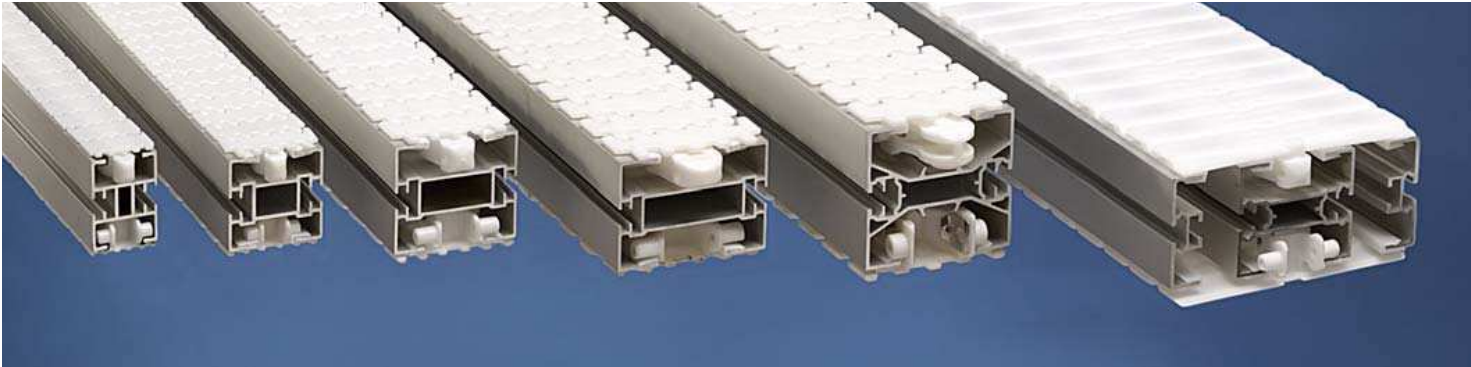


Product overview

Standard aluminium conveyor systems

- PO
- XS
- XL
- XLP
- XM
- XMP
- XH
- XK
- XKP
- XB
- GR
- CS
- XT
- XC
- XF
- FST
- XTM
- XLX
- XXM
- XXH
- GRX
- CSX
- APX
- IDX



FlexLink standard conveyors XS XL XM XH XK XB

Together, the FlexLink standard conveyor product lines cover a wide range of applications. These multiflexing conveyor systems use plastic chains in many configurations. The chain design permits horizontal as well as vertical change of direction. Chain widths range from 44 mm up to 295 mm, for product widths up to 400 mm. Each system consists of a wide range of modular components which can be fitted using simple hand tools.

Pallet handling products (XLP-XMP-XKP)

Catalogue sections XLP/XMP/XKP contain special products for pallet handling, including pallets, pallet locating stations, pallet stop cylinders and pallet transfer stations. The systems are based on conveyor components from the standard conveyor lines. The XK pallet handling system also includes divert/merge devices for easy transfer of pallets between conveyors.

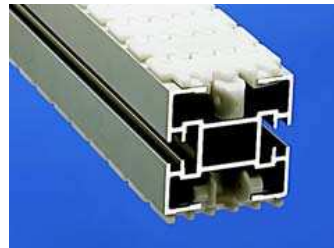
Conveyor system XS (44 mm chain)



Features
Chain permits transport of very small items which are otherwise difficult to handle. Compact and neat design.

Examples of application areas
Small ball bearings, perfume bottles, pharmaceutical bottles, sintered metal components.

Conveyor system XL/XLP (63 mm chain)



Features
Suitable for a wide range of applications. Preferable in high speed applications. Includes components for pallet handling (XLP) and vertical wedge conveyors.

Examples of application areas
Tissue paper, gear wheels, aerosol cans, medium size ball bearings, piston parts, yoghurt, fuel injectors, dry batteries, plastic bottles, tape cassettes, matches, cheese boxes, coffee and tea packages.

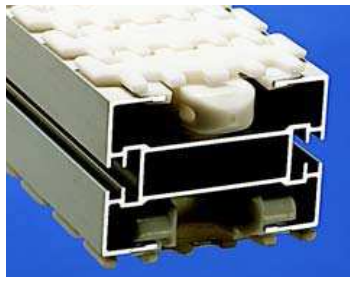
Conveyor system XM/XMP (83 mm chain)



Features
Suitable for a wide range of applications. Higher capacity than XS and XL. Includes components for pallet handling (XMP) and vertical wedge conveyors.

Examples of application areas
Ball valves, water meters, disk drives, pie packages, film cartridges, plastic bottles, beverage cans, products on pallets, paint cans, socks.

**Conveyor system XH
(103 mm chain)**



Features
Suitable for larger items, especially if point of balance is somewhat off-center. Higher capacity than XS and XL.

Examples of application areas
Large ball bearings, turbo rotors, safety belt brackets, electric motors, shock absorbers, video cassettes, steering arm components, boxes.

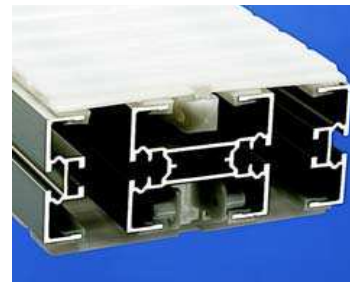
**Conveyor system XK/XKP
(102 mm chain)**



Features
Suitable for larger items, especially if point of balance is somewhat off-center. Higher capacity than other types. Includes components for pallet handling (XKP).

Examples of application areas
Ball and roller bearings, heavy boxes, gear wheels, motor parts on pallets, disk brakes, hydraulic pumps

**Conveyor system XB
(175 mm/295 mm chain)**



Features
Chain travels on four slide rails. Wide track sideflexing safety chain. Compact horizontal and vertical bends. Suitable for soft packages

Examples of application areas
Large cardboard boxes, products in soft plastic bags. Examples: detergent powder, wrapped tissue paper rolls, food products, personal care products

Stainless steel conveyor systems

**Hygienic conveyor system XMY
(83 mm chain)**



Features
Split beam in stainless steel. Return chain runs in enclosed bottom profile. Open design, optimised for easy cleaning. High speed operation. Standard XM chain.

The hygienic conveyor system uses the standard 83 mm plastic chain, traveling in easy-to-clean stainless steel beams. It is designed for speeds ranging from 5 m/min to 100 m/min. Design focus was to meet the requirements of the dairy, food and personal products industries with regard to hygiene, safety, speed, and environment.

Examples of application areas
Plastic bottles, packaged dairy products, beverage cans, food products.

**Stainless steel conveyor system Series X
(63/83/103 mm chain)**



Features
Split beams in stainless steel for easy cleaning. High resistance to aggressive chemicals. Matching drive units, idlers and guide rail and support components. Standard XL/XM/XH chain.

XL, XM and XH conveyors Series X are stainless steel designs adapted to the requirements of the food processing, pharmaceutical and hygiene industries. The Series X system is designed for easy integration with aluminium systems.

Examples of application areas
Aerosol cans, liquid soap in plastic bags, soft cheese, detergent powder, tissue paper rolls, food products, personal care products.

Twin-track pallet conveyor system XT



Features

Twin-track flexible plastic chain pallet conveyor system. Modular design concept for simplified engineering and ordering. Fast configuration and plug-and-play capability for improved productivity.

Pallet conveyor system XT is well suited for manual and automatic assembly and test systems in the automotive and electrical/electronics industries. It can handle square and rectangular pallets from 240 mm x 240 mm up to 640 mm x 640 mm.

Examples of application areas

Manual and automatic assembly and test systems in the automotive and electrical/electronics industries. Examples: assembly and transport of receivers, computers, gear boxes, medical equipment, sewing machines, cell phones, housings, pumps, and air filters.

Conveyor accessories

Guide rail components (GR)

Catalogue section *Guide rail components* deals with various types of guide rails and guide rail support components. Those products are used with several of the FlexLink conveyor systems. A number of pre-designed guide rail structures are shown as examples. New components are available for building automatically adjustable guide rail systems, accommodating products with different widths.

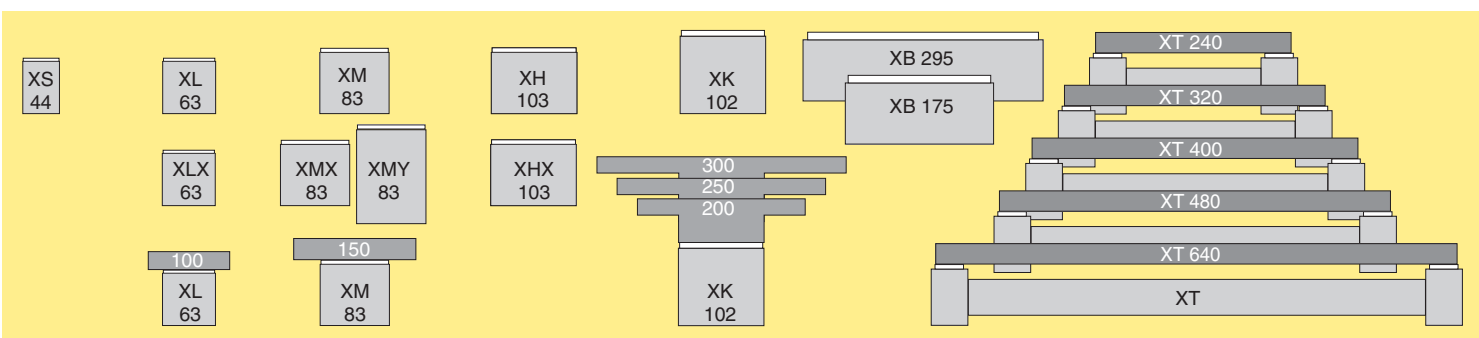
Conveyor support components (CS)

The FlexLink conveyors are held in place by a well balanced range of support components, with beam support brackets, support beams, feet, etc.

A number of pre-designed support structures are shown as examples

Conveyor structures built from aluminium beams with standardized T-slots simplify attachment of components and accessories.

Conveyor comparison chart



Simplified end views of FlexLink conveyor beams, drawn to the same relative scale. Numeric values are widths in mm.

Legend: Light grey: conveyor beams. Dark grey: pallets. White: chain. XL/XM/XH X: stainless steel conveyor.

PO

XS

XL

XLX

XM

XMP

XH

XK

XKP

XB

GR

CS

XT

XC

XF

FST

XT

XLX

XT

XHX

GRX

CSX

APX

IDX

Typical standard conveyor components

Feet and support beams



Beam support brackets



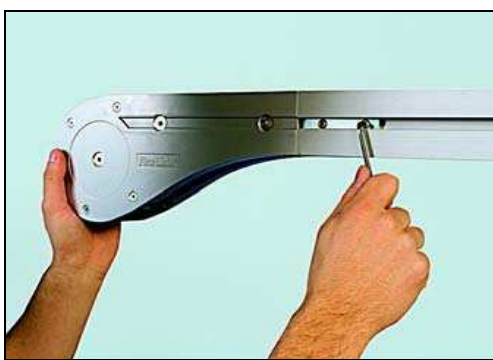
Conveyor beams and bends



Drive units



Idlers



Slide rail



Conveyor chain



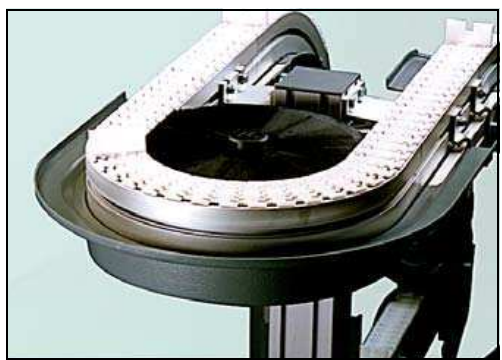
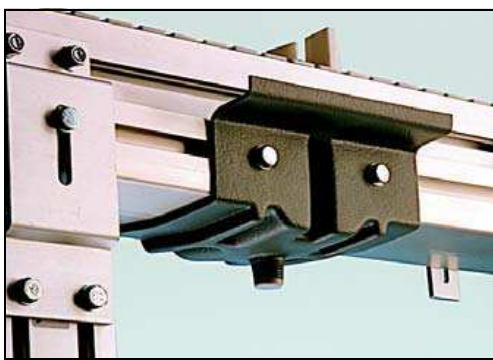
Guide rail brackets



Guide rails



Drip trays and drip pans



Drive units and idler units XS, XL, XM, XH, XK

End drive units



End drive units, direct drive



End drive units, double



Intermediate drive units



Catenary drive units



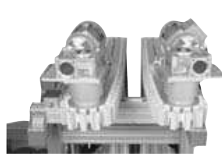
Horizontal bend drive units



Synchronous drive units



End drive units



Idler units



Bends XS, XL, XM, XH, XK

Wheel bends



Horizontal plain bends



Vertical bends



Accessories XS, XL, XM, XH, XK

Angle plates



Angle plates for bends



Front piece



Drip trays



Drip pans for wheel bends



Drip pans for vertical bends



Guidance XS, XL, XM, XH, XK, XB

Guide rail profiles



Flexible roller guide rail



Guide discs (not XB)



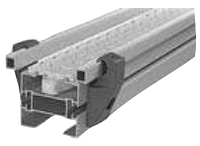
Built-up guide rail brackets



Fixed guide rail brackets, aluminium



Fixed guide rail brackets, polyamide



Adjustable guide rail brackets, aluminium



Adjustable guide rail brackets, polyamide



Drive units and idler units XS, XL, XM, XH, XK

End drive units



End drive units, direct drive



End drive units, double



Intermediate drive units



Catenary drive units



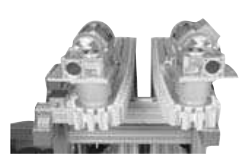
Horizontal bend drive units



Synchronous drive units



End drive units



Idler units



Bends XS, XL, XM, XH, XK

Wheel bends



Horizontal plain bends



Vertical bends



Accessories XS, XL, XM, XH, XK

Angle plates



Angle plates for bends



Front piece



Drip trays



Drip pans for wheel bends



Drip pans for vertical bends



Guidance XS, XL, XM, XH, XK, XB

Guide rail profiles



Flexible roller guide rail



Guide discs (not XB)



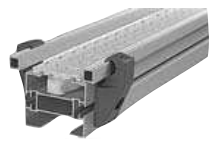
Built-up guide rail brackets



Fixed guide rail brackets, aluminium



Fixed guide rail brackets, polyamide





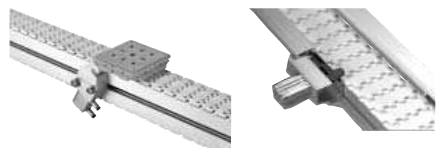
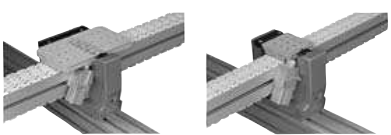
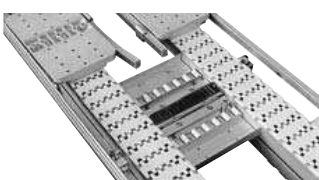



Adjustable guide rail brackets, aluminium



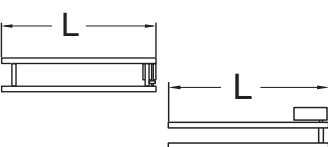
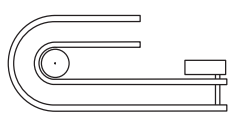
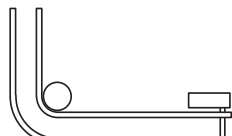
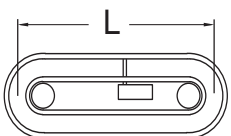
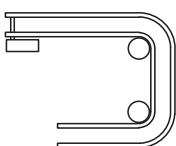
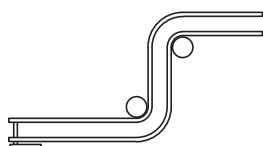
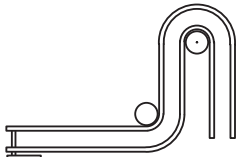
Adjustable guide rail brackets, polyamide



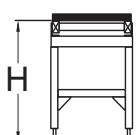
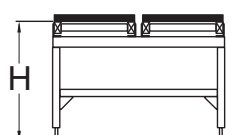
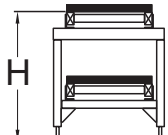
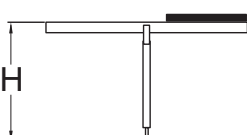
Pallet handling components XL, XM, XK **PO**

<p><i>Product carriers (pallets)</i></p> 	<p><i>Guide rails for bend</i></p> 	<p><i>Pallet stop device</i></p> 	<p>XS</p> <p>XL</p> <p>XLP</p>
<p><i>Pallet locating station</i></p> 	<p><i>Pallet transfer station</i></p> 		<p>XM</p> <p>XMP</p>
<p><i>Diverter kits</i></p> 	<p><i>Merge kits</i></p> 	<p><i>Combined divert-merge kits</i></p> 	<p>XH</p> <p>XK</p> <p>XKP</p> <p>XB</p>

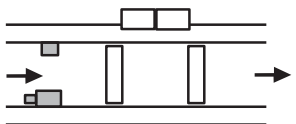
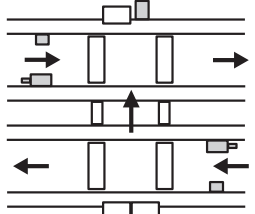
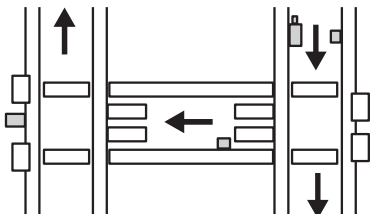
Modular pallet conveyor system XT – Conveyor modules GR

<p><i>Straight conveyor</i></p> 	<p><i>J shape conveyor</i></p> 	<p><i>L shape conveyor</i></p> 	<p><i>Closed loop conveyor</i></p> 	<p>CS</p> <p>XT</p>
<p><i>U shape conveyor</i></p> 	<p><i>Z shape conveyor</i></p> 	<p><i>F shape conveyor</i></p> 		<p>XC</p> <p>XF</p> <p>FST</p>

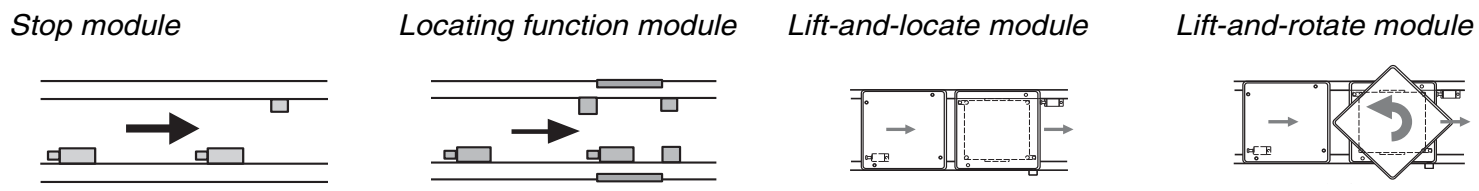
Modular pallet conveyor system XT – Support modules XMY

<p><i>Single module support</i></p> 	<p><i>Parallel module support</i></p> 	<p><i>Two-level module support</i></p> 	<p><i>Wheel bend support</i></p> 	<p>XLX</p> <p>XXM</p> <p>XHX</p>
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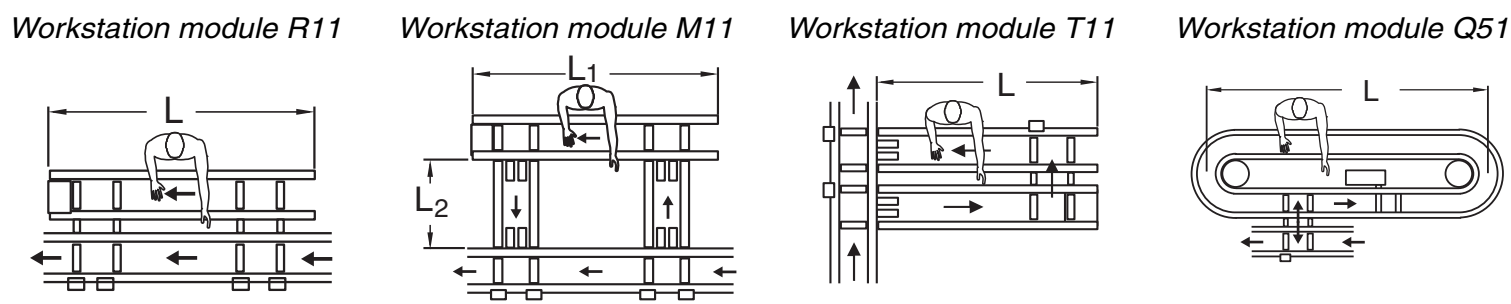
Modular pallet conveyor system XT – Transfer modules GRX

<p><i>Transfer module S</i></p> 	<p><i>Transfer module R</i></p> 	<p><i>Transfer module M</i></p> 	<p>CSX</p> <p>APX</p> <p>IDX</p>
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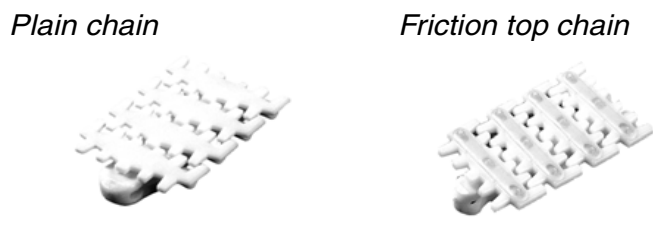
Modular pallet conveyor system XT – Stop/locate modules



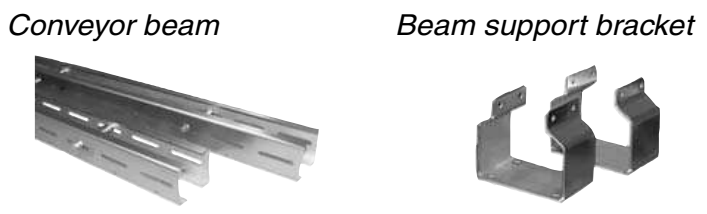
Modular pallet conveyor system XT – Workstation modules



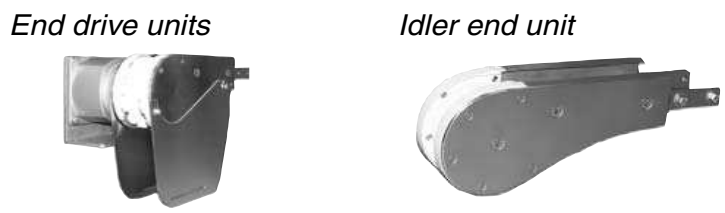
Stainless steel conveyor system Series X – Chains



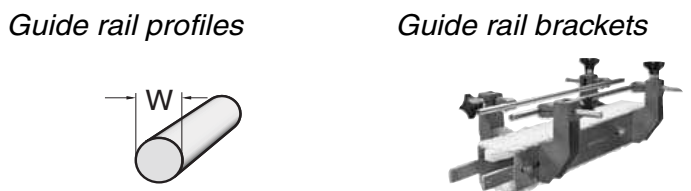
Series X – beams and beam support brackets



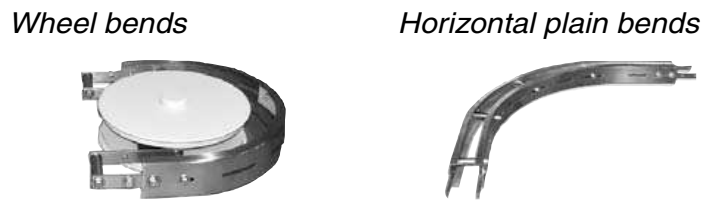
Series X – drive units and idlers



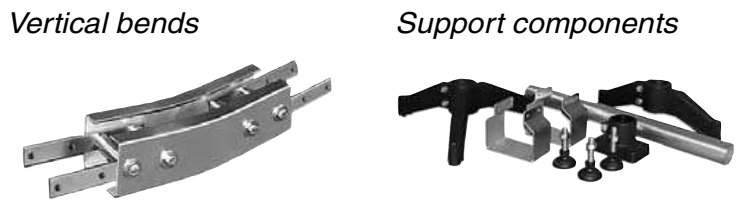
Series X – guide rail system



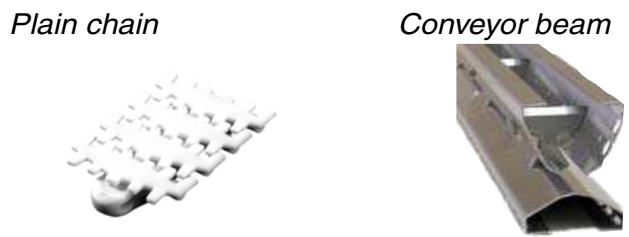
Series X – bends



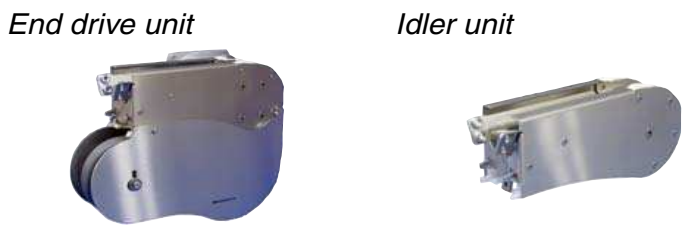
Series X – support



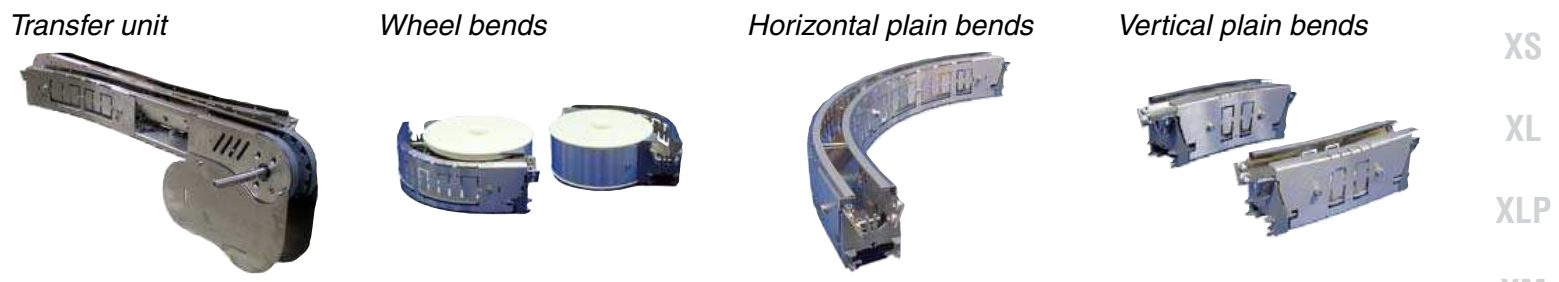
Hygienic conveyor Series XMY – chain and beam



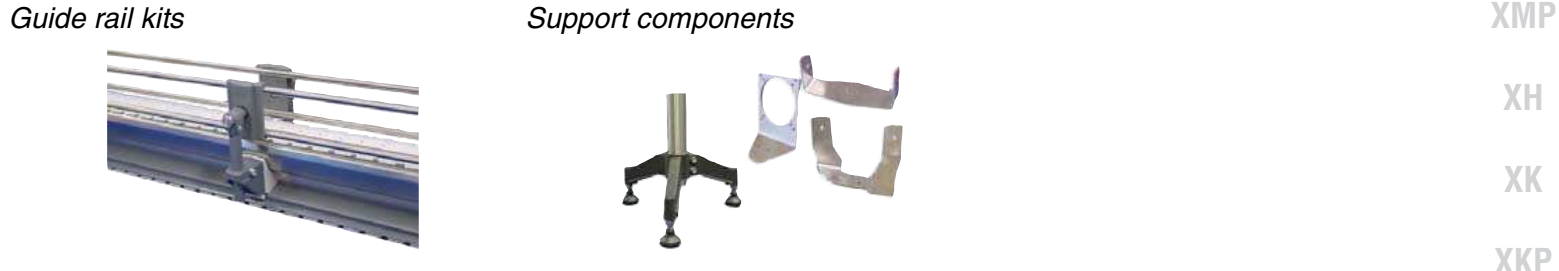
Series XMY – drive unit and idler



Series XMY – transfer unit Series XMY – bends **PO**

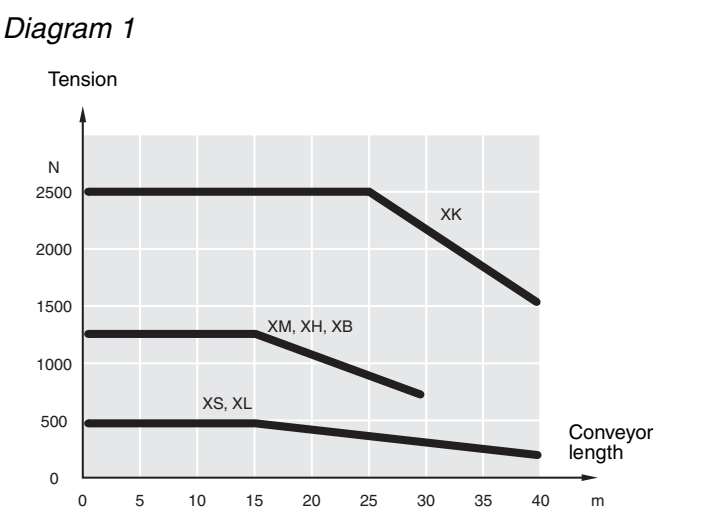


Series XMY – guide rail system Series XMY – support system

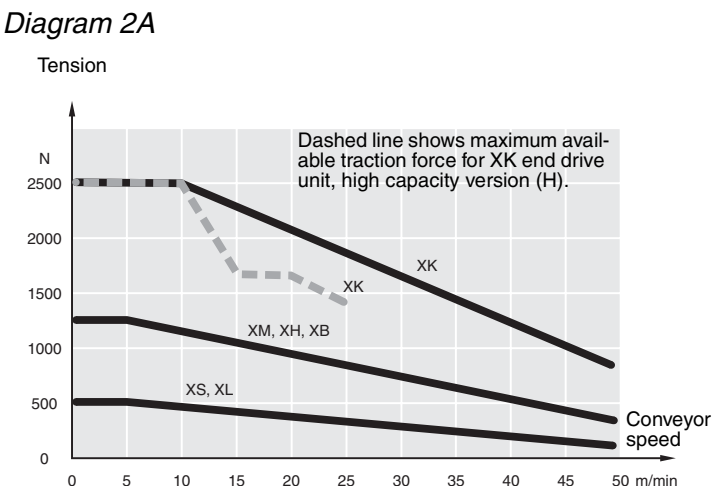


Technical data – conveyors

Chain tension limit

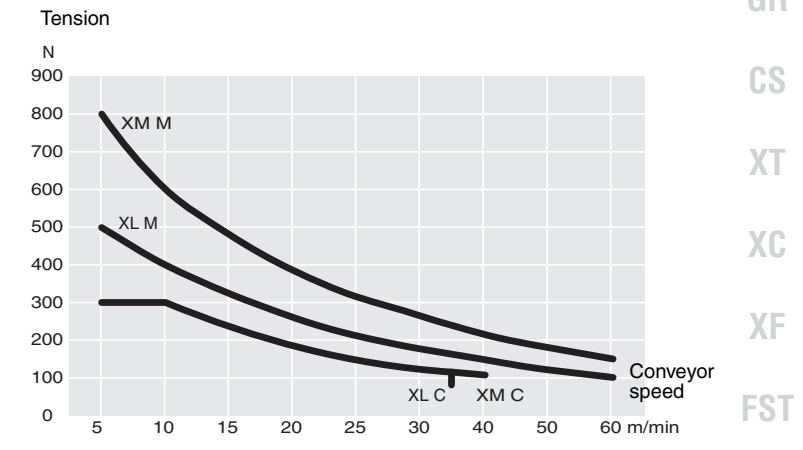


Max permissible chain tension versus conveyor length



Max permissible chain tension versus conveyor speed

Diagram 2B



Max permissible chain tension versus conveyor speed

Drive unit capacity limit

The required motor output power P depends on

- Traction force F
- Chain speed v

The following equation applies:

$$P [W] = 1/60 \times F [N] \times v [m/min]$$

The maximum permissible traction force of the various drive units, and other useful parameters, are shown in the following tables.

More information

Detailed information about the drive units can be found in "Drive unit guide" and "Spare parts". See "Technical library" on the FlexLink website.

Drive unit specifications
End drive unit

	XS	XL	XM	XH	XK	XB
Number of teeth on sprocket wheel	16	C: 11 M: 11 H: 16	C: 9 M: 9 H: 12	12	11	12
Chain pitch (mm)	25,4	25,4	33,5	35,5	38,1	33,5
Max. traction force (N)						
Type CN_P		300	300			
Type MN_P		500	800			
Type H, H_P, HN_P	500	500	1250	1250	2500	1250
Standard					1250	

Double drive unit

	XS	XL	XM	XH	XK
Number of teeth on drive wheel	16	16	12	12	11
Chain pitch (mm)	25,4	25,4	33,5	35,5	38,1
Max. traction force (N)	500	500	1250	1250	1250
c/c distance between the two lanes (mm)	55 or 90–350	66 or 110–350	86 or 130–350	106 or 150–350	106 or 150–350

Intermediate drive unit

	XL	XM	XH
Number of teeth on drive wheel	11	9	9
Chain pitch (mm)	25,4	33,5	35,5
Maximum traction force (N)	200	200	200

Catenary drive unit

	XL	XM	XH	XK
Number of teeth on drive wheel	16	12	12	11
Chain pitch (mm)	25,4	33,5	35,5	38,1
Maximum traction force (N)				
Type H	500	1250	1250	2500
Standard				1250

Horizontal bend drive unit

	XS	XL	XM	XH	XK
Pitch diameter (mm)	300	300	320	340	400
Maximum traction force (N)	200	200	200	200	200

Direct drive unit for wedge conveyor

See “End drive units”, above.

Synchronous drive unit for wedge conveyor

	XL	XM
Number of teeth on drive wheel	16	12
Chain pitch (mm)	25,4	33,5

Selecting the right chain material

Many FlexLink chains are available in several materials. See the *FlexLink Chain guide* for details. Consider the following when selecting the material:

Acetal resin (POM), pivot: polyamide (PA66)

The strongest material, used in most FlexLink chains. Good wear, chemical and heat properties. Complies with FDA regulations. Available in white, grey, and black colour. For lowest friction, use POM A which has a silicone additive. If silicone must be avoided, use POM B.

Conductive POM and ISD POM chains are available for use in static sensitive applications. Those chains are weaker than pure POM chains. Some POM chains can be ordered with PVDF pivots, for use in wet applications. Chains with steel top and POM base are available for high-wear applications.

Polyester (PBT), pivot: polyamide (PA66)

Strength is 50% of POM value. Higher friction than POM.

Polyvinylidene fluoride (PVDF), pivot: PVDF

Strength is 40% of POM value. Highly resistant to chemicals and high temperatures. Higher friction than POM.

Structural systems XC/XF

Features

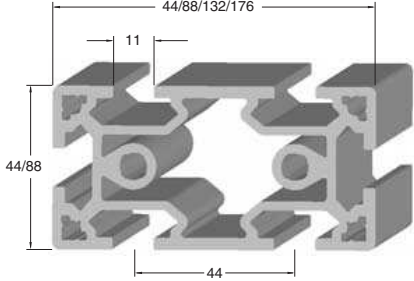
- A wide range of modular extruded aluminium beams with uniform T-slots.
- Standard component assortment for every application area.
- Easy to assemble, adjust, and dismantle using simple hand tools.

- Short time from concept to finished design.
- No welding or painting necessary.

Examples of application areas

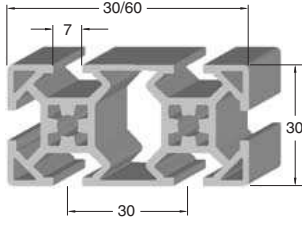
Frameworks, workbenches, enclosures, special machinery, pick-and-place units, gantry robots

XC – heavier frameworks and machine stands



FlexLink structural system XC is based on the module 44 mm and offers sturdy components which provide high load capacity for both static and linear motion systems. It is used within a wide range of applications, from frameworks, work benches and enclosures to special machinery, pick and place units and gantry robots.

XF – compact and light enclosure applications

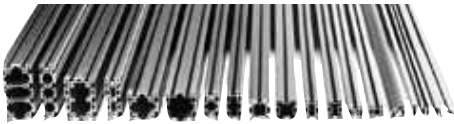


The FlexLink XF system is based on the module 30 mm. It consists of a range of standard components, with emphasis on enclosure applications.

Structural systems component overview

Beams XC

Support beams/Enclosure beams/Small beams



Beams XF

Support beams/Enclosure beams

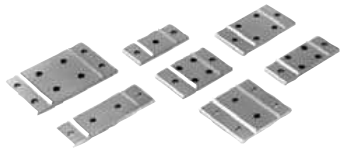


Connectors

Angle brackets



Mounting plates



Slot fasteners

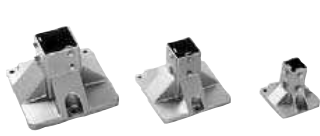


Small fittings



Feet

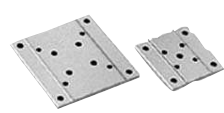
Feet, aluminium



Feet, polyamide



Foot plates



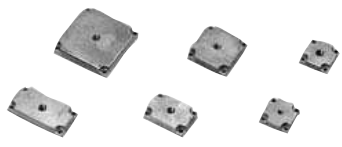
Adjustable feet



Castors



End plates



Floor attachment brackets



PO

XS

XL

XL P

XM

XMP

XH

XK

XKP

XB

GR

CS

XT

XC

XF

FST

XYM

XLX

XXM

XHX

GRX

CSX

APX

IDX

Enclosure components

Profiles for sliding door, Slide strip



Profiles for enclosures



Enclosure strips



Hinges, Multiblock



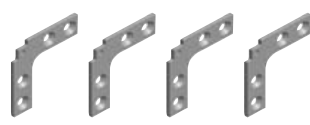
Handle



Enclosure connectors



Corner bracket kit



Ball latch lock kit



Safety switch kits



Components for linear motion and rotating motion

Sliding element for T-slot



Sliding elements for guide profile



Wheels, Wheel yoke



Runners for steel shaft



Roller units for linear beams



Joint, Extruded joint



Conduit elements

Conduit elements (cable ducts)

