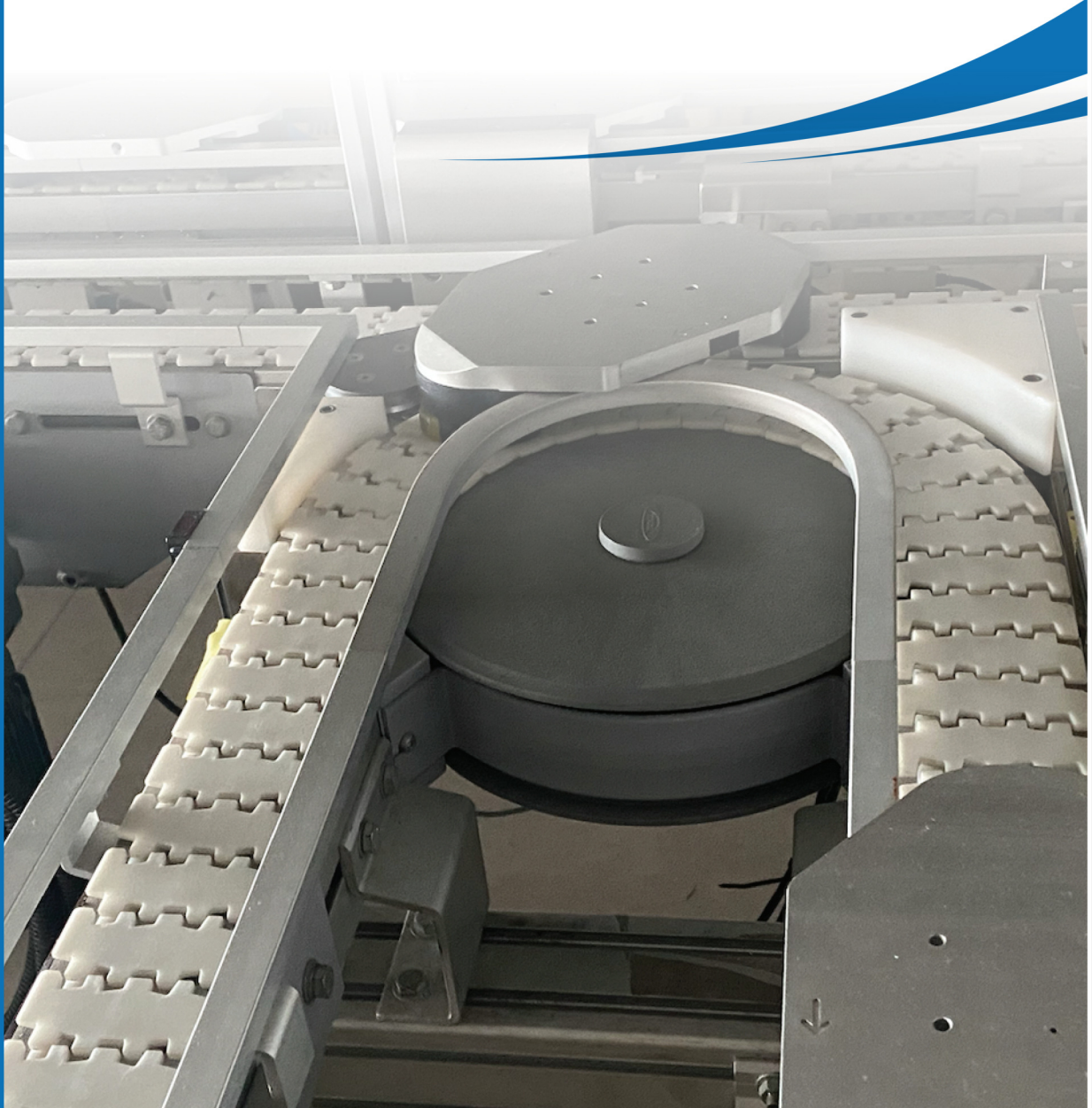
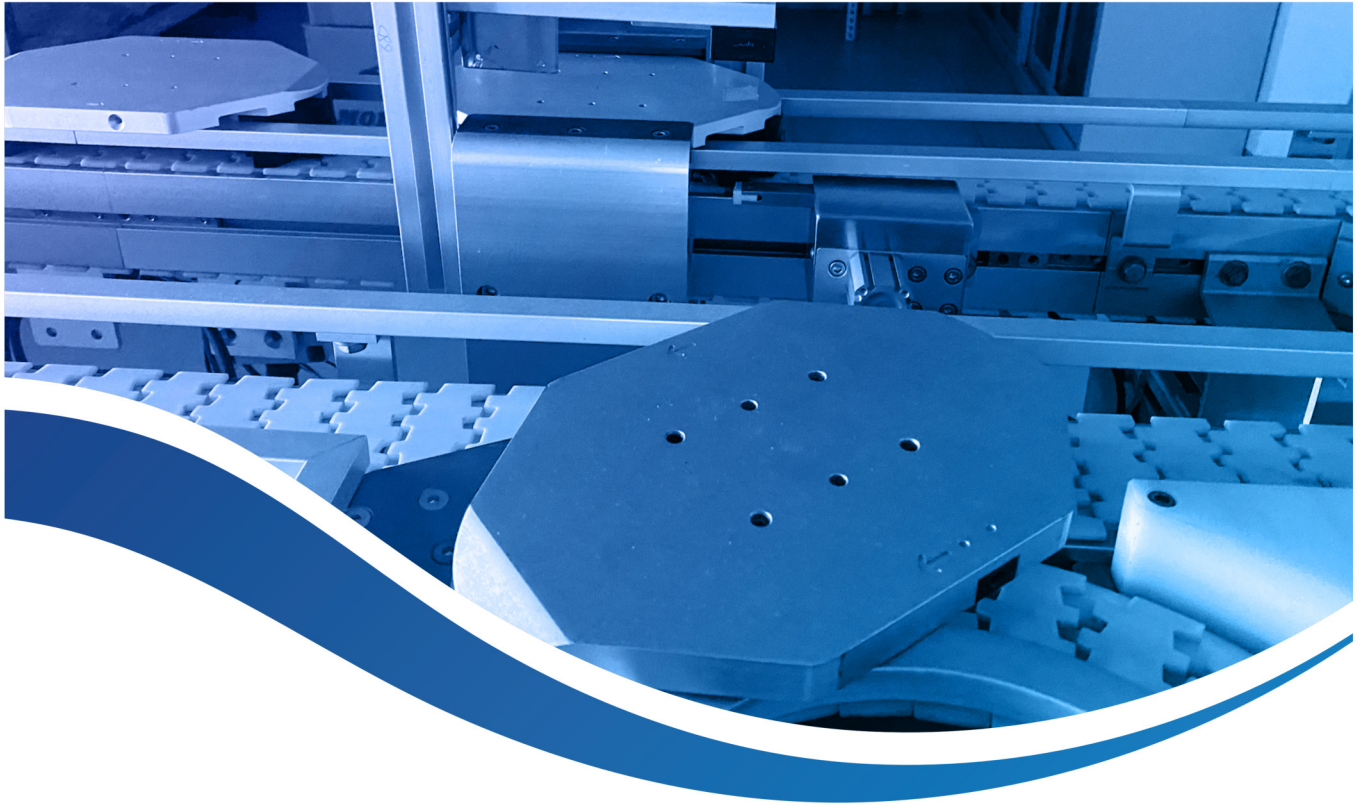


MODU MM3 PALLET CONVEYOR SERIES



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System Based on Modules

MODU's MM3 pallet system is a complete system for handling products on pallets (product carriers). An automated system is built on configurable standard modules.

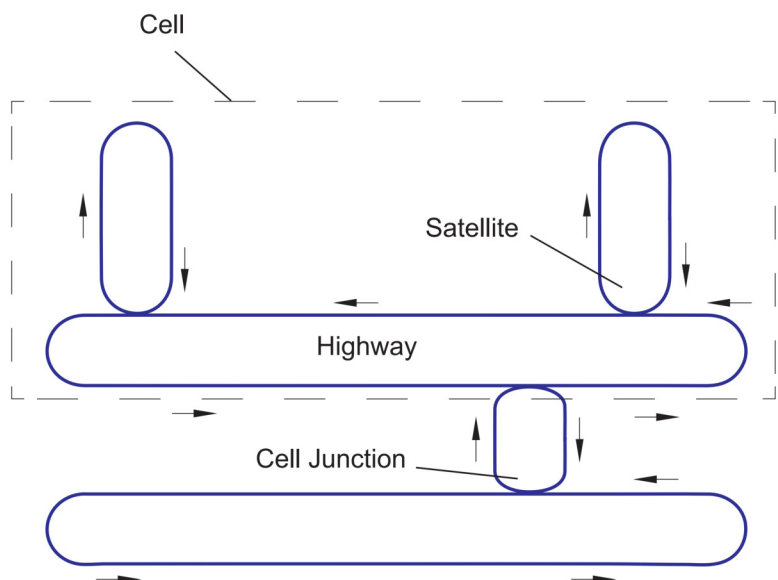
Standard modules make it very easy and fast to create simple as well as advanced layouts for routing, balancing, buffering and positioning of pallets. RFID identification in the pallets enables one piece track and trace and logistic control for the production line.

Divert or Merge Devices

Divert or merge devices are used for routing products by dividing or combining flows of products.

There is a main conveyor, a "highway", and separate subordinated conveyors, "satellites". On the satellites, products can be subjected to various operations such as turning, grinding, assembly or testing, without disturbing the main flow. After the operations, the products can be conveyed back to the highway.

A combination of a highway and one or more satellites is often called a cell. Using divert/merge modules, it is possible to build cell junctions which facilitate transfer of a pallet from one cell to another. See figure.



MM3 Pallet

Pallet Assortment

MODU MM3 pallet system includes pallets that can be adapted to specific requirements such as

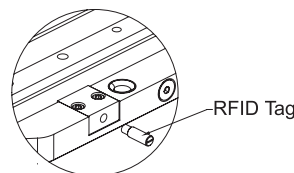
- Low friction
- High precision locating
- Fast indexing
- Fast pallet exchange
- Easy attachment of fixtures
- Low cost

A pallet consists of a pallet plate riding on two guide discs. The pallet plate is aluminium and machined. For normal environments each guide disc is equipped with a plastic slide plate.

RFID

- The pallet plate is equipped with a bracket for an IFM RFID tag.
- IFM read on the fly at speeds up to 30m/min.

Threaded Type	M5x16.5mm
Operating Frequency	125 kHz
Memory (BIT)	224



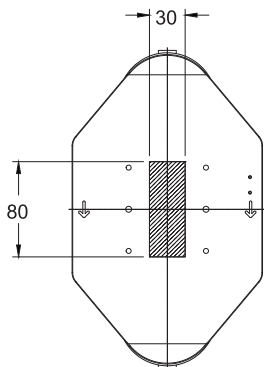
Read/Write Head:

The read/write heads exchange data with the passive RFID tags at a maximum distance of 20mm. The read/write head has an M12 connector. The M12 cable is connected to an M12. The M12 cable is connected to an M12 ASi socket. Up to 31 read/write heads can be connected to one ASi system.

Technical Characteristics

Four Pallet sizes are available:

- 160 mm x 100 mm (139 mm) x 52 mm
- 160 mm x 130 mm (163 mm) x 52 mm
- 160 mm x 175 mm (213 mm) x 52 mm
- 160 mm x 225 mm (263 mm) x 52 mm



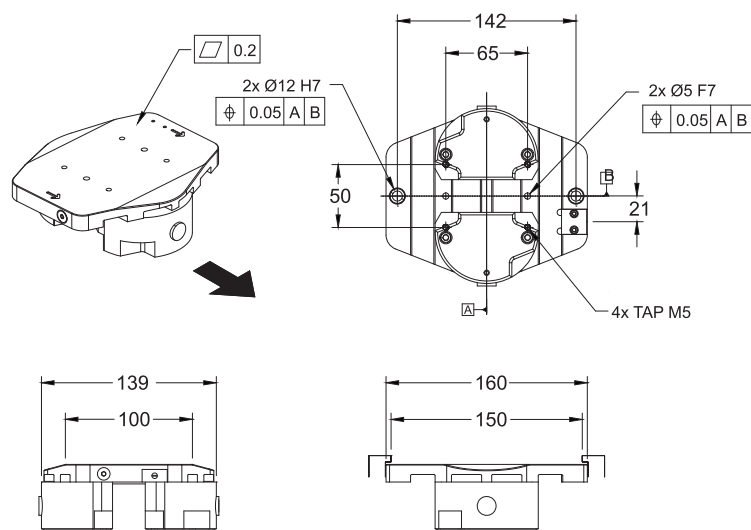
- Maximum load on the pallet is 10kg.
- The maximum permissible load on one pallet is 10 kg (including fixture). The centre of gravity must be located inside a 30 mm x 80 mm rectangle on the pallet. See figure.

Please consult MODU representative for further information and assistance.

Units: Dimension (mm)

MODU MM3 PALLET SERIES - PALLET DETAILS

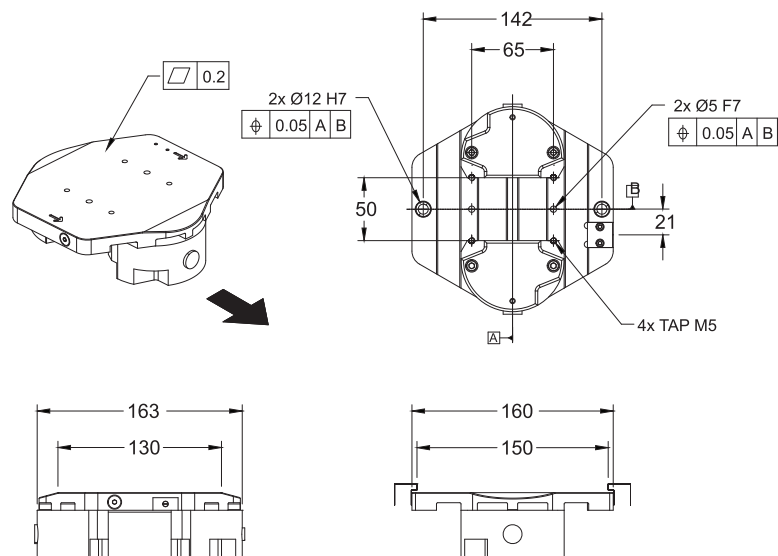
Pallet Type 1



- Fully assembled unit, including two guide disc

Item Code	Weight	Supply
MM3P - PL L/160X100	0.77 kg	1 unit

Pallet Type 2



- Fully assembled unit, including two guide disc

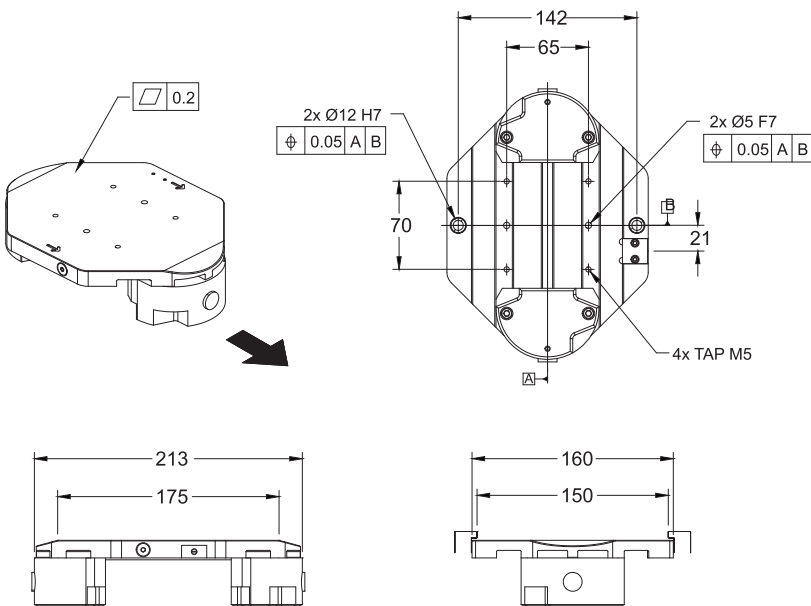
Item Code	Weight	Supply
MM3P - PL L/160X130	0.85 kg	1 unit

Please consult MODU representative for further information and assistance.

Units: Dimension (mm)

MODU MM3 PALLET SERIES - PALLET DETAILS

Pallet Type 3

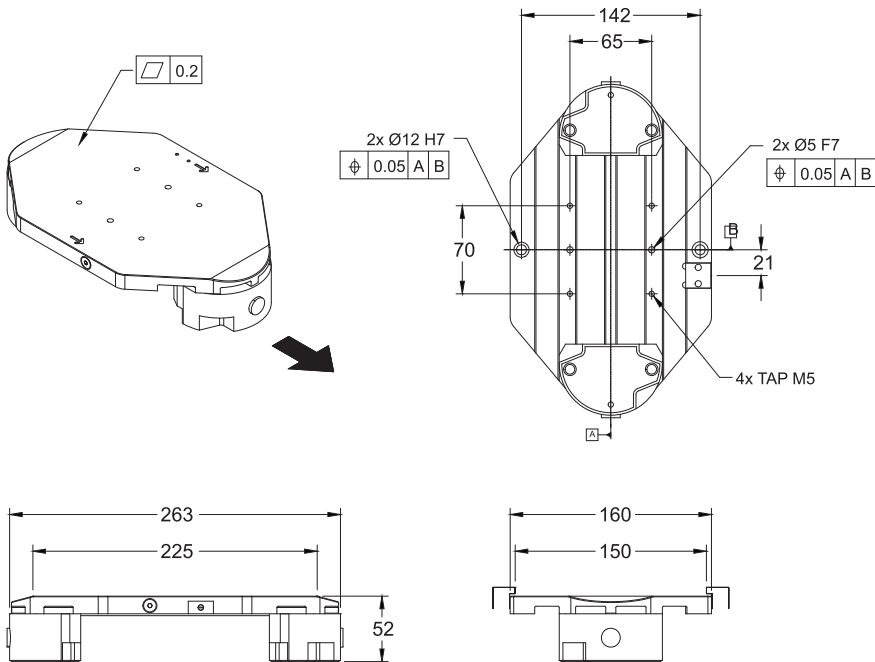


- Fully assembled unit, including two guide disc

Item Code	Weight	Supply
MM3P - PL L/160X175	1.0 kg	1 unit

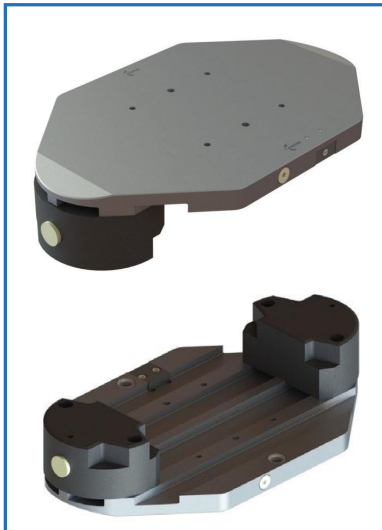


Pallet Type 4



- Fully assembled unit, including two guide disc

Item Code	Weight	Supply
MM3P - PL L/160X225	1.2 kg	1 unit



Please consult MODU representative for further information and assistance.

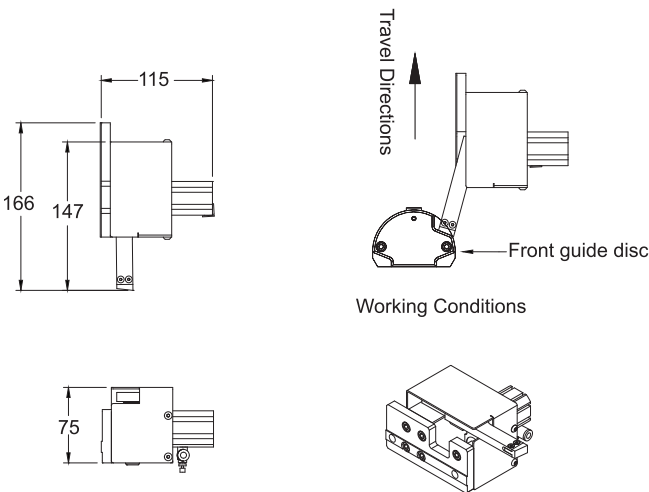
Units: Dimension (mm)

MODU MM3 PALLET SERIES - PALLET STOP DEVICES

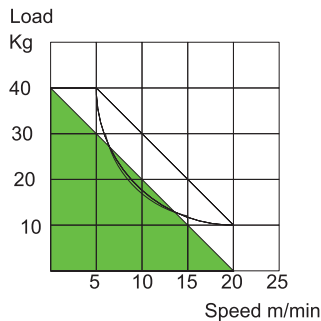
Pallet Stop Devices

Pneumatic pallet stoppers are used to stop pallets at selected position along the line. The stopper is mounted on the right side of the conveyor.

Type 1

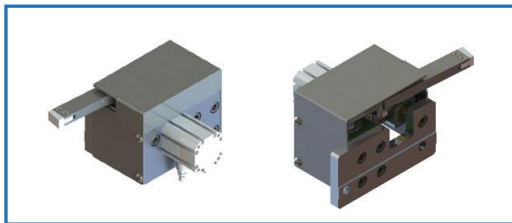


- Pneumatic stop device, Single-actuated
- Structure: anodized aluminium.
- Cover: stainless steel.
- Included \varnothing 6 pipe connection and necessary mounting hardware.
- Connection: M5, Stroke: 15 mm

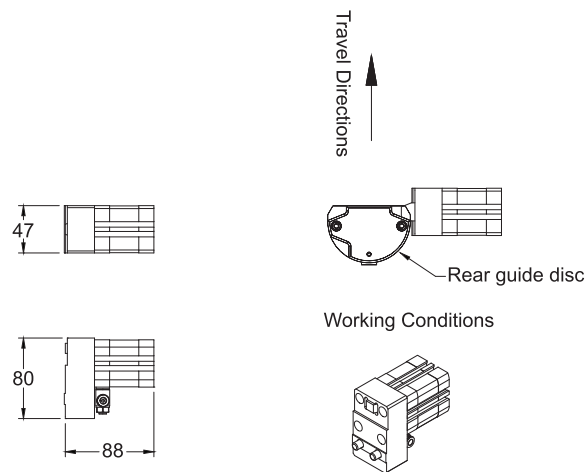


The diagram shows the maximum permissible weight of a group of pallets (product weight+pallet weight) comparison with the conveyor speed.

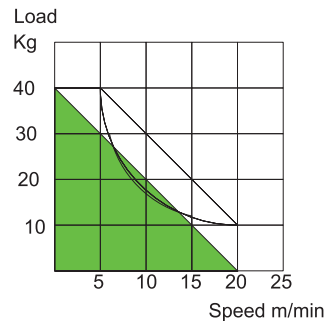
Item Code	Weight	Supply
MM3P - ST - F	1.4 kg	1 unit



Type 2

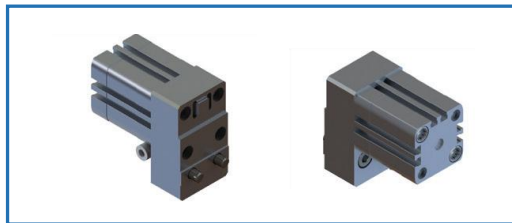


- Pneumatic stop device, Single-actuated
- Structure: anodized aluminium.
- Included \varnothing 6 pipe connection and necessary mounting hardware.
- Connection: 1/8, Stroke: 15 mm



The diagram shows the maximum permissible weight of a group of pallets (product weight+pallet weight) comparison with the conveyor speed.

Item Code	Weight	Supply
MM3P - ST - R	1.1 kg	1 unit



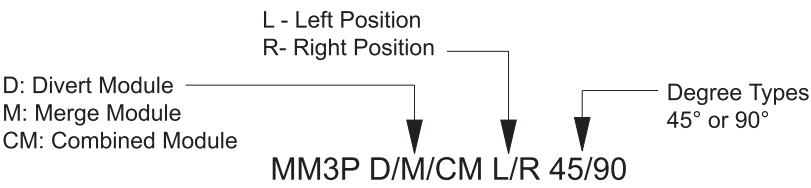
Please consult MODU representative for further information and assistance.

Units: Dimension (mm)

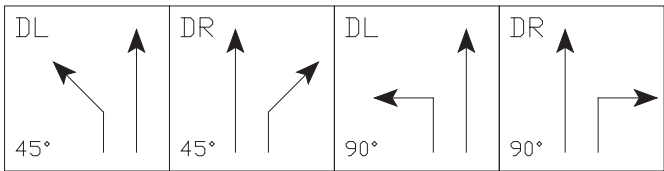
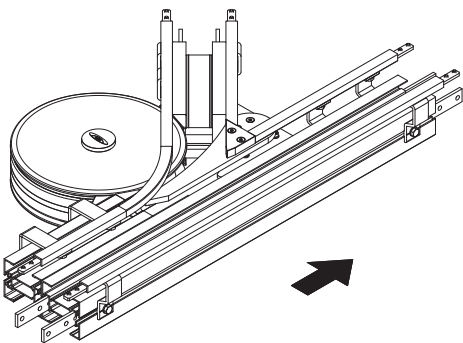
Divert & Merge Modules

Divert and merge devices are used for routing products by dividing or combining flows of products.

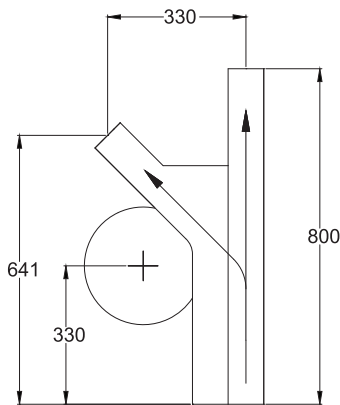
Item Code Guidelines



Divert Modules

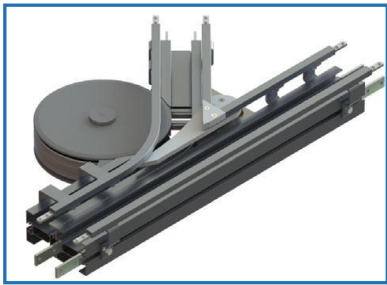


Divert Module 45°

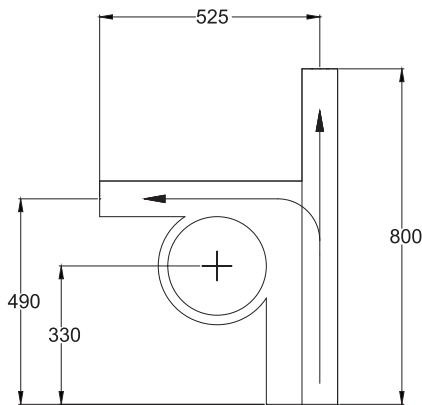


- Type L (divert to Left)
Effective track length: 1.30 m 1-way (2.60 m 2-way)

Item Code	Weight	Supply
MM3P - D - L/R - 45	8.2 kg	1 unit

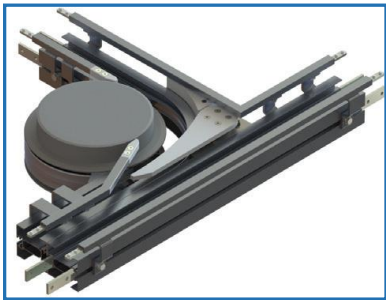


Divert Module 90°



- Type L (divert to Left)
Effective track length: 1.40 m 1-way (2.80 m 2-way)

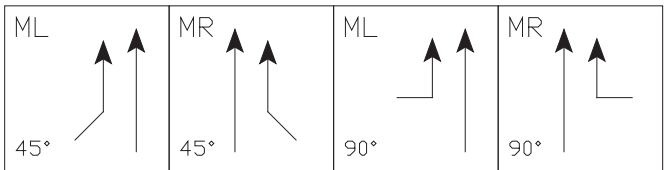
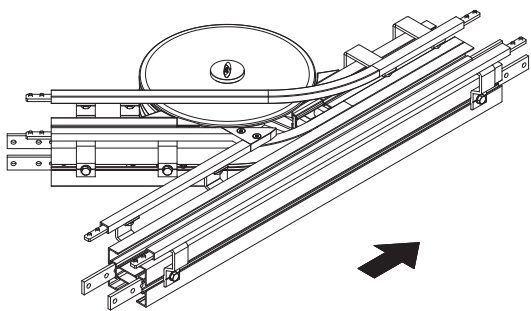
Item Code	Weight	Supply
MM3P - D - L/R - 90	8.4 kg	1 unit



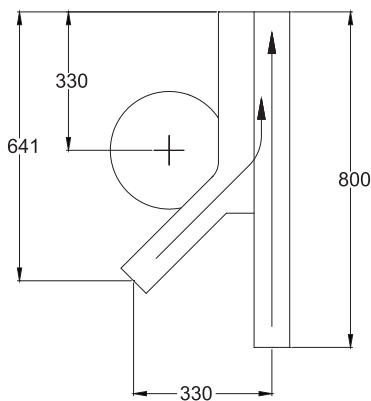
Please consult MODU representative for further information and assistance.

Units: Dimension (mm)

Merge Modules

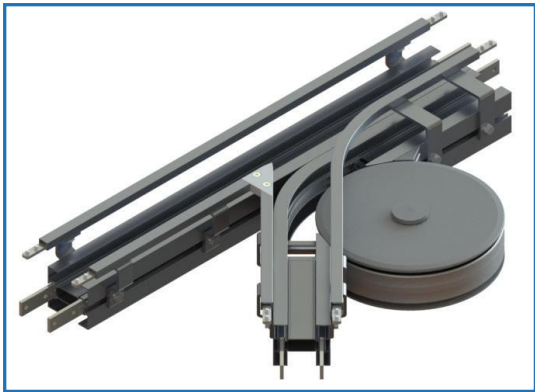


Merge Module 45°

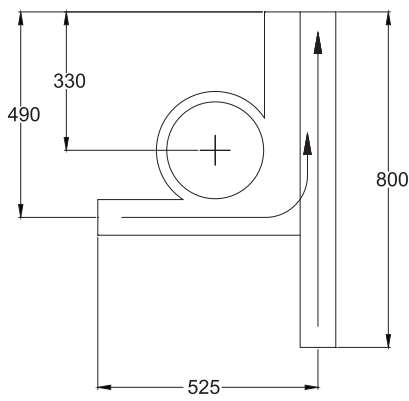


- Type R (merge to Right)
Effective track length: 1.30 m 1-way (2.60 m 2-way)

Item Code	Weight	Supply
MM3P - M - L/R - 45	7.6 kg	1 unit

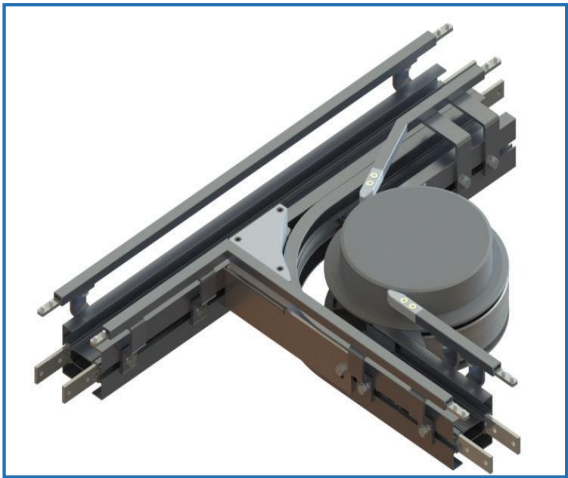


Divert Module 90°



- Type R (merge to Right)
Effective track length: 1.40 m 1-way (2.80 m 2-way)

Item Code	Weight	Supply
MM3P - M - L/R - 90	8.2 kg	1 unit

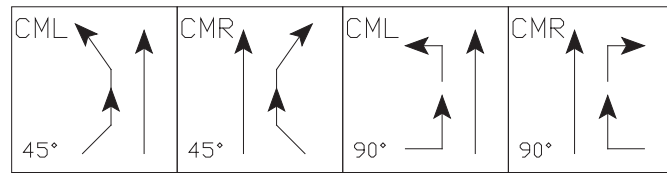
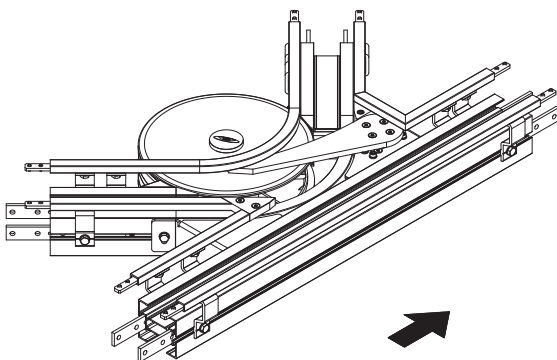


Please consult MODU representative for further information and assistance.

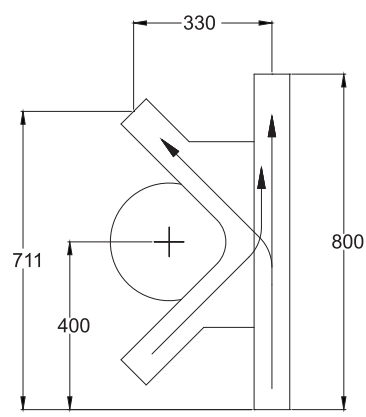
Units: Dimension (mm)

MODU MM3 PALLET SERIES - DIVERT & MERGE MODULES

Combined Modules

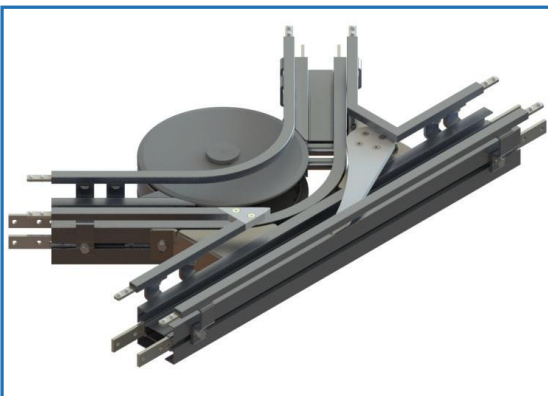


Divert & Merge Module 45°

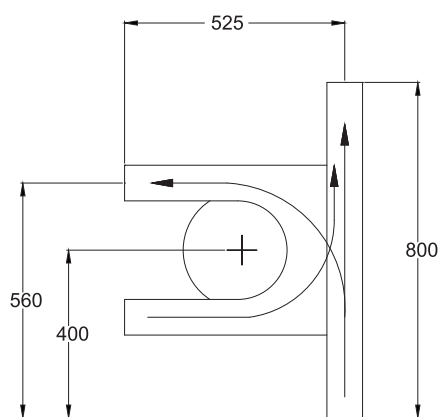


- Type L (divert to Left)
Effective track length: 1.70 m 1-way (3.40 m 2-way)

Item Code	Weight	Supply
MM3P - CM - L/R - 45	8.8 kg	1 unit

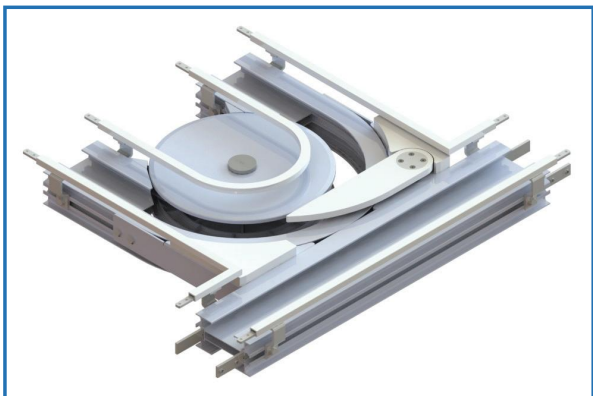


Divert & Merge Module 90°



- Type L (divert to Left)
Effective track length: 2.00 m 1-way (4.00 m 2-way)

Item Code	Weight	Supply
MM3P - CM - L/R - 90	9.0 kg	1 unit



Please consult MODU representative for further information and assistance.

Units: Dimension (mm)

- AP
- TR
- MP
- MS3
- MM3
- ML2
- MX2
- MT2
- MR2
- MF2
- MPP
- MM3P**
- ML2P
- MDP
- MG
- MB
- MA
- DS3
- DM3
- DL2
- DX2
- DT2
- DR2
- DF2
- DG
- DB
- DA
- SD
- SE
- TL
- IM
- MM

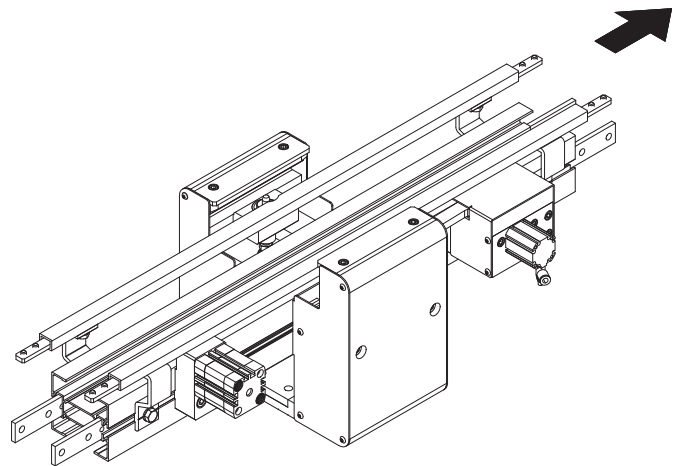
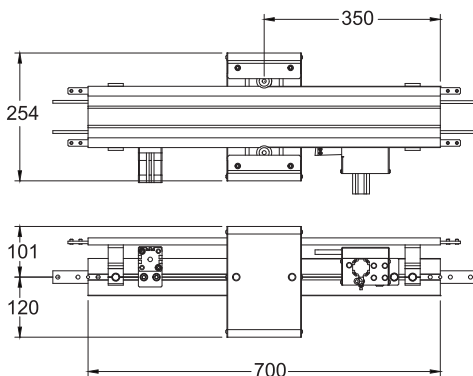
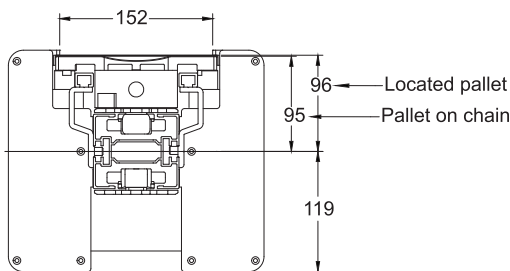
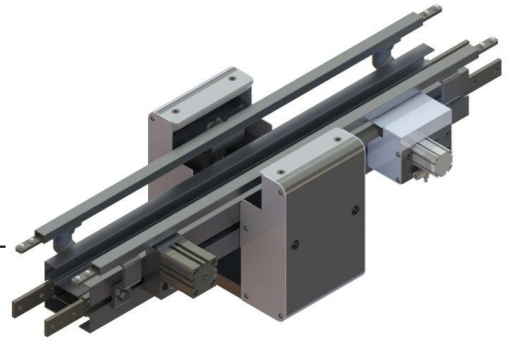
MODU MM3 PALLET SERIES - PALLET LOCATING STATION

Pallet Locating Station

Locating station is component for positioning pallets in preparation for operations such as assembly, machining or testing. The locating stations are delivered complete with conveyor beam, guide rails and guide rail brackets and stoppers, for installation into a conveyor line.

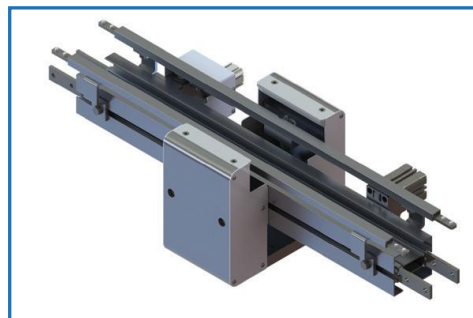
Principles of operation

The pallet is lifted 1mm by means of two locating pins up against a hold-down guide on each side of the station. All actuating movements are made by means of pneumatic cylinders.



- Structure : Aluminum
- Locating accuracy: ± 0.1 mm.
- Maximum vertical load (including pallet and product) in located position is 400N.

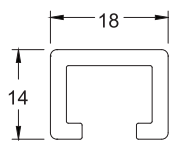
Item Code	Weight	Supply
MM3P - LS/160x100	13.0 kg	1 unit
MM3P - LS/160x130	13.7 kg	1 unit
MM3P - LS/160x175	14.4 kg	1 unit
MM3P - LS/160x225	15.0 kg	1 unit



Please consult MODU representative for further information and assistance.

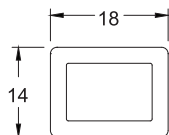
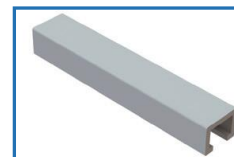
Units: Dimension (mm)

Guide Rail Accessories



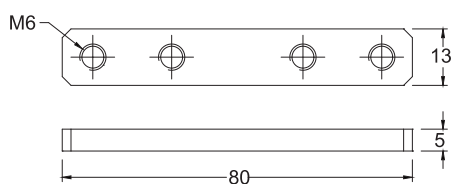
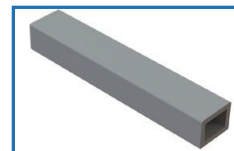
Guide Rail - Straight

Item Code	Weight	Supply
ML2P RR 3S	1.08 kg	3m



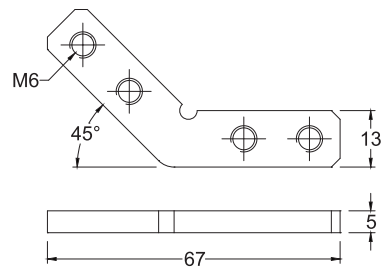
Guide Rail - Curve

Item Code	Weight	Supply
ML2P RR 3C	1.3 kg	3m



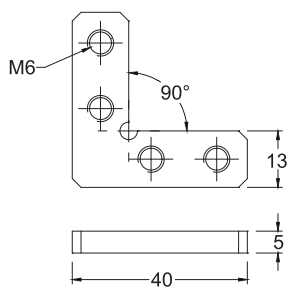
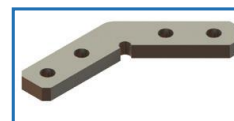
Guide Rail - Connector

Item Code	Weight	Supply
ML2P CS 13X80	0.4 kg	10 pcs/pkt



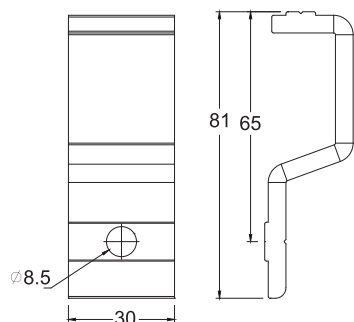
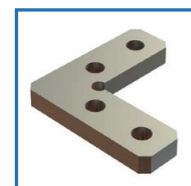
Guide Rail Connector 45°

Item Code	Weight	Supply
ML2P CS 45	0.35 kg	10 pcs/pkt



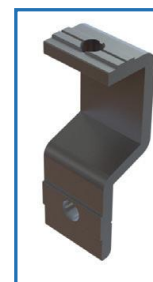
Guide Rail Connector 90°

Item Code	Weight	Supply
ML2P CS 90	0.32 kg	10 pcs/pkt



Guide Rail Bracket

Item Code	Weight	Supply
ML2P BS 30	0.05 kg	1 pc



Please consult MODU representative for further information and assistance.

Units: Dimension (mm)