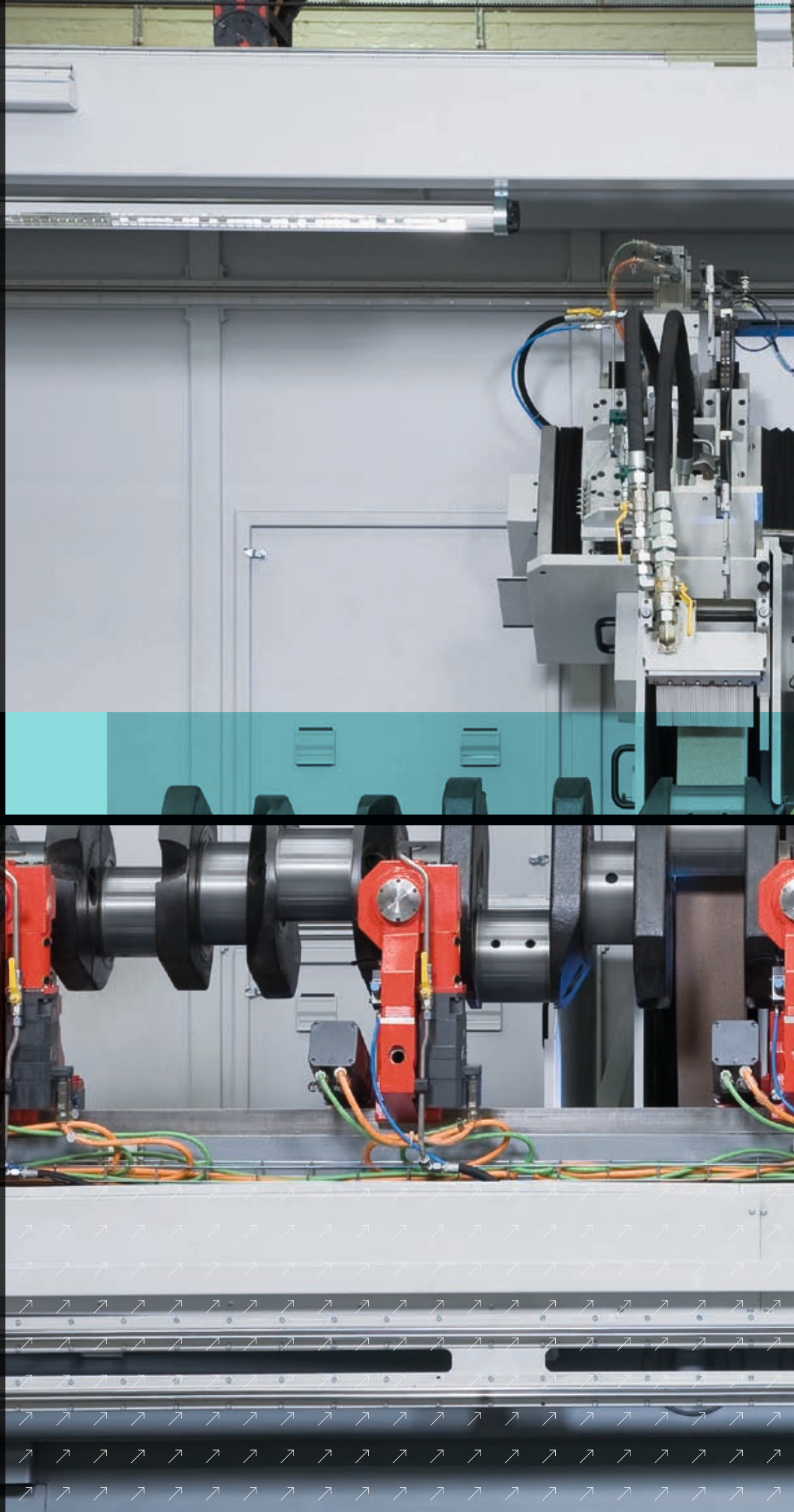


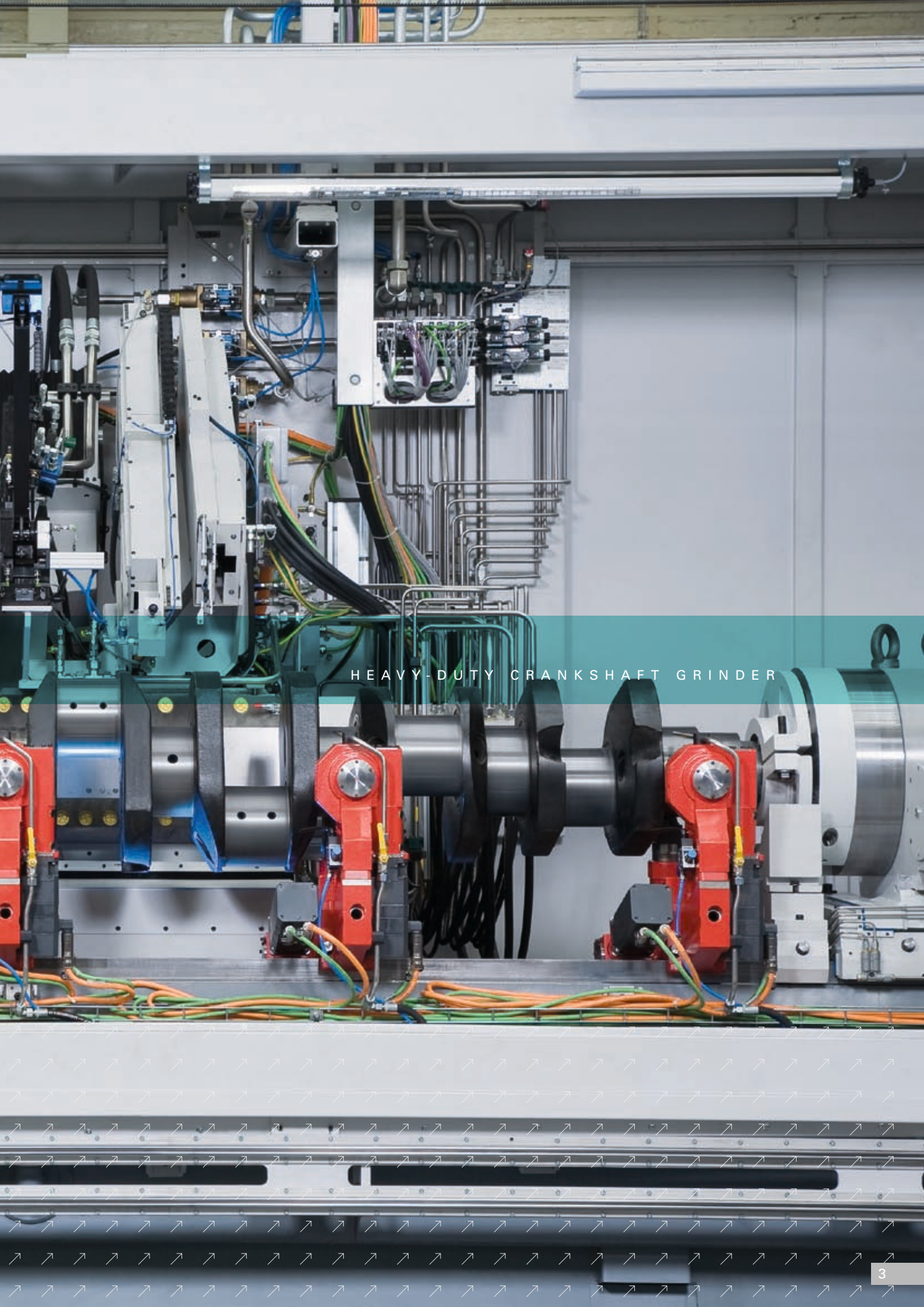
Heavy-Duty  
Crankshaft Grinders  
PM 430  
PM 460



A world first:  
Pendulum grinding of heavy-duty crankshafts. Grinding of main and pin bearings on one machine, using conventional corundum or CBN grinding wheels. High productivity rates and great flexibility. Fully automatic, semi-automatic or manual grinding processes. A new generation of grinders with all the features of cutting-edge grinding technology.

P M 4 3 0  
P M 4 6 0





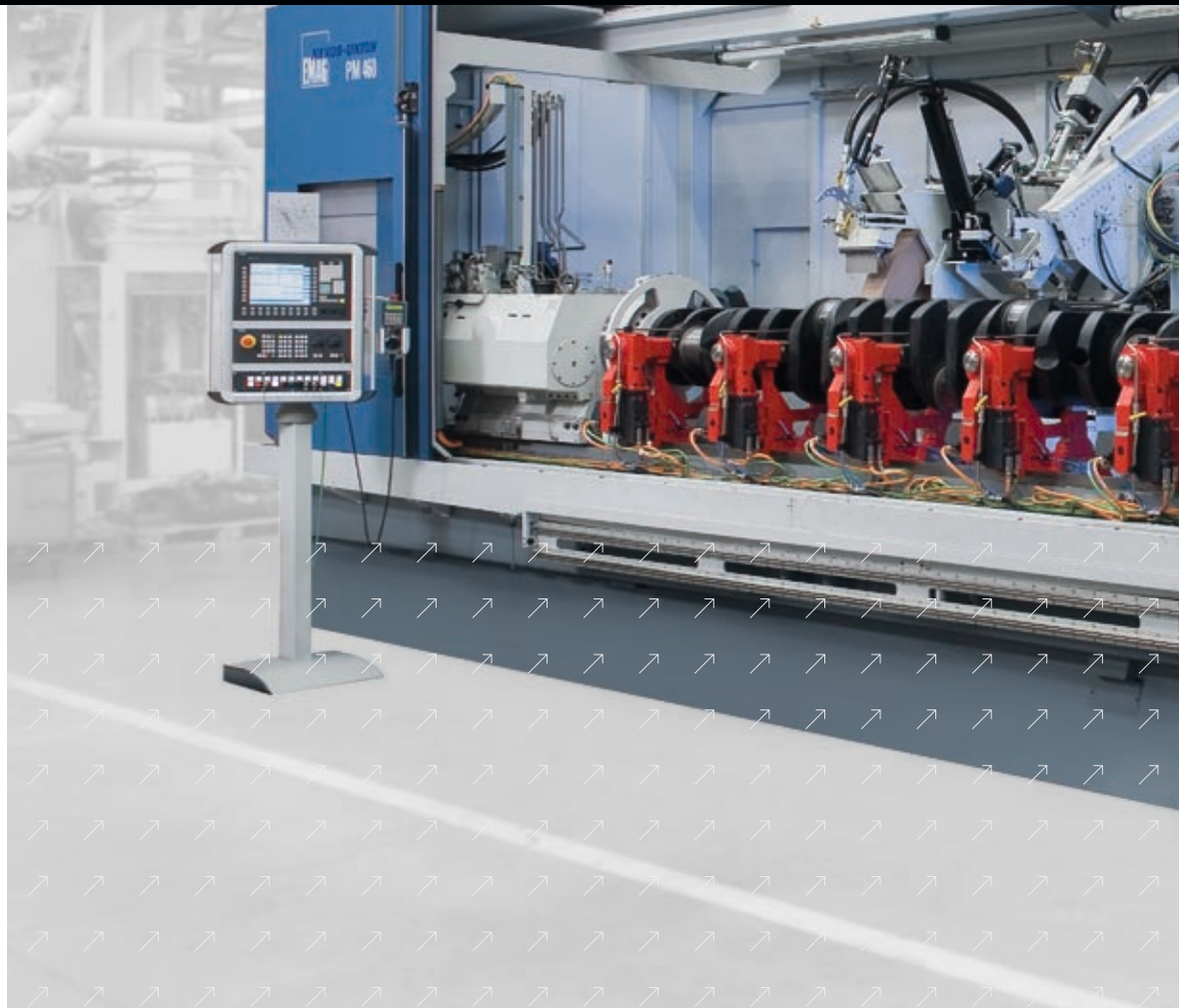
HEAVY-DUTY CRANKSHAFT GRINDER

## Series PM 430 / 460.

The PM 4 series machines feature linear motors and hydro-static guideways in X- and Z-axis, making them highly dynamic and guaranteeing excellent grinding results. The workpiece is driven from both ends, using either drivers or hydraulic chucks, depending on the application. The work spindle is directly driven by a torque motor.

The grinding spindle is designed as a motor spindle with a maximum power rating of 100 kW. Higher torque rates are achieved with an optional auxiliary motor and belt-based speed transmission. All operator interfaces are easy to use, allowing for quick workpiece changeovers and resulting in high output rates. The machine is completely enclosed and features automatic front doors that provide exceptionally easy access to the machining area.

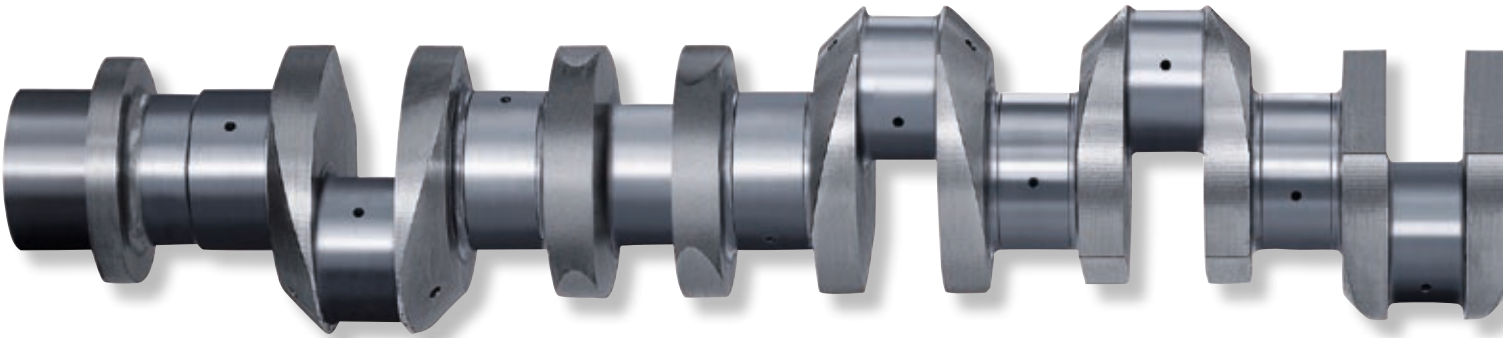
P M 4 3 0  
P M 4 6 0





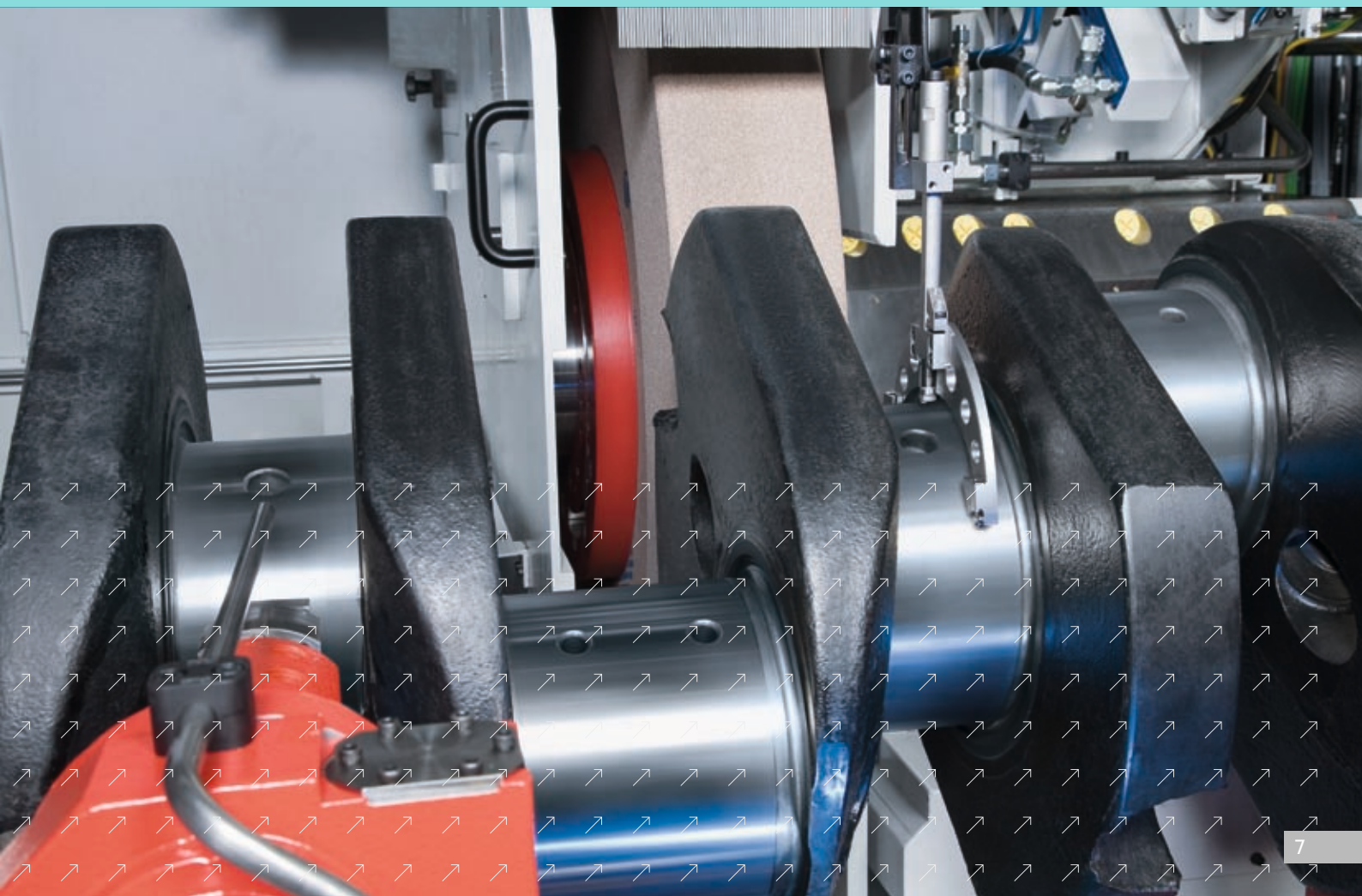
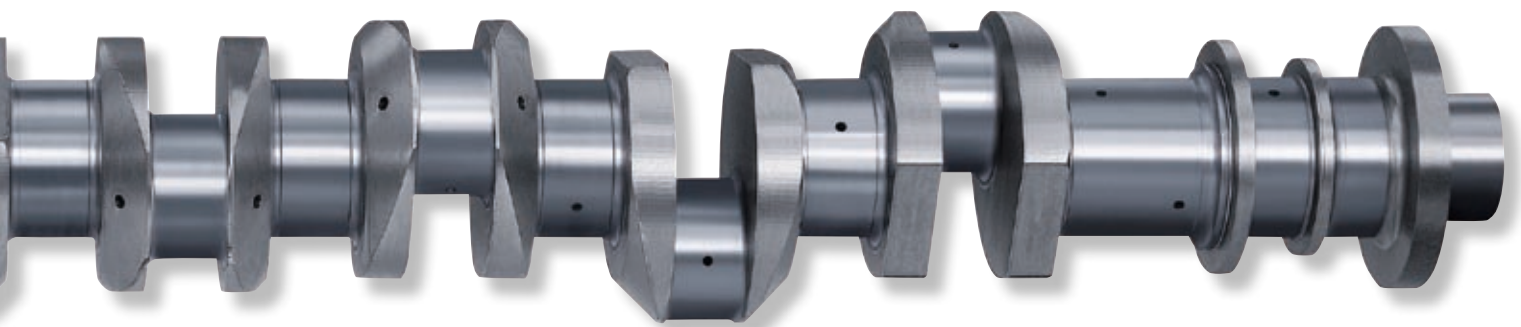
## Quality – productivity – flexibility.

- In-process diameter gauging for highest possible precision and to carry out roundness checks on the machine
- Universal axial and radial alignment of the shaft prior to grinding, to ensure highest possible component quality and maximum flexibility
- Exceptionally rigid twin-axis NC steady rests with force transfer into the work table, offering optimal support and maximum stock removal rates



P M 4 3 0  
P M 4 6 0





## Technical Data.

| Capacity                                     |            | PM 430 | PM 460        |
|--|------------|--------|---------------|
| Workpiece length, max.                       | mm         | 3,000  | 5,500 / 6,800 |
| Workpiece weight, max.                       | kg         | 5,000  | 5,000         |
| Swing diameter, max., with corundum wheel*   | mm         | 750    | 750           |
| Swing diameter, max., with CBN wheel*        | mm         | 500    | 500           |
| Stroke radius, max.*                         | mm         | 175    | 175           |
| Grinding center above bottom edge of machine | approx. mm | 1,470  | 1,470         |
| Main bearing diameter, max.                  | mm         | 300    | 300           |

### Grinding wheels

|                           |     |                          |       |
|---------------------------|-----|--------------------------|-------|
| Diameter, corundum wheel* | mm  | 1,400                    | 1,400 |
| Diameter, CBN wheel*      | mm  | 900                      | 900   |
| Width, max.               |     |                          |       |
| – corundum                | mm  | 200                      | 200   |
| – CBN                     | mm  | 80                       | 80    |
| Cutting speed, max.       |     |                          |       |
| – corundum wheel          | m/s | 45                       | 45    |
| – CBN wheel               | m/s | 125                      | 125   |
| Coolant                   |     | emulsion or grinding oil |       |

### Drives

|                               |       |                      |         |
|-------------------------------|-------|----------------------|---------|
| X- and Z-axis                 |       | SIEMENS linear motor |         |
| Feed force in X / Z           | N     | 5,190                | 5,190   |
| Rapid traverse speed in X / Z | m/min | 25 / 15              | 25 / 15 |

### Control system

SIEMENS 840 D

### Weights and measurements

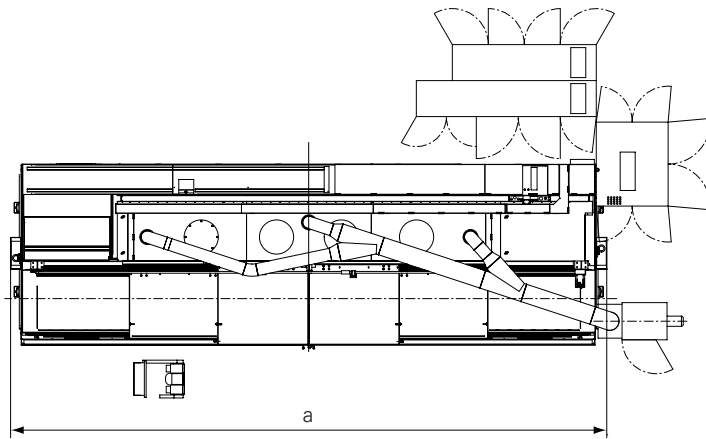
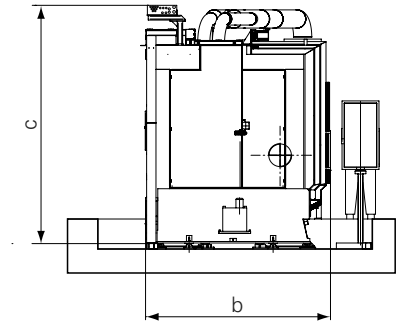
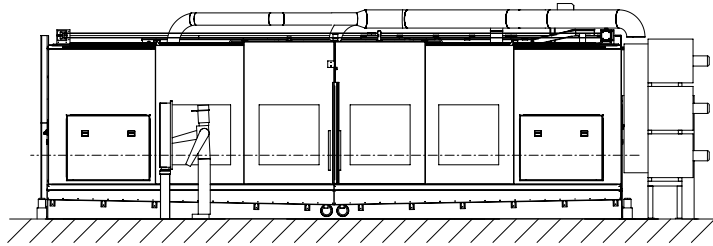
|          |    |        |                 |
|----------|----|--------|-----------------|
| Length a | mm | 7,550  | 9,950 / 12,000  |
| Width b  | mm | 3,100  | 3,100           |
| Height c | mm | 4,000  | 4,000           |
| Weight   | kg | 38,500 | 41,000 / 50,000 |

\* Individual case checks required, taking into consideration workpiece geometry as well as back rest and pin chasing aspects.



## Floor plan PM 430 / PM 460

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Subject to change without prior notice

# At home in the world.

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