



Delfi Top Loader

Placing your production into trays with vision-guided high-speed Delta Robots

Features and Benefits

Fast and Versatile

- ▶ Up to 260 ppm per 2-robot cell
- ▶ Simple integration into existing or new lines

Maximum Flexibility

- ▶ No tool product change-over in 5 minutes with inexpensive change parts
- ▶ Delicate product handling with vacuum cup end-effectors or light-touch mechanical grippers to pick up almost any kind of product
- ▶ Randomly positioned products are picked and placed with precision
- ▶ Adapts to changes in production flow
- ▶ Ability to control 24 axis of motion from one controller for multi-robot cell
- ▶ Vision system incorporating pattern recognition utilizing geometry to quickly locate objects with extreme accuracy

Compact

- ▶ Small footprint, 2 m x 2 m (6.5 ft x 6.5 ft)

Low Maintenance Robotics

- ▶ Designed for 3 shifts/day operation
- ▶ Fixed position motors and no bending wires for longer life and higher speeds
- ▶ Composite materials for strength and long life
- ▶ No lubricants and no gear boxes above product supply
- ▶ Robot arms are collapsible and remountable in 2 minutes



Color Touch Screen HMI

- ▶ Intuitively menu driven windows to set-up, change-over and run different production configurations

Product Input Requirement

- ▶ Belt conveyor interfacing Delfi standard belt widths of 800 mm or 1300 mm

Experience

- ▶ Global application experience with over 1000 parallel axis Delta Robots in production today
- ▶ In-house design and manufacturing of the three major components: Controller, Robot, End-Effector
- ▶ PMMI certified training programs to assure faster return on your investment
- ▶ Extensive parts and technical support by Bosch Packaging Services



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Delfi Top Loader

Technical Data

Blister or Tray Range	Minimum	Maximum
Length	60 mm (2.4")	305 mm (12")
Width	45 mm (1.75")	150 mm (6")
Height	10 mm (0.4")	100 mm (4")

Product Range	Minimum	Maximum
Length	20 mm (0.8")	150 mm (6")
Width	15 mm (0.6")	120 mm (4.7")
Height	1 mm (0.04")	60 mm (2.4")
Weight	10 g (0.022 lb)	1 kg (2.2 lb)

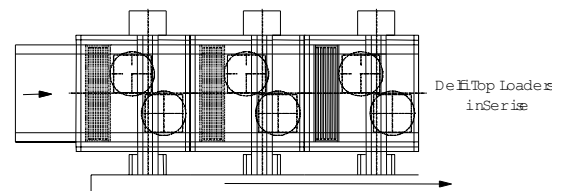
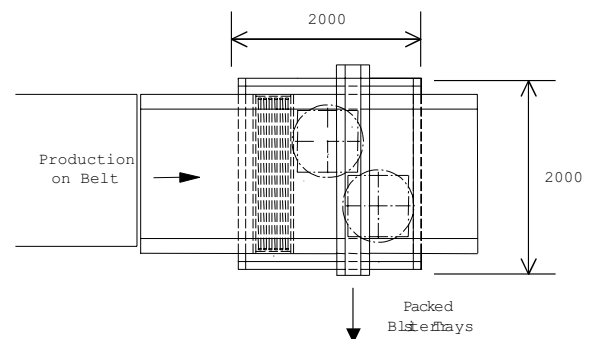
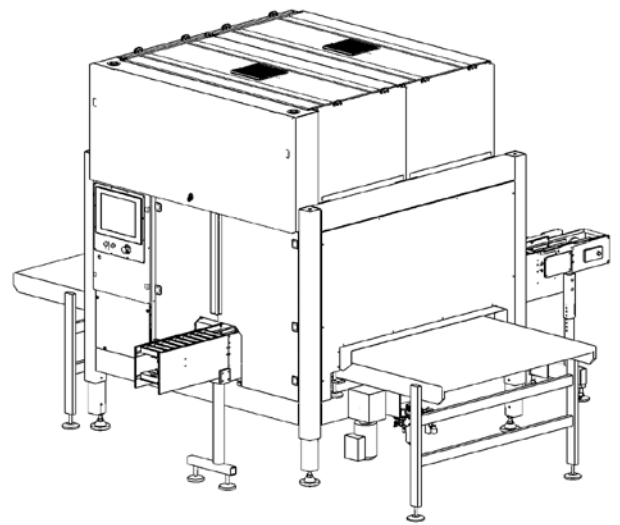
Available Options

- ▶ Multiple Delfi Top Loaders in series
- ▶ Rotation of the product to the correct orientation during the pick and place
- ▶ Double-Head Tray Denester: adjustable or nonadjustable to different tray sizes
- ▶ Secondary Blister Transport for Delfi Top Loaders in series
- ▶ Convenient Dallas key operator authentication with data protection and programmable security levels
- ▶ Stainless steel construction
- ▶ HMI swing arm

Robot speed is dependent on product size and weight. Not all products that fit in the product range can be packed at the maximum cycle speed. Check with sales support to determine the maximum cycle speed for your application.

Technical information is subject to change without notice.

Delfi Top Loader Layout



Floorplan changes dependant upon number of robot arms.

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