We follow a deep tradition of machine-tool production. X-Solution means a lot of new options, which is reflected in the standard equipment of whole system. It is based on a touch screen, intuitive interface and dialog type program making with sophisticated grinding cycles for different workpieces.

### Standard function
- Dialog type program making
- 10" touch screen
- 2 base grinding cycles for surface
- 4 base cycles for grooves grinding
- 3 cycles for grinding of stairs type workpieces
- 3 grinding cycles for T-shapes
- Rough grinding
- Fine grinding
- Wheel spark-out
- Re-grinding function to final exactly dimension

### Solution
- Faster program creation in few steps
- Reduction of time delays
- Intuitive and easy operation
- Sophisticated system management

#### Technological information
- Time and Date
- 10" touch screen
- MPG s
- Table type
- User friendly
- Ready for
- Effective
- Flexible

### Specification

**Table type**

<table>
<thead>
<tr>
<th>Type</th>
<th>BP-5090</th>
<th>BP-6010</th>
<th>BP-6020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. cross x longitudinal travel</td>
<td>640 x 1100</td>
<td>640 x 1550</td>
<td>640 x 1800</td>
</tr>
<tr>
<td>Spindle center height from table</td>
<td>700 mm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grinding surface of table</td>
<td>640 x 1000</td>
<td>640 x 1350</td>
<td>640 x 1600</td>
</tr>
<tr>
<td>Table speed in longitudinal axis</td>
<td>1-21 m/min</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hydraulic motor (XK only)</td>
<td>1.240 mm/min</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Working feed</td>
<td>0.055 mm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MPG step feed</td>
<td>0.002-0.01 mm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grinding-wheel dimension</td>
<td>(F x S x H) standard 50/50/150 mm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grinding wheel cover dimension</td>
<td>Standard: 450 x 315 mm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Max. height from table top to bottom of standard wheel</td>
<td>Stepless speed change 2400 rpm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spindle motor</td>
<td>71/11 kW</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spindle speed</td>
<td>3.7 - 47.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Machine net weight</td>
<td>650 kg</td>
<td>6100 kg</td>
<td>7500 kg</td>
</tr>
<tr>
<td>Machine gross weight</td>
<td>8000 kg</td>
<td>12000 kg</td>
<td>15000 kg</td>
</tr>
</tbody>
</table>

### Surface Grinding Machines

For effective flat and shapes grinding.
New grinding standard

Surface grinders series BP are based on many years of experience the company M-MOOS with the overhauling and modernization of grinding machines for automatic production. They are designed for efficient and precise grinding of flat and contoured surfaces. The overall machine concept follow the company philosophy: To provide modern grinding machines and technologies that will meet the requirements of industrial production in the 21st century.

Key features
- Intuitive and simple operation
- Fast dialog type programming
- Sophisticated and easy cycles
- Re-grinding to precise dimensions
- Solid cast-iron construction machines
- V-V Guideways guarantee high precision
- Wide range of standard equipment
- Comfortable operation and maintenance

Grinding machines using

The high level of automation and precision predetermines surface grinders M-MOOS to use in many fields of automotive, aerospace, for manufacturing tools and molds, and also in the global engineering industry. A wide variability allows to create customer-oriented programs and turn-key technology for each customer. This system doesn’t require any basic programming knowledge or ISO code, even when the complex shapes are grinded.

Minimum vibration

The main feature are hand scraped V-V guideways in longitudinal and cross axis. This type of guideway perfectly absorbs vibrations and provides a high linear accuracy. Length of guideways surfaces are proportioned to the length of travel worktable so there is no twisting or floating of workbench.

High precision spindle

Our tested guarante of spindle run out is up to 0.0015 mm. The high precision preloaded roller thrust and radial bearings ensure minimum spindle runout. A special lubricant and extremely high-quality bearing seals provide a long-term durability.

Ball screw with higher accuracy

Standard machine version used servomotors for driven cross and vertical axis. The each axis is equipped with precision ball screws of Czech manufacturer KSK, which provide a long-term working accuracy.

High accuracy

Cross and vertical axis is fitted by linear scales ESSA Prague with an accuracy of 0.001 mm, which ensures high positioning accuracy. Dust protection of scale is ensures by supply of compress air directly into the scale. The air is perfectly filtered through HEIDENHAIN DA 400, which provides filtration of particles less than 0.01 micron.

User friendly working area

The whole concept of grinders is strictly focused on user’s comfort. It means that all points include safety guards must be in accordance with comfortable operation. Therefore, after opening of front door, the sufficient space for workplace handling, setting, measuring or maintenance operations, is available. The standard equipment included a coolant gun with additional removable brush to keep working area clean. Operation of coolant gun, workplace coolant and rear flush is controlled from the operator panel through button and solenoid valve. 2 working lamps provide a perfect work illumination.

Comfortable operation

Rotary arm with 7 joints and a hinged panel about +/- 30° provides a variable adjustment according to the needs and physical condition of the operator. The short distance between front of sheet guard and table gives the operator a perfect overview about situation on display and in the working area simultaneously. All M-MOOS grinders used this type of panel. For a comfortable approach while adjusting operations the MPG EUCHNER is provided as a standard.

Time savings over conventional and NC grinding machines plane

High precision work is 0.005 mm over the whole surface of the table

10" touch screen and ergonomically placement of control elements ensure Easy and Fast operation

Achieving work precision is 0.005 mm over the whole surface of the table