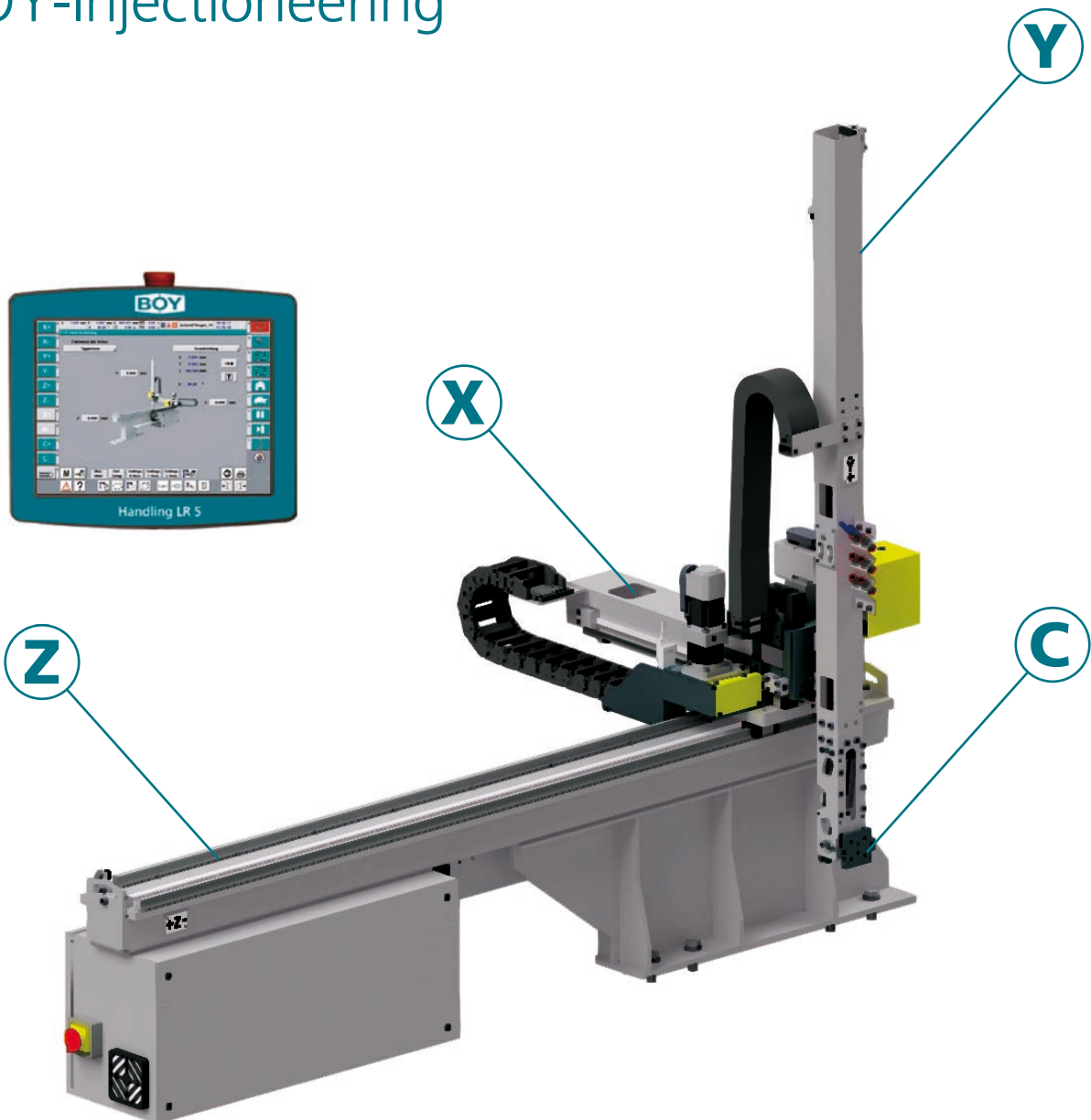
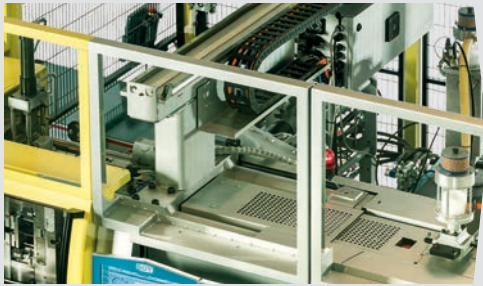


Innovative into the Future – BOY-Injectionneering



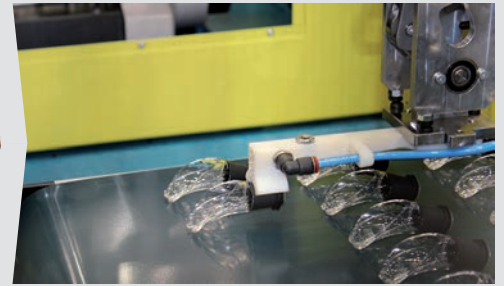
Handling LR 5



Assembly of the BOY-Handling LR5 onto the injection moulding machine



Mobile 10" terminal with cabled emergency operation and enabling switches



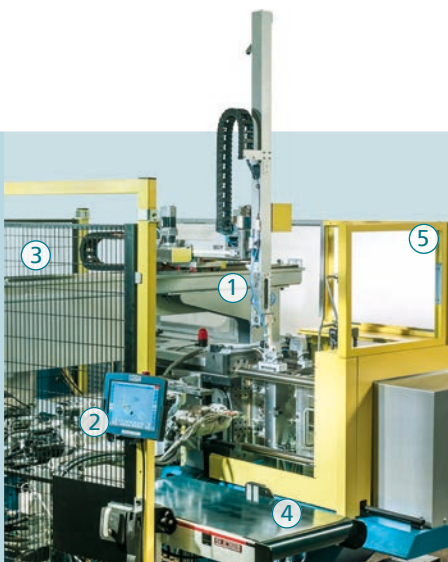
A gripper hand - turned around by 90° - places the moulded parts on a conveyor belt

The **BOY LR5** is a linear robot. This handling device is intended to **remove** and **separate** parts from the mould of an injection moulding machine or to **insert** semi-finished products into the mould.

The BOY LR5 has three **linear axes** as well as pneumatic **rotary-** and **swivel** axes. The linear axes are servo-motor-driven by a tooth belt. **Simultaneous movements** of the axes are possible. Grippers (not included in the scope of delivery) for the removal of moulded parts or gating parts are fixed at the pneumatic axes. Long-term measurements to determine the **repeatability of the position** evidence a deviation of the nominal target of **less than ± 0.1 mm** of the respective axes.

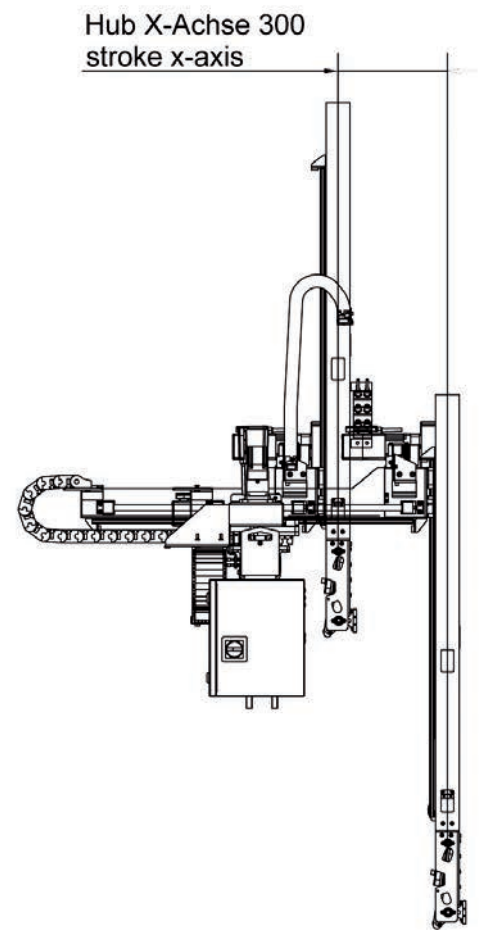
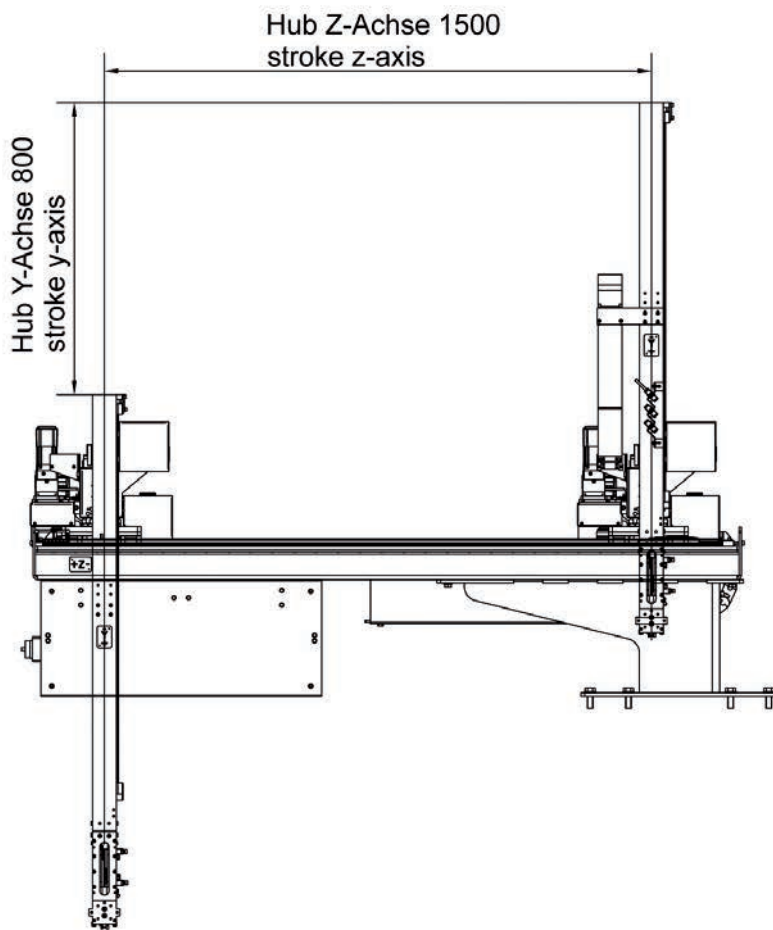
According to the valid **machine guidelines**, this handling system BOY LR5 is considered as an "incomplete machine part". The intended operation is therefore only possible in combination with an injection moulding machine.

If the handling LR5 is operated **without a BOY injection moulding machine**, the operator must observe the **binding standards** and **guidelines** (e.g. item 5 in the picture below).



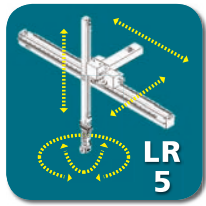
- 1 Five-axes-industrial robots in different axis lengths, positioned on the injection moulding machine.
- 2 10" TFT-Display Procan LR5 with graphical input function for an easy control /programming of the handling.
- 3 Protection fence from solid, powder-coated metal and monitored access door (option).
- 4 Optional conveyor belt with manual removal switch and reflex light barriers.
- 5 Individual protection housing, adapted to the moulding machine (option).

- Five-axes-industrial robot
- Integrated rotating and swivel function possible
- Load bearing capacities up to 5 kg
- Graphical programming



Effective load (part and gripper)	kg	max. 5,0
X-axis – demoulding stroke	mm	300 / 500
X-axis – speed	m/s	1.1
Y-axis – vertical stroke	mm	600 / 800 / 1000 / 800 Telescope
Y-axis – speed	m/s	2.0
Z-axis – stroke	mm	950 / 1100 / 1500
Z-axis – speed	m/s	1.5
Position accuracy	mm	< ± 0,1
C-axis – hinged axis		0° up to 90°
C-axis – pneumatic torque	Nm	24
B-axis		0° up to 180° adjustable
B-axis – pneumatic torque	Nm	2.2
Vacuum / Gripping function		2
Electric / Mechanic interface		EM 67 / EM 18
Connected load according to DIN IEC38		400 V AC, 50 Hz, 16A

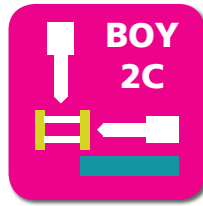
Italicized printed data are optional dimensions



Handling



Procan® LR 5



Multi-Component



Made in Germany

Equipment

Standard equipment of LR 5

- Three servo-motor-driven linear axes
- Position accuracy $\pm 0,1$ mm
- Complex CNC-multi axes movement
- Modern, intuitive 10.4" operation hardware
- Four freely programmable in- and outputs
- Pneumatic C-axis 0/90°
- Two vacuum circuits, alternative usable for gripper
- Documentation in German / English
- Warranty 24 months

Necessary preparation of the BOY moulding machine

- Safety- and interface package machine / handling including the common data storage and visualization on the screen of the BOY injection moulding machine (VNC)
- Mounting bracket to hold the LR 5
- Protective housing for the injection moulding machine

Options of LR 5

- Alternative axial-lengths and Y-telescopic axle for height reduction
- Alternative space-saving Z-axis longitudinal (instead of transverse)
- Additional gripper- and vacuum functions; expendable in summary up to 8 pneumatic circuits (e.g. for the control of peripheral equipment)
- Up to 8 additional free programmable Inputs / Outputs
- Pneumatic B-axis 0° to 180°, adjustable (Rotation around Y-axis)
- Conveyor belt devices; additional supply with 16 A CEE socket required; indication of the dimensions of the cutout area in the protective fence are absolutely necessary
- Conveyor belt control, manual-removal switch and reflex light barriers
- Protective fence for LR 5
- Documentation of other languages
- Commissioning of a production cell consisting of injection moulding machine, handling system and protection housing



Product Range

You would like to learn more about the BOY injection moulding machines?



Dr. Boy GmbH & Co. KG

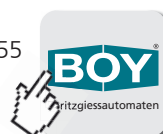
Industriegebiet Neustadt / Wied
Neschener Str. 6
53577 Neustadt-Fernthal
Germany

Tel.: +49 (0)2683 307-0

Fax: +49 (0)2683 307-4555

E-Mail: info@dr-boy.de

Internet: www.dr-boy.de



BOY-APP
free of charge at
<http://app.dr-boy.de>

