

Semi-automatic grinder PNB-5E

Semi-automatic tool grinder PNB-5E is used for sharpening tools of the punching machines type of Trumpf (Trumpf, Boschert ...) and Thick Turret - (Amada, Finn Power ...). Design of semiautomatic grinder combines the advantages of automatic and manual grinders.

Advantages:

- grinding can be carried out immediately by operator of the punching machine
- grinding in automatic mode eliminates influence of the human factor on the final quality
- effective internal cooling
- high quality grinding of the surface
- the usage of CBN wheels with long lifetime and without alignment
- compact performance
- minimum operating costs
- the speed of grinding is automatically driven by the size of the tool



Technical parameters:

Machine type	PNB-5E	
Dimensions	Length	550 mm
	Width	500 mm
	Height	1010 mm
Weight	115 kg	
Nominal voltage	3/N/PE AC 400/230V	
Nominal frequency	50 Hz (60 Hz)	
Nominal current	max. 2,2 A	
Shielding degree	min. IP 54	
Spindle speed	4 200 / min	
Automatic cut size setting scale increments (approx.)	0,01 mm-per scale division	
Max die diameter	152 mm	
Max. length of punch	208 mm	

The main benefits of timely grinding:

- lower wear and tear parts of punching machine
- lower costs for removing burr – deburring
- extending lifetime of tools - saving costs

Extending lifetime of tools

The speed of the blunting of particular tool depends on many factors (properties of materials, geometry and adjustment of tools etc.). The course of blunting tool is irregular and is shown in the chart (red curve).

After the first deburring of the edge, the tool lasts a long time with minimal blunting. However after exceeding the radius (about 0.5 to 1.0 mm) – the speed of blunting is rapidly increasing. Timely grinding can avoid this final phase of blunting and achieve increased lifetime of tools, as shown in the chart (green curve).

