

MODULAR
BELTS AND CHAINS



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For over 30 years, MAFDEL has manufactured a wide range of **thermoweldable extruded belts** and **conveyor belts** for many industries.

To complement its broad range of product, MAFDEL presents Modutech **modular belts**, designed to meet the needs of the most various industries.



CONFIGURATION

HORIZONTAL CONVEYOR



INCLINED CONVEYOR



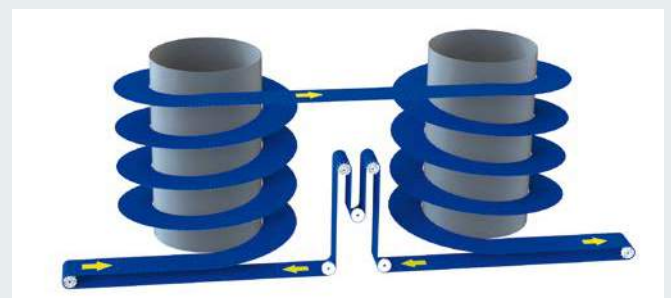
SWAN-NECK CONVEYOR



CURVED CONVEYOR



SPIRAL CONVEYOR





ADVANTAGES

A FLEXIBLE AND ECONOMICAL CONVEYING SOLUTION

- Unlimited width
- Wide operating temperatures, allowing fast freezing as well as cooling
- Smooth or open surface types (depending on series)
- Quick and easy repairs without specialist tools
- Lower stock requirements due to modular construction
- Resistance to impact, cuts, friction and chemicals (dependent on material)
- Variety of module pitch available
 - Mechanical resistance
 - Reduction of transfer gaps for small products
 - Polygon effect limited (dependent on series)
- Low and stable friction coefficient on support bed. In product contact, see “LF” type.
- FDA compliance for all conveyor belt types.

POSITIVELY SPROCKET DRIVEN (MOULDED OR MACHINED)

- No conveyor belt pretension, except for specific applications.
- Simplified conveyor design
- Stable speed
- Fixed center-to-center distances applicable

MANY CONFIGURATIONS POSSIBLE

- Horizontal, curved, inclined/declined, spiral and different swan neck styles
- The option to combine configurations:
 - Elimination of transfer issues
 - A single drive motor
 - A single belt

OPTIONS TO ADD ACCESSORIES (MOULDED OR MACHINED)

- Profiles, side guards, rubber-top modules, wheels, pop-up flights
- Dependent upon the series, fastener attached accessories can be possible



CHARACTERISTICS









STANDARD MATERIALS

	Characteristics	Certification	Temperature range	
Polypropylene (PP)	Standard material for most conveying applications. Excellent chemical resistance.	FDA	+5°C to +80°C	
Polyethylene (PE)	For low temperature applications, good resistance to impact. Excellent chemical resistance. Not recommended for abrasive applications.	FDA	-70°C to +60°C	
Acetal (AC)	Low friction coefficient, high traction force for heavy load applications. Low chemical resistance.	FDA	Dry conditions -38°C to +90°C	Wet conditions -35°C to +60°C

SPECIAL MATERIALS

	Characteristics	Certification	Temperature range	
Polyamide 6 (PA6)	High traction force for heavy loads and abrasive applications. Do not use in humid conditions.	FDA	Dry conditions -35°C to +120°C	Wet conditions Do not use
Polyamide 6.6 (PA6.6)	High traction force for heavy loads and abrasive applications. Do not use in humid conditions.	FDA	Dry conditions -35°C to +120°C	Wet conditions Do not use
Antistatic acetal (AC-AS)	Dramatically reduces the electrostatic charge Low friction coefficient, high traction force for heavy loads applications. Low chemical resistance.	-	Dry conditions -38°C to +80°C	Wet conditions Do not use
Detectable acetal (AC-DB)	For X-ray applications, metal detectors.	-	Dry conditions: -35°C to +90°C	
Detectable polypropylene (PP-DB)	For X-ray applications, metal detectors.	FDA	+5°C to +108°C	
High temperature polypropylene (PPH)	High chemical and thermal resistance.	FDA	+5°C to +108°C	
Acetal (AC LF)	Very low friction coefficient, high traction force for heavy loads applications. Low chemical resistance.	FDA	-35°C to +90°C	









Shades

							
White	Brown	Grey	Black	Blue	Red	Yellow	Ivory



Industries		MD127	HP254	HP508	EC254
Food	Meat and poultry	●			●
	Fish	●			●
	Fruit and vegetables	●	●		●
	Canning industry	●	●	●	
	Milk based product	●			●
	Confectionary	●			●
	Bakery	●			●
	Beverage	●	●	●	
Wood	Saw mills		●	●	
	Particle board		●	●	
	Furniture		●	●	
Paper and printing	Cardboard	●	●	●	
	Paper	●	●	●	
	Tissue	●	●	●	
	Printing	●	●	●	
Chemical	Cosmetics, Pharmaceutical	●	●		
Plastic	Injection moulding	●	●		
Rubber	Tyre		●	●	
Construction industry	Glass		●	●	
	Marble and ceramics			●	
	Tiles, bricks			●	
	Insulation		●	●	
Automotive	People movers			●	
	Water resistance booth			●	
Logistics	General handling	●	●	●	●
	Postal sorting	●	●		
	Sorting office		●	●	
	Distribution centre		●		
	Airport		●	●	
	Packaging	●	●		
	Recycling centre	●	●		
	Electronics	●	●		
	Laundry	●	●		

INDUSTRIAL APPLICATION

							
EC381	EC508	Curve	MD820-821	MD880-879 MD880-879 HDP	Flexi Chain	MD1701R -TABR	MD600S - TABS
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STRAIGHT RUNNING



The MD series has a **pitch of 12.7mm** allowing a nose bar diameter of 20mm.

The MD series creates **less vibration** as a result of a lower polygon effect, and more stability for small products, whilst allowing **higher speeds**.

The low friction belt surface (LF type) allows **accumulation** and the **easy release of products**.

	MD127C		MD127 C-LF		MD127 FG 20		MD127 FG14 LF	
								
			Low friction coefficient				Low friction coefficient	
Pitch (mm)	12.7		12.7		12.7		12.7	
Minimum pitch diameter (mm)	81.4		81.4		81.4		81.4	
Open area	0%		0%		20%		14%	
Belt surface	Flat		Flat		Open		Perforated	
Materials Belts and pins								
Polyethylene	✓		-		✓		-	
Polypropylene	✓		-		✓		-	
Acetal	✓		✓		✓		✓	
Polyamide	On request		On request		On request		On request	
Accessories								
Profiles (Height-mm)	25	50	-		25	50	-	
Side guards (mm)	-		-		-		-	
Wheels	-		-		-		-	
Rubber-top modules	-		-		-		-	








STRAIGHT RUNNING

A feature of the HP series is the sprocket engagement which **reduces vibration during operation** and offers a **high traction force**.

These belts are advised for long center distances, bidirectional conveying, and other applications which require **good impact resistance**.

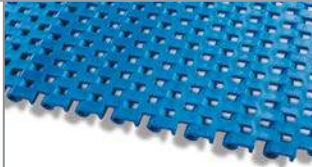

With their rubber top modules, the "GT" belts allow the conveyance of products on inclined or other applications requiring adhesion.

	HP254C	HP254 PR23	HP254 GT	HP508 C	HP508RR 36
			 Adhesive surface		 Comb transfer
Pitch (mm)	25.4	25.4	25.4	50.8	50.8
Minimum pitch diameter (mm)	82.6	82.6	82.6	101.6	101.6
Open area	0%	23%	0%	0%	36%
Belt surface	Flat	Perforated	Adhesive	Flat	Grooved
Materials belts and pins					
Polyethylene	✓	✓	✓	✓	-
Polypropylene	✓	✓	✓	✓	✓
Acetal	✓	✓	✓	✓	✓
Polyamide	On request	On request	On request	On request	On request
Accessories					
Profiles (height-mm)	25 50 75	25 50 75	-	25 50 75 100	25 50 75 100
Sideguards (mm)	25 50	25 50	-	-	-
Wheels	-	-	-	-	-
Rubber-top modules	-	-	✓	-	-

STRAIGHT RUNNING







The EC series of conveyor belts have a smooth underside which facilitates **easy cleaning**. They are particularly recommended for **food industry application** where bacterial proliferation is significant and **high traction force** and a **good resistance to impact** is required.

	EC254 C				EC254 FG35				EC254 PR24			
												
Pitch (mm)	25.4				25.4				25.4			
Minimum pitch diameter (mm)	81.6				81.6				81.6			
Open area	0%				35%				24%			
Belt surface	Flat				Open				Perforated			
Materials belts and pins												
Polyethylene	✓				✓				✓			
Polypropylene	✓				✓				✓			
Acetal	✓				✓				✓			
Polyamide	On request				On request				On request			
Accessories												
Profiles (height-mm)	25	50	75	100	25	50	75	100	25	50	75	100
Sideguards (mm)	-				-				-			
Wheels	-				-				-			
Rubber-top modules	-				-				-			



STRAIGHT RUNNING



The EC series conveyor belts have a smooth underside which facilitates **easy cleaning**. They are particularly recommended for **food industry application** where bacterial proliferation is significant and **high traction force** and a **good resistance to impact** is required.

	EC381 C				EC381 PR22				EC381 FG30				EC381 NT			
																
Pitch (mm)	38.1				38.1				38.1				38.1			
Minimum pitch diameter (mm)	100.4				100.4				100.4				100.4			
Open area	0%				22%				30%				0%			
Belt surface	Flat				Perforated				Open				Nub top			
Materials belts and pins																
Polyethylene	✓				✓				✓				✓			
Polypropylene	✓				✓				✓				✓			
Acetal	✓				✓				✓				✓			
Polyamide	On request				On request				On request				On request			
Accessories																
Profiles (height-mm)	25	50	75	100	25	50	75	100	25	50	75	100	25	50	75	100
Side guards (mm)	25		50		25		50		25		50		25		50	
Wheels	-				-				-				-			
Rubber-top modules	-				-				-				-			

STRAIGHT RUNNING



The EC series conveyor belts have a smooth underside which facilitates **easy cleaning**. They are particularly recommended for **food industry application** where bacterial proliferation is significant and **high traction force** and a **good resistance to impact** is required.

	EC508 C				EC508 PR22			
								
	Impacts resistance							
Pitch (mm)	50.8				50.8			
Minimum pitch diameter (mm)	132.8				132.8			
Open area	0%				22%			
Belt surface	Flat				Perforated			
Material belts and pins								
Polyethylene	✓				✓			
Polypropylene	✓				✓			
Acetal	✓				✓			
Polyamide	On request				On request			
Accessories								
Profiles (height-mm)	25	50	100	150	25	50	100	150
Sideguards (mm)	25	50	100		25	50	100	
Wheels	-				-			
Rubber-top modules	-				-			





SIDE FLEXING

This EC series is mainly aimed at applications requiring **combined configurations** of straight, curved or spiral sections.

Their open area allows **easy cleaning**, facilitated by cleaning access between modules and pins.

Version with collapse factor of 1.6: on request.

	EC254 R21	EC381 R21	
			
		High mechanical resistance	
Pitch (mm)	25.4	38.1	
Minimum pitch diameter (mm)	66.4	99.6	
Open area	36%	32%	
Collapse factor	2.1	2.1	
Belt surface	Open	Open	
Materials belts and pins			
Polyethylene	-	-	
Polypropylene	✓	✓	
Acetal	✓	✓	
Polyamide	On request	On request	
Accessories			
Profiles (height-mm)	-	25	50
Sideguards (mm)	-	-	
Wheels	✓	✓	
Rubber-top modules	-	-	



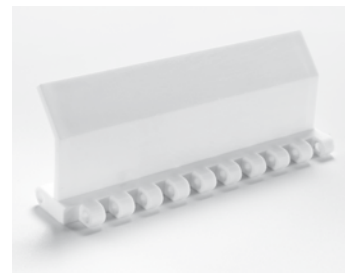
STRAIGHT PROFILES

- Profiles allow the conveying products on an inclined application.
- Heights: 25 to 150mm.
- Widths recut on request.
- Profiles can be **grooved** to reduce the sticking of products*.
- **Reinforced profiles** with gussets depending on belt type.



SCOOPED PROFILES

- Scooped profiles increase the volume of conveyed products on steep inclines.
- Height: 50mm*
- Widths recut on request
- Profiles can be **grooved** to reduce the sticking of products*.



SIDEGUARDS

- Heights: 25 to 100mm*.
- Positioning of the sideguards in conjunction with belt edges: refer to technical sheet.
- Minimum flexing on reverse bending: refer to technical sheet.



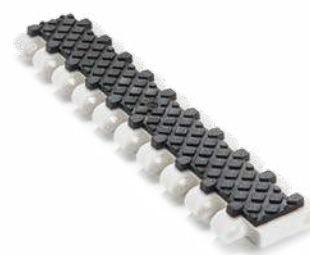
*Availability according to the belt type.



ACCESSORIES

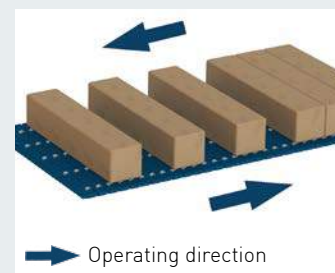
RUBBER-TOP MODULES

- Rubber-top modules allow the conveyance of products on inclines or declines.
- Material: Embossed black rubber 45ShA and not available in food grade.
- Distribution on the belt by request.






WHEELS

- Material: Acetal.
- Technical characteristics: refer to technical sheet
- Wheels are used to reduce the accumulation effort, or create space between conveyed items.



SPROCKETS

MOLDED	MACHINED	DISMANTABLE
		
Polyamide Glass filled Polyamide Acetal	Polyethylene Acetal	Polyethylene Acetal

Square bores of 40mm or circular bores of 25 or 30mm, others on request.
Locking retaining rings for square or circular shafts on request.

STRAIGHT RUNNING SLAT CHAIN



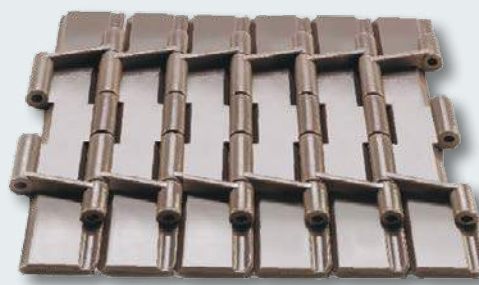
Straight running slat chains are particularly suited for the conveyance and the accumulation of cans and glass or plastic bottles.

The conveyance of plastic, cardboard or metallic frames and trays is also possible.



MD820

Material	Width (mm)	Pitch (mm)
Pre-lubricated brown acetal	82.5	38.1
	101.6	
	114.3	
	152.4	
	190.5	



MD821

Material	Width (mm)	Pitch (mm)
Pre-lubricated brown acetal	190.5	38.1
	254	
	304.8	



SIDE FLEXING SLAT CHAIN



MD880 - 879

Material	Minimum bend radius (mm)	Width (mm)	Hold-down tabs	Pitch (mm)
Pre-lubricated brown acetal	400	82.5	NO	38.1
		101.6		
		114.3		
		152.4		
		190.5		



MD880 - 879 HDP

Material	Minimum bend radius (mm)	Width (mm)	Hold-down tabs	Pitch (mm)
Pre-lubricated brown acetal	400	82.5	YES	38.1
		101.6		
		114.3		
		152.4		
		190.5		



FLEXI CHAIN SERIES

Material	Minimum bend radius (mm)	Width (mm)	Guide rollers	Pitch (mm)
White pre-lubricated acetal	140	82.5	YES	33.5
	160	114.3		

STRAIGHT AND SIDE FLEXING CRATE CHAIN



Straight and side flexing crate chain is particularly suitable for the conveyance of plastics trays, pallets, or other containers...



MD 1701 R - MD 1701 TAB R

Material	Minimum bend radius (mm)	Width (mm)	Hold-down tabs		Pitch (mm)
			MD1701R	MD 1701 TABR	
White pre-lubricated acetal	150	52.5	NO	YES	50

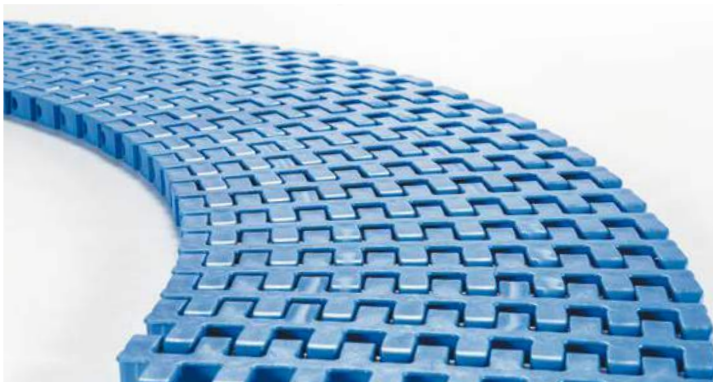


MD 600 S - MD 600 TAB S

Material	Minimum bend radius (mm)	Width (mm)	Hold-down tabs		Pitch (mm)
			MD 600 S	MD 600 TAB S	
White pre-lubricated acetal	-	43	NO	YES	63.5



APPLICATIONS





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