

# ARP 2

PRECISION CUTTER GRINDER

ISPER

High precision cutter grinder for single and double cutter carbide milling tools



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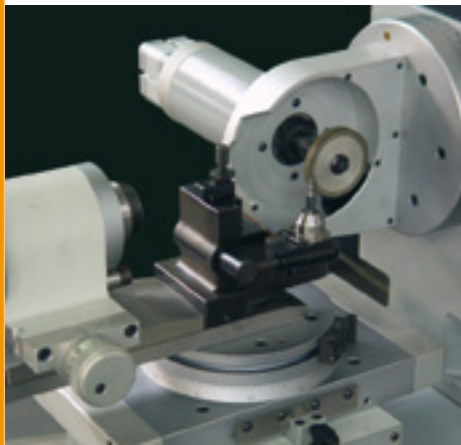
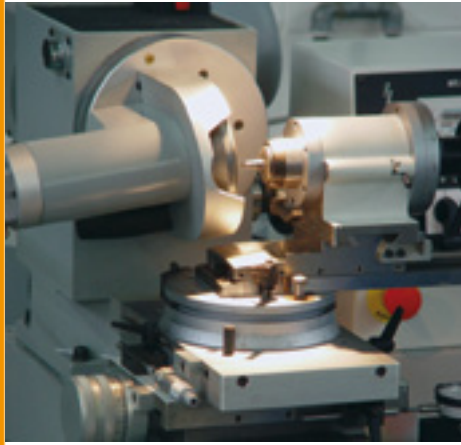
Specially designed for producing cutters of any convex profile, both symmetrical and asymmetrical, with any size tip radius down to as low as 0,05 mm, with accuracy better than 5  $\mu\text{m}$ , perfect continuity along all cutter profiles and with lapped surfaces giving roughness in the range of Ra 0,02.

Compact, vibration free structure ergonomically designed for ease of operation. A cabinet within the frame houses the grinding wheels and precision collets.

The grinding wheels are mounted on a special hub which has a centring boss with a wide front face and polar reference pin. This ensures repeatability and run-out of the grinding plane within 0,002 mm and allows bi-rotation of the spindle which is especially advantageous when finishing very small tips. A fast locking system of the wheel spindle, without the use of spanners, give quick change over. A large direct reading dial (180 mm dia) for the grinding wheel tilt movement gives accurate setting.

The main axis, cross axis and swivel movement of the spindle assembly are on preloaded rollers. The two upper movements are cast iron slides running on hardened steel guides. Movement is by a 45 mm dia micrometer dial through a hardened and ground screw.

The slides are manually blocked by



clamping steel strips so that no pressure is exerted on the slideways.

Movement of the lower cross slide is by a 70 mm dia micrometer dial through a hardened and ground screw. A special spring compensation device limits the grinding pressure between the tool and the wheel on heavy jobs and an adjustable gauge reads real displacement.

The lower longitudinal slide is moved directly by hand with micrometer stop adjustment.

The rotary base, mounted above the lower longitudinal slide, features a large reading dial with 0°, 90°, 95° erasable fix stop references and adjustable stop blocks for exact repetition of any desired cone angle.

The reading dial of the upper cross slide is exactly zeroed on the axis of the longitudinal slide.

The tool spindle is mounted on high precision oblique bearings and has two 0° - 180° fix stop points, with others every 30°, all excludable.

### Work strokes

Lower cross axis	80 mm
Lower longitudinal axis	120 mm
Upper longitudinal axis	60 mm
Upper cross axis	± 20 mm from centre line

### Other features

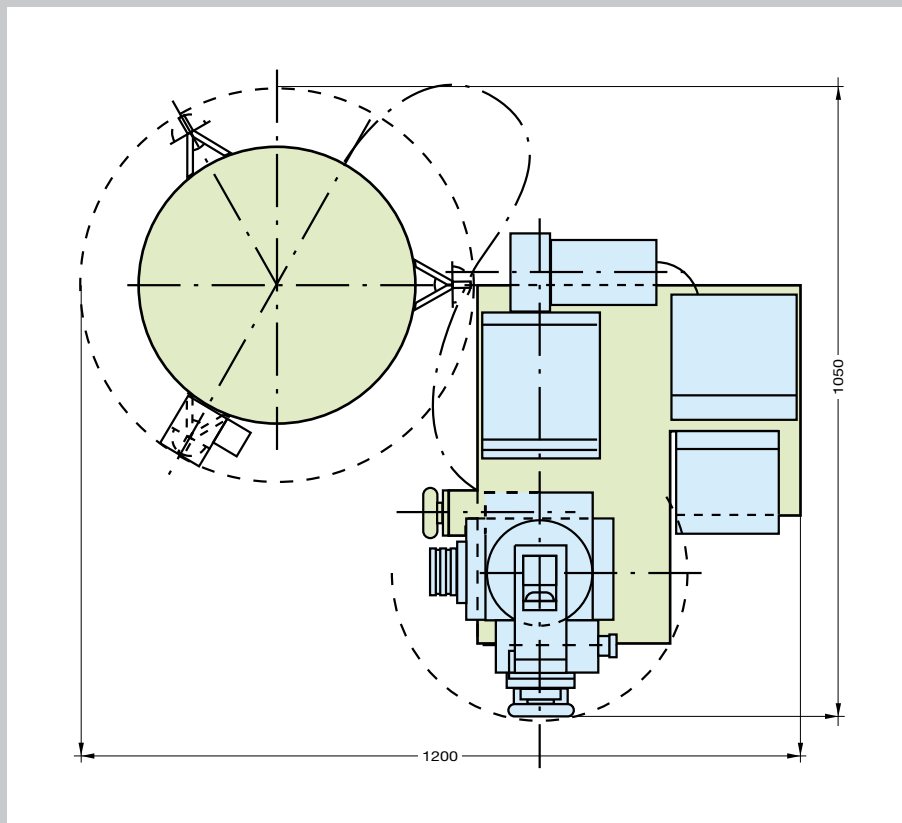
Grinding wheel diameter	125 mm
Tool diameter	18 mm
Installed power rating	1 kW
Wheel speed (2 directions)	1500 and 3000 rpm

### Standard equipment

- 1 Low voltage lighting
- 1 powerful vacuum extractor
- 3 Hubs for grindwheel

### Optionals

- Grinding wheels (rough, finish and lapping)
- Carborundum wheel for dressing the diamond wheels
- Accessory equipment for grinding two-lips tools
- Microscope
- Borazon wheels for HSS
- Special model for O-Ring tools



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