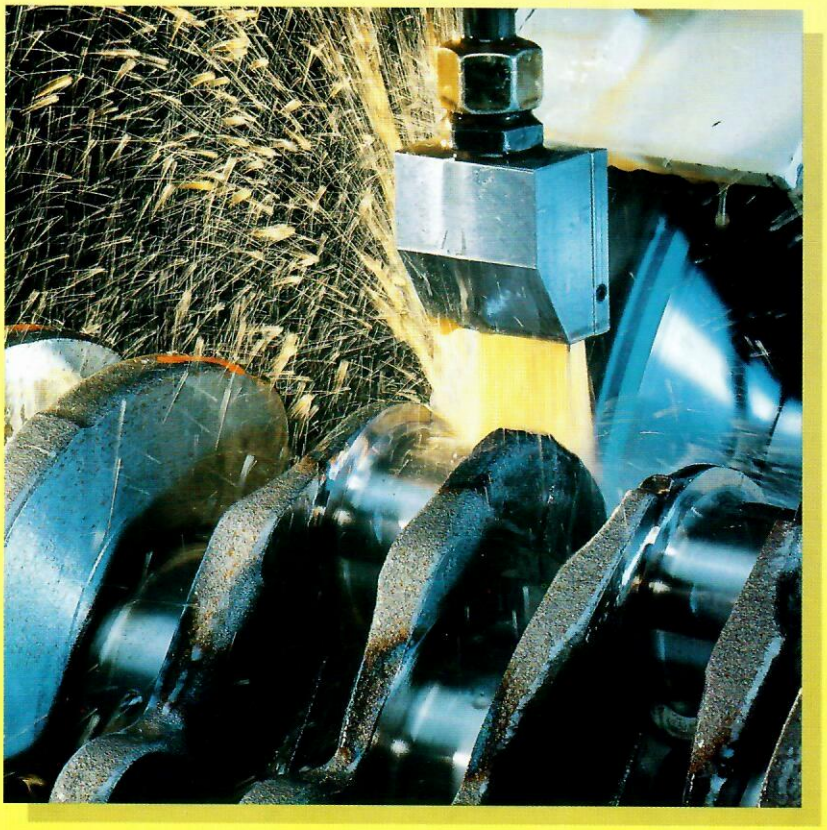
# Jucrank 5002

## *Reciprocating grinding with "CBN" in high speed*



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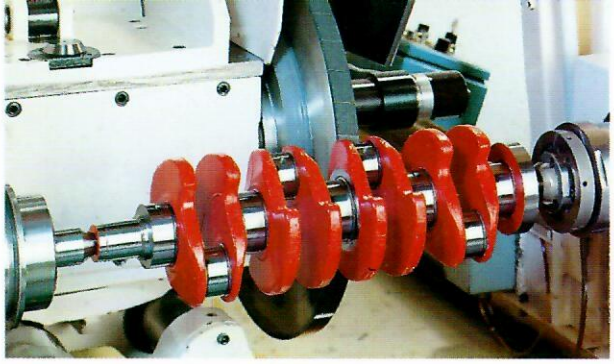


*Pict. 1: Jucrank 5002 grinding cell with 4 cylinder crankshaft in operation grinding of pin bearing.*

# Competitive ad
# new ideas conc
# finish grindin

## The machine

Jucrank 5002 CNC is designed for complete grinding of crankshafts in one chucking. Grinding is done in high speed by CBN grinding wheels. Plunge-cut grinding and grinding by oscillation (for cylindrical pin bearings and main bearings) are standard.

The performance of this high-tech machine concept is suitable for the fully-automatic production process.

Compared to conventional grinding, the Jucrank is more effective and cost-saving.
– Be sure to invest in the trend-setting JUNKER technology.

## Solutions to every grinding problem

Almost any grinding problem on all kinds of crankshafts can be solved by the Jucrank machine concept.

For example rough or finish grinding of:

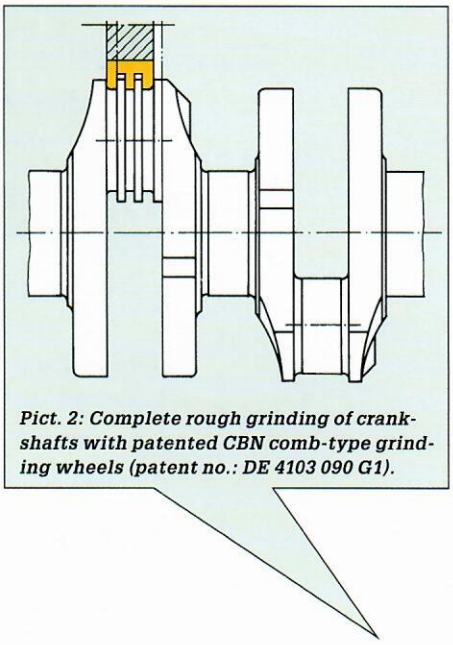
1. Pin bearing
2. Pin bearing and main bearing (with cylindrical, concave or convex forms).
3. Pin bearing and main bearing as well as thrust face, post end and journal completely in one chucking with two grinding wheels (depending on the crankshaft geometry).

Be sure to make use of the JUNKER specialists' experience when it comes to the configuration of your machine.

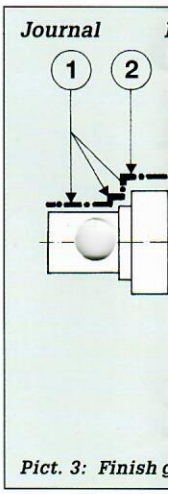
## Our lead

- higher removal capacity
- improved and secured product quality of roundness and straightness as well as of angularity.
- stabilized dimensional accuracy and surface quality.
- tighter tolerances.
- minimized grinding tool costs (thanks to use of CBN).
- considerably reduced production times.
- less handling costs for several machines.
- saving of production space.

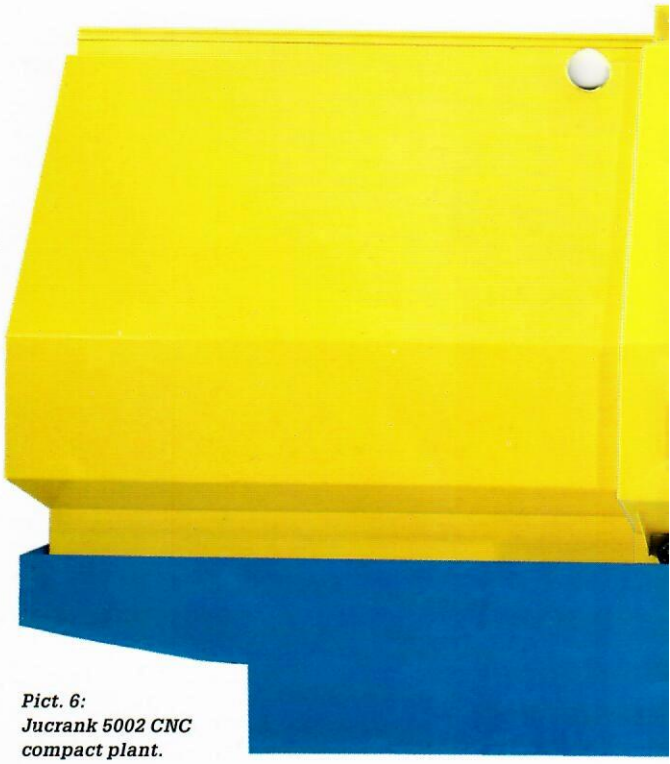
## Examples of our peal



*Pict. 2: Complete rough grinding of crankshafts with patented CBN comb-type grinding wheels (patent no.: DE 4103 090 G1).*



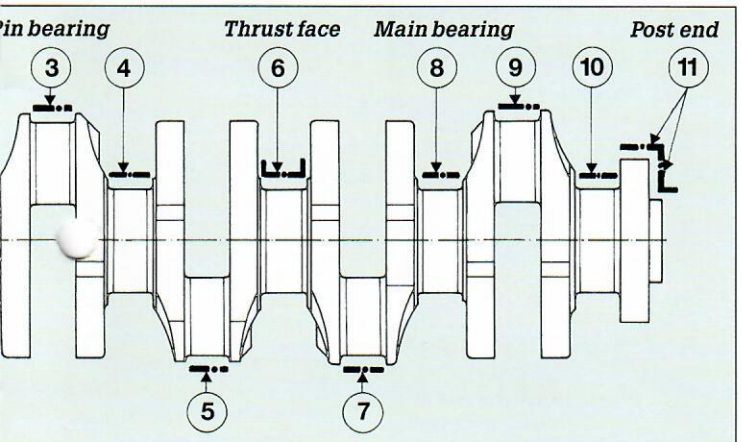

*Pict. 3: Finish g*



*Pict. 6: Jucrank 5002 CNC compact plant.*

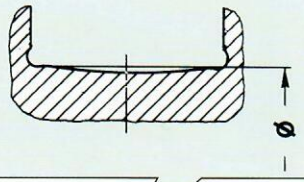
# vantage thanks to
# erning rough and
# g of crankshafts

## k performance at a glance

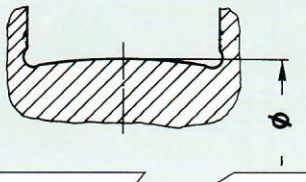



rinding of a 4 cylinder crankshaft on the defined pos. 1 – 11.

Pict. 4: **Shape of pin bearing**
*(cylindrical, concave or convex)*




Pict. 5: **Shape of main bearing**
*(cylindrical, concave or convex)*




## CNC control – the fastest way

The CNC 3-axes Jucrank 5002 is equipped with the latest high-tech control. Its structure opens new horizons for the complete grinding of crankshafts.

## Loading system

The loading and unloading of the workpieces for the semi or fully automatic production process is determined in accordance with the customer.

JUNKER can optionally offer different solutions.

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# Technical Data

## Workpiece

| | | |
|---|---|---|
| - Circumferential diameter: | | (larger on request) |
| - Clamping length: | mm | 1100 |
| - Reciprocating movement: | | programmable |

## CNC-controlled axes

| | |
|---|---|
| - Grinding wheel advance: | X-axis |
| - Longitudinal table movement: | Z-axis |
| - Workpiece rotation: | C-axis |

## Grinding wheels

| | | |
|---|---|---|
| - Grinding method: | | High-speed grinding |
| - Abrasive: | | of CBN |
| - Grinding wheel: | | One wheel or a set wheels |
| - Grinding wheel ø: | mm | max. 550 |
| - Grinding wheel width: | | variable |
| - Balancing (option): | | automatic/electronic |

## Grinding spindle

| | |
|---|---|
| - Jukomet high-speed grinding spindle: | max. 2<br>with patented 3-point fixture system |
| - Drive power: | variable |

## Workhead

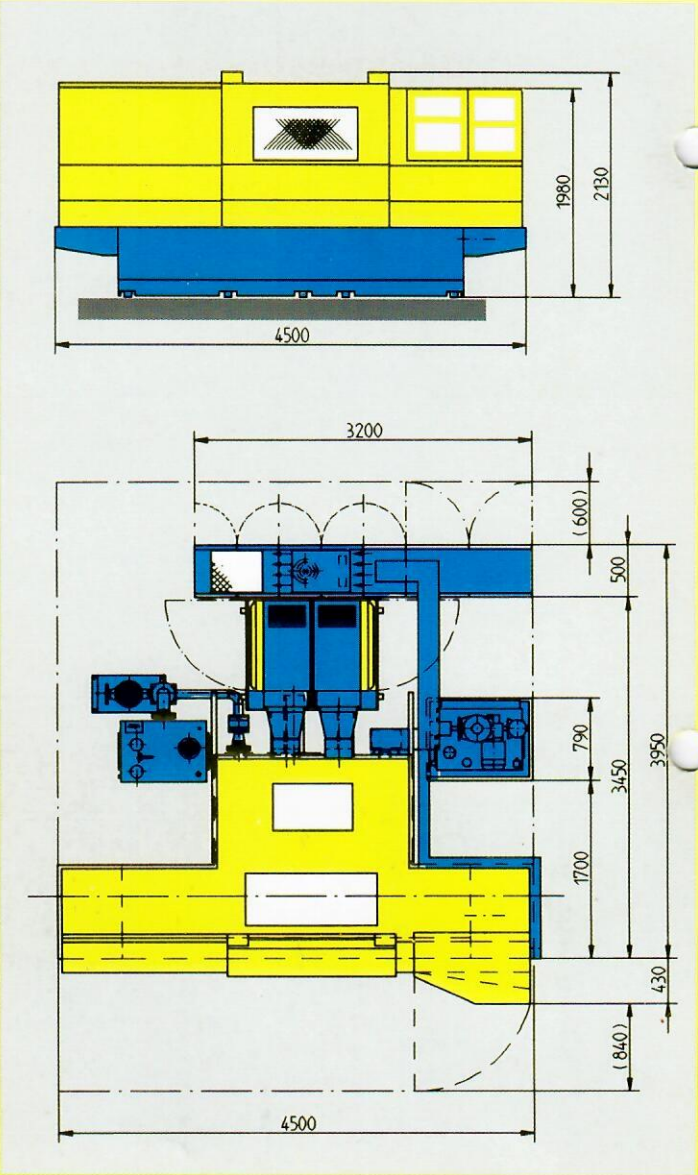
| | |
|---|---|
| - Jukomet workpiece spindle: | with patented 3-point fixture system |
| - Clamping chuck: | depending on the workpiece |

## Tailstock

| | |
|---|---|
| - axially adjustable: | for setting different workpiece lengths |
| - Tailstock sleeve: | live |
| - Clamping pressure: | hydraulic, variable setting |

## Space requirements Jucrank 5002

| | | |
|---|---|---|
| Weight of the machine: | kg | 11 000 |




We reserve the right to modify when serving the technical progress.
Texts and pictures do also show options.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