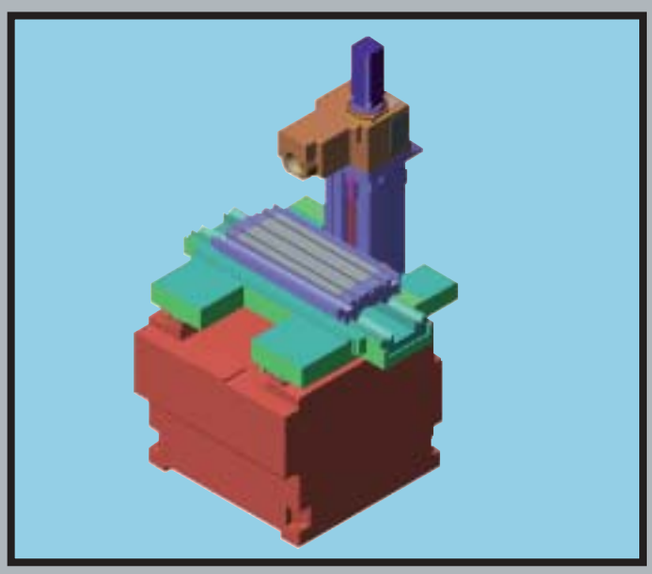

## The design principle of the JE series

Jung's legendary double V guide is custom-manufactured for each machine in special clamping fixtures. The production-specific mating principle of the machine base and the cross saddle results in a part which is unique in terms of mechanical precision.

| Installation data | JE 525 | JE 630 |
|---|---|---|
| Machine width | 3000 mm | 3000 mm |
| Machine depth | 2700 mm | 2700 mm |
| Max. height (depending on equipment) | 2240 mm | 2240 mm |
| Approx. weight | 2200 kg | 2500 kg |
| **Electrical data** | | |
| Voltage and frequency | 400V/50Hz | 400V/50Hz |
| Total power requirement | 13,5 kW | 13,5 kW |
| Fuse protection | 35 A | 35 A |

| Table | JE 525 | JE 630 |
|---|---|---|
| Size of magnet | 600 mm x 200 mm | 600 mm x 250 mm |
| Max. grindable workpiece surface, inc. wheel width 25 mm | 600 mm x 250 mm | 600 mm x 305 mm |
| Max. distance between table and centre of spindle | 495 mm | 490 mm |
| Mean load, incl. magnetic chuck | 100 kg | 130 kg |
| **Main spindle drive** | | |
| Three-phase motor / variable speed | 0 - 4200 rpm | 0 - 4200 rpm |
| Mounting taper | 01 : 16 | 01 : 10 |
| Drive power | 5 kW | 10 kW |
| Cutting speed (with variable-speed spindle) | 35 m/s | 35 m/s |
| **Grinding wheel** | | |
| Max. diameter | 250 mm | 300 mm |
| Max. width | 25 mm | 25 mm |
| Bore hole | 51 mm | 76.2 mm |
| **X-axis (table motion)** | | |
| Traversing speed for reciprocating grinding *(optional: 1000 - 32000 mm/min)* | 1000 - 24000 mm/min | 1000 - 24000 mm/min |
| Traversing speed for creep-feed grinding | 5 - 1000 mm/min | 5 - 1000 mm/min |
| Traverse path between mechanical limit positions | 660 mm | 660 mm |
| Working stroke | 630 mm | 630 mm |
| Input resolution | 0.0001 mm | 0.0001 mm |
| **Y-axis (vertical motion)** | | |
| Traversing speed | 0.1 - 2000 mm/min | 0.1 - 2000 mm/min |
| Traverse path between limit switches | 385 mm | 360 mm |
| Input resolution | 0.0001 mm | 0.0001 mm |
| **Z-axis (cross motion)** | | |
| Traversing speed | 0.1 - 2000 mm/min | 0.1 - 2000 mm/min |
| Traverse path between limit switches | 225 mm | 278 mm |
| Traverse path with V-JCE guard between limit switches | — | — |
| Input resolution | 0.0001 mm | 0.0001 mm |

*Data subject to change*

## Worldwide Service

The specialist staff in our sales offices and numerous agents around the globe provide competent advice and support in all questions relating to the evaluation, purchase and use of JUNG high-precision surface and profile grinding machines. Innovation and technical progress are today inseparable from qualified service. The JUNG service network embraces service locations all over the world, offering not only regular care and maintenance but also emergency assistance.

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Schleifring-Gruppe

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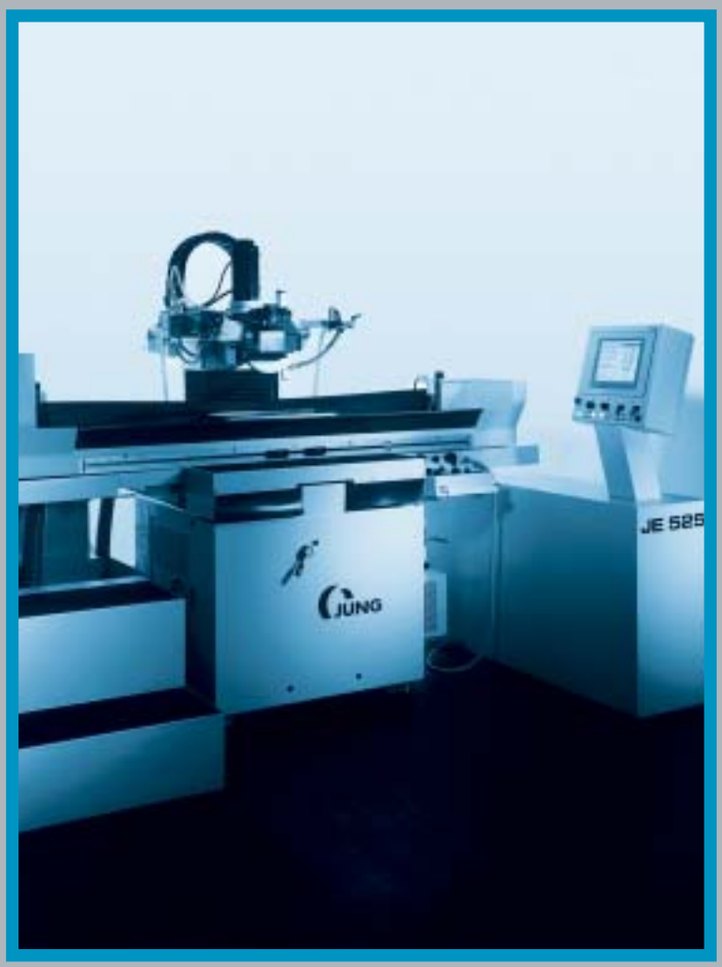
Published: June 2002

KÖRBER

# The JE Series




JUNG
Schleifring-Gruppe

Ever since the company's foundation in 1919, K. Jung GmbH has been one of the world's leading manufacturers of high-precision surface and profile grinding machines. Jung machines, which are renowned for their extraordinary precision, their state-of-the-art grinding technology and their exceptional durability, are in action in more than 50 countries around the world.

*Jung plant in Göppingen, Germany.*

**The History of K. Jung GmbH:**

**1919** Company founded in Berlin.
**1925** Presentation of the world's first hydraulic surface grinding machine.
**1945** Berlin plant completely dismantled.
**1948** Production commences in Göppingen.
**1962** Production of the legendary HF 50 series begins.
**1977** Presentation of the first numerically controlled machine in Germany.
**1983** Japan becomes Jung's biggest export market.
**1984** Presentation of the first machine with computerized numerical control.
**1992** Presentation of the first fully auto mated grinding centre.
**1996** Automatic high-speed grinding at up to 125 m/s becomes a reality.
**1998** All shares in K. Jung GmbH acquired by the Schleifring Group.

JUNG
Schleifring-Gruppe


**ADVANTAGES OF THE JE SERIES AT A GLANCE**

- **Grinding speed increased by 33%**
- **Unmanned grinding without CNC technology**
- **Dressing without setting up**

## Grind as others set up their machine

The new JUNG JE series is a machine type based on the proven JUNG design principle that explicitly caters for market demands for a high-precision, simple-to-operate surface and profile grinding machine.
The JUNG JE series makes incredibly light work of 80% of all grinding tasks. Surface grinding, grooving, profiling and table dressing with automatic compensation are no problem whatsoever. Linear scales for ultra-precise machining in the vertical and transverse axes round off the performance profile. In combination with the JUNG-optimized PA 37K 4-axis CNC dresser, which represents the latest state of the art in dressing technology, the JE series is the multi-talented star of your shop floor.

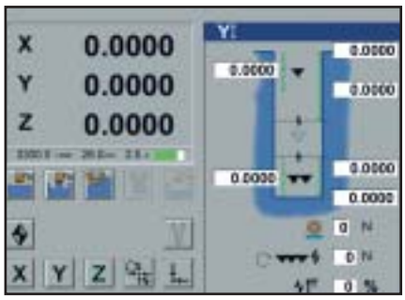
**Operation made easy with Easy Drive**

Control desk with two electronic handwheels and a joystick for fast axis positioning when setting up the machine. If necessary, two axes can even be positioned simultaneously. An override function allows the technology to be changed without interrupting the grinding or dressing cycle. Individual axis motions can be started and stopped independently of one another for unparalleled working flexibility.

# User-friendly concept in a class of its own

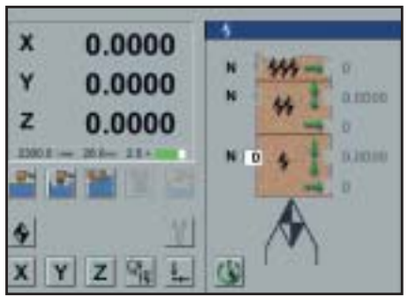
- Clearly arranged symbols and data makes child's play of the grinding operator's task
- 10.4" TFT flat color touchscreen monitor visualizes all control operations
- Language-neutral operator interface with self-explanatory symbols
- Positions entered in teach-in mode
- Simple mode allows even inexperienced ope rators to control the machine with ease
- Complex mode
- Automatic table dressing with compensation
- Variable grinding spindle drive
- Technology data stored in the controller
- Technology can be changed during the grin ding or dressing process
- Tool management
- Digital drive technology in the infeed axes

**OPTIONS: Transverse positioning plus creep-feed, stationary-plunge and face grinding**



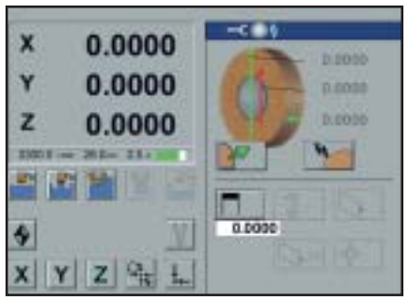

## Grinding geometry

Clearly structured input interface for simple positioning.



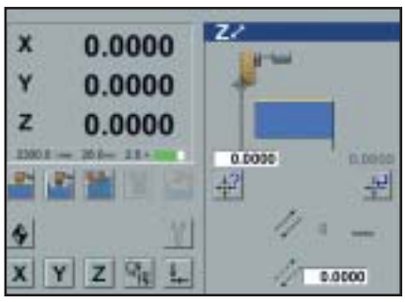

## Dressing technology

Technology data stored in the controller for very short setting-up times.



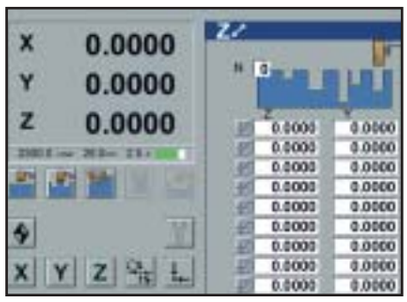

## Tool management

Data management for one wheel and one dresser.



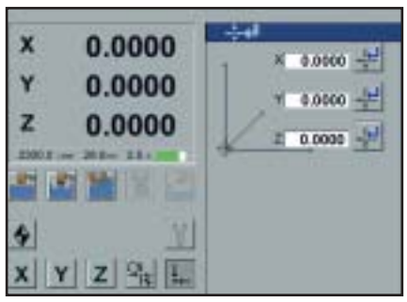

## Surface grinding

Only two input values needed for simple surface grinding.




## Grooving

255 regular spaces and 9 irregular spaces allowed with the grooving option.




## Teach-in

Positions entered fast thanks to the teach-in function.

# PA 37K
# A new profiling dimension

A more sophisticated version of the proven PA 31K, the new PA 37K offers even greater profiling flexibility.

You can choose between a 6x horizontal turret for six dressing diamonds and a rotating diamond wheel. Thanks to the new quick-change system, the two systems can be exchanged in a matter of minutes.

A unique **automatic diamond setup and gauging function** developed by JUNG reduces setting-up times to an absolute minimum and further strengthens your competitive edge.

The PA 37K is available either as a stand-alone version for the JE 5 and 6 series or as a retrofit version for the J series with a Siemens 840 controller.



## PA 37K - the new generation in CNC profile dressing

Automatic profile dresser comprising:
- Dresser with manual changer for turret with six single diamonds and dressing wheel
- Dressing arm integrated in the cover
- Electronic measuring unit with measuring stand

**Technical data in the dressing area:**

| | | |
|---|---|---|
| Profile width: | 50 mm | Profile depth, inside/outside: 20/30 mm |
| Contour precision: | +/- 0.0025 mm | |
| Traverse paths: | W-axis 55 mm / U-axis 60 mm / E-axis +/- 30° | |
| Dressing speed: | Max. 1000 mm/min. | |

**Software:**
Tool management for 100 grinding wheels + 30 dressers, 6x diamond changer, Siemens 840 D dressing controller with 4 axes, 10.4" TFT flat color monitor for visualizing all control operations, operator interface in German or English, other languages available on request. Modem link to teleservice engineers for fast fault diagnosis.

### 6x horizontal turret

Turret for six dressing diamonds (shank Ø 9.52 mm), including six A-FDIA 10 dressing diamonds.

### Diamond wheel

Rotating diamond wheel with a diameter of 130 mm.

### Sensing probe

Electronic measuring unit for automatic gauging and correction of diamond eccentricity.

The most important applications of Jung machines are in such areas as microelectronics, mouldmaking and the production of plug-in electric contacts. Whereas in one situation a satin finish might be demanded, other tasks insist on contour precision down to a few microns. All Jung machines share the same innovative dynamism as well as an ability to master the most complex of manufacturing challenges. Jung machines have been renowned for these qualities for several generations and enjoy a worldwide reputation for their dependability in complying with the toughest requirements.

## Cross saddle scraper

The machine table is scraped up to the ground guideways in the longitudinal axis in order to match the guide systems mechanically to each application. The combination of the Jung team's technical skill and extensive experience guarantees that Jung machines are absolutely precise during this phase of the manufacturing process.

*Jung hydraulic system*

*Diving column*

## Jung's technological potential: spindle - hydraulic system - diving column

These three important components of every Jung machine all have one thing in common - they facilitate absolute micron precision during the grinding process. The Jung spindle, which is manufactured in-house, ensures optimum concentricity and balance characteristics. The Jung hydraulic system establishes a defined thermal state in the upper guide area - essential for mastering the double V guide systems. And the diving column principle developed by Jung results in perfect infeed/guiding precision, thanks to the mechanical link to the machine base.