INTERNAL, EXTERNAL AND RADIUS GRINDING MACHINE

IRD

DESCRIPTION

IRD series machines are ideal for high-precision internal, external, face, non-round and radius grinding applications for a wide range of materials (e.g. carbide, steel or ceramics).

The integration of a swivelling B0-axis for +91°/-15° axis and the X and Z axes (3 axis interpolation) enables different radius and contours to be ground with excellent surface quality.

The flexibility of this grinding machine enables it not only to grind forming tools and dies but also to machine workpieces for various industries such as bearings, ball valves, implants and much more.
### IRD RANGE

<table>
<thead>
<tr>
<th>Parameter</th>
<th>IRD-200</th>
<th>IRD-400</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. internal grinding diameter</td>
<td>100 mm</td>
<td>200 mm</td>
</tr>
<tr>
<td>Max. internal grinding length</td>
<td>100 mm</td>
<td>200 mm</td>
</tr>
<tr>
<td>Max. workpiece swing diameter</td>
<td>215 mm</td>
<td>360 mm</td>
</tr>
<tr>
<td>Max. workpiece length incl. clamping system</td>
<td>200 mm</td>
<td>400 mm</td>
</tr>
<tr>
<td>Max. workpiece weight incl. clamping system</td>
<td>40/45 kg/Nm</td>
<td>80/100//180/300 kg/Nm</td>
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<tr>
<td>B0-axis swivelling angle</td>
<td>+91º/-15º</td>
<td>+91º/-15º</td>
</tr>
<tr>
<td>X and Z axis stroke</td>
<td>400/200 mm</td>
<td>425/475 mm</td>
</tr>
</tbody>
</table>

### CORE TECHNOLOGY

**Natural granite machine bed**
- Machine bed made of natural granite, the optimal material for achieving the highest accuracy and the best surface quality.
- Natural granite offers considerable advantages over cast iron or polymer composites in terms of precision for many grinding applications.

**Linear motors**
- Linear motors ensure highly dynamic transmission of power. This means, for example, that precise results can be obtained in non-round grinding.
- Fast, precise movements assure the highest productivity and quality.
- No wear parts, maintenance-free.
- High precision through active cooling.

**Workheads**
- Danobat-Overbeck design, built in house components for highest precision and a long life.
- Modular designs for best application.
- Selected materials and designs for stable temperature performance.
- Easy integration of clamping cylinders.

**Grinding spindles**
- Top quality spindles.
- High-precision bearings with oil-air lubrication or constant lifetime grease lubrication.
- Selected materials for stable temperature performance, driven by a built-in motor.
- Cutting speeds automatically controlled with frequency drives.
- Independent temperature control and efficient liquid-cooling system.