Integration to the meaningful extent!

Robots for Bühler die casting cells.
The rugged construction of the proven ABB robots constitute the basic equipment of the BuhlRob systems. All units of Foundry Plus Version ensure trouble-free service of the cell in demanding everyday foundry operations.

Customer benefit through partial integration with the Datanet control system:
– Setup is based on the same operating philosophy, eliminating additional training costs.
– All messages and alarms required for operating the casting cell are available at the HMI of the Datanet system.
– The robot is controlled during operation from the operator terminal of the die casting machine.
– The diagnostic options of Datanet are available for the robot system.
– Compensation movements by monitoring of the biscuit thickness prevent collisions during component extraction and therefore interruptions of operation.

The following are standard programs:
– Extraction by biscuit gripper and checking for completeness.
– Component cooling in the cooling bath and depositing in the press and/or discharge to the chute.
– Functions or interfaces such as insertion, preheating, washing, etc. are additionally available.

Completely assembled equipment and complete programming are standard. This reduces start-up times.

The robot is supplied directly by ABB. The additional Bühler equipment is attached on site.

The cast components are extracted using a rugged biscuit gripper. It can be applied for different diameters. Special contour gripper solutions are possible.
Technical data – BuhlRob.
Robot – Model 2600F/20-1.65 + 4600F/45-2.05.

**BuhlRob. Model 2600F/20-1.65**

<table>
<thead>
<tr>
<th>Technical data</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of axes</td>
<td>6</td>
</tr>
<tr>
<td>Handling weight (gripper and load)</td>
<td>20 kg</td>
</tr>
<tr>
<td>Maximum reach</td>
<td>1653 mm</td>
</tr>
<tr>
<td>Programming</td>
<td>RAPID</td>
</tr>
<tr>
<td>Connected power</td>
<td>4.5 kVA</td>
</tr>
<tr>
<td>Interference contour robot (no gripper and load) (radius)</td>
<td>348 mm</td>
</tr>
<tr>
<td>Robot weight</td>
<td>272 kg</td>
</tr>
<tr>
<td>Dimensions of control cabinet (LWH)</td>
<td>725 × 710 × 970 (1370) mm</td>
</tr>
</tbody>
</table>

**Application of BuhlRob 2600F/20-1.65**

Suitable

**BuhlRob. Model 4600F/45-2.05**

<table>
<thead>
<tr>
<th>Technical data</th>
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</thead>
<tbody>
<tr>
<td>Number of axes</td>
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<tr>
<td>Handling weight (gripper and load)</td>
<td>45 kg</td>
</tr>
<tr>
<td>Maximum reach</td>
<td>2050 mm</td>
</tr>
<tr>
<td>Programming</td>
<td>RAPID</td>
</tr>
<tr>
<td>Connected power</td>
<td>7.8 kVA</td>
</tr>
<tr>
<td>Interference contour robot (no gripper and load) (radius)</td>
<td>400 mm</td>
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<tr>
<td>Robot weight</td>
<td>425 kg</td>
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<tr>
<td>Dimensions of control cabinet (LWH)</td>
<td>725 × 710 × 970 (1370) mm</td>
</tr>
</tbody>
</table>

**Application of BuhlRob 4600F/45-2.05**

Suitable under certain conditions

* Base height in mm

Technical design and data subject to change without notice.
Technical data – BuhlRob.

**BuhlRob. Model 4600F/40-2.55**

**Technical data**
- Number of axes: 6
- Handling weight (gripper and load): 40 kg
- Maximum reach: 2550 mm
- Programming: RAPID
- Connected power: 7.8 kVA
- Interference contour robot (no gripper and load) (radius): 400 mm
- Robot weight: 440 kg
- Dimensions of control cabinet (LWH): 725 × 710 × 970 (1370) mm

**Application of BuhlRob 4600F/40-2.55**

<table>
<thead>
<tr>
<th>Evolution</th>
<th>53</th>
<th>66</th>
<th>84</th>
<th>84L</th>
<th>90</th>
<th>90L</th>
<th>105</th>
<th>105L</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carat</td>
<td>105</td>
<td>105L</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**BuhlRob. Model 6640F/185-2.8**

**Technical data**
- Number of axes: 6
- Handling weight (gripper and load): 185 kg
- Maximum reach: 2800 mm
- Programming: RAPID
- Connected power: 13 kVA
- Interference contour robot (no gripper and load) (radius): 645 mm
- Robot weight: 1350 kg
- Dimensions of control cabinet (LWH): 725 × 710 × 970 (1370) mm

**Application of BuhlRob 6640F/185-2.8**

<table>
<thead>
<tr>
<th>Evolution</th>
<th>84</th>
<th>84L</th>
<th>90</th>
<th>90L</th>
<th>105</th>
<th>105L</th>
<th>140</th>
<th>140L</th>
<th>180</th>
<th>180L</th>
<th>220</th>
<th>220L</th>
<th>270</th>
<th>270L</th>
<th>320</th>
<th>320L</th>
<th>420</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carat</td>
<td>105</td>
<td>105L</td>
<td>130</td>
<td>130L</td>
<td>140</td>
<td>140L</td>
<td>160</td>
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<td>200L</td>
<td>220</td>
<td>220L</td>
<td>250</td>
<td>250L</td>
<td>280</td>
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<td><strong>Base height in mm</strong></td>
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</tbody>
</table>

* Suitable
* Suitable under certain conditions
* Track motion required

Technical design and data subject to change without notice.
Technical data – BuhlRob.
Robot – Model 6640F / 130-3.2. + 7600F / 150-3.5.

**BuhlRob. Model 6640F / 130-3.2**

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<tbody>
<tr>
<td>Number of axes</td>
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<tr>
<td>Handling weight (gripper and load)</td>
</tr>
<tr>
<td>Maximum reach</td>
</tr>
<tr>
<td>Programming</td>
</tr>
<tr>
<td>Connected power</td>
</tr>
<tr>
<td>Interference contour robot (no gripper and load) (radius)</td>
</tr>
<tr>
<td>Robot weight</td>
</tr>
<tr>
<td>Dimensions of control cabinet (LWH)</td>
</tr>
</tbody>
</table>

**Application of BuhlRob 6640F / 130-3.2**

<table>
<thead>
<tr>
<th>Evolution</th>
<th>Carat</th>
</tr>
</thead>
<tbody>
<tr>
<td>140 140L</td>
<td>180 180L 200 200L 220 220L 270 270L 320 320L 420</td>
</tr>
<tr>
<td>*300 *300 *400 *400 *600 *600 *800 *800 *1000 *1000 *1000</td>
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</tr>
</tbody>
</table>

**BuhlRob. Model 7600F / 150-3.5**

<table>
<thead>
<tr>
<th>Technical data</th>
</tr>
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<tbody>
<tr>
<td>Number of axes</td>
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<tr>
<td>Handling weight (gripper and load)</td>
</tr>
<tr>
<td>Maximum reach</td>
</tr>
<tr>
<td>Programming</td>
</tr>
<tr>
<td>Connected power</td>
</tr>
<tr>
<td>Interference contour robot (no gripper and load) (radius)</td>
</tr>
<tr>
<td>Robot weight</td>
</tr>
<tr>
<td>Dimensions of control cabinet (LWH)</td>
</tr>
</tbody>
</table>

**Application of BuhlRob 7600F / 150-3.5**

<table>
<thead>
<tr>
<th>Evolution</th>
<th>Carat</th>
</tr>
</thead>
<tbody>
<tr>
<td>270 270L</td>
<td>320 320L 420</td>
</tr>
<tr>
<td>*600 *600 *800 *800 *1000</td>
<td></td>
</tr>
<tr>
<td>250 250L 280 280L 320 320L 350 350L 400 440</td>
<td></td>
</tr>
<tr>
<td>*600 *600 *800 *800 *800 *800 *1000 *1000</td>
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</tbody>
</table>

**Suitable**  **Suitable under certain conditions**  **Track motion required**  *Base height in mm*

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Technical design and data subject to change without notice.