ROBOTICS

IRB 365 FlexPicker®

5 axes flexibility for fast reorientation of lightweight products

With its 5 axes and 1.5 kg payload, IRB 365 FlexPicker Delta robot adds the needed flexibility to be the ideal and unique solution on the market for fast reorientation of packaged lightweight products.

Key benefits

- **5-axes capability:** the unique 5-axes capability increases application flexibility making it ideal for reorienting, secondary packaging, top-loading, Shelf Ready Packaging (SRP), or Retail Ready Packaging (RRP), bottle unscrambling, and small parcel sorting.
- **Speed:** pick, reorientate and place 1kg product at 120 picks per minute (picking cycle 25x305x25mm and return) or 90 picks per minute (picking cycle 90x400x90mm and return), the fastest in the class.
- **Powered by OmniCore controller:** OmniCore controller offers best-in-class motion control, future-proofing through built-in digital connectivity and 1000+ additional functions to meet changing requirements. OmniCore C30 is the smallest Delta robot controller on the market. The speed and repeatability are archived by OmniCore's motion control and robot design.
- **Powered by PickMaster Twin:** from conception to operation and beyond, PickMaster Twin is the market-leading robotic software for vision-guided random flow picking and packing applications. PickMaster Twin features digital twin technology, which increases productivity by dramatically shortening commissioning times from days to hours and changeover times from hours to minutes.

This combination of performance and flexibility enables the IRB 365 to be deployed in a variety of industries including:

- Food and Beverage
- Consumer Packaged Goods
- E-commerce
- Pharmaceutical

Applications:

- **Product reorienting:** reorientate the lightweight products.
- **Secondary packaging:** top-loading, Shelf Ready Packaging (SRP), and Retail Ready Packaging (RRP) by tilting products in the packaging.
- **Bottle handling & unscrambling:** picking random orientation bottles laying flat and standing them up.
- **Small parcel handling and sorting:** singulation of random bulk parcels and parcel orientation
- **On edge placing**: picking products and placing them on the edge.
- **3D picking:** identify product characteristics and place to an orientation. Identify the stalk position and orientate when placing.
- **Feeding:** picking from a random flow and placing vertical.

Specification

Robot version	Diameter (mm)	Payload (kg)	No. Axes
IRB 365 – 1.5/1100	1100	1.5	5
Supplementary load	on upper arm on lower arm	0.35 kg 0.35 kg	
Protection	IP54		
Mounting	Inverted		
Controller	OmniCore C30		

Performance (According to ISO 9283)

	IRB 365 - 1.5/1100
Pose repeatability, RP [mm]	0.05
Pose stabilization time, PSt [s] within 0.1 mm of the position	0.25

Cycle times (s)

90/400/90 mm cycle	1.0 kg	1.5 kg
IRB 365 - 1.5/1100	0.66	0.69
50/800/50 mm cycle		
IRB 365 - 1.5/1100	0.79	0.84

Physical

	IRB 365 – 1.5/1100
Weight	86 kg

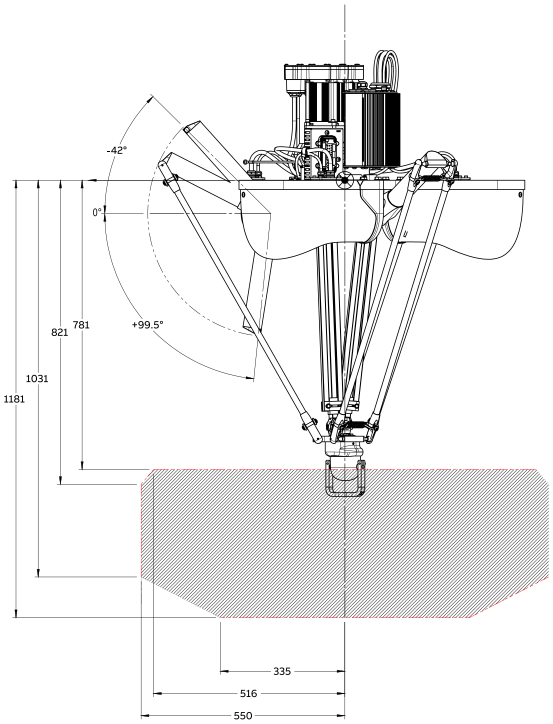
Environment

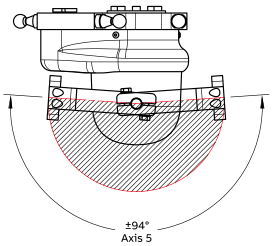
Ambient temperature	Manipulator 0° C to +45° C Relative humidity Max. 90 %
Noise level	< 59 dB(A)

Hygienic Attributes

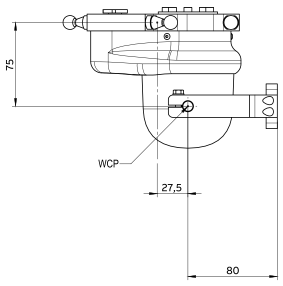
Food grade lubrication	Gearbox oil Grease behind exposed seals

Working range (mm)





Axis 5



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