

Work Traverse Speed Calculation Example*

$$0.5 \times b_s \times n_w = \text{Work piece Traverse Speed}$$

$$0.5 \times \text{Diamond layer width} \times \text{work peripheral Speed} = \text{Work piece traverse speed}$$

$$0.5 \times 1.00'' \times 400''/\text{min} = 200 \text{ in./min}$$

Depth of Cut Calculation. ** ***20% of FEPA Grit Size***

$$120 \text{ US mesh} = 125 \text{ FEPA } (.125\text{mm})$$

$$.125\text{mm} \times 20\% = .025\text{mm} = .001 \text{ inch}$$

Suggested Mesh size and Concentration

ASD 120 R75 B
CBN 120 R75 B