



OVERHEAD SORTATION SYSTEMS



2018 V1.0

Damon
Damon Simplifies Logistics

Contents

Duck high speed single overhead conveyor and sorter system..... 1

Overhead bi-rail conveyor and sorter system with B28 trolley3

Manual overhead bi-rail conveyor system with B28 trolley5

Trolley lift conveyor.....6

Automatic packing system for cartons.....6

Conveyor system for loading/unloading trucks.....7

Site Installations8

TECHNOLOGY CHANGES THE WORLD, CONNECTION CREATES THE FUTURE...



Duck high speed single overhead conveyor and sorter system



The Duck high speed single overhead conveyor and sorter system is designed to transport bags and hangers. The simplified structural design makes the duck system reliable and durable. Maintenance costs are almost zero.

With features including transportation of goods, sorting and buffering, the Duck high speed single overhead conveyor and sorter system is the ideal choice for e-commerce distribution centres, retail sorting, garment factories and logistics centres.



Conveyor traction mechanism



Sorting mechanism



Sliding rail

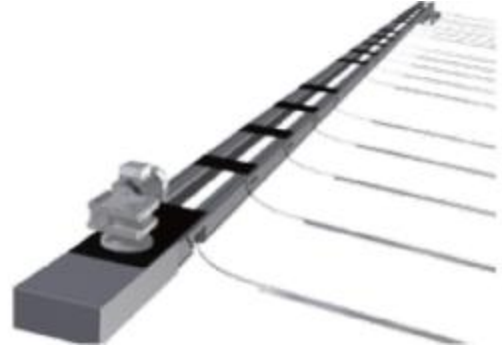


Specifications

Maximum load :	5kg/hook
Delivery capacity :	≤ 9000 pcs/h
Sorting capacity :	5000 pcs/h
Accumulation :	Powerful drive and flexible accumulating sequence system
Power consumption :	0.85kW per 100m single rail
Speed :	Adjustable. 12 ~ 60m/min (depending upon route)
Conveyor route :	Straight, curve, flat, incline/decline

Construction

Conveyor frame :	Extruded aluminium
Sliding rail :	Profile engineering resin. No lubrication required
Chain rail :	High strength, self lubricating engineering resin
Traction hooks :	High strength polypropylene hook
Drag chain :	5/8" side bow chain
Rail switch :	Pneumatic driven
Electric drive module :	Aluminium profile
Chain tension :	Spring type. Auto adjustment
Switch :	Electric / pneumatic



The Duck conveyor system has only a handful of transmission components, so it requires very little maintenance. Additionally, the Duck conveyor system is capable of automatic sorting and accumulation as well as creating an effective sequencing system. Due to the compact dimensions of the conveyor, it is convenient to configure multilevel sorting and sequencing systems.

Goods can be sorted to branch rails based on a barcode or RFID. The goods are then manually handled.

The Duck conveyor system is suitable for transporting single bags and single hangers in e-commerce distribution centres, retail sorting, garment factories, etc.



Curved rail (reinforced for smooth operation)



Incline / Decline



Traction drive unit



Overhead bi-rail conveyor and sorter system with B28 trolley

The overhead bi-rail conveyor and sorter system with the B28 trolley is capable of transporting the larger and heavier goods. Each trolley can carry and transport several items at the same time. The B28 system can be used for long distances and multilevel storage. One of the features to note is the ability to receive accumulated and sorted goods automatically.

The overhead bi-rail B28 conveyor and sorter system derives its name from the fact that it is equipped with upper and lower rails with B28 trolley. The upper rail is used for driving the main conveyor chain. The lower rail is used to support the trolley to carry and transport the goods. The trolley is capable of transporting the goods in two directions. The B28 system has a powerful and flexible drive system. The traction hooks can automatically connect or release the trolleys. The trolleys can also accumulate the goods while running.

The chain and traction hooks work perfectly together. The traction hook can release the trolleys at any position and pull them automatically. The unique main drive chain is primarily made of engineering resin which provides low noise and permanent self lubrication. The chain features abrasion resistance and high durability and offers a 5 year warranty. The B28 system is perfectly suited to transporting bags and hangers in e-commerce distribution centres, retail sorting and garment factories.

Specifications

Trolley load :	50kg/trolley
Traction chain load :	2700kg
Transport capacity :	300 ~ 360 trollies/h (approx. 5400 ~ 6500 pcs/h)
Drive capacity :	250m/drive unit (multiple drive units can be fitted for long systems)
Power consumption :	0.85kW per 100m rail
Speed :	Adjustable. 12 ~ 60m/min (depending upon route)
Conveyor route :	Straight, curve, flat, incline/decline



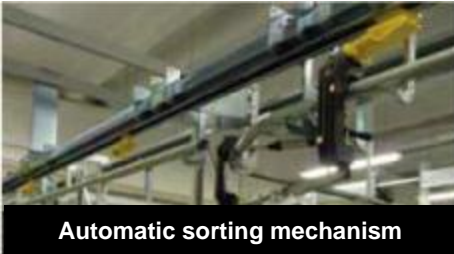
Trolley



Rail

The overhead bi-rail conveyor and sorter system with the B28 trolley liberates the workforce to increase their production. The conveyor sorting system allows for different applications and uses from simple handling to automatic sorting for order fulfilment. The B28 bi-rail trolley can assist in your workforce reaching their full potential.

In a manual environment, the B28 overhead bi-rail conveyor and sorter system can reduce the manpower required to handle product from 7 ~ 8 operators down to a single person.



Automatic sorting mechanism



Traction drive unit

Construction

Trolley material :	High strength polypropylene with steel hanging rod
Trolley length :	800mm (effective usage length 730mm)
Trolley rail :	1 inch galvanised tube
Traction hook :	High strength polypropylene traction hook with flexible drive system
Traction chain :	28mm dia. Nylon bearing and twin steel chain
Chain rail :	Composed of sheet metal with flange
Hanger pitch :	2 – 2, 4 – 2, 8mtr
Switch control :	Automatic for automated systems. Manually hang the garment and manual switching for manual systems.
Electronic sortation control :	Reading the identification code of the trolley
Trolley addressing :	Automatic or manual
Drive unit :	Maximum 2.0kW. Embedded with low noise Tecno polymer chain and fitted with passive safety stop system
Trolley detection :	Image recognition, barcode scanner, RFID identification





Manual overhead bi-rail conveyor system with B28 trolley

The manual overhead bi-rail conveyor system with the B28 trolley has remarkable features for transporting large loads and large volumes. The trolley slides in two directions and can be easily pushed manually with a load up to 50kg.

The manual conveyor system offers a low cost option for materials handling. This is an important consideration for the overhead conveyor system solution. Maintenance costs are almost zero due to the absence of a drive system.

The trolley can be removed and hung with other trolleys to reduce storage space and be conveniently and effectively used in other work procedures.

The incline / decline switches can be installed as necessary to assist with transport of the goods on the slopes when it is opened.



Construction

Trolley material :	High strength polypropylene with steel hanging rod
Trolley length :	800mm (effective usage length 730mm)
Trolley rail :	1 inch galvanised tube
Traction chain :	28mm dia. Nylon bearing and twin steel chain
Chain rail :	Composed of sheet metal with flange
Conveyor power :	Pull bar or manual thrust

Trolley lifting conveyor

The trolley lifting conveyor is an essential accessory which is setup between building levels for materials handling. The mechanical lift is a reliable and durable accessory. With a totally enclosed design, it offers safe, noiseless and convenient operation. Featuring an engineering resign chain, it doesn't require lubrication.

Specifications

Traction chain :	5/8" side bow chain
Traction hook :	Folded. Installation pitch 1270mm
Speed :	12m/s
Transport capacity :	Over 500 trolleys/h
Control panel :	Forward / reverse & emergency stop buttons



Automatic packing system for cartons

The B28 conveyor system may also include subsidiary equipment such as the automatic packing system for cartons that can be integrated into a logistics system to assist production.

The efficiency of the automatic packing system is 60 cartons per hour per person. Utilising the automatic packing system significantly reduces packing costs.

This B28 system constantly replenishes garments to the automatic packing conveyor to achieve a perfect packing process.





Conveyor system for loading/unloading trucks

This overhead conveyor system for loading and unloading trucks includes a telescopic section making it convenient for working in the back of trucks.

The system offers:

- Electric operated telescopic and manual trolley switch.
- Electric operated telescopic and electronic trolley switch.

It can be fitted with an automatic vacant trolley for accumulation to reduce the waiting time of loading and improve the loading efficiency.



Site installations



DR La Rinascente



Diesel



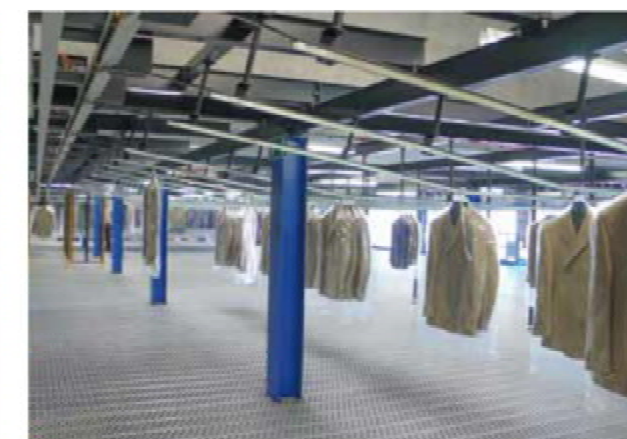
Tod's Impianto B28



Alviero Martini



Versace



Duck Conveyor Sorter



Damon, a listed company on the Beijing Stock Exchange (stock code: 830805 Damon Science and Technology), is a leading intelligent logistics system and equipment provider in China. Damon focuses on intelligent logistics conveying and sorting systems including product research and development, manufacturing and project services. Damon serves the e-commerce, courier, clothing, pharmaceutical, manufacturing and other various industries to improve the competitiveness of our customer's logistics systems which always receives wide acclaim.

www.damon-group.com

Damon Australia Pty. Ltd.
30 Grasslands Avenue
CRAIGIEBURN VIC 3064
Australia

P: +61 3 9333 7034
F: +61 3 9308 4896
E: info@damon-group.com.au
www.damon-group.com.au