



Simplicity · Solutions

Version
17.0

MODU System *Product Catalogue*



MODU M Series Conveyor

Thermoplastic Chain with Aluminium Frame Conveyor System

		<i>Page</i>
1.	Application Photos AP	AP-1 - AP-12
2.	Technical Reference TR	TR-1 - TR-20
3.	Conveyor System MS2	MS2-1 - MS2-13
4.	Conveyor System MM3	MM3-1 – MM3-19
5.	Conveyor System ML2	ML2-1 – ML2-13
6.	Conveyor System MX2	MX2-1 – MX2-10
7.	Conveyor System MT2	MT2-1 – MT2-11
8.	Conveyor System MR2	MR2-1 – MR2-11
9.	Conveyor System MF2	MF2-1 – MF2-11
10.	Conveyor Guide MG	MG-1 - MG-10
11.	Structural System MB	MB-1 - MB-12
12.	Conveyor Accessories MA	MA-1 - MA-8

MODU D Series Conveyor

Thermoplastic Chain with Stainless Steel Frame Conveyor System

		<i>Page</i>
1.	Conveyor System DS2	DS2-1 – DS2-9
2.	Conveyor System DM3	DM3-1 – DM3-15
3.	Conveyor System DL2	DL2-1 – DL2-10
4.	Conveyor System DX2	DX2-1 – DX2-9
5.	Conveyor System DT2	DT2-1 – DT2-6
6.	Conveyor System DR2	DR2-1 – DR2-6
7.	Conveyor System DF2	DF2-1 – DF2-6
8.	Conveyor Guide DG	DG-1 - DG-3
9.	Structural System DB	DB-1 - DB-4
10.	Conveyor Accessories DA	DA-1 - DA-3

		<i>Page</i>
1.	Special Devices SD	SD-1 - SD-5
2.	Special Equipment SE	SE-1 - SE-4
3.	Tools TL	TL-1 - TL-3
4.	Installation Manual IM	IM-1 - IM-15
5.	Maintenance Manual MM	MM-1 - MM-15

MODU M Series Conveyor System

Industry: Food & Packaging

Tea	Biscuits	Potato & Corn Crisp
Cereal	Glass Bottles	Chocolate Powder
Metal Cans	Soft Drinks	Yoghurt
Paper Cans	Ice Cream	Milk Powder
Confectionery	Sugar	Instant Noodles
Margarine	Health Drinks	
Snack	Juices	



High-Speed Food Canned Production Line



Packing Line for Teabags



Bottle Production Line Intergrated with Gripper Conveyor



Incline Friction Conveyor for Cartons



Cleated Conveyor for Biscuit Packaging



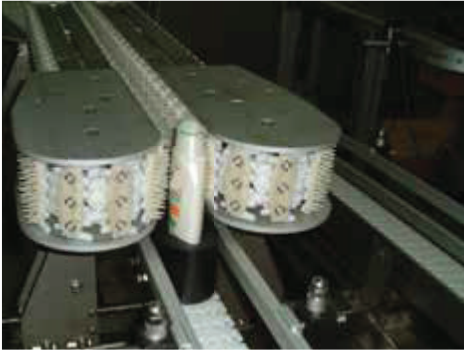
Puck Handling System for Fruits Sorting Line

Please consult MODU representative for further information and assistance.

Units: Dimension (mm)

Industry: Personal Product, Pharmaceutical & Chemical

Soap Bars	Aerosols	Medical Dispensers
Body Lotions	Puck Handling	Eye Care Products
Toothpaste	Sanitary Napkins	Shower Creams
Health Supplements	Powder & Liquid Detergent	Hair Care Products



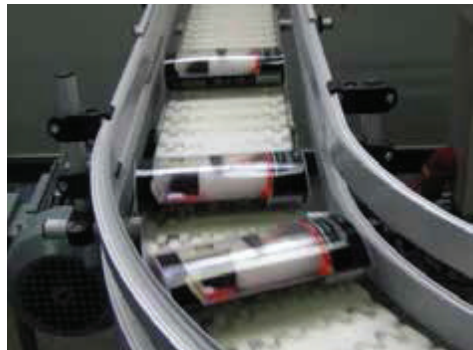
Shampoo Depucking System



Vertical Gripper Conveyor



Penicillin Production Line



Conveyor for Personal Product



Bottles Production Lines



Conveyors for Dish Washing Liquid

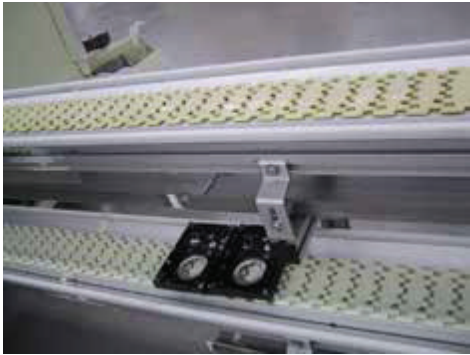
Please consult MODU representative for further information and assistance.

Units: Dimension (mm)

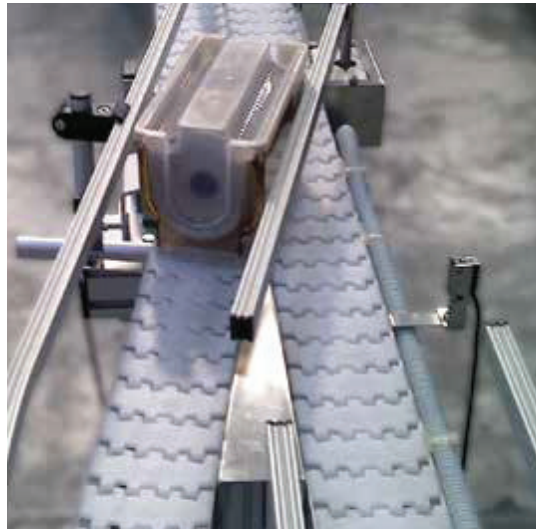
Industry: Electronic & Electrical

Batteries
Audios & Videos
Mobile Phones
Liquid Crystal Displays (LCD)

Compact Disks
Electronic Components
Hard Disks-Substrates
Solar Panels



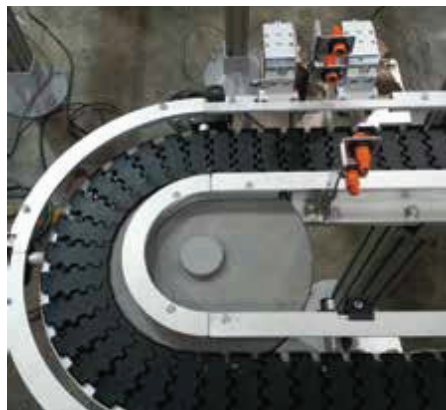
Conveyor Lines for Hard Disc



Hard Disc Substrate Production Line



Conveyor Lines for Part Assembling



Anti-Static Conveyor Chain



Conveyor Line for Multi Electronic Components

Please consult MODU representative for further information and assistance.

Units: Dimension (mm)

Industry: Automotive & Machined Parts

Air Conditioning Compressors
Gears
Door Winding Sets

Bearings-Hard Disk Casings
Oil Filters



Automotive Part Assembly



Conveyor System & Robotic Palletizing



Bearing Assembly Line



Automotive Oil Filter Line



Conveyor for Machined Part Assembly

Please consult MODU representative for further information and assistance.

Units: Dimension (mm)

Industry: Paper Converting

Wrapped Bundles
Paper Towel

Wrapped Bags
Bathroom Tissues



Vertical Diverter & Conveyor System for Tissue Rolls



Conveyor System for Sanitary Napkin



Paper Converting Lines



Kitchen Towel Line with Quick Adjust Side Guide



Conveyor for Diaper line

Please consult MODU representative for further information and assistance.

Units: Dimension (mm)

Industry: Optical Lens

Spectacle Lens
Camera Lens

Binocular Lens
All kind of different type lenses



Friction Chain Decline up to 25°



Tray Distribution



Optical Tray Production Line



Complete Distribution System



Side Push Unit for Optical Tray



Automatic Optical Tray De-palletizing System

Please consult MODU representative for further information and assistance.

Units: Dimension (mm)

Industry: Composite Can Handling



Gripper Type Composite Can Cleaner



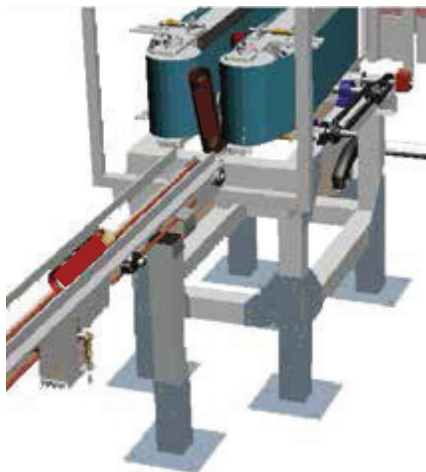
Composite Can Cleaner



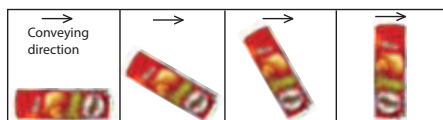
Complete Accumulator For Composite Can



Combined Polycord with Upender.



Upender Simulation



Upender Simulation

Please consult MODU representative for further information and assistance.

Units: Dimension (mm)

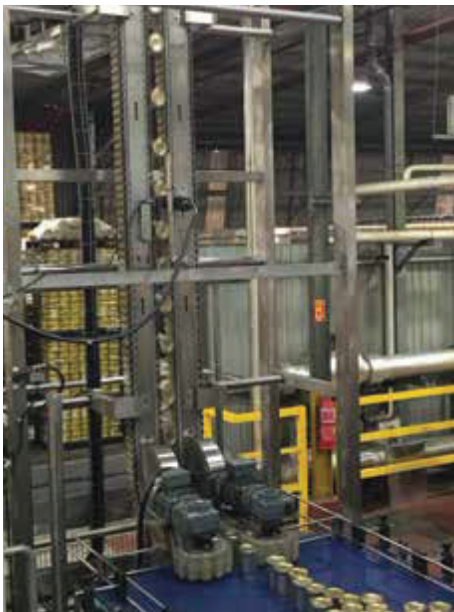
**Application: Gripper Elevator / Lowerator &
Related Machines**



360° Gripper for Empty PET Bottle



Bottle Firmly Grip at Lowerator



Stainless Steel Gripper for Tin Can Handling



S-Flow Gripper Conveyor to Elevate Carton Boxes



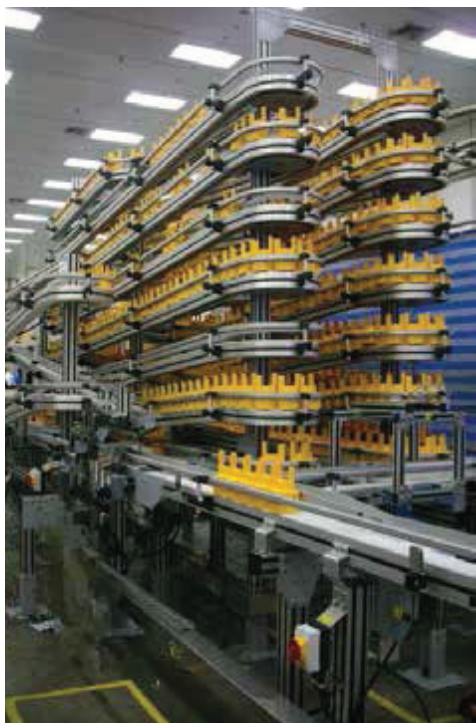
Gripper Conveyor System Integrated with Can Cleaner to Remove Dust and Particles from Can.

Please consult MODU representative for further information and assistance.

Units: Dimension (mm)

Application: Alpine & Storage System

The alpine conveyor system consists of multiple layers of conveyors that are stacked above each other. It is used for buffer processes, storage tower or as an accumulation and incline or decline to or from overhead transport system.



Alpine Conveyor for Puck Storage



Alpine Conveyor for Soft Packs



Stainless Steel Alpine Conveyor for Tin Can

Please consult MODU representative for further information and assistance.

Units: Dimension (mm)

Application: Carton Handling



Food Processing Line



Friction Incline Conveyor



Continuous Carton Elevator



Pneumatic Traffic Controller for Merging



Roller Top Conveyor for Carton Accumulation



Gripper Conveyor for Carton Elevation

Please consult MODU representative for further information and assistance.

Units: Dimension (mm)

MODU D Series Conveyor System

Stainless Steel Conveyor System



Food Processing Line



Stainless Steel Conveyor System



Packed food processing line



Cooking oil production line



IV Fluids production line



Stainless Steel Conveyor for Wet Environment

Please consult MODU representative for further information and assistance.

Units: Dimension (mm)

Application: Accumulation Conveyor

Accumulation conveyor provides large storage capacity. The accumulator stores products to create mass buffering to accommodate other processes.



Complete Accumulation for Composite Can



Accumulation Conveyor for Bottling Line



Bi-directional Accumulation Table

Please consult MODU representative for further information and assistance.

Units: Dimension (mm)

Technical Reference TR

Please consult MODU representative for further information and assistance.

Units: Dimension (mm)

The Basic MODU Conveyor System

Straight Conveyor

MODU System M Series Conveyor System is based on aluminium profiled beam, ranging from 65mm to 609mm width, guiding a plastic chain. This plastic chain travels on low-friction plastic extruded slide rails. The products that are to be conveyed ride directly on the chain, or on pallets depending on application. Guide rails on the sides of the conveyor make sure that the products stay on track. Optional drip trays can be provided under the conveyor track in certain cases where the floor can be kept free from waste fluids.

Drive Units & Idler Ends

There are various types of drive units that are available to move the conveyor chain as mentioned below:

- *End Drive Units* pull the chain from one end of the conveyor. The chain returns on the bottom of the conveyor beam, passing through an idler end at the other end.
- *Intermediate Drive Units* are located at an intermediate point of the conveyor, having an idler end at both ends of the conveyor.
- *Catenary Drive Units* are used in applications where chain running on the bottom track is either not desired or not possible. e.g.: closed loop conveyor.
- *Combined Drive Units* are those that have a drive unit and an idler end together in one unit. This is used in areas where transfer from drive unit of one conveyor to another of the same size is required. The transfer area is provided with either gravity transfer rollers or powered transfer rollers depending on product type and length.
- *Suspended Drive Units* are used when a number of parallel conveyors are placed together. It is used when space becomes a limitation.
- *Horizontal Wheel Bend Drive Units* are suitable for endless conveyor without a return chain.

Bends

MODU System provides horizontal and vertical bends to cover many applications

- *Horizontal Wheel Bend* – The bend force is taken by a free wheel which lower and greatly reduces chain pull. The wheel bend is much compact than plain bends. Wheel bend are recommended whenever possible.
- *Horizontal Plain Bend* – For larger radius, horizontal plain bend is used as an alternative.
- *Vertical Bend* – To achieve a change of direction in the vertical direction.

Guides

Guides are provided along the conveyor in order to hold the products in position while in motion. The guide rails keep the products from falling off from both sides of the conveyor, whereas the guide rail brackets hold these guide rails in position.

Support

The various components for conveyor support are as follows:

- Support Feet – aluminium, mild steel support feet or foot caps.
- Support Beams – aluminium extruded profile in 40x40mm and 80x80mm
- Beam Support Brackets – to connect conveyor beam to support beam

Technical Reference TR

Basic System Selection

MODU System provides seven (7) diverse plastic chain conveyor systems. All conveyor systems can be effortlessly assembled with standard tools. To select the right conveyor size for your application, consider the following:

- **Product Dimensions** – A product can have a width which is two to three times the width of the chain, provided the centre of gravity is located at the centre of the product. For this kind of application, extra supporting guide rails will be required and also proper testing is recommended.
- **Product Weight** - The product weight plays an important role in the selection of chain size since each chain has a different value for its maximum traction force. Traction force calculation is required when there are several heavy products are to be conveyed, and the traction force will be increased further if the products are accumulated on the conveyor.
- **Conveyor Functions Available** – Most of the conveyor functions are available in all the seven (7) conveyor sizes (MS, MM, ML, MX, MT, MR and MF). But there are differences with regard to the chain types, drive unit and idler unit variants.
- **Floor Space Available** – Depending on the available floor space, there will be a requirement for the smallest conveyor possible.
- **Compatibility With Other Machines** – In certain applications, interfacing and integrating with other automation equipments can be made much easier by using one of the MODU System Conveyor system sizes rather than other sizes.

D Series Conveyor

MODU System's stainless steel conveyor system comprises of distinct DS2, DM3, DL2 and DX2 streamlines assembly and installation time, which allows rapid and relaxed line modifications. MODU stainless steel conveyors can function easily at high speeds without lubrication.

Our Conveyor's modular design comprehends trouble-free line configurations, site installation and maintenance making them cost effective and simple to use.

It is designed to run standard MODU System chain widths 63 mm (MS2), 83 mm (MM3), 140 mm (ML2) and 225 mm (MX2). Just as the aluminium frame conveyors, the stainless steel conveyor offers multi-flex capability. From drive unit to idler end unit, these conveyors frame are built 100% from stainless steel, in order to meet the most stringent demands of customers.

The D Series conveyors are designed with similar concept as M Series conveyor, they are easy to install & reconfigure, flexible and reliable for your daily operation in production floor.

The four types of stainless steel conveyors available are suitable for a wide range of applications:

- Applications in the food processing industry, where aggressive cleaning agents must be used for hygiene reasons
- Applications in the pharmaceutical industry, where hygiene is extremely important
- Applications in the cosmetics industry
- Applications in industries where cleanliness and quick and easy cleaning is essential.

Benefit of our new D series

- Minimum dust accumulation thus easy to be clean.
- Low noise level and low power consumption.
- Able to be integrate with other application and device such as sensors and diverters.
- Flexible to install and match with site arrangement layout.

Please consult MODU representative for further information and assistance.

Units: Dimension (mm)

Materials

Material	Components
Acetal Copolymer, POM (PolyOxyMethylene)	Conveyor Chain
Acetal Copolymer, POM PERMASTAT (PolyOxyMethylene)	Conveyor Chain, Anti -static
Acetal Homopolymer Delrin, Kevlar fiber reinforced	Conveyor Chain, Kevlar
Polypropylene, PP	Conveyor Chain
	Chain guards
	Wheel cap
	End caps
Aluminium, extruded & anodised AA 6063-T6 (All Straight Sections) AA 6063-T5 (Bend Sections)	Angle Brackets
	Beam Support Brackets
	Conveyor Beam
	Vertical Bends
	Guide Rail
	Guide Rail Distance Tube
	Support Beam
	Drive/Idler Side Plate (ML2)
	Drip Tray
Polyethylene, PE 500 (HDPE)	Vertical Bend (special case)
Polyamide injection, PA 6	Pivot for Chain
Polyamide, glass fibre reinforced, PA 6 GF30%	Guide Rail Bracket
	Guide Rail Support
	Drive/Idler Side Plate (MS2 & MM3)
	Wheel Bend Wheel
	Drive Sprocket
	Idler Roller (MS2)
High Density Polyethylene, HDPE	Slide Rail
	Guide rail & Guide rail cover
Cast Nylon	Machining sprocket / roller (MM3,ML2 & MX2)
	Chain Return Guide
<i>Thermoplastic Elastomer</i>	
TPE 60A	Inserts for Friction Top Chain
	T-slot cover
	Inserts for Gripper Chain (Medium)
TPE 73A	Inserts for Gripper Chain (Hard)
TPE 50A	Inserts for Gripper Chain (Soft)
TPU	Inserts for Gripper Pad, Wedge Gripper
UHMW-PE	Slide Rail
PVDF	Slide Rail
Nylon	Inner Slide Rail for Plain Bend

Please consult MODU representative for further information and assistance.

Units: Dimension (mm)

Resistance to chemicals:

MODU System components are basically can withstand continuous contact with most chemicals. However, it is recommended to avoid: Acids with pH lower than 4 & Bases with pH higher than 9.

The following table specifies the resistance of several materials used in the conveyor on selected chemicals, valid for temperature range up to the maximum of 60°C (150°F) and it is to be considered as guideline only. Furthermore, precautions should be taken when using cleaning agents. If you are in doubt on the materials to withstand your special environment, you should go for chemical test or contact our local dealer.

Material	Acetal resin	Polyamide	Hi-density polyethylene	Elastomer 70A	TPU	Aluminium
	POM	PA	HDPE			AL
Acids:						
Acetic acid	3	4	3	-	-	2
Benzoic acid	3	4	1	-	-	4
Citric acid	3	2	2	-	-	
Chromic acid	4	4	1	-	-	3
Hydrofluoric acid	4	4	1	-	-	4
Hydrochloric acid	4	4	1	-	-	3
Hydro cyanic acid	4	4	2	-	-	1
Nitric Acid	4	4	4	-	-	3
Phosphoric acid	4	4	1	-	-	3
Sulphuric acid	4	4	2	1	1	3
Tartaric acid	3	2	1	-	-	1
Basic compounds:						
Ammonia	1	2	1	-	-	2
Calcium hydroxide	1	2	1	-	-	4
Caustic soda	1	2	1	1	1	3
Potassium hydroxide	1	2	1	-	-	4
Salts:						
Potassium bicarbonate	2	2	2	-	-	1
Potassium permanganate	2	4	2	-	-	1
Sodium cyanic	2	2	2	-	-	4
Acid salts	2	3	1	-	-	-
Basic salts	1	2	1	-	-	-
Neutral salts	1	2	1	-	-	-
Gases:						
Carbon dioxide	3	1	1	-	-	1
Carbon monoxide	2	1	1	-	-	1
Chlorine	2	4	3	-	-	1
Hydrogen sulphide	3	1	2	-	-	1
Sulphur dioxide	2	3	-	-	-	1
Organic compounds & solvents						
Acetone	1	1	4	3	3	1
Benzene	1	2	4	3	3	1
Butyl alcohol	2	2	2	-	-	1
Carbon disulphide	1	2	3	-	-	1
Chloroform	1	3	4	-	-	-
Ethyl acetate	1	2	2	-	-	1
Ethyl alcohol	1	2	1	-	-	1
Heptane	2	1	2	-	-	-
Methyl alcohol	1	2	1	-	-	2
Methyl ethyl ketone	1	1	4	4	4	2
Nitrobenzene	2	2	3	-	-	1
Phenol	3	4	2	-	-	1
Others:						
Beer	1	2	2	-	-	1
Fruit juices	1	2	3	-	-	2
Gasoline	1	2	2	-	-	1
Milk	1	1	2	-	-	1
Oil	1	1	2	-	-	1
Vegetable juices	1	2	3	-	-	2
Vinegar	1	2	3	-	-	1
Water	1	2	2	-	-	2

Legend

1	Very good
2	Good
3	Moderate resistance
4	Not recommended

Units: Dimension (mm)