

## Customer focused development

- spindles + slides
- plan-tables + instruments
- machines
- micro cutting technology



## *Diamant milling machine DFM-550*

### *Highlights*

*Airbearing spindles*

*Airbearing axes*

*Digital Motion Control System*

*Linear Motors*

*Sub-nanometer resolution*

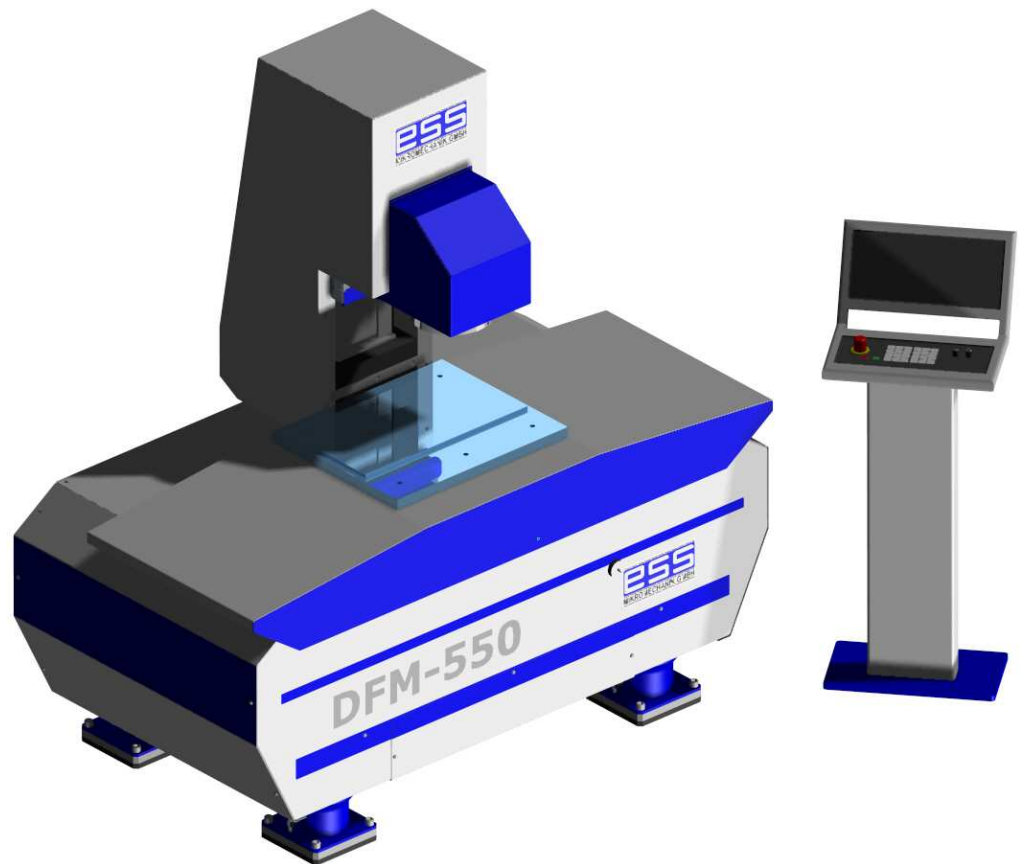
*Vibration-damping through granite-basis*

*Oscillation isolator*

*CNC-enabled*

*Windows software*

*Direct working linear measuring system*



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## Specifications

### X-axis:

The main axis is working with a cogging-free motor, which is absolute free of reversal and free of backlash. The position is included by a direct working measurement system.

Travel range	550 mm
minimum speed	0,1 mm/min.
maximum speed	5 m/min.

### Z-axis:

The z-axis is a matter of a double-axis. It means, that the pre and the finely adjustment are working independently of each other. The pre adjustment is animated by a stepper motor and is equipped with a high precise bearing.

The finely adjustment is also an air bearing and is controlled by a stepper motor as well. Lowest positioning steps of less than 0,2  $\mu\text{m}$  are possible by a special control system.

Travel range	300 mm
minimum speed	0,1 mm/min.
maximum speed	150 mm/min.
Travel range finely	50 mm
minimum speed	0,1 mm/min.
maximum speed	50 mm/min.

### Optional:

Automatic spindle-correction

### Main spindle:

Air bearing with non-contact working Torque-motor and integrated measuring system.

speed max.	6.000 U/min.
optional	20.000 U/min.
air-cooled / water-cooled	
Spray mist through the spindle	

## Installation data

Power:	240 VAC
	50/60 Hz, 20 Amps
Spindle / Axes	5,0 bar
Air consumption	250 l/min.

Dimensions (in mm)

