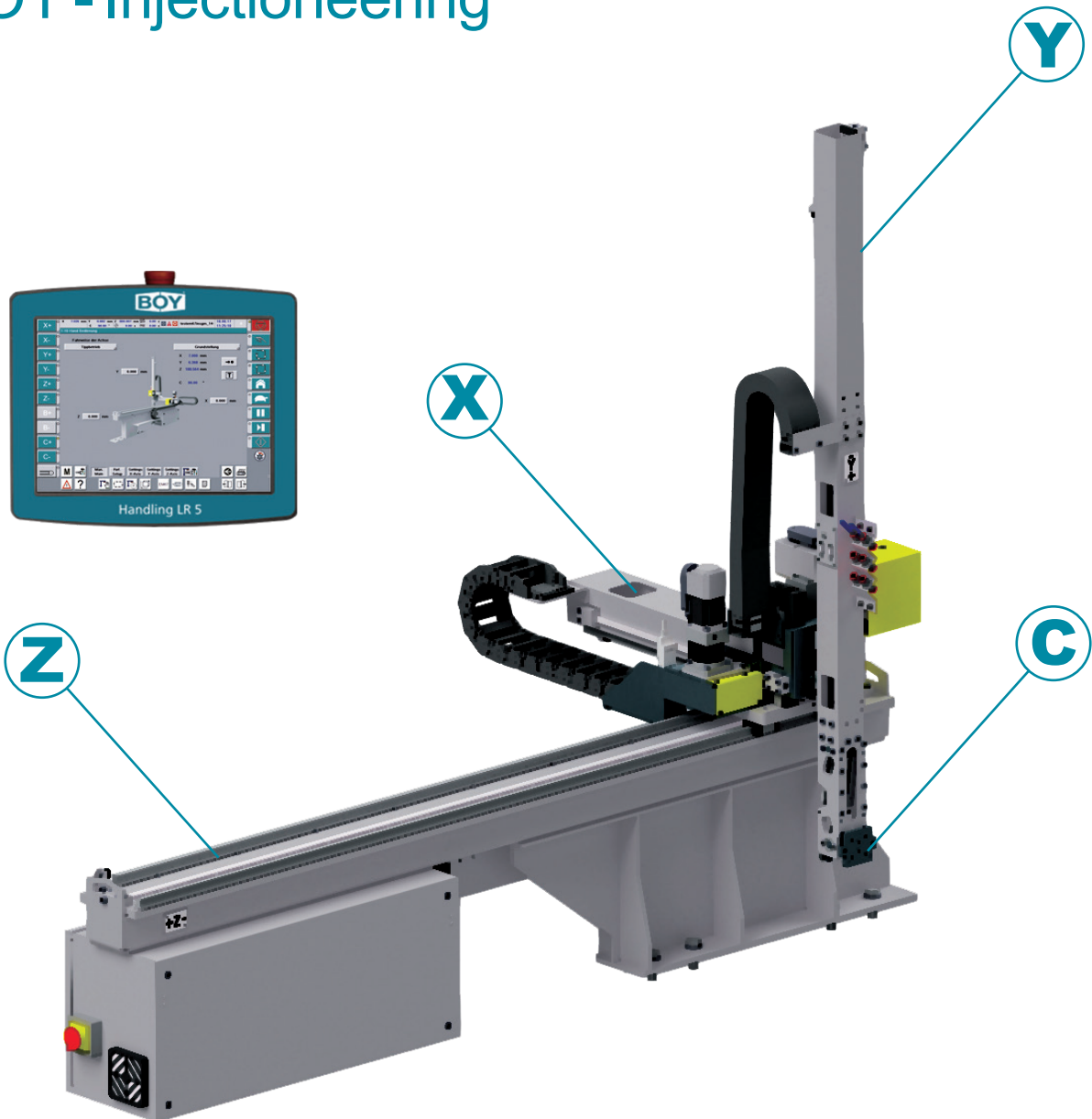
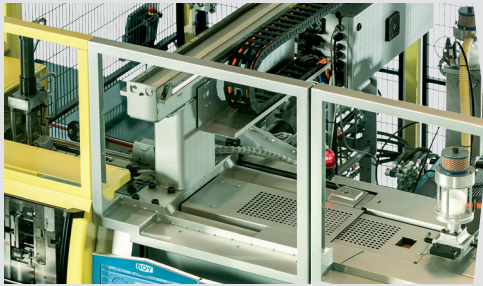


Innovative into the Future – BOY - Injectionneering



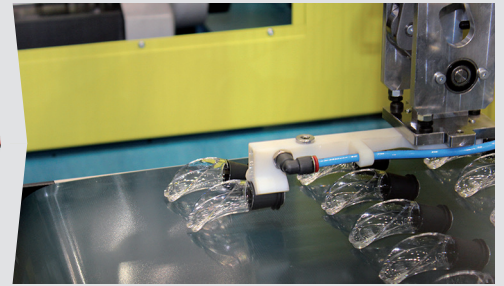
Handling **LR 5**



Assembly of the BOY-Handling LR 5 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.

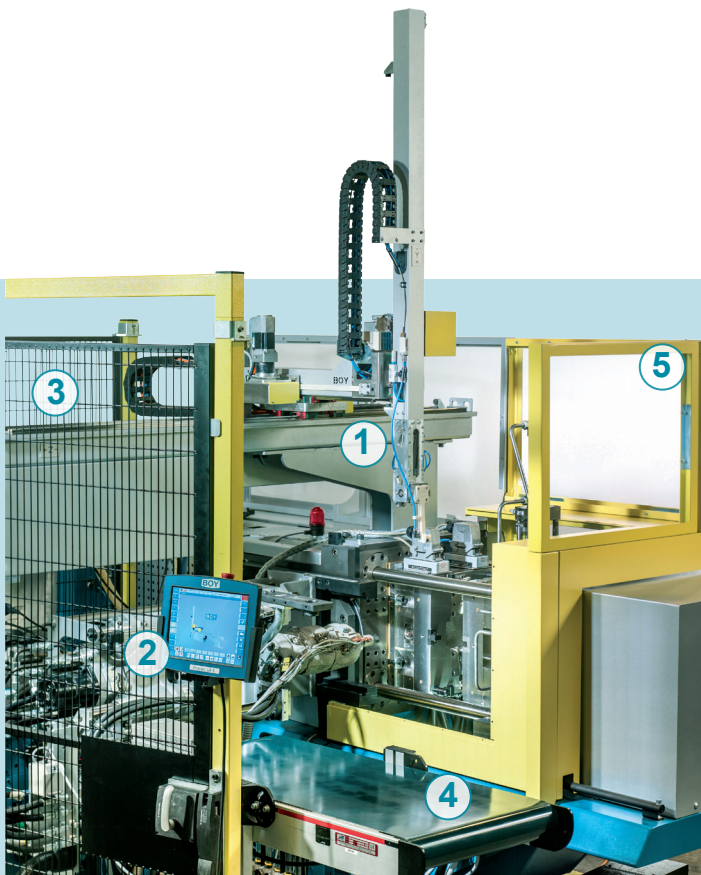
The BOY LR5 has three **linear axis** as well as pneumatic **rotary-** and **swivel** axis. The linear axis are servo-motor-driven by a tooth belt.

Simultaneous movements of the axis are possible. Grippers (not included in the scope of delivery) for the

removal of moulded parts or gating parts are fixed at the pneumatic axis. 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 axis.

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**.



- 1 Five-axis-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).



Standard configuration

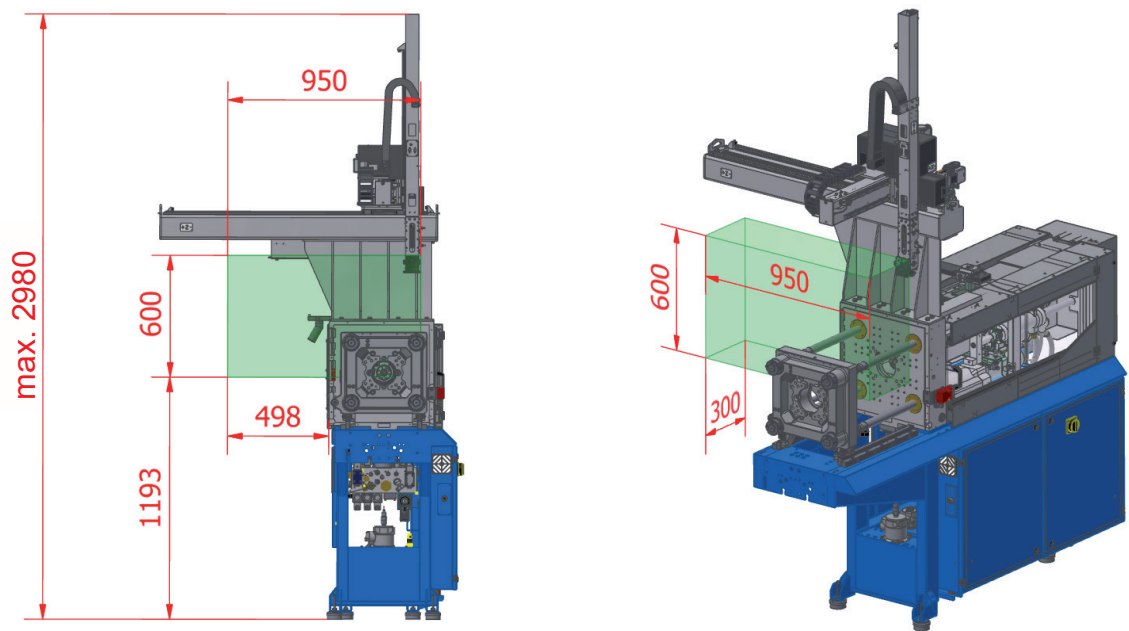
	BOY 35 E*	BOY 50 E - 125 E*	Speed or torque
X-axis (slide movement)	300 mm	300 mm	1.5 m/s
Y-axis	600 mm	800 mm	1.5 m/s
Z-axis	950 mm	1500 mm	1.5 m/s
C-axis (swing movement)	0-90°	0-90°	24 Nm

other models

	BOY 35 E*	BOY 50 E - 125 E*	Speed or torque
X-axis (axis movement)	300 mm	300 / 500 mm	1.1 m/s
X-axis (slide movement)	-	500 mm	1.5 m/s
Z-axis	400 / 800 mm	400 / 600 mm	1.5 m/s
Z-axis	1100 mm (with support bracket)	950 / 1100 / 1650 mm	1.5 m/s
Y-axis (telescopic design)	800 mm	800 mm	1.5 m/s
B-axis (rotary movement)	0-180°	0-180°	2.2 Nm

* incl. BOY Electric

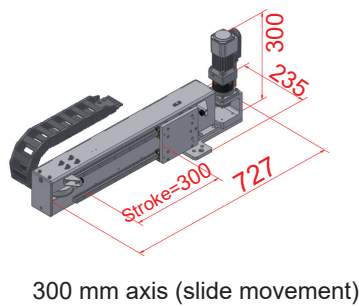
BOY 35 E with handling LR 5 – Standard configuration



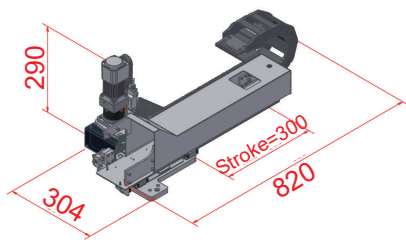
Standard configuration

other models

X

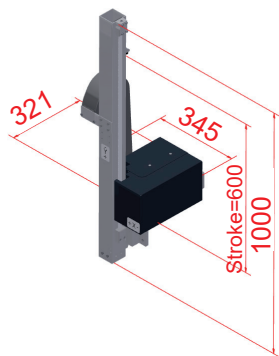


300 mm axis (slide movement)

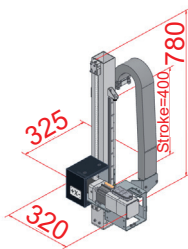


300 mm axis (axis movement)

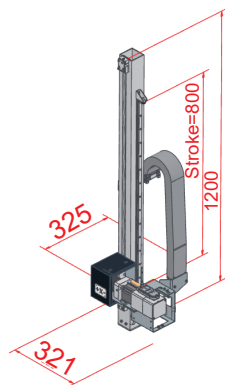
Y



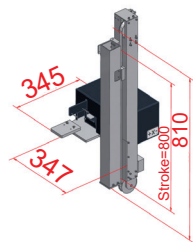
600 mm axis



400 mm axis

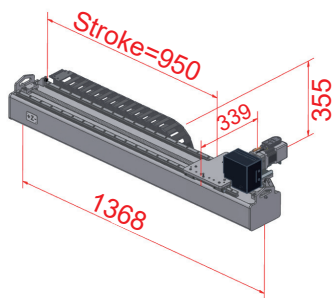


800 mm axis

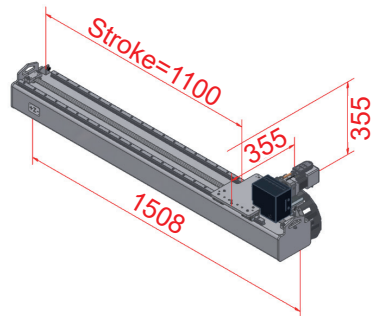


800 mm (telescopic) axis

Z

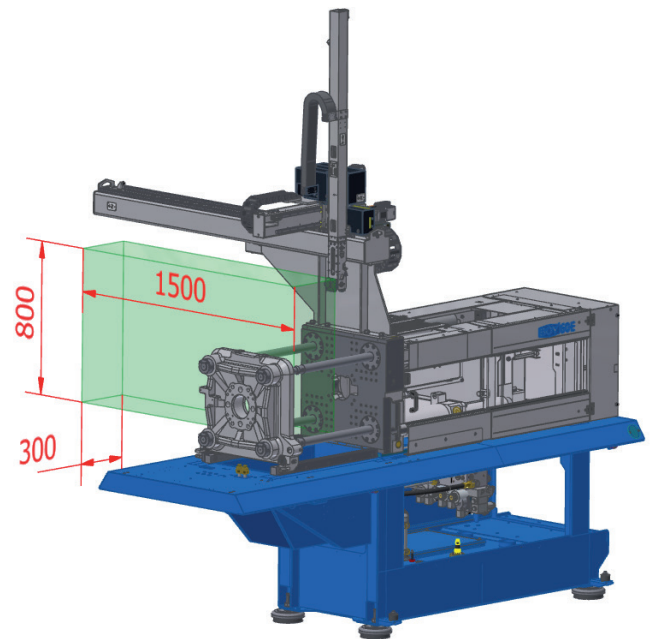
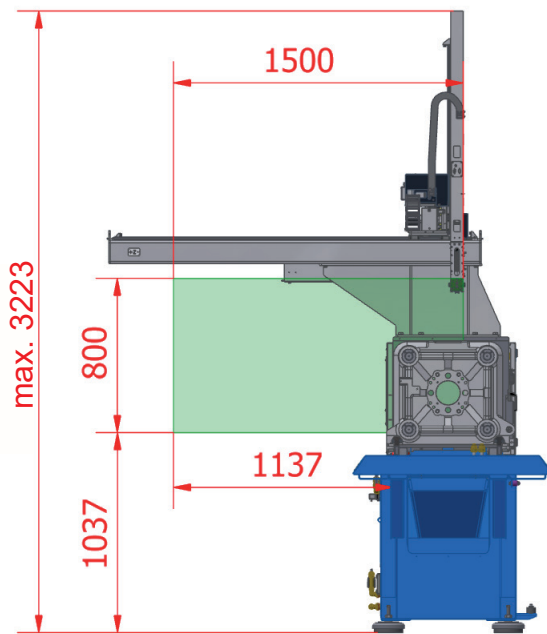


950 mm axis



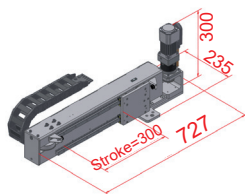
1100 mm axis

BOY 50/60 E with handling LR 5 – Standard configuration

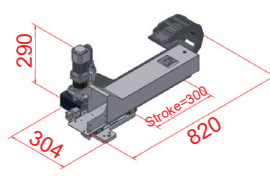
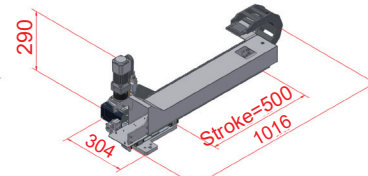
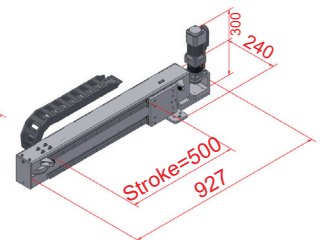


Standard configuration

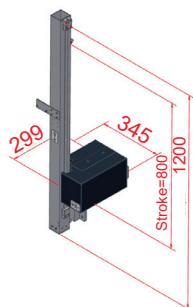
other models



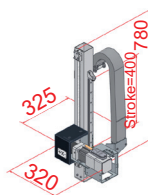
300 mm axis (slide movement)


300 mm axis
(axis movement)

500 mm axis
(axis movement)


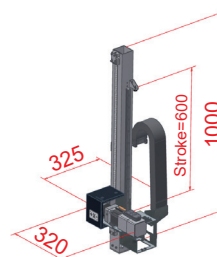
500 mm axis (slide movement)



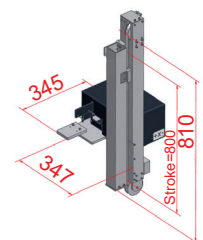
800 mm axis



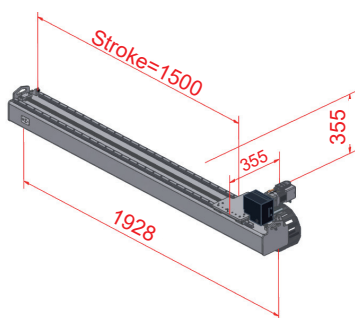
400 mm axis



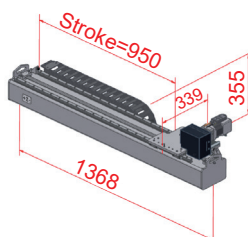
600 mm axis



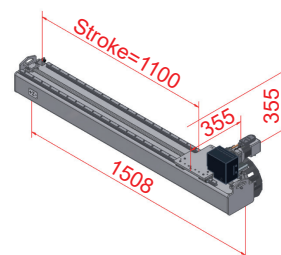
800 mm (telescopic) axis



1500 mm axis



950 mm axis

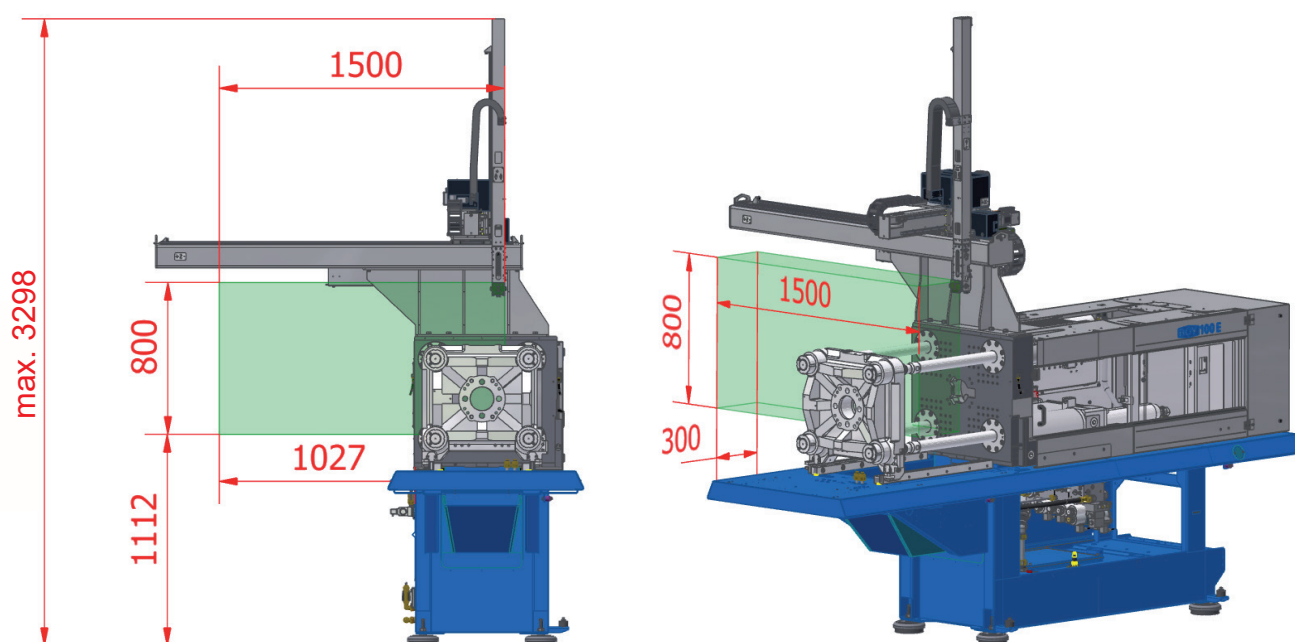


1100 mm axis



1650 mm axis

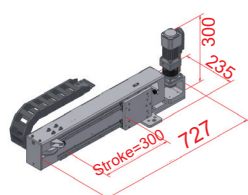
BOY 80/100 E with handling LR 5 – Standard configuration



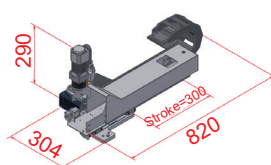
Standard configuration

other models

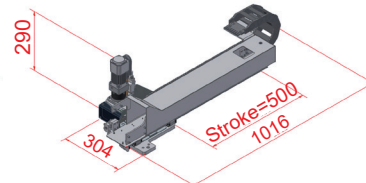
X



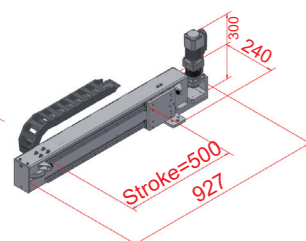
300 mm axis (slide movement)



300 mm axis
(axis movement)

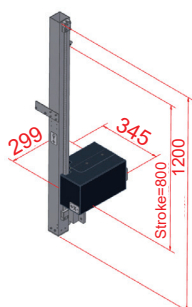


500 mm axis
(axis movement)

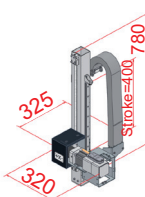


500 mm axis (slide movement)

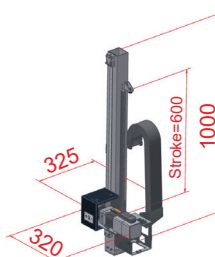
Y



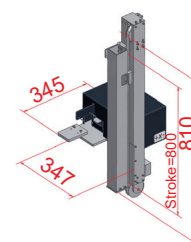
800 mm axis



400 mm axis

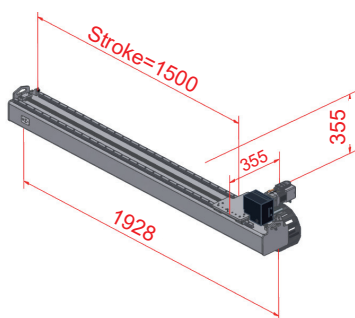


600 mm axis

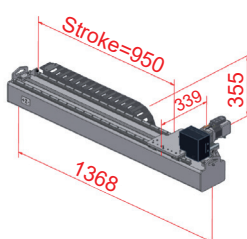


800 mm (telescopic) axis

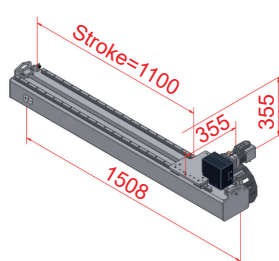
Z



1500 mm axis



950 mm axis

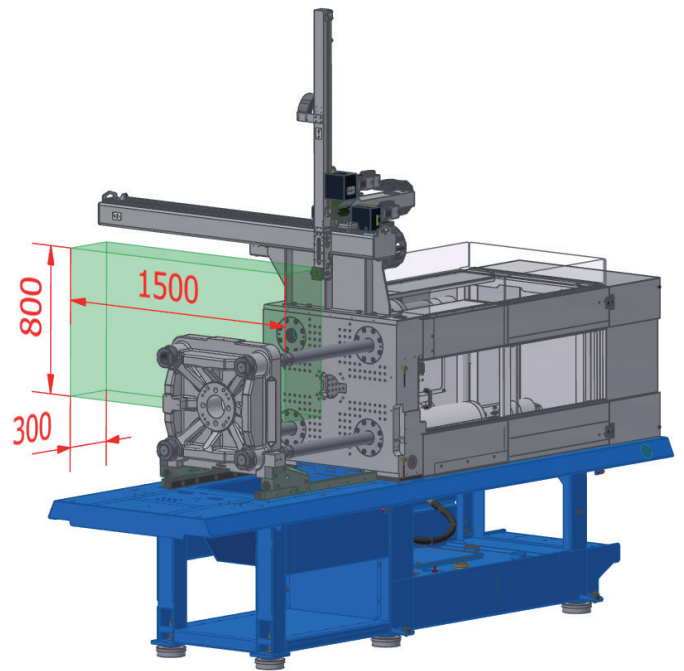
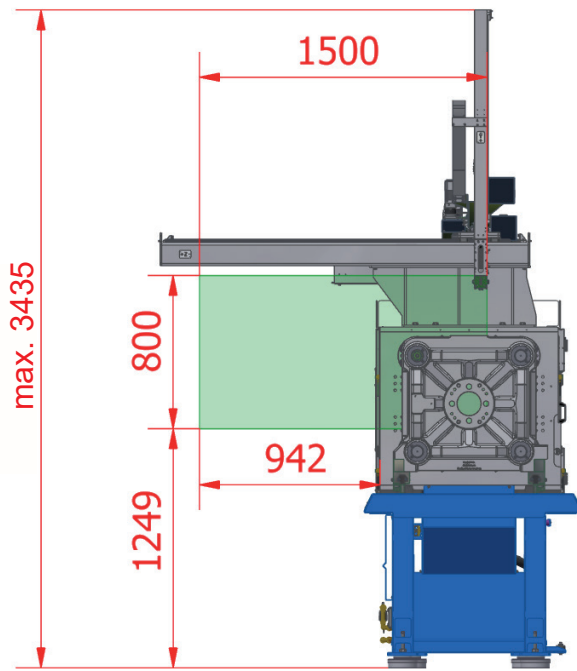


1100 mm axis



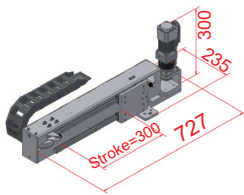
1650 mm axis

BOY 125 E with handling LR 5 – Standard configuration

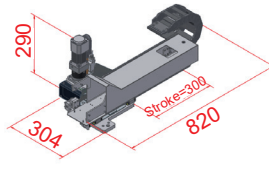
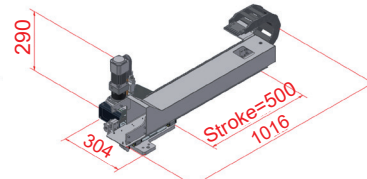
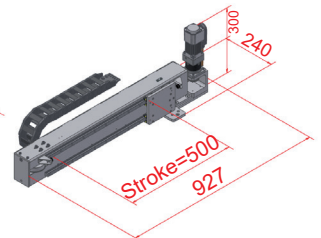


Standard configuration

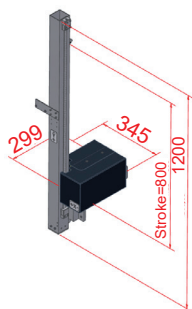
other models



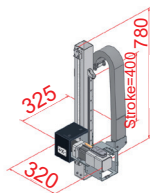
300 mm axis (slide movement)


300 mm axis
(axis movement)

500 mm axis
(axis movement)


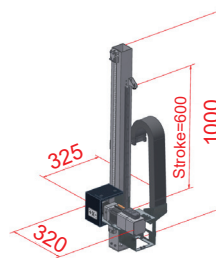
500 mm axis (slide movement)



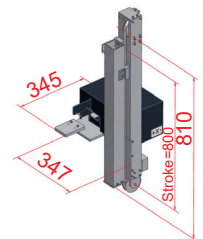
800 mm axis



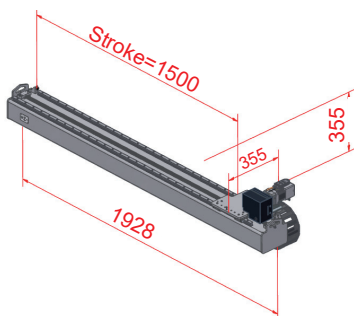
400 mm axis



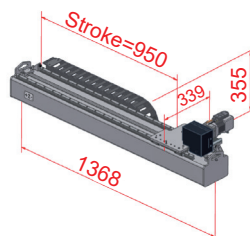
600 mm axis



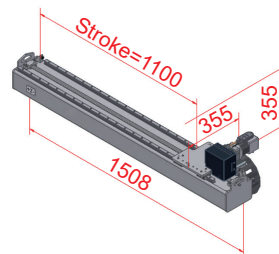
800 mm (telescopic) axis



1500 mm axis



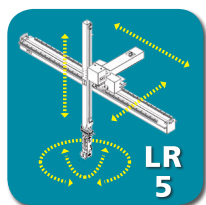
950 mm axis



1100 mm axis



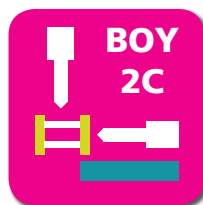
1650 mm axis



Handling



Procan® LR 5



Multi-Component



Made in Germany

Equipment

Standard equipment of LR 5

- Three servo-motor-driven linear axis
- Position accuracy $\pm 0,1$ mm
- Complex CNC-multi axis movement
- Intuitive 10.4" operation hardware
- Four programmable inputs and outputs for gripper systems
- Pneumatic C-axis $0/90^\circ$
- 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
- EM67
- EM78

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

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



Product Range



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

