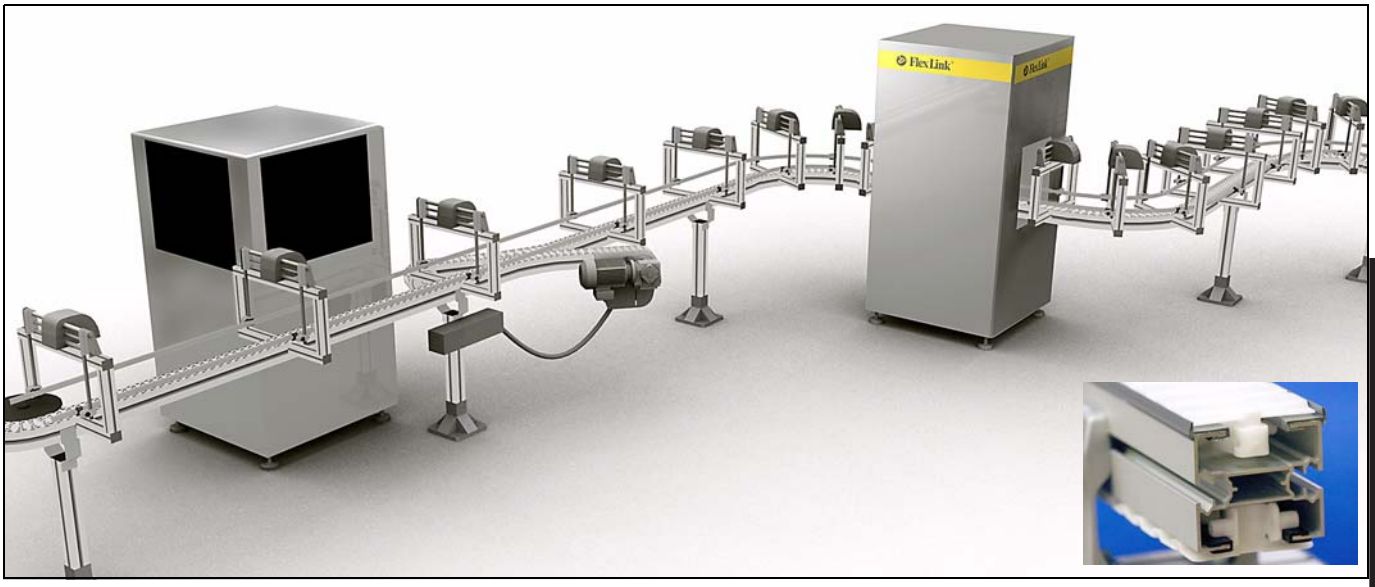
X85 conveyor system

System information



Technical characteristics

Beam width	85 mm
Chain width	83 mm
Chain pitch	33,5 mm
Drive unit capacity	300–1250 N
Chain tension limit	1250 N
Item width	20–200 mm
Maximum conveyor length	30 m
Maximum weight on conveyor	200 kg
Maximum load per 100 mm conveyor length	75 N
Maximum item weight, horizontal transport	15 kg
Maximum item weight, vertical transport	10 kg

Vertical wedge conveyor applications

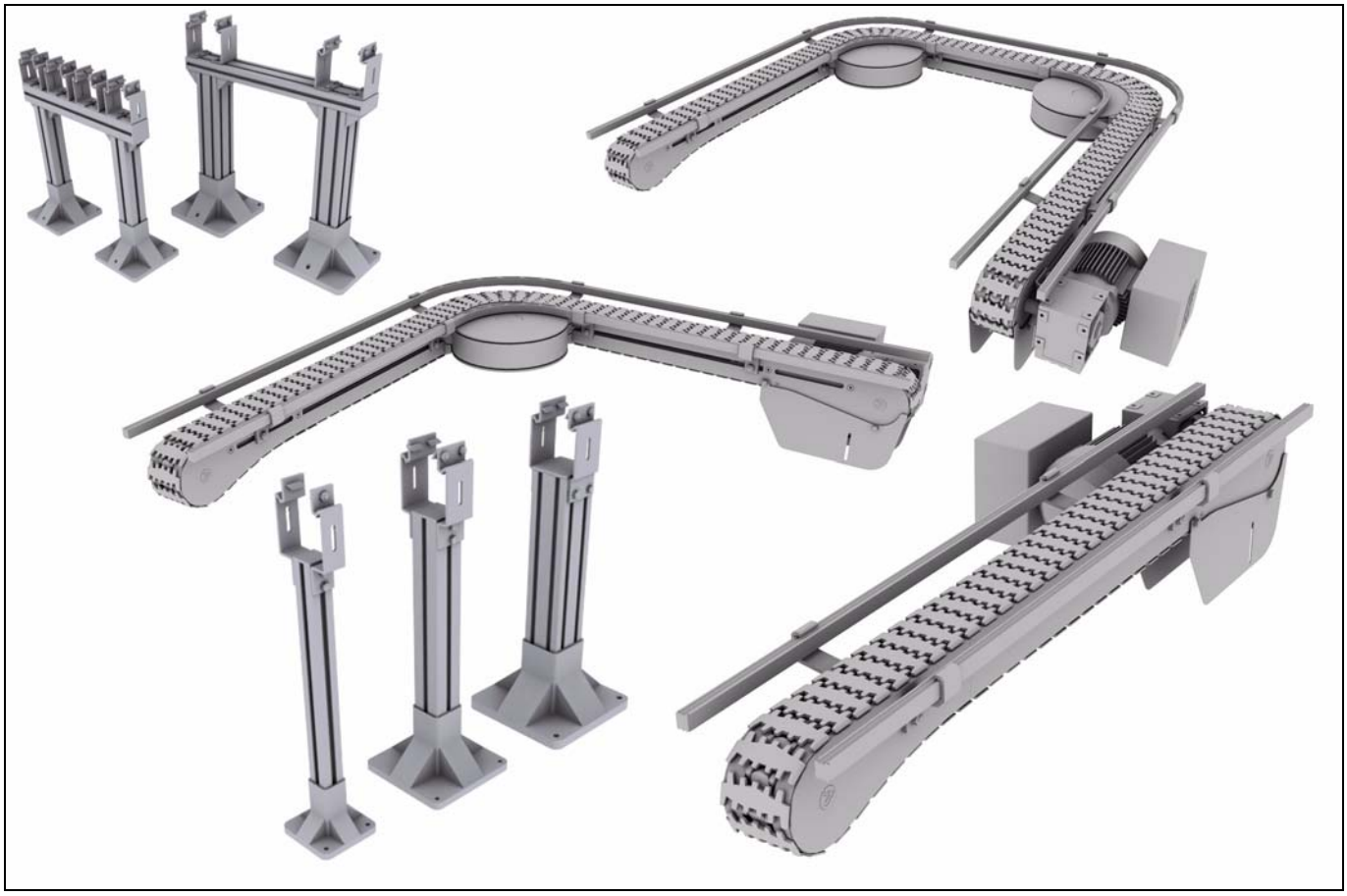
Maximum conveyor length	8 m
Item width	40–300 mm
Maximum item weight	2 kg

Pallet handling applications

Maximum weight on one pallet	10 kg

See “X85 pallet system” on page 45 for more information on pallet handling.

Modular conveyors – introduction



Conveyor configuration

A range of standard conveyor modules can be ordered using the online configurator tool. Using the configurator, most standard conveying applications can be specified. This includes

- Straight conveyors
- Conveyors with one or two bends
- Wedge conveyors
- Conveyor support

The easy-to-learn configurator provides price, lead time and a 3D model of the design. It is available around the clock and fully automatic. The configured design is given a configuration ID when it is saved. This ID is then used to identify the module when ordering.

Configuration procedure

To use the configurator, it is necessary to login to www.flexlink.com. First-time users need to register. After logging in, just go to “My FlexLink” and select “Order online” in the drop-down menu. Then select “Configure modules” and click on “Conveyor modules”. Several configuration choices are presented. Click on the desired product and follow the instructions on the screen.

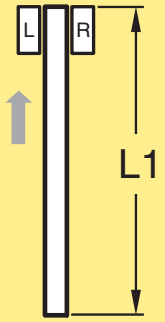
Configuration recipes

To make X85 configuration easy and straight-forward, configuration recipes have been created. A recipe is a group of configuration parameters suitable for a specific application profile. The X85 recipes are

- Basic
- Standard
- High speed
- High performance
- Tough environment
- Conductive

Applying a recipe in the configurator will specify such parameters as type of drive unit, slide rail material, chain material, guide rail type, etc.

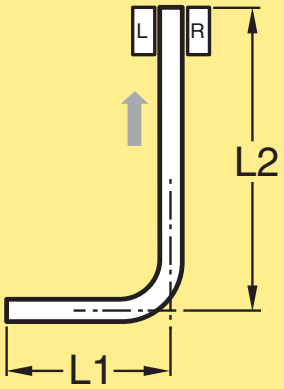
Straight conveyor



Conveyor module – straight **5990226***

'Use online configurator when ordering

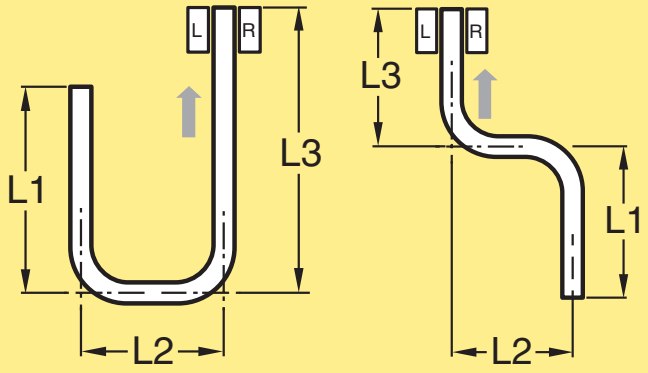
Single bend conveyor



Conveyor module – one bend **5990230***

'Use online configurator when ordering

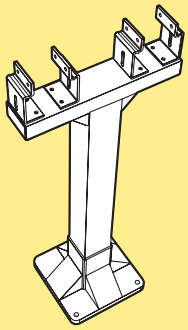
Two bend conveyor



Conveyor module – two bends **5990237***

'Use online configurator when ordering

Support modules – single and multi-lane

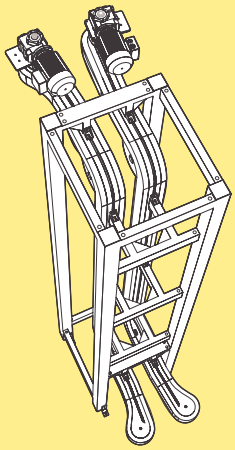


Support module – single lane *

Support module – multi-lane *

'Use online configurator when ordering

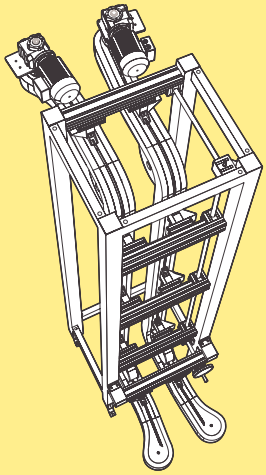
S-wedge vertical conveyors



S-wedge vertical conveyor
Fixed wedge width **5990169***

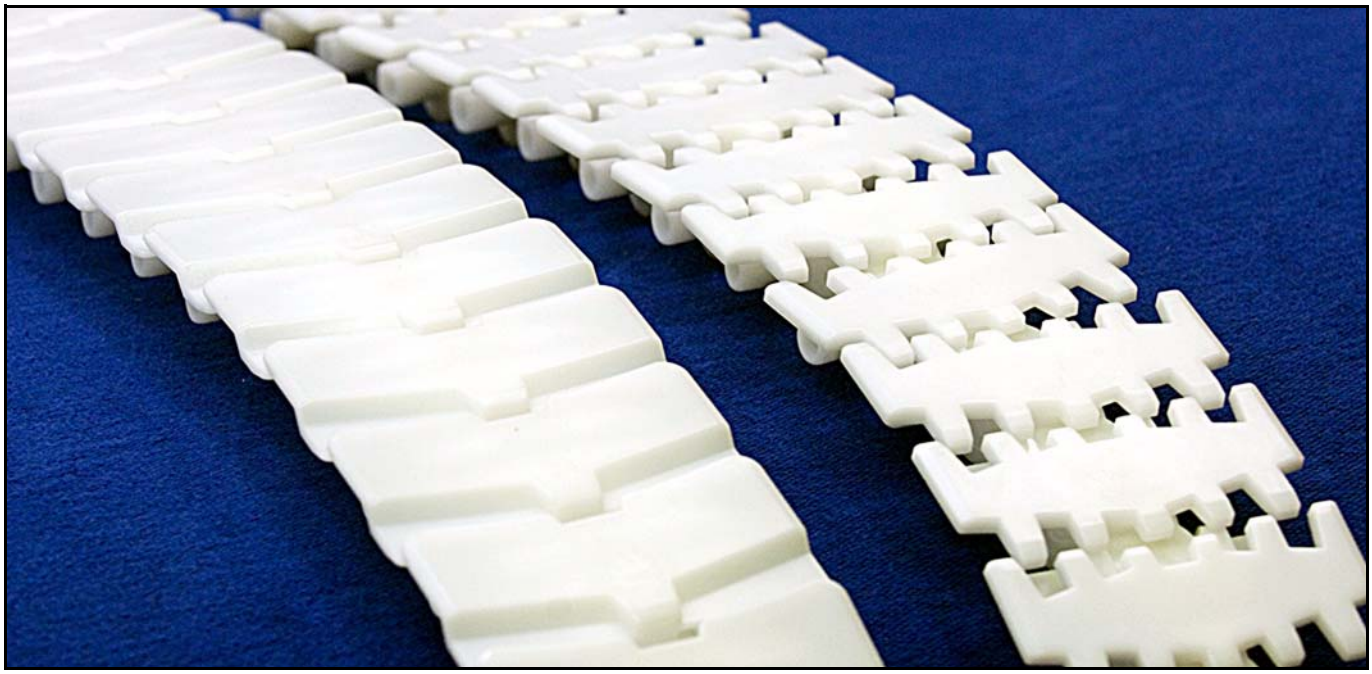
'Use online configurator when ordering

S-wedge vertical conveyors



S-wedge vertical conveyor
Adjustable wedge width **5990196***

'Use online configurator when ordering



Chain types

The conveyor chain is designed for smooth running, minimum wear and low noise level at normal speeds.

Chain performance levels

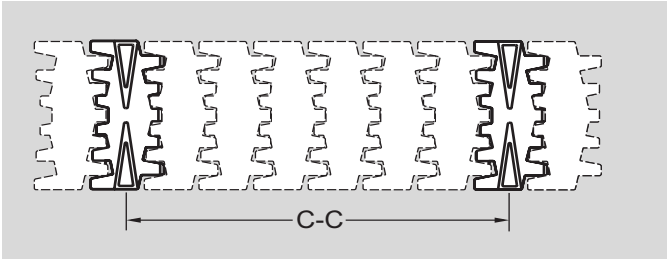
- For most applications: standard chain, available as plain chain, cleated chain, friction top chain, steel-plated chain, and roller top chain.
- For special applications: ultra high wear resistance chain, steel top chain, high temperature chain, conductive chain, semi-conductive chain, smooth top chain, and wedge top chain.

Note

In pallet systems where pallets type BR or R are used, it is necessary to use the plain chain with closed top XBTP 5A85 A. This will ensure that the pallet surface is at the correct height with regard to other system components. Do not use this chain with other pallet types. See catalogue section “X85 pallet system” for more information.

Configuration of cleated chains

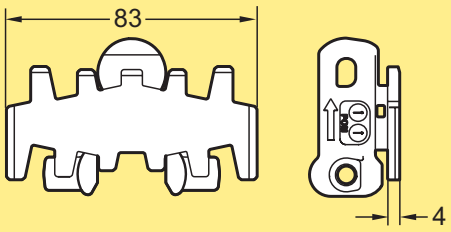
Cleated X85 chains must be ordered using the online configurator. Specify the desired distance between cleats. This means the minimum desired c-c distance between the cleated links. Ensure that enough clearance is provided in relation to the shape of the cleats. See the example below.



Note

You cannot order cleated chains by specifying the designation given in the catalogue (for example XBTP 5A85X15 A). It is necessary to use the online configurator.

Plain chain



Plain chain
Length 5 m

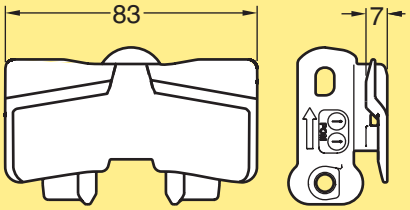
Standard material	**XBTP 5A85**
Conductive material	**XBTP 5A85 E**
Ultra low wear	**XBTP 5A85 C**

Plain link kit*

Standard material	**5110512**
Conductive material	**5110527**
Ultra low wear	**5110533**

**Link kit contains 10 links, 10 pivots, 10 steel pins*
Do not use this chain with pallets type BR or R.

Closed top chain

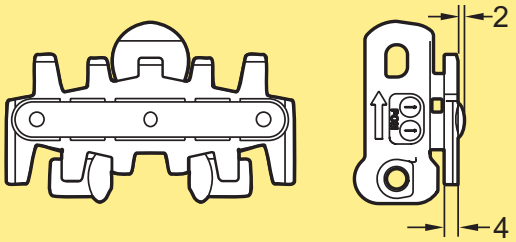


Closed top chain
Length 5 m **XBTP 5A85 A**

Closed top link kit* **5110513**

**Link kit contains 10 links, 10 pivots, 10 steel pins*
Use this chain in pallet systems with pallets type BR or R. Not suitable for other pallet types.

Friction top chain



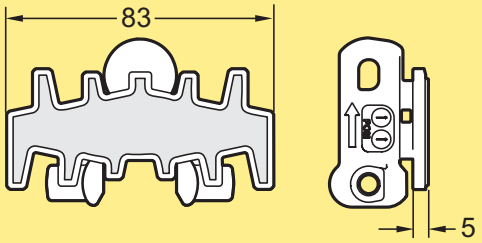
Friction top chain
Length 5 m

All links are friction type	**XBTP 5A85 F**
Every 2nd link is friction type	**XBTP 5A85 F2**

Friction top link kit* **5110518**

**Link kit contains 10 friction top links, 10 pivots, 10 steel pins*

Flat friction top chain

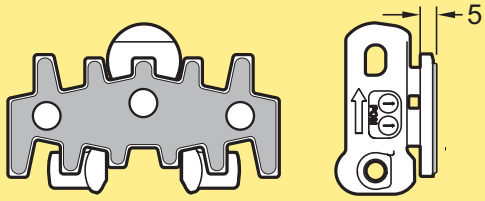


Flat friction top chain
Length 5 m **XBTP 5A85 FA**

Friction top link kit* **5110528**

**Link kit contains 10 links, 10 pivots, 10 steel pins*

Steel top chain

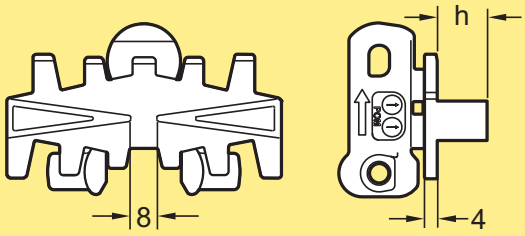


Steel top chain
Length 5 m **XBTP 5A85 TF**

Steel top link kit* **5110519**

**Link kit contains 10 links, 10 pivots, 10 steel pins*
Top part has steel cover for improved wear resistance.

Cleated chain, Type A



Cleated chain
Type A cleats
Length 5 m

h=15 mm	**XBTF 5A85×15 A***
h=30 mm	**XBTF 5A85×30 A***

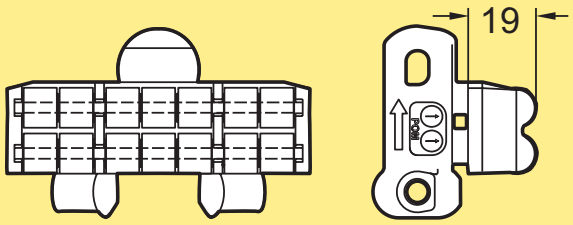
**This product is delivered with plain links between the cleats. Use the online configurator to specify and order.*

Cleated link kit*

h=15 mm	**5110516**
h=30 mm	**5110517**

**Link kit contains 10 links, 10 pivots, 10 steel pins*

Roller top chain

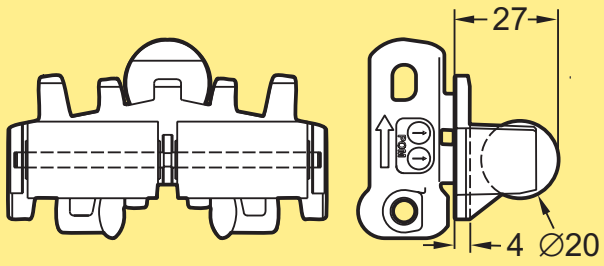


Roller top chain
Length 5 m **XBTR 5A85**

Roller top link kit* **5110520**

**Link kit contains 10 links, 10 pivots, 10 steel pins*

Chain with 23 mm roller cleats



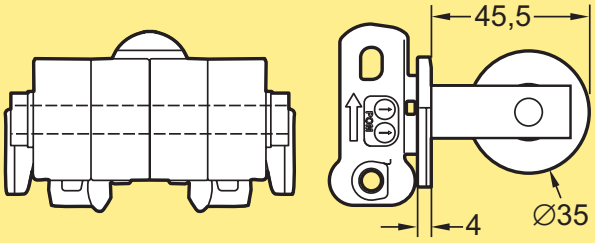
Chain with 23 mm roller cleats
Length 5 m **XBTF 5A85×23 R***

**This product is delivered with plain links between the cleats. Use the online configurator to specify and order.*

Roller cleat link kit* **5110521**

**Link kit contains 10 links, 10 pivots, 10 steel pins*

Chain with 46 mm roller cleats



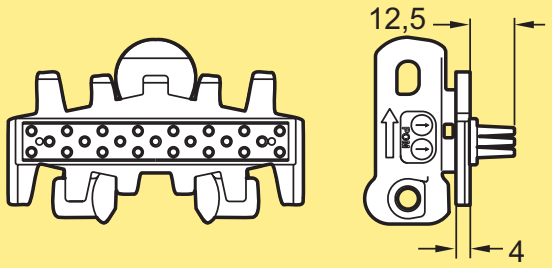
Chain with roller cleats
Length 5 m **XBTF 5A85×46 R***

**This product is delivered with plain links between the cleats. Use the online configurator to specify and order. Note. This chain requires minimum one plain link between every cleated link.*

Roller cleat link kit* **5110583**

**Link kit contains 1 link, 1 pivot, 1 steel pin*

Flexible cleat chain, Type B



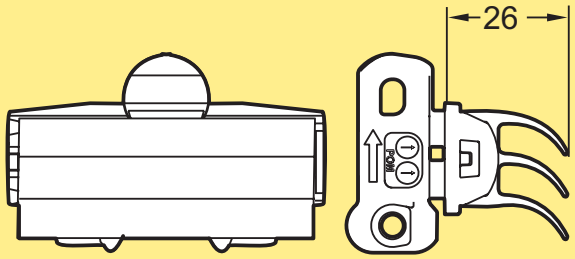
Flexible cleat chain Type B
Length 5 m **XBTE 5A85 B***

**This product is delivered with plain links between the cleats. Use the online configurator to specify and order.*

Flexible cleat link kit* **5110522**

**Link kit contains 10 links, 10 pivots, 10 steel pins*

Flexible cleat chain, Type C



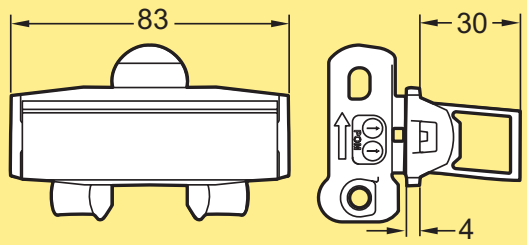
Flexible cleat chain Type C
Length 5 m **XBTE 5A85 C**

Flexible cleat link kit* (link base and flexible cleat top) **5110363**

Flexible cleat top kit (replacement)** **5110515**

**Link kit contains 10 links, 10 pivots, 10 steel pins*
***Cleat kit contains 10 flexible cleat tops*

Flexible cleat chain, Type D



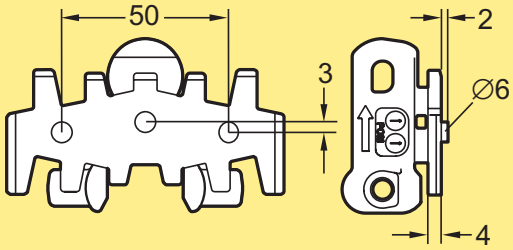
Flexible cleat chain Type D
Length 5 m **XBTE 5A85 D**

Flexible cleat link assembly Type D
(link base and flexible cleat top) **5110582***

Flexible cleat top (replacement) **5110524****

**Link kit contains 10 links, 10 pivots, 10 steel pins*
***Cleat kit contains 10 flexible cleat tops*

Universal chain



Universal chain
Length 5 m **XBTF 5A85 U***

**This product is delivered with plain links between the universal links. Use the online configurator to specify and order.*

The link has a hole for an M6 screw. An M6 nut will fit inside the link.

Universal link kit* **5110526**

**Link kit contains 10 links, 10 pivots, 10 steel pins*

Other chains

See the *FlexLink chain guide* for a selection of other chains.

Chain installation

See Appendix C in the FlexLink catalogue for installation instructions.

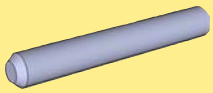
Chain accessories

Plastic pivot for chain

Plastic pivot kit **5111169**

Spare parts kit, 25 pcs

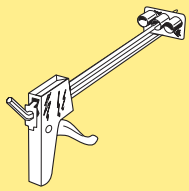
Steel pin for chain



Steel pin kit **5111172**

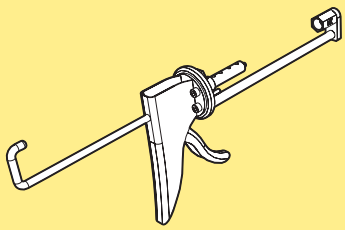
Spare parts kit, 25 pcs

Pin insertion tool for chain



Pin insertion tool XM, XB **XMMJ 6**

Pin insertion tool for chain



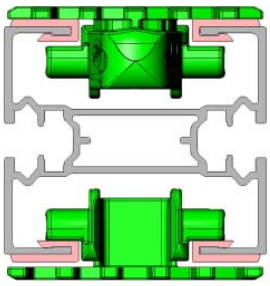
Pin insertion tool XM, XB **XBMJ 6 P**

This tool is recommended for frequent users

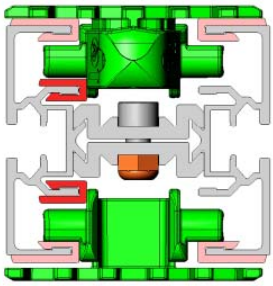
Conveyor beam – introduction

Beam design

The X85 beams are designed for rigidness, smooth running, high speeds and low noise. Features include a flat top surface and heavy duty T-slots. The T-slots ensure easy but rigid attachment of accessories such as guide rail brackets.



Cross-section of straight section conveyor beam with wide slide rails



Cross-section of plain bend with wide slide rails on the top and extra slide rails in the inner part of the bend.

Slide rail

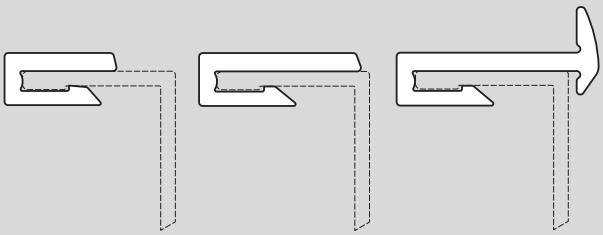
The slide rails are designed for long service life, smooth running, low elongation and minimized risk of failure. They feature increased wear surface thickness. Several options exist for high performance operation. Slide rail types include

- Standard
- Type U – low friction
- Type P – high resistance to chemicals
- Type H – high wear resistance
- Steel for ultra high wear resistance
- ESD – conductive – dissipative for applications sensitive to static electricity

Very high speeds: see *Engineering guidelines* or contact FlexLink Systems for more information.

Three slide rail profiles

Slide rails are available in three profile designs: standard, wide, and wide with guidance.



XBCR 25	*XBCR 25 B*	*XBCR 3 HA*
XBCR 25 H	*XBCR 25 HB*	*XBCR 3 EA*
XBCR 25 P	*XBCR 25 PB*	*XBCR 3 UA*
XBCR 25 E	*XBCR 25 EB*	
XBCR 25 U	*XBCR 25 UB*	

Normally the wide slide rail (type B) is used. For light loads, and in bends, the narrow width slide rail is suitable. The slide rail with a side flange (type A) improves appearance and protection.

Slide rails in bends

Special instructions apply for installation of plastic slide rail in bends. Such instructions are included with the delivery. The wide slide rails (type A and B) are not suitable for use in bends.

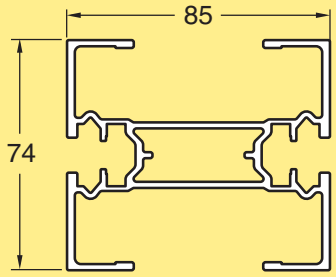
Slide rail in hardened steel

Slide rails in hardened steel are used in applications where abrasive particles occur. Such slide rails cannot be bent, and are attached on the top of the conveyor beam using brass rivets. Pre-bent sections for wheel bends are available. See appendix A in the FlexLink catalogue for installation instructions.

Beams

Note. "Length 3 m" aluminium products are cut to 3030 mm ± 5 mm.

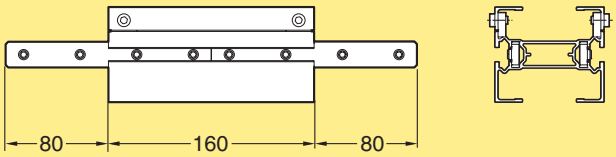
Conveyor beam



Beam
Length 3 m **XBCB 3A85**
Length to order (max 3 m) **XBCB LA85**

Slide rail: see page 14.
Beam accessories: see below.

Beam section for chain installation

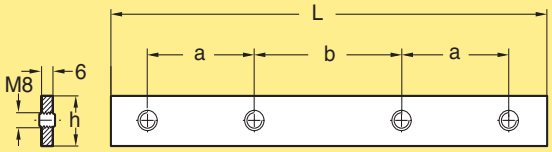


Beam section kit **XBCC 85×160**

Including connection strips and screws

Beam accessories

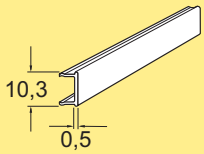
Connecting strip with set screws



Connecting strip with set screws
h=20, a=30, b=50, L=130 **XSCJ 6×130**
h=20, a=44, b=44, L=160 **XSCJ 6×160**

Note. Must be ordered in multiples of 10

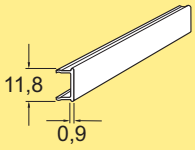
Cover strip for T-slot, PVC



Cover strip for T-slot
Length 3 m
Grey PVC **XCAC 3 P**

For XK-XB

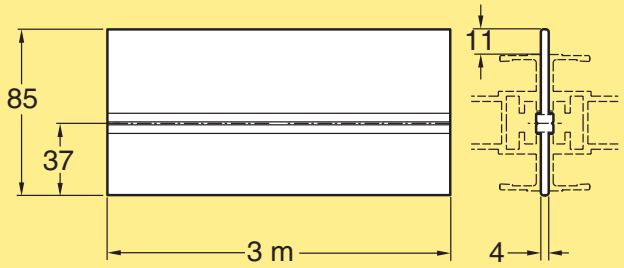
Cover strip for T-slot, aluminium



Cover strip for T-slot
Aluminium, anodized
Length 2 m **XCAC 2**

For XK-XB

Beam spacer

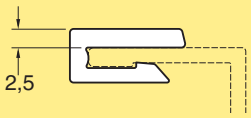


Beam spacer
Aluminium, anodized
Length 3 m **XLCD 3**

For connection of two conveyor beams side to side. Use M8 screw and slot nut. Two holes must be drilled, one through the spacer (9 mm) and one through the beam, to allow insertion of the screw. The diameter of the second hole depends on the size of the screw head.

Slide rails

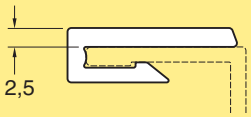
Plastic slide rails, narrow



Slide rail
Length 25 m

HDPE	**XBCR 25**
PE-PA	**XBCR 25 H**
PVDF	**XBCR 25 P**
PE-UHMW	**XBCR 25 U**
PE-UHMW conductive	**XBCR 25 E**

Plastic slide rails, wide

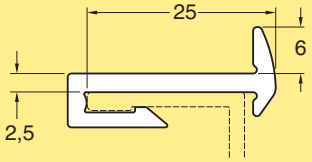


Slide rail
Length 25 m

HDPE	**XBCR 25 B**
PE-PA	**XBCR 25 HB**
PVDF	**XBCR 25 PB**
PE-UHMW	**XBCR 25 UB**
PE-UHMW conductive	**XBCR 25 EB**

Note. The wide slide rails are not suitable for use in bends.

Plastic slide rails, wide with guidance

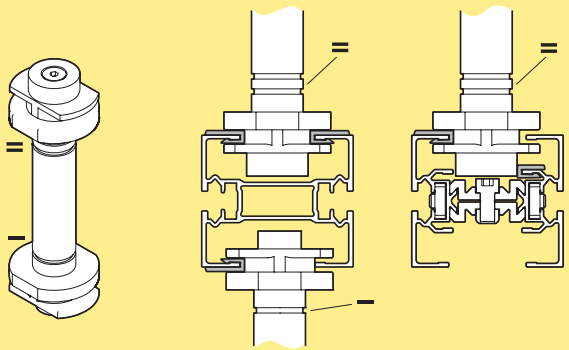


Slide rail
Length 3 m

PE-PA	**XBCR 3 HA**
PE-UHMW	**XBCR 3 UA**
PE-UHMW conductive	**XBCR 3 EA**

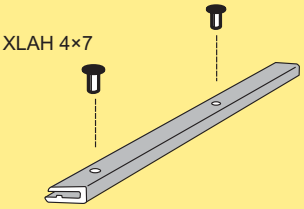
Note. The wide slide rails are not suitable for use in bends.

Mounting tool for slide rail



Mounting tool for slide rail **XBMR 170**

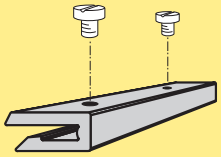
Aluminium rivets for anchoring of slide rail



Aluminium rivets 4 mm for XK-XB conveyors, brown **XLAH 4×7**

Extra slide rail in plain bends must be anchored using plastic screws due to lack of space for the rivet crimping tool.
Note. Must be ordered in multiples of 250.

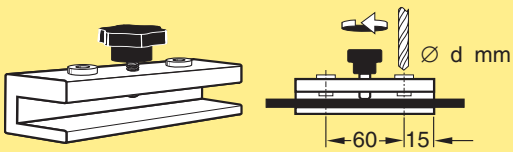
Plastic screws for anchoring of slide rail



Plastic screws 5 mm **XLAG 5**

Only intended for use with low slide rail in plain bends. See page 12.
Note. Must be ordered in multiples of 50

Drill fixture for slide rail

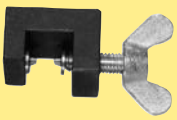


Drill fixture for slide rail
d=4,2 mm **3920500**

Rivet crimping pliers

Rivet crimping pliers
For 4 mm rivets **5051395**

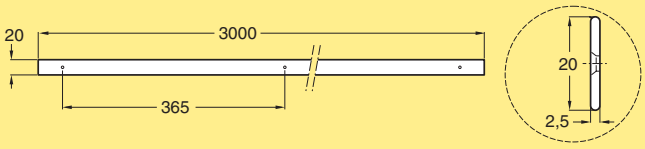
Rivet crimping clamp



Rivet crimping clamp
For 4 mm rivets **3923005**

Slide rail in hardened steel

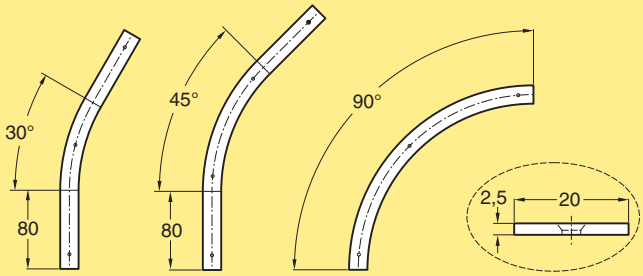
Steel slide rail, straight



Slide rail, hardened steel
Length 3 m **XBCR 3 TH**

Delivered with 9 predrilled holes
Assembly: see www.flexlink.com.

Steel slide rail for wheel bends

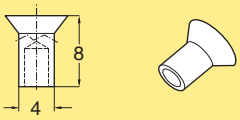


Slide rail for bends, hardened steel

Slide rail for bend, 30°	**XBCR W30 TH**
Slide rail for bend, 45°	**XBCR W45 TH**
Slide rail for bend, 90° & 180°	**XBCR W90 TH**

180°: Use 2 pieces of steel slide rail 90°
Assembly: see www.flexlink.com

Brass rivets



Brass rivets (100 pcs) **5056167**

Rivets for anchoring the slide rails

Drive and idler units – introduction

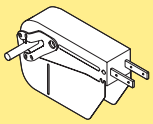
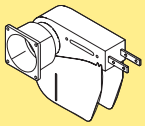
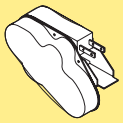
Drive unit types

The X85 system includes Compact (**C**), Medium (**M**), and Heavy (**H**) drive units. Drive unit capacities range from maximum 1250 N for the H types down to maximum 300 N for the C types. The actual capacity depends on the speed and type of drive unit.

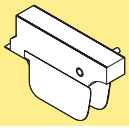
Several configurations are available, including direct driven units with or without slip clutch. Heavy duty drives with suspended motor and transmission chain can also be ordered. A new type of combined drive unit/idler unit is presented: the in-line transfer unit. The transfer unit comes in versions for top-only chain or return chain.

Available motors include variable speed types (**V**) as well as fixed speed motors (**F**).

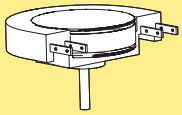
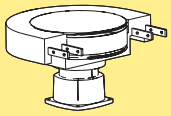
End drive units

Size	Direct drive, no slip clutch	Direct drive, slip clutch	Suspended motor, transmission chain, slip clutch
			
Compact	**F**	**–**	**–**
Medium	**F, V**	**–**	**–**
Heavy	**F, V**	**F, V**	**F**
Heavy, guided	**F, V**	**F, V**	**–**

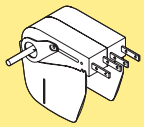
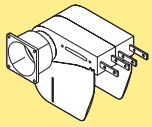
Intermediate drive units

Size	Direct drive, no slip clutch
	
Medium	**F, V**

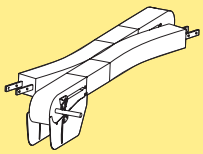
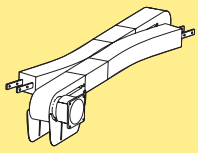
Wheel bend drive units

Size	Direct drive, no slip clutch	Direct drive, slip clutch
		
Heavy	**F, V**	**F, V**

Double drive units

Size	Direct drive, no slip clutch	Direct drive, slip clutch
		
Heavy	**F, V**	**F, V**

In-line transfer units

Size	Direct drive, no slip clutch Top chain or return chain	Direct drive, slip clutch Top chain or return chain
		
Compact	**F**	**F**
Medium	**F, V**	**F, V**
Heavy	**F, V**	**F, V**

Motor specifications

Motors are available for 230/400 V, 50 Hz and 230/460 V or 330/575 V, 60 Hz. All motors except those for Compact drive units can be connected for delta or star configuration by means of jumpers.

Variable speed motors are SEW Movimot, 380–500 V. Note that variable speed motors include a control box that adds 93 mm to the width of the motor.

Idler unit types

Idler units are available in two versions, Compact and Heavy.

Chain tension limits

To determine the maximum chain tension allowed, it is necessary to take conveyor speed and conveyor length into consideration. Check diagram 1 and 2 and use the lowest tension value obtained.

Note

The FlexLink drive unit configurator on the web always proposes a motor strong enough to utilize the maximum permissible chain tension as specified in the diagrams below. Variable speed motors at very low frequencies can sometimes drop below the specified tension. Always check motor data if high pulling force is critical.

Diagram 1. Chain tension vs Conveyor speed

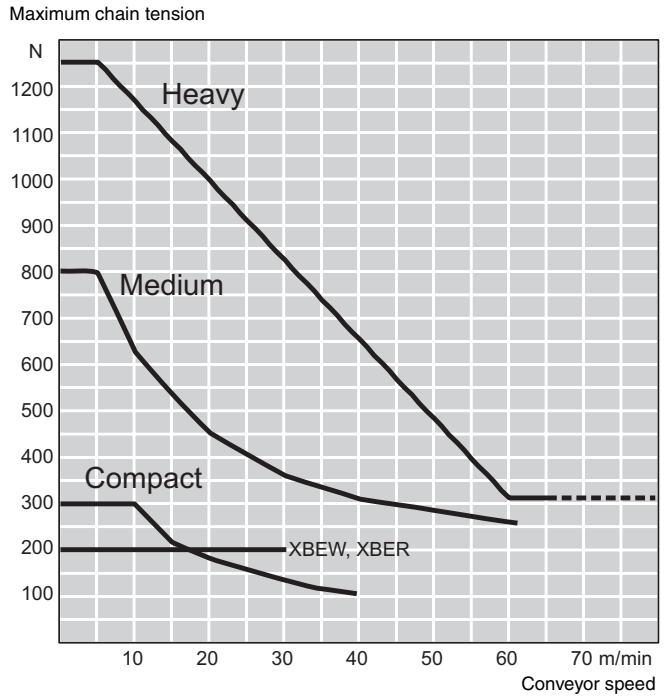
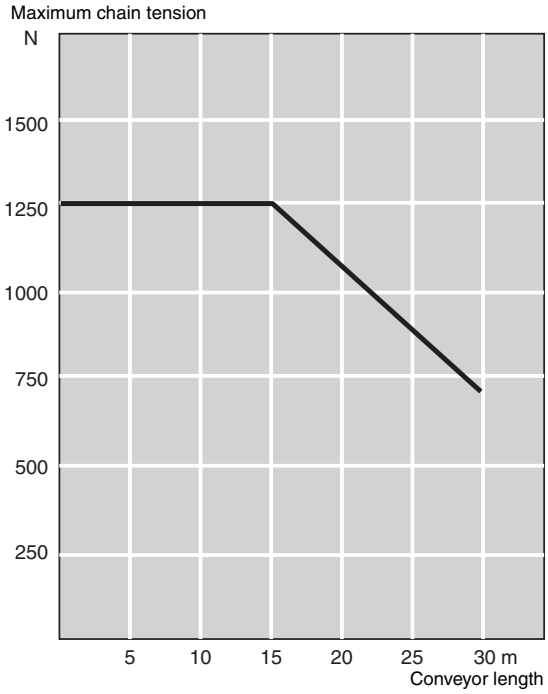


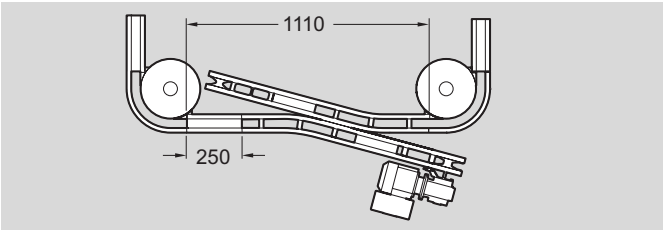
Diagram 2. Chain tension vs Conveyor length



Dimension limits – in-line transfer drive units

The dimensions of an in-line drive unit impose restrictions with regard to conveyor geometry. The idler part of the drive unit may interfere with other parts of the conveyor. The figure shows a typical case, showing typical minimum dimensions.

Also note the special support arrangements for in-line transfer units. See page 25.



Drive unit specification overview

Ordering information

Drive units with motors must be specified using the FlexLink web-based configurator. The configurator provides detailed information and step-by-step guidance in the specification process. A product code string is generated, containing the specification details. See next page for examples of code strings.

Drive units *without* motors can be ordered using the designations in the catalogue.

Dimension drawings in catalogue

Note that dimensions relating to drive unit motors depend on the motor specified during the configuration. In most cases, the motors shown in the catalogue drawings represent the largest size. If variable speed motors are used, some dimensions may increase, indicated by dimension values xxx (V: yyy). V represents the max dimension using variable speed motor.

Drive units – configuration strings

Here follows two examples of text strings obtained from the configurator, with explanations.

Drive unit with fixed speed motor

A	B	C	D	E	F	H	J	K
XBEB A85	HNP	- L	- G	- V4	- SA37	- 50/230	- 0,18kW	- TF

Drive unit with variable speed motor

A	B	C	E	F	G	H	L	M
XBEB A85	MNPV	- L	- V6-15	- WA20	- MM03	- 50/380-500	- A3	- C

A – Drive type

XBEB A85: End drive X85
XBEY A85: In-line transfer X85
XBER A85: Intermediate drive X85
XBEW A85: Horizontal bend drive X85
XBEB DD A85: Double drive X85

B – Drive version

CNP: Compact, direct drive, no slip clutch
MNP: Medium, direct drive, no slip clutch
HNP: Heavy, direct drive, no slip clutch
HP: Heavy, direct drive, slip clutch
H: Heavy, suspended motor, slip clutch
....V: Variable speed

For XBEY A85 in-line transfer drives:

....J: In-line transfer with return chain
If ....J is omitted: In-line transfer with top chain only

C – Motor position

L: Left
R: Right

D – End drive with guided chain

G: Guided (position is omitted for non-guided)

E – Speed

V...: Fixed speed ... m/min
V... - ...: Variable speed range ...-... m/min

F – Gearbox

WA10: SEW motor type WA10
WA20: SEW motor type WA20
S37: SEW motor type S37
SA37: SEW motor type SA37

G – Movimot size

MM03: SEW Movimot type, 0,33 kW
MM05: SEW Movimot type, 0,55 kW
MM07: SEW Movimot type, 0,75 kW
MM11: SEW Movimot type, 1,1 kW
(position is omitted for fixed speed motors)

H – Electrical environment

50/230: 50 Hz, 230 V
50/400: 50 Hz, 400 V
60/230: 60 Hz, 230 V
60/460: 60 Hz, 460 V
60/575: 60 Hz, 575 V
50/380-500: SEW Movimot variable speed motor
60/380-500: SEW Movimot variable speed motor

J – Motor power

... kW: Motor power, kW
(position is omitted for variable speed motors see position G)

K – Thermal protection

No: No thermal protection
TF: Thermal protection type TF
TH: Thermal protection type TH
(position is omitted for variable speed motors)

L – Fieldbus

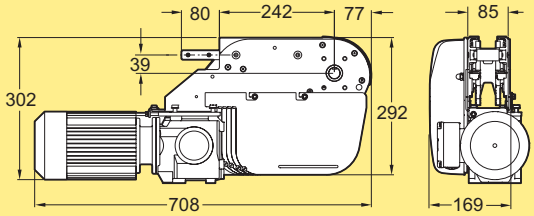
No: No fieldbus
A3: ASi fieldbus, no maintenance switch
P3: Profibus fieldbus, no maintenance switch
D3: DeviceNet fieldbus, no maintenance switch
A6: ASi fieldbus, maintenance switch
P6: Profibus fieldbus, maintenance switch
D6: DeviceNet fieldbus, maintenance switch
(position is omitted for fixed speed motors)

M – Hybrid cable

No: No hybrid cable
C: Hybrid cable included in SEW Movimot
(position is omitted for fixed speed motors)

End drive units, max 1250 N

End drive unit H, suspended motor, slip clutch



End drive unit
Suspended 3-phase motor. Adjustable slip clutch.
Maximum traction force: up to 1250 N. See page 17.
Fixed speeds up to 60 m/min.

Transmission on left side:

Fixed speed	**XBEB A85***
Without motor	**XBEB 0A85HL**
Without motor	**XBEB 0A85HLA**

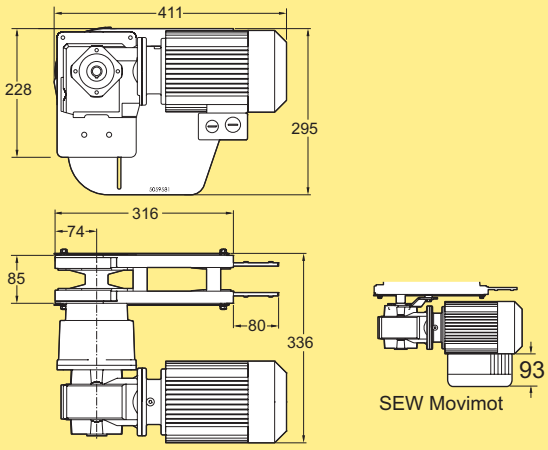
Transmission on right side (not shown):

Fixed speed	**XBEB A85***
Without motor	**XBEB 0A85HR**
Without motor	**XBEB 0A85HRA**

**Use online configurator when ordering.*

Effective track length: 0,80 m

End drive unit H, direct drive, slip clutch



End drive unit
Direct drive. Adjustable slip clutch.
Maximum traction force: up to 1250 N. See page 17.
Fixed speeds up to 60 m/min.
Variable speed up to 120 m/min.

Motor on left side:

Fixed/variable speed	**XBEB A85***
Without motor	**XBEB 0A85HLP**

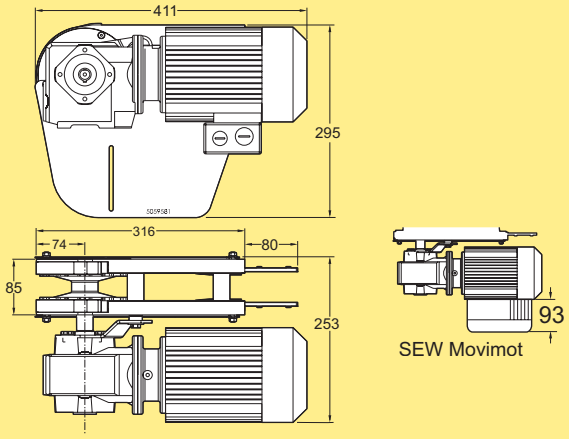
Motor on right side (not shown):

Fixed/variable speed	**XBEB A85***
Without motor	**XBEB 0A85HRP**

**Use online configurator when ordering.*

Effective track length: 0,80 m

End drive unit H, direct drive, no slip clutch



End drive unit
Direct drive. No slip clutch.
Maximum traction force: up to 1250 N. See page 17.
Fixed speeds up to 60 m/min.
Variable speed up to 120 m/min.

Motor on left side:

Fixed/variable speed	**XBEB A85***
Without motor	**XBEB 0A85HNLP**

Motor on right side (not shown):

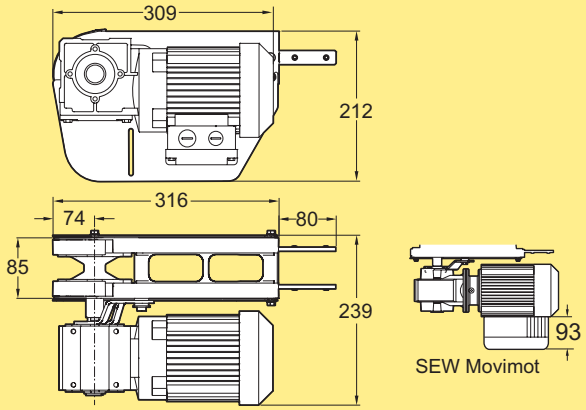
Fixed/variable speed	**XBEB A85***
Without motor	**XBEB 0A85HNRP**

**Use online configurator when ordering.*

Effective track length: 0,80 m

End drive units, max 800 N

End drive unit M, direct drive, no slip clutch



End drive unit
Direct drive. No slip clutch.
Maximum traction force: up to 800 N.
Fixed speeds up to 60 m/min.
Variable speed up to 60 m/min.

Motor on left side:

Fixed/variable speed Without motor	XBEB A85* **XBEB 0A85MNLP**

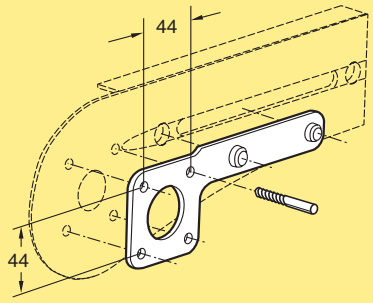
Motor on right side (not shown):

Fixed/variable speed Without motor	XBEB A85* **XBEB 0A85MNRP**

**Use online configurator when ordering.*

Effective track length: 0,70 m

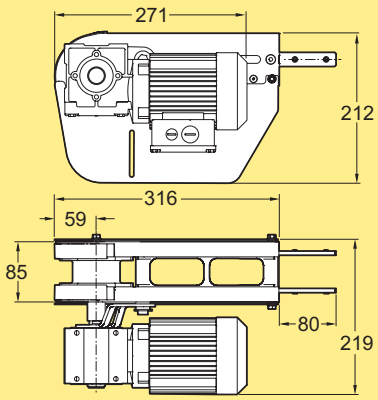
Drill fixture for drive units C/M



Drill fixture for X85 drive units
For C and M drive units
Also for X85 idlers. **5057144**

End drive units, max 300 N

End drive unit C, direct drive, no slip clutch



End drive unit
Direct drive. No slip clutch
Maximum traction force: up to 300 N. See page 17.
Fixed speeds up to 35 m/min.

Motor on left side:

Fixed speed Without motor	XBEB A85* **XBEB 0A85CNLP**

Motor on right side (not shown):

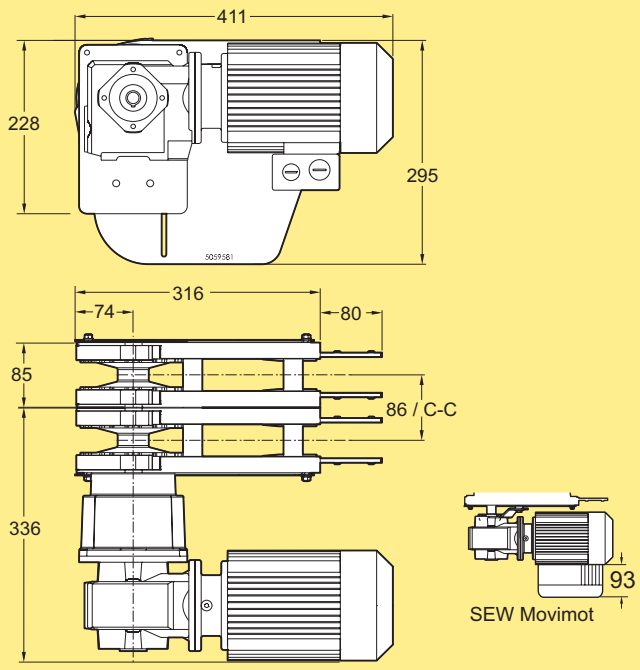
Fixed speed Without motor	XBEB A85* **XBEB 0A85CNRP**

**Use online configurator when ordering.*
Note. The motors for Compact drive units cannot be reconfigured from star to delta operation.

Effective track length: 0,70 m

Double drive units, max 1250 N

Double drive unit H, slip clutch



Double drive unit
Direct drive. Adjustable slip clutch.
Maximum traction force: up to 1250 N. See page 17.
Fixed speeds up to 60 m/min.
Variable speed up to 60 m/min.

Motor on left side:

C-C=86 mm
Fixed/variable speed — XBEB DD A85*
Without motor — **XBEB 0A85HLPD86**

C-C=130–350 mm
Fixed/variable speed — XBEB DD A85*
Without motor — **XBEB 0A85HLPD–****

Motor on right side (not shown):

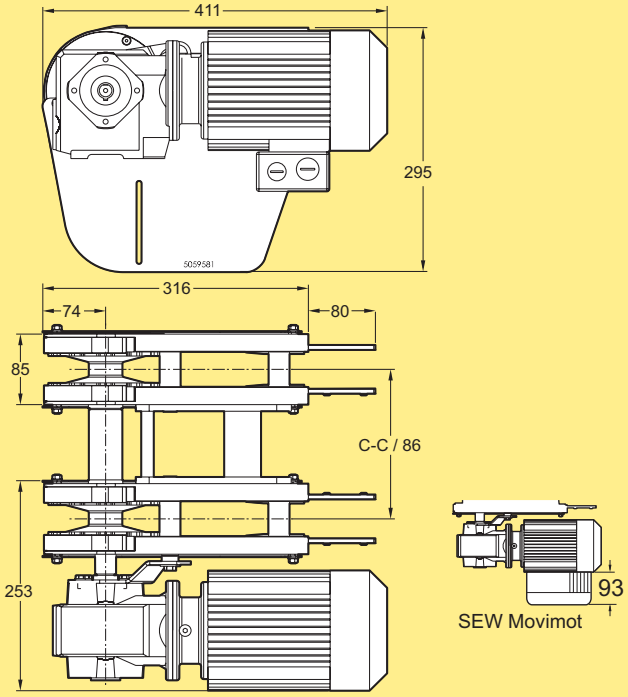
C-C=86 mm
Fixed/variable speed — XBEB DD A85*
Without motor — **XBEB 0A85 HRPD86**

C-C=130–350 mm
Fixed/variable speed — XBEB DD A85*
Without motor — **XBEB 0A85HRPD–****

**Use online configurator when ordering.*
***Specify C-C when ordering.*
Drawing shows C-C 86 mm version.

Effective track length: 0,80 m (each track)

Double drive unit H, no slip clutch



Double drive unit
Direct drive. No slip clutch.
Maximum traction force: up to 1250 N. See page 17.
Fixed speeds up to 60 m/min.
Variable speed up to 60 m/min.

Motor on left side:

C-C=86 mm
Fixed/variable speed — XBEB DD A85*
Without motor — **XBEB0A85HNLPD86**

C-C=130–350 mm
Fixed/variable speed — XBEB DD A85*
Without motor — **XBEB 0A85HNLPD–****

Motor on right side (not shown):

C-C=86 mm
Fixed/variable speed — XBEB DD A85*
Without motor — **XBEB0A85HNRPD86**

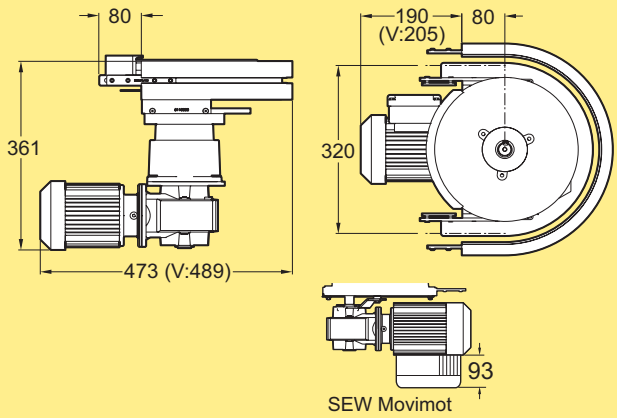
C-C=130–350 mm
Fixed/variable speed — XBEB DD A85*
Without motor — **XBEB 0A85HNRPD–****

**Use online configurator when ordering.*
***Specify C-C when ordering.*
Drawing shows version with customer specified C-C distance.

Effective track length: 0,80 m (each track)

Wheel bend drive unit, max 200 N

Wheel bend drive unit, slip clutch



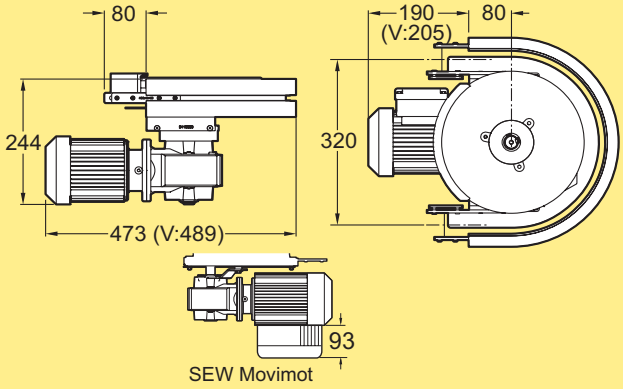
Wheel bend drive unit
Direct drive. Adjustable slip clutch.
Maximum traction force: up to 200 N. See page 17.
Fixed speeds up to 30 m/min.
Variable speed up to 30 m/min.

Fixed/variable speed	**XBEW 180A85***
Without motor	**XBEW 18/0A85HP**

**Use online configurator when ordering.*

Maximum conveyor length: 20 m
Effective track length: 0,65 m

Wheel bend drive unit, no slip clutch



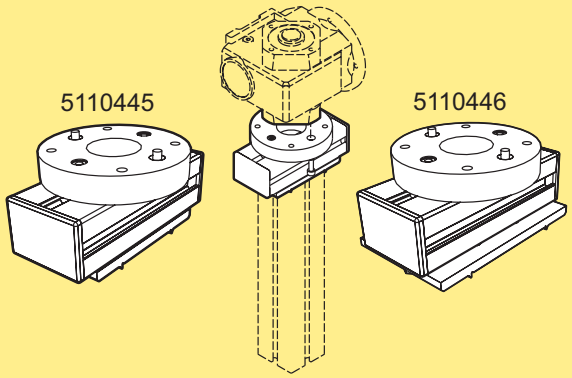
Wheel bend drive unit
Direct drive. No slip clutch.
Maximum traction force: up to 200 N. See page 17.
Fixed speeds up to 30 m/min.
Variable speed up to 30 m/min.

Fixed/variable speed	**XBEW 180A85***
Without motor	**XBEW 18/0A85HNP**

**Use online configurator when ordering.*

Maximum conveyor length: 20 m
Effective track length: 0,65 m

Support adapters for wheel bend drive units



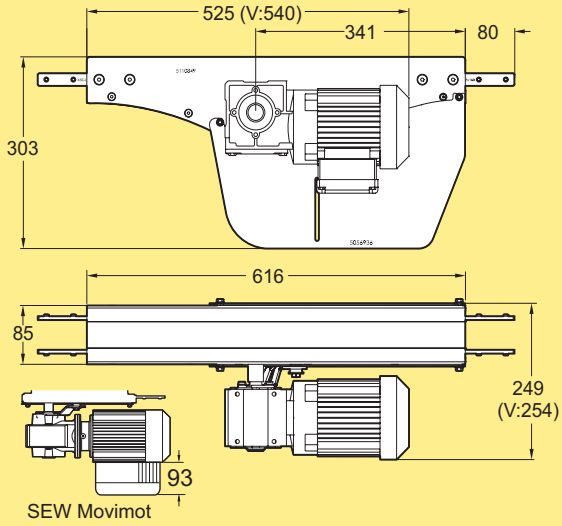
Support adapter for wheel bend drive unit

For support beam XCBM ..x64 mm	**5110445**
For support beam XCBM ..x88 mm	**5110446**

Including mounting hardware and mounting instructions. Note. XCBL beams cannot be used.

Intermediate drive units, max 200 N

Intermediate drive unit M, no slip clutch



Intermediate drive unit
Direct drive. No slip clutch.
Maximum traction force: up to 200 N. See page 17.
Fixed speeds up to 25 m/min.
Variable speed up to 25 m/min.

Motor on left side:

Fixed/variable speed	**XBER A85***
Without motor	**XBER 0A85MNLP**

Motor on right side (not shown):

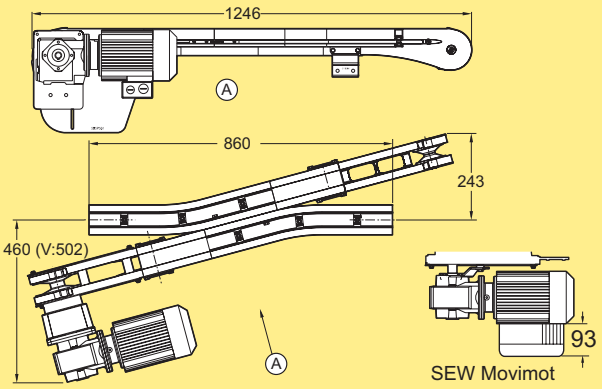
Fixed/variable speed	**XBER A85***
Without motor	**XBER 0A85MNRP**

**Use online configurator when ordering.*

Effective track length: 1,40 m

In-line transfer drive units, max 1250 N

In-line transfer H, top chain, slip clutch



In-line transfer for top chain
Direct drive. Adjustable slip clutch.
Maximum traction force: up to 1250 N. See page 17.
Fixed speeds up to 60 m/min.
Variable speed up to 60 m/min.

Motor on left side:

Fixed/variable speed	**XBEY A85***
Without motor	**XBEY 0A85HLP**

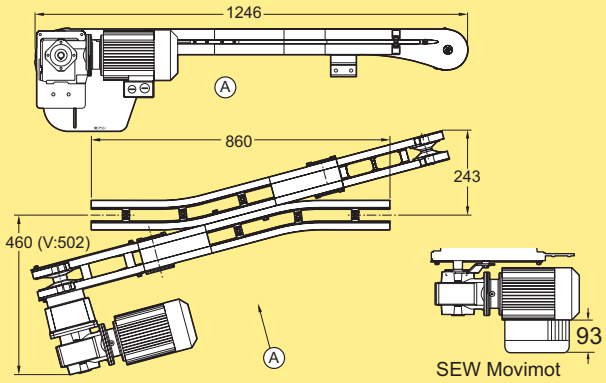
Motor on right side (not shown):

Fixed/variable speed	**XBEY A85***
Without motor	**XBEY 0A85HRP**

**Use online configurator when ordering.*

Effective track length: 3,50 m

In-line transfer H, return chain, slip clutch



In-line transfer for return chain
Direct drive. Adjustable slip clutch.
Maximum traction force: up to 1250 N. See page 17.
Fixed speeds up to 60 m/min.
Variable speed up to 60 m/min.

Motor on left side:

Fixed/variable speed	**XBEY A85***
Without motor	**XBEY 0A85HLPJ**

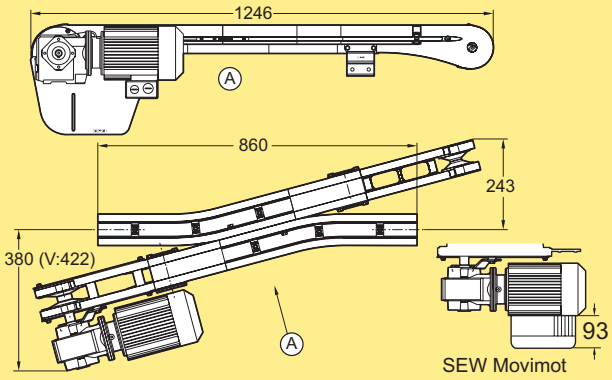
Motor on right side (not shown):

Fixed/variable speed	**XBEY A85***
Without motor	**XBEY 0A85HRPJ**

**Use online configurator when ordering.*

Effective track length: 4,50 m

In-line transfer H, top chain, no slip clutch



In-line transfer for top chain
Direct drive. No slip clutch.
Maximum traction force: up to 1250 N. See page 17.
Fixed speeds up to 60 m/min.
Variable speed up to 60 m/min.

Motor on left side:

Fixed/variable speed	**XBEY A85***
Without motor	**XBEY 0A85HNLP**

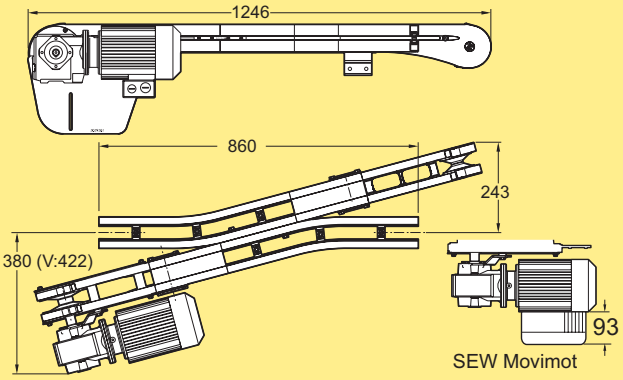
Motor on right side (not shown):

Fixed/variable speed	**XBEY A85***
Without motor	**XBEY 0A85HNRP**

**Use online configurator when ordering.*

Effective track length: 3,50 m

In-line transfer H, return chain, no slip clutch



In-line transfer for return chain
Direct drive. No slip clutch.
Maximum traction force: up to 1250 N. See page 17.
Fixed speeds up to 60 m/min.
Variable speed up to 60 m/min.

Motor on left side:

Fixed/variable speed	**XBEY A85***
Without motor	**XBEY 0A85HNLPJ**

Motor on right side (not shown):

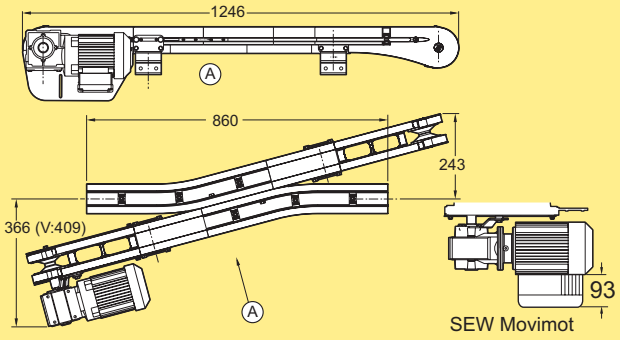
Fixed/variable speed	**XBEY A85***
Without motor	**XBEY 0A85HNRPJ**

**Use online configurator when ordering.*

Effective track length: 4,50 m

In-line transfer drive units, max 800 N

In-line transfer M, top chain, no slip clutch



In-line transfer for top chain
Direct drive. No slip clutch.
Maximum traction force: up to 800 N. See page 17.
Fixed speeds up to 60 m/min.
Variable speed up to 60 m/min.

Motor on left side:

Fixed/variable speed Without motor	XBEY A85* **XBEY 0A85MNLP**

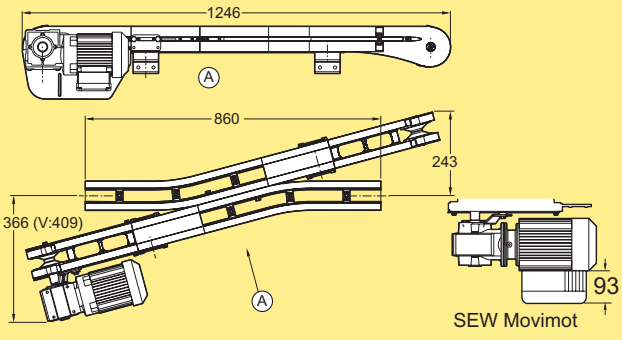
Motor on right side (not shown):

Fixed/variable speed Without motor	XBEY A85* **XBEY 0A85MNRP**

**Use online configurator when ordering.*

Effective track length: 3,40 m

In-line transfer M, return chain, no slip clutch



In-line transfer for return chain
Direct drive. No slip clutch.
Maximum traction force: up to 800 N. See page 17.
Fixed speeds up to 60 m/min.
Variable speed up to 60 m/min.

Motor on left side:

Fixed/variable speed Without motor	XBEY A85* **XBEY 0A85MNLPJ**

Motor on right side (not shown):

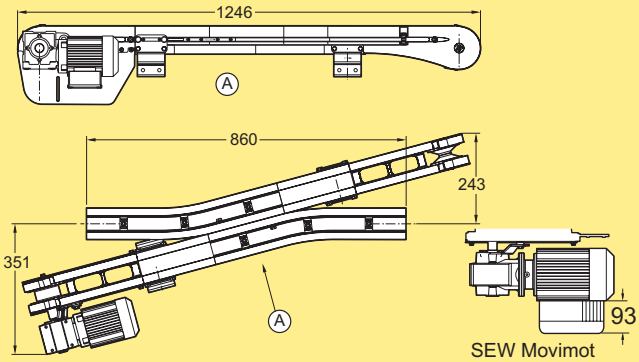
Fixed/variable speed Without motor	XBEY A85* **XBEY 0A85MNRPJ**

**Use online configurator when ordering.*

Effective track length: 4,40 m

In-line transfer drive units, max 300 N

In-line transfer C, top chain, no slip clutch



In-line transfer for top chain
Direct drive. No slip clutch.
Maximum traction force: up to 300 N. See page 17.
Fixed speeds up to 35 m/min.

Motor on left side:

Fixed speed Without motor	XBEY A85* **XBEY 0A85CNLP**

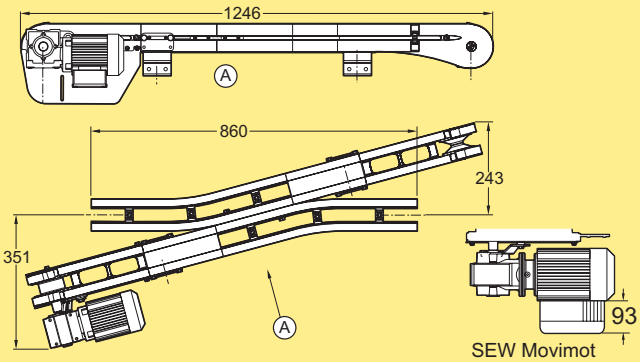
Motor on right side (not shown):

Fixed speed Without motor	XBEY A85* **XBEY 0A85CNRP**

**Use online configurator when ordering.*

Effective track length: 3,40 m

In-line transfer C, return chain, no slip clutch



In-line transfer for return chain
Direct drive. No slip clutch.
Maximum traction force: up to 300 N. See page 17.
Fixed speeds up to 35 m/min.

Motor on left side:

Fixed speed Without motor	XBEY A85* **XBEY 0A85CNLPJ**

Motor on right side (not shown):

Fixed speed Without motor	XBEY A85* **XBEY 0A85CNRPJ**

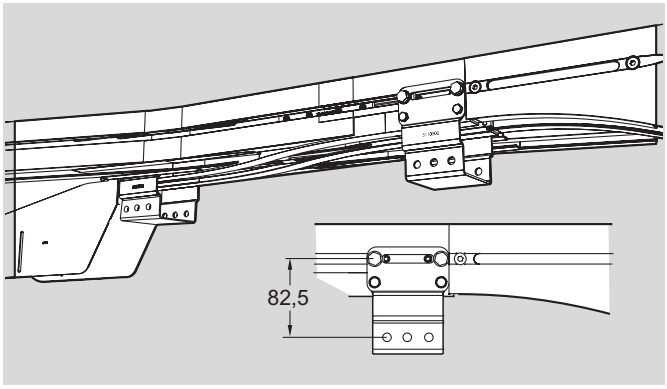
**Use online configurator when ordering.*

Effective track length: 4,40 m

Support components for in-line transfer drive units

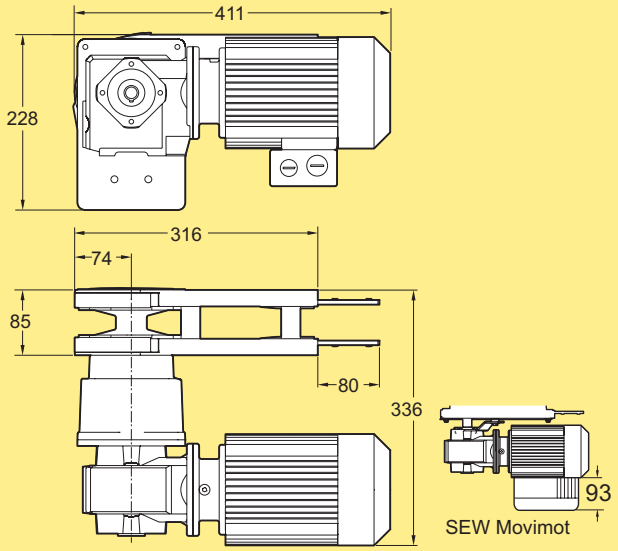
In-line transfer drive units include a special arrangement for connecting beam support brackets. Instead of connecting the brackets directly to the T-slots in the beams, intermediate U-shaped brackets are used. These brackets are included with the transfer units. See figure.

Support legs to the transfer must be 82,5 mm shorter than other legs connected along the conveyor. Use M6S 8×16 screws instead of XLAT 17 when attaching the beam support bracket to the U-shaped brackets. Read more about beam support brackets on page 35.



Drive units for wedge conveyors

End drive unit H, guided chain, slip clutch



End drive unit
Direct drive with guided chain. Adjustable slip clutch.
Maximum traction force: up to 1250 N. See page 17.
Fixed speeds up to 63 m/min.
Variable speed up to 63 m/min.

Motor on left side:

Fixed/variable speed Without motor	XBEB A85* **XBEB 0A85HLGP**

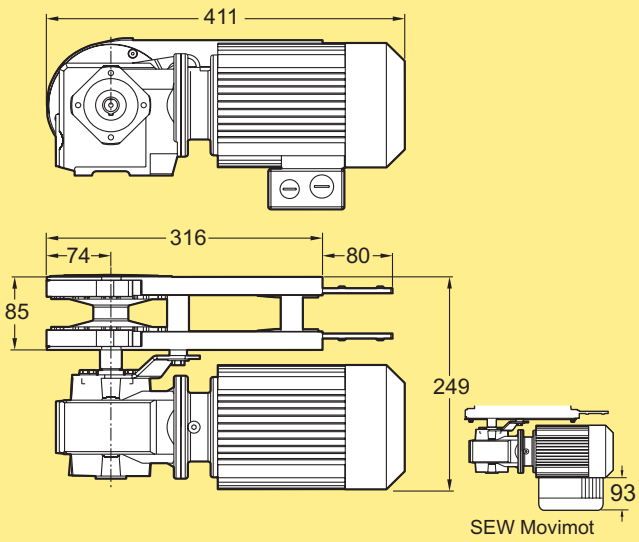
Motor on right side (not shown):

Fixed/variable speed Without motor	XBEB A85* **XBEB 0A85HRGP**

**Use online configurator when ordering.*

Effective track length: 0,80 m

End drive unit H, guided chain, no slip clutch



End drive unit
Direct drive with guided chain. No slip clutch.
Maximum traction force: up to 1250 N. See page 17.
Fixed speeds up to 63 m/min.
Variable speed up to 63 m/min.

Motor on left side:

Fixed/variable speed Without motor	XBEB A85* **XBEB 0A85HNLGP**

Motor on right side (not shown):

Fixed/variable speed Without motor	XBEB A85* **XBEB 0A85HNRGP**

**Use online configurator when ordering.*

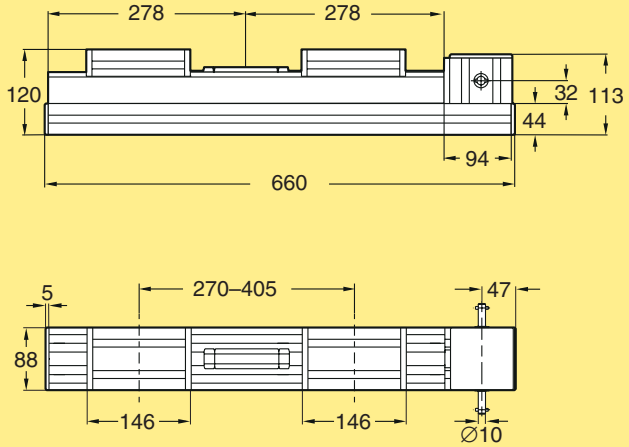
Effective track length: 0,80 m

Read more about wedge conveyors in “FlexLink engineering handbook”, document 5181.

Components for wedge track width adjustment

Note. “Length 3 m” aluminium products are cut to 3030 mm ± 5 mm.

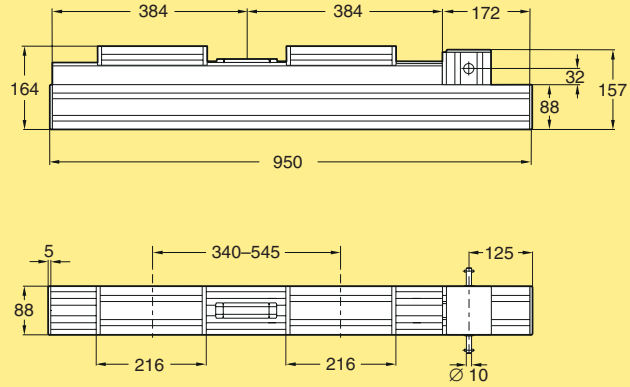
Width adjustment actuator 660 mm



Width adjustment actuator **XCLA 660 A**

Including beam and angle gear unit

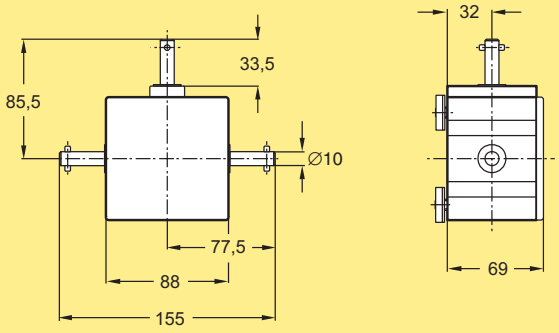
Width adjustment actuator 950 mm



Width adjustment actuator **XCLA 950 A**

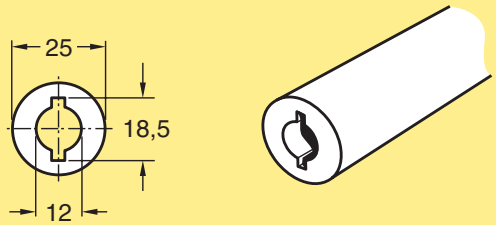
Including beam and angle gear unit

Angle gear unit



Angle gear unit **XCFW 90**

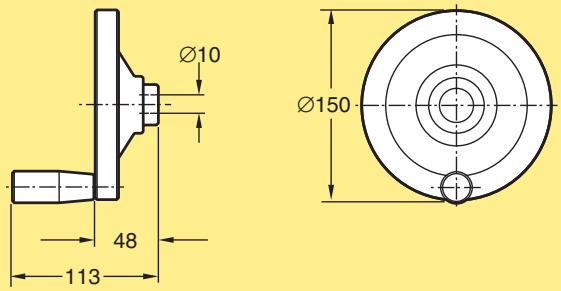
Shaft



Shaft
Aluminium, anodized
Length 3 m **XLFX 3**

The shaft is used to connect angle gear units XCFW 90 to synchronize adjustment of the track width. Use XLAP 28 spring pins to secure the shafts axially.

Handwheel for 10 mm shaft

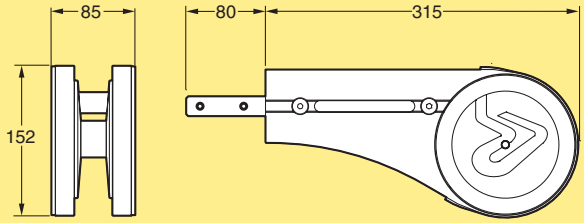


Handwheel for 10 mm shaft **XLAW 160×10**

Read more about wedge conveyors in “FlexLink engineering handbook”, document 5181.

Idler units

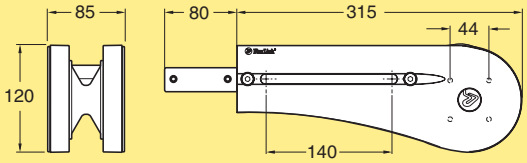
Idler end unit – Heavy



Idler end unit **XBEJ A85**

Effective track length: 0,80 m

Idler end unit – Compact

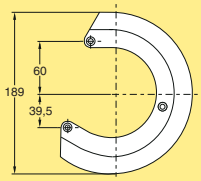


Idler end unit
Compact version **XBEJ A85 S**

Effective track length: 0,70 m

Each side plate has T-slots and four unfinished holes for attachment of accessories. Requires drilling through side plate. A drill fixture (5057144) is available.

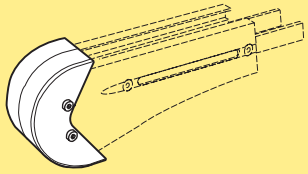
Protective cover for idler end unit H



Protective cover for XBEJ A85 **XMSJ 189**

Suitable for use with standard plain chain and plain chain with closed top.

Protective cover for idler end unit C



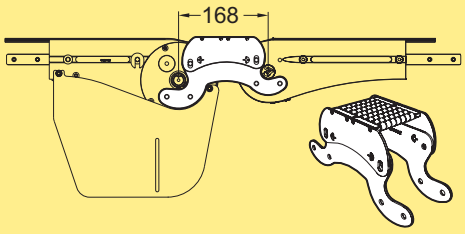
Protective cover for XBEJ A85 S **XMSJ 146**

Suitable for use with standard plain chain (not plain chain with closed top).

Including mounting screws (M8). Requires drilling of two holes in each side plate on the idler unit. Use drill fixture 5057144 (page 20).

Bridges, drive unit to idler unit*

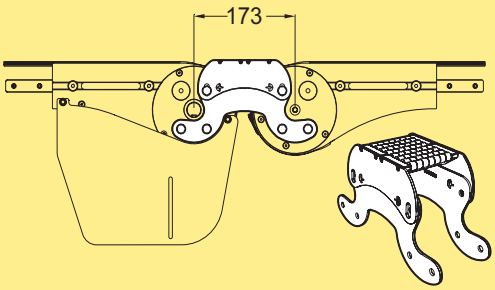
Bridge, heavy to compact/medium



Bridge H to C **5111114**

Including roller bridge and mounting hardware. Suitable for connecting C or M drive units to H idlers, or C idler to H drive unit.

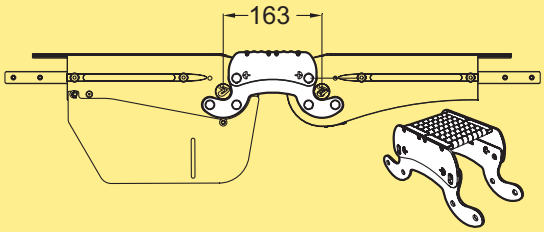
Bridge, heavy to heavy



Bridge, H to H **5111108**

Including roller bridge and mounting hardware. Suitable for connecting H drive units to H idlers.

Bridge, compact/medium to compact



Bridge C/M to C **5111117**

Including roller bridge and mounting hardware. Suitable for connecting C or M drive units to C idlers.

**Note*

Bridges 5111108, 5111114 and 5111117 can only be used with plain chain.

Bends – introduction

Bend types

Wheel bends

The wheel bends are designed for maximum safety. There are no pinch points between chain and disc. No opening exists between upper and lower discs.

The upper disc is flat which means that wide goods can be allowed. The design of the in-feed guides reduces the noise level.

The bend enclosure includes an attachment point for conveyor support and accessories. To use this feature, the top disc must be temporarily removed to facilitate drilling hole for a screw.

A customer specified angle (E) between 30° and 180° can be ordered in addition to the fixed angles.

Vertical plain bends

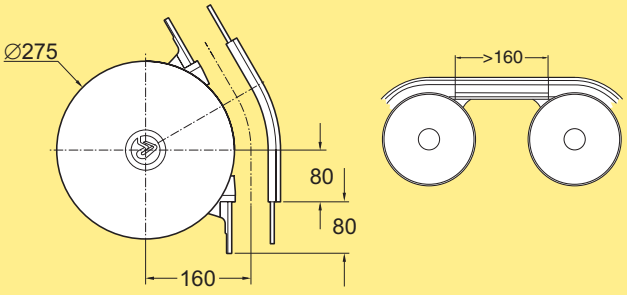
The standard radius for vertical bends is 400 mm. 5° and 15° bends can also be ordered with radius 750 mm. 45° and 90° bends are also available with radius 1000 mm. A customer specified angle (E) between 5° and 90° can be ordered in radius 400 mm or 1000 mm.

Horizontal plain bends

The standard radii for horizontal plain bends are 500 mm, 700 mm and 1000 mm. The bends have provisions for an extra slide rail inside the beam. See page 12.

Wheel bends

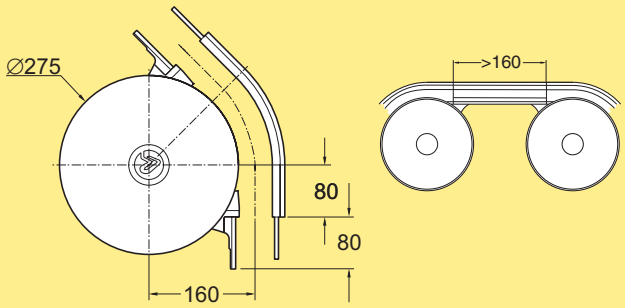
Wheel bend, 30°



Wheel bend, 30° **XBBH 30A85R160**

Effective track length: 0,25 m 1-way (0,50 m 2-way)

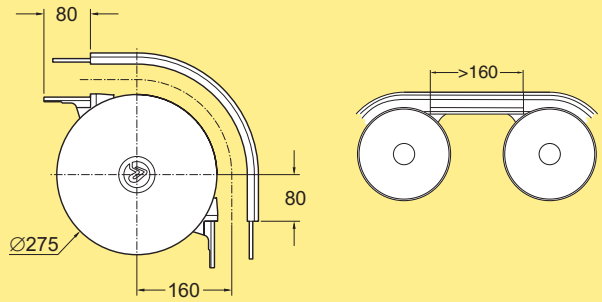
Wheel bend, 45°



Wheel bend, 45° **XBBH 45A85R160**

Effective track length: 0,30 m 1-way (0,60 m 2-way)

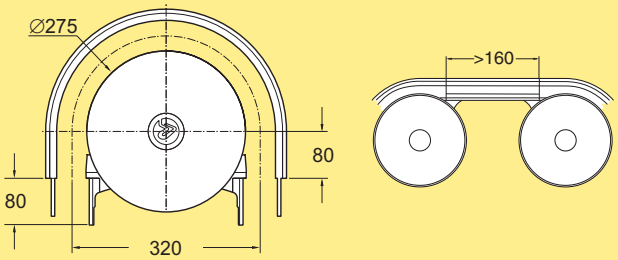
Wheel bend, 90°



Wheel bend, 90° **XBBH 90A85R160**

Effective track length: 0,45 m 1-way (0,85 m 2-way)

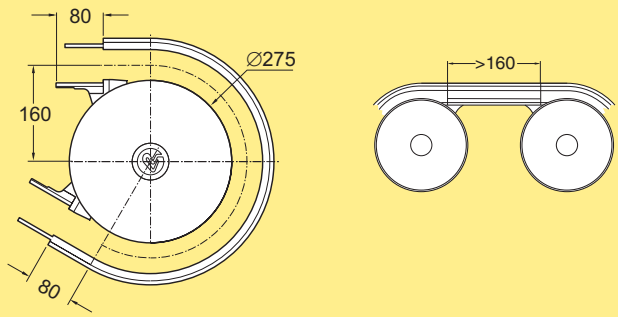
Wheel bend, 180°



Wheel bend, 180° **XBBH 180A85R160**

Effective track length: 0,70 m 1-way (1,35 m 2-way)

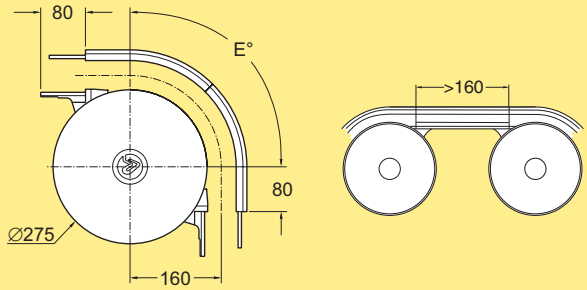
Wheel bend, 210°



Wheel bend, 210° **XBBH 210A85R160**

Effective track length: 0,75 m 1-way (1,50 m 2-way)

Wheel bend, 30°– 180°

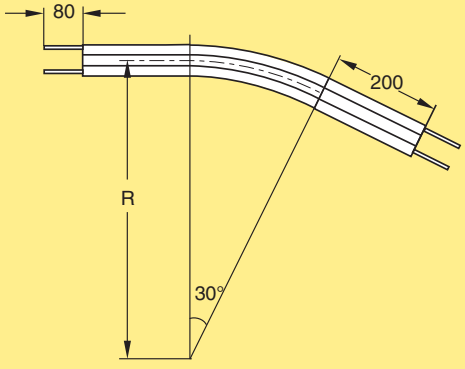


Wheel bend, 30°– 180° **XBBH EA85R160**

The outer bend is cut in the middle to the desired angle and assembled using connecting strips.
The angle "E" must be specified when ordering.

Horizontal plain bends

Horizontal plain bend, 30°

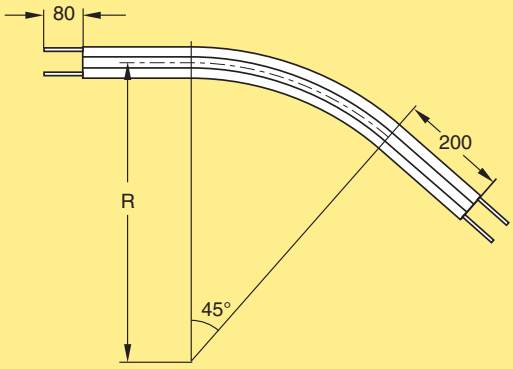


Horizontal plain bend, 30°±1°

R=500±10 mm	**XBBP 30A85R5**
R=700±10 mm	**XBBP 30A85R7**
R=1000±10 mm	**XBBP 30A85R10**

Effective track lengths:
R500: 0,70 m 1-way (1,35 m 2-way)
R700: 0,80 m 1-way (1,55 m 2-way)
R1000: 0,95 m 1-way (1,85 m 2-way)

Horizontal plain bend, 45°

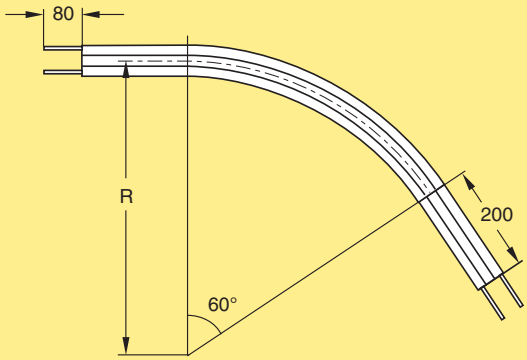


Horizontal plain bend, 45°±1°

R=500±10 mm	**XBBP 45A85R5**
R=700±10 mm	**XBBP 45A85R7**
R=1000±10 mm	**XBBP 45A85R10**

Effective track lengths:
R500: 0,80 m 1-way (1,60 m 2-way)
R700: 0,95 m 1-way (1,90 m 2-way)
R1000: 1,20 m 1-way (2,40 m 2-way)

Horizontal plain bend, 60°

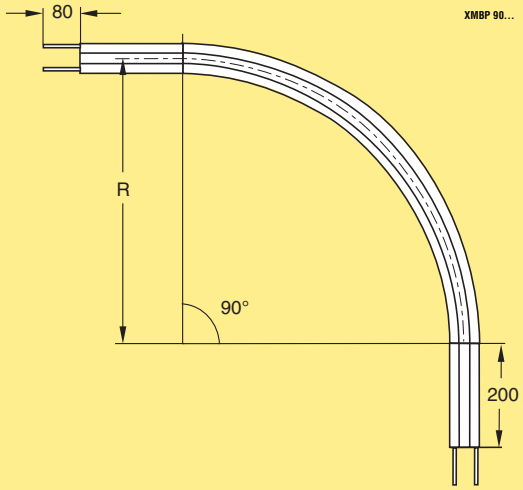


Horizontal plain bend, 60°±1°

R=500±10 mm	**XBBP 60A85R5**
R=700±10 mm	**XBBP 60A85R7**
R=1000±10 mm	**XBBP 60A85R10**

Effective track lengths:
R500: 0,95 m 1-way (1,85 m 2-way)
R700: 1,15 m 1-way (2,30 m 2-way)
R1000: 1,45 m 1-way (2,90 m 2-way)

Horizontal plain bend, 90°



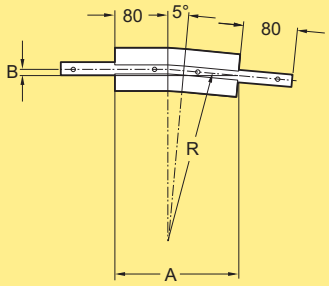
Horizontal plain bend, 90°±1°

R=500±10 mm	**XBBP 90A85R5**
R=700±10 mm	**XBBP 90A85R7**
R=1000±10 mm	**XBBP 90A85R10**

Effective track lengths:
R500: 1,20 m 1-way (2,40 m 2-way)
R700: 1,50 m 1-way (3,00 m 2-way)
R1000: 2,00 m 1-way (3,95 m 2-way)

Vertical bends

Vertical bend, 5°

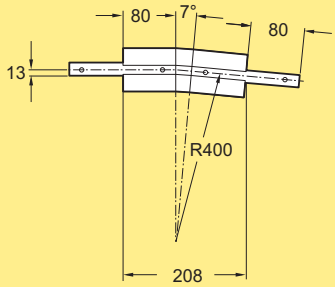


Vertical bend, 5°

R=400, A=195, B=9	**XBBV 5A85R4**
R=750, A=228, B=10	**XBBV 5A85R750**

Effective track lengths:
R400: 0,20 m 1-way (0,40 m 2-way)
R750: 0,25m 1-way (0,50 m 2-way)

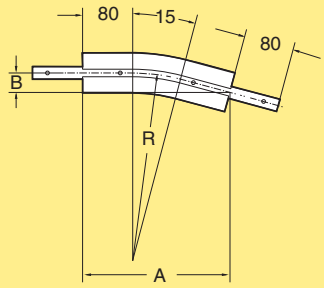
Vertical bend, 7°



Vertical bend, 7° **XBBV 7A85R4**

Effective track length: 0,25 m 1-way (0,45 m 2-way)

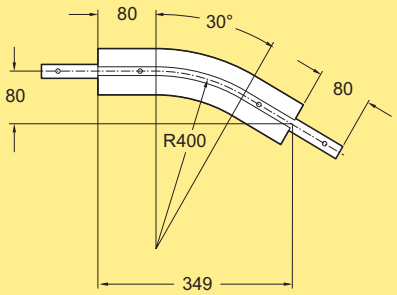
Vertical bend, 15°



Vertical bend, 15°
R=400, A=261, B=34 **XBBV 15A85R4**
R=750, A=360, B=47 **XBBV 15A85R750**

Effective track length:
R=400: 0,30 m 1-way (0,55 m 2-way)
R=750: 0,40 m 1-way (0,75 m 2-way)

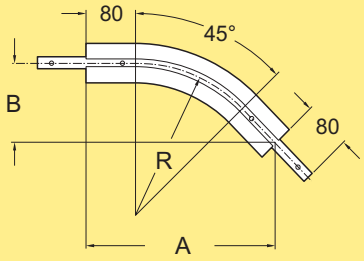
Vertical bend, 30°



Vertical bend, 30° **XBBV 30A85R4**

Effective track length: 0,40 m 1-way (0,75 m 2-way)

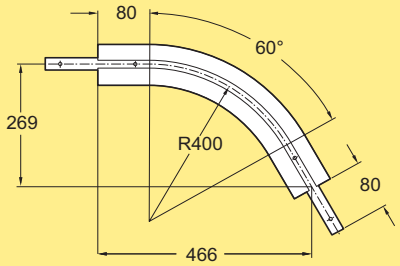
Vertical bend, 45°



Vertical bend, 45°
R= 400, A=419, B=417 **XBBV 45A85R4**
R=1000, A=844, B=349 **XBBV 45A85R10**

Effective track length:
R400: 0,50 m 1-way (0,95 m 2-way)
R1000: 1,00 m 1-way (1,90 m 2-way)

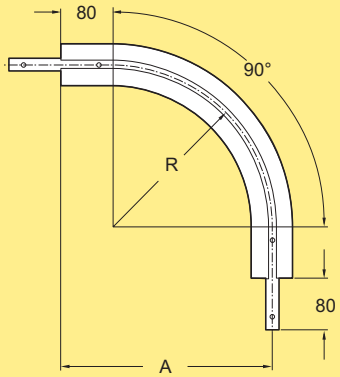
Vertical bend, 60°



Vertical bend, 60° **XBBV 60A85R4**

Effective track length: 0,65 m 1-way (1,20 m 2-way)

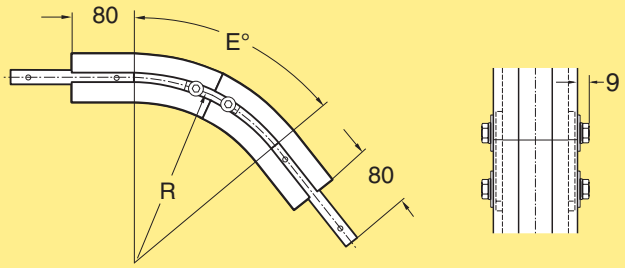
Vertical bend, 90°



Vertical bend, 90°
R= 400, A= 480 **XBBV 90A85R4**
R=1000, A=1080 **XBBV 90A85R10**

Effective track length:
R400: 0,85 m 1-way (1,60 m 2-way)
R1000: 1,80 m 1-way (3,50 m 2-way)

Vertical bend, 5°–90°



Vertical bend, 5°–90°
R=400 **XBBV EA85R4**
R=1000 **XBBV EA85R10**

The bend is cut in the middle to the desired angle and assembled using connecting strips.
The angle "E" must be specified when ordering.

Drip trays & drip pans – introduction

Drip handling

Drip trays serve two purposes:

- Prevent access to the underside of the conveyor, to eliminate the risk of personal injury, especially in conjunction with cleated chains.
- Protect the floor and components against drips when oily or wet parts are conveyed.

The drip trays are attached to the conveyor beam by means of drip tray brackets. The following drip handling components are suitable for use with the X85 conveyor system. For more information, see the FlexLink product catalogue.

Drip tray components

Item	Designation	Comments
Drip tray	XMDT 3×127 B	Length 3 m
Drip tray bracket	XLDB 21×100	
Drip tray connector	XMDJ 127 B	With drip outlet
Drip tray connector with integrated drip catcher	XMDJ 127 BW	With drip outlet
Connecting strip	XLCJ 5×140	
End pan for drip tray	XMDE 127 B	With drip outlet
End cap for drip tray	XMDC 127 B	

Drip catchers

Item	Designation	Comments
Drip catcher 53 mm	XHDS 3×53	Length 3 m
Drip catcher 83 mm	XHDS 3×83	Length 3 m
Drip catcher bracket assembly	XHDR 23	

Drip pans

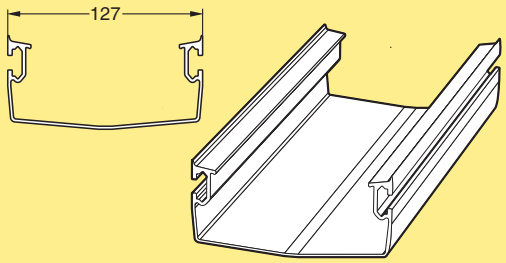
Item	Designation	Comments
Drip pan for wheel bend 30°	XMDH 30×127 B	With drip outlet
Drip pan for wheel bend 45°	XMDH 45×127 B	With drip outlet
Drip pan for wheel bend 90°	XMDH 90×127 B	With drip outlet
Drip pan for wheel bend 180°	XMDH 180×127 B	With drip outlet
Drip pan, lower, for vertical bend	XMDV 30×127 BL	
Drip pan, upper, for vertical bend	XMDV 30×127 BU	
End pan for idler end unit	XMDD 127 B	With drip outlet

Important

With drip trays, standard beam support brackets for system XM must be used. Brackets for 127 mm wide drip trays are suitable. See page 35 for more information.

Drip trays

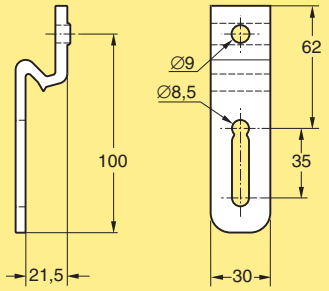
Drip tray



Drip tray
Length 3 m

XMDT 3×127 B

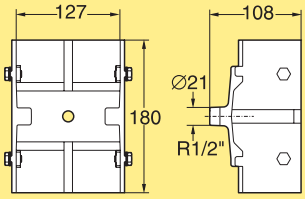
Drip tray bracket



Drip tray bracket

XLDB 21×100

Drip tray connector

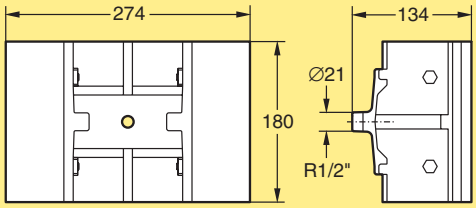


Drip tray connector
With drip outlet

XMDJ 127 B

Including screw kit

Drip tray connector with drip catcher

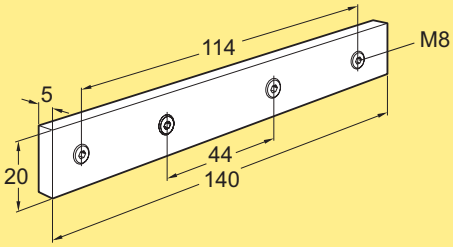


Drip tray connector with integrated drip catcher
With drip outlet

XMDJ 127 BW

Including screw kit

Connecting strip

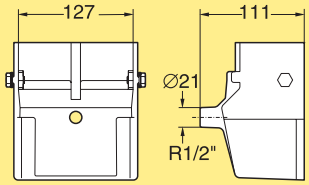


Connecting strip with set screws

XLCJ 5×140

Note. Must be ordered in multiples of 10

End pan for drip tray

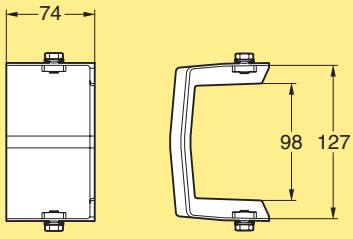


End pan for drip tray
With drip outlet

XMDE 127 B

Including screw kit

End cap for drip tray



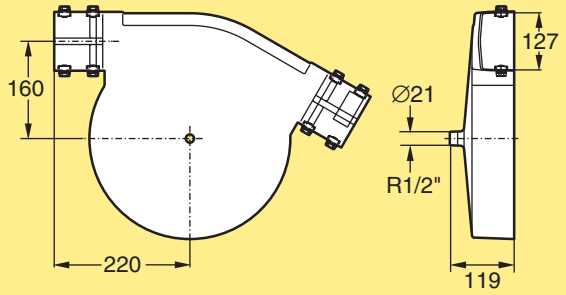
End cap for drip tray

XMDC 127 B

Including screw kit

Drip pans

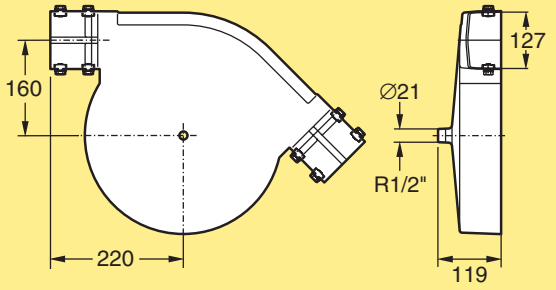
Drip pan for wheel bend 30°



Drip pan for wheel bend 30°
Including screw kit

XMDH 30×127 B

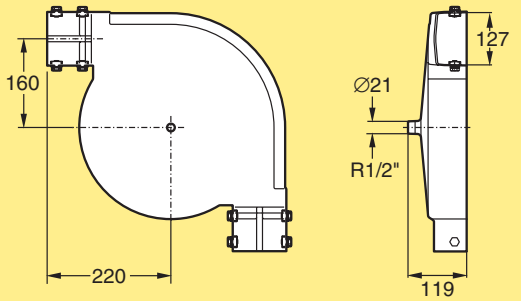
Drip pan for wheel bend 45°



Drip pan for wheel bend 45°
Including screw kit

XMDH 45×127 B

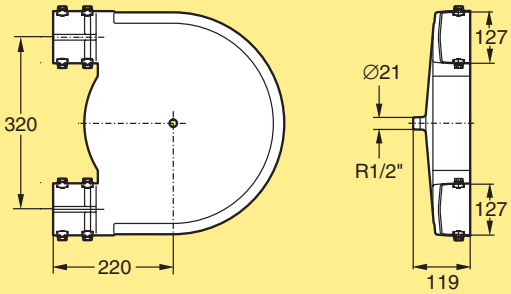
Drip pan for wheel bend 90°



Drip pan for wheel bend 90°
Including screw kit

XMDH 90×127 B

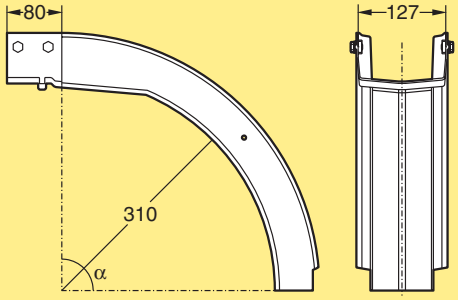
Drip pan for wheel bend 180°



Drip pan for wheel bend 180°
Including screw kit

XMDH 180×127 B

Drip pan, upper, for vertical bend

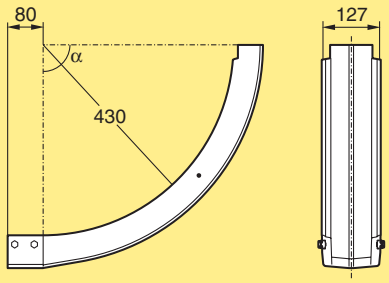


Drip pan, upper, for vertical bend
α=30°

XMDV 30×127 BU

Including screw kit

Drip pan, lower, for vertical bend

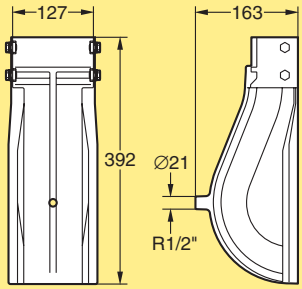


Drip pan, lower, for vertical bend
α=30°

XMDV 30×127 BL

Including screw kit

End pan for idler end unit

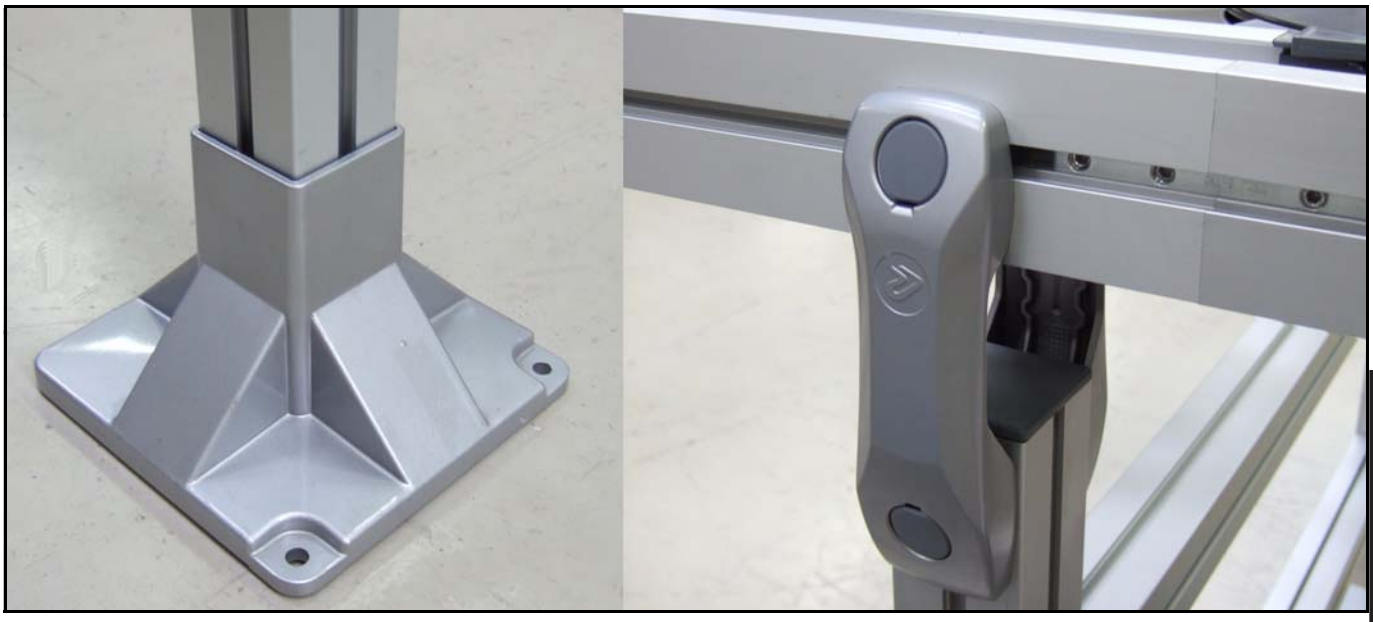


End pan for idler end unit
With drip outlet

XMDD 127 B

Including screw kit

Conveyor support – introduction



Beams

Most conveyor support designs are based on vertical support beams combined, if necessary, with horizontal support beams. Recommended types for the X85 system are the 64×64 mm and the 88×88 mm types. The conveyor must be supported at regular intervals not exceeding 3 m.

Feet

A selection of feet is available, ranging from heavy-duty diecast aluminium feet to adjustable feet and foot plates.

Beam support brackets

Conveyor beam support brackets are used to connect the conveyor to the support system. Brackets are available for connection to vertical and horizontal support beams. Two beam support bracket types, XLCT 11×100 C and XMCS 64 C, are designed for the X85 conveyor system. Important features of the brackets are clean design, high stiffness, and fast assembly. The brackets permit conveyor slopes up to 15°.

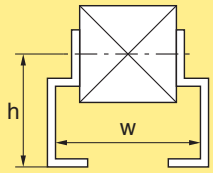
If drip trays are used, the standard beam support brackets for system XM are suitable.

Support for in-line transfer units

In-line transfer units require special considerations with regard to support legs and brackets. See page 25.

Brackets for crossing support beam 64/88 mm

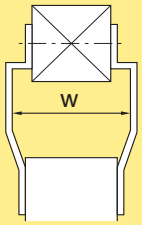
Bracket type	W mm	h mm	Beam
XLCT 11×100 C*	n.a.	100	64/88 mm
XLCT 21×125	127	125	88 mm
XLCT 21×135	127	135	88 mm
XLCT 21×135 A	127	135	64 mm



*This type cannot be used with drip trays.

Brackets for vertical support beam 64/88 mm

Bracket type	W mm	Beam
XMCS 64 C*	n.a.	64 mm
XMCS 88 B	127	88 mm

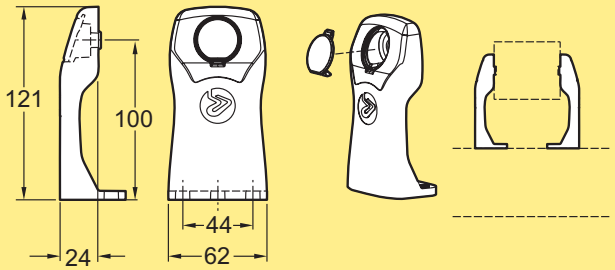


*This type cannot be used with drip trays.

For more information see the FlexLink product catalogue.

Beam support brackets, diecast

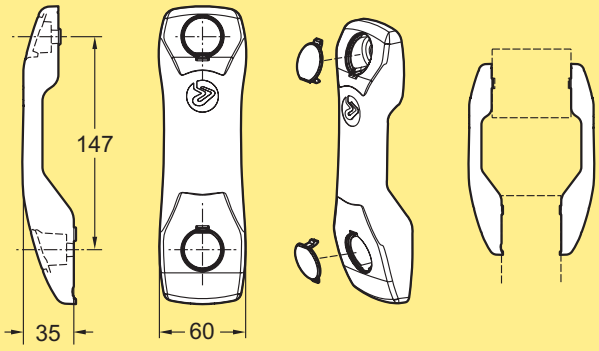
Beam support bracket for horizontal support beam



Beam support bracket, Type A
Aluminium, diecast **XLCT 11×100 C**

For 64 mm or 88 mm crossing support beam.
Cannot be used with drip trays
Mounting: XLAT 17 (1), XLAN 8 (1), XCAN 8 (1 or 2), M6S 8×16 (1 or 2), BRB 8,4×16 (2 or 3)
For support of in-line transfer units, order M6S 8×16 screw instead of the XLAT 17 T-slot screw.

Beam support bracket for 64 mm vertical support beam

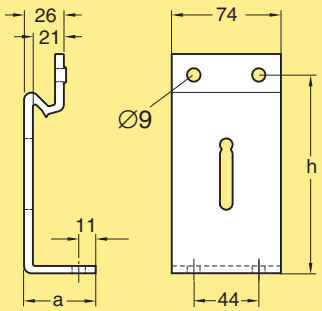


Beam support bracket, Type B
Aluminium, diecast **XMCS 64 C**

For 64 mm vertical support beam
Cannot be used with drip trays
Mounting: XLAT 17 (1), XLAN 8 (1), XCAN 8 (1), M6S 8×16 (1), BRB 8,4×16 (2)
For support of in-line transfer units, order M6S 8×16 screw instead of the XLAT 17 T-slot screw.

Beam support brackets for use with drip trays

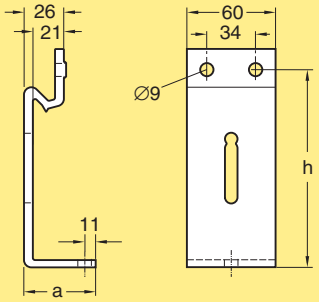
Beam support bracket – aluminium



Beam support bracket, Type A
Aluminium, extruded
h=125 mm, a=47,5 mm **XLCT 21×125**
h=135 mm, a=48,5 mm **XLCT 21×135**

For 88 mm crossing support beam.
Suitable for use with 127 mm wide drip trays
Mounting: XLAT 17 (2), XLAN 8 (2), XCAN 8 (2), M6S 8×16 (2), BRB 8,4×16 (4).
For support of in-line transfer units, order M6S 8×16 screws instead of the XLAT 17 T-slot screws.

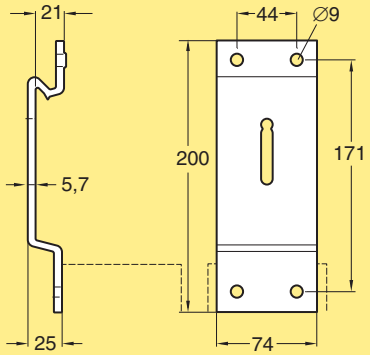
Beam support bracket – aluminium



Beam support bracket, Type A
Aluminium, extruded
h=135 mm, a=48,5 mm **XLCT 21×135 A**

For 64 mm crossing support beam
Suitable for use with 127 mm wide drip trays
Mounting: XLAT 17 (2), XLAN 8 (2), XCAN 8 (2), M6S 8×16 (2), BRB 8,4×16 (4).

Beam support bracket – aluminium

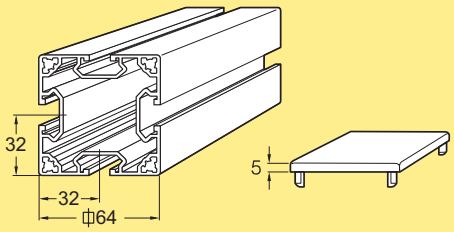


Beam support bracket, Type B
Aluminium, extruded **XMCS 88 B**

For 88 mm vertical support beam
Suitable for use with 127 mm wide drip trays
Mounting: XLAT 17 (2), XLAN 8 (2), XCAN 8 (2), M6S 8×16 (2), BRB 8,4×16 (4)
For support of in-line transfer units, order M6S 8×16 screws instead of the XLAT 17 T-slot screws.

Support beams

Support beam 64×64, lightweight

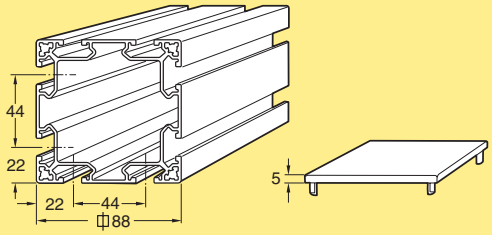


Support beam 64 mm × 64 mm, light
Length 3 m **XCBL 3×64**

End cap, polyamide **XCBE 64***

** End cap must be ordered in multiples of 10*

Support beam 88×88, lightweight



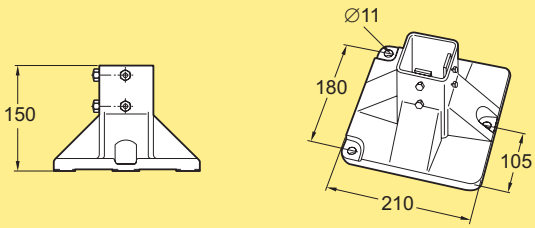
Support beam 88 mm × 88 mm, light
Length 3 m **XCBL 3×88**

End cap, polyamide **XCBE 88***

** End cap must be ordered in multiples of 10*

Feet, diecast

Foot 64×210

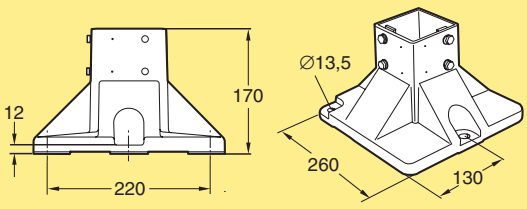


Foot for beam XCBM/XCBL ..×64
Aluminium, diecast **XCFF 64×210**

Including fastener kit

Maximum bending moment 750 Nm

Foot 88×260



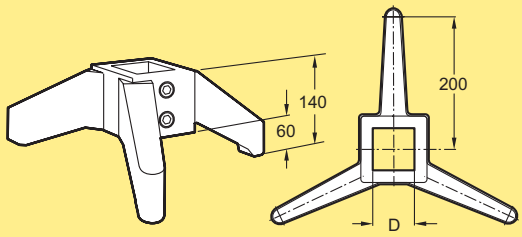
Foot for beam XCBM/XCBL ..×88
Aluminium, diecast **XCFF 88×260**

Including fastener kit

Maximum bending moment 1500 Nm

Feet, polyamide

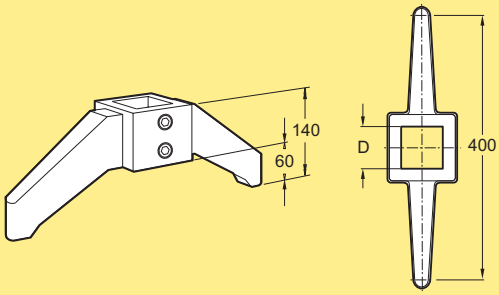
Three-point foot for 64 mm beam



Three-point foot for XC.. 64 beam
D=64 mm
Polyamide, glass-fibre reinforced **XEFG 64 T**

Including screws and clamps.
Maximum vertical load 800 N.

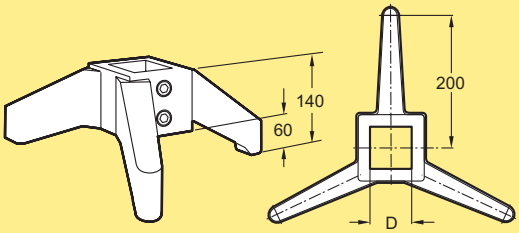
Two-point foot for 64 mm beam



Two-point foot for XC.. 64 beam
D= 64 mm
Polyamide, glass-fibre reinforced **XEFG 64 D**

Including screws and clamps.
Maximum vertical load 800 N.

Foot for height adjustment assembly

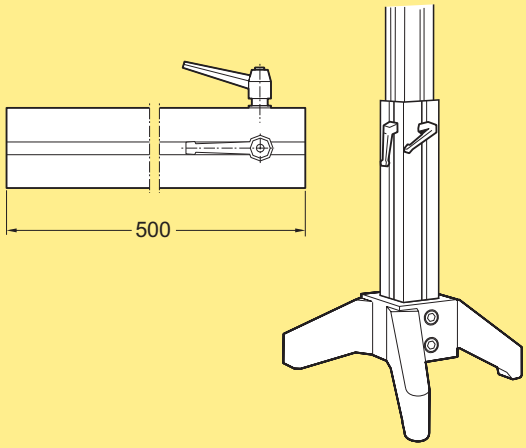


Three-point foot for XEFU 500
D=70 mm
Polyamide, glass-fibre reinforced **XEFG 70 T**

Including screws and clamps.
Maximum vertical load 800 N.

Height adjustment assembly: see XEFU 500.

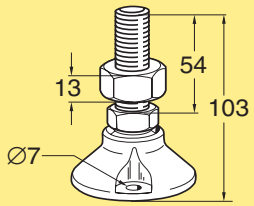
Height adjustment assembly



Square section tube height adjustment assembly
Length 500 mm
Aluminium, anodized **XEFU 500**

To be used with foot type XEFG 70 T. Including locking levers.

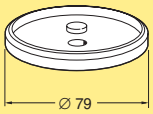
Adjustable foot for XEFG



Adjustable foot for XEFG 64/70 T/D
With ball joint and M20 locking nut
Polyamide, glass-fibre reinforced **XLFS 20 P**

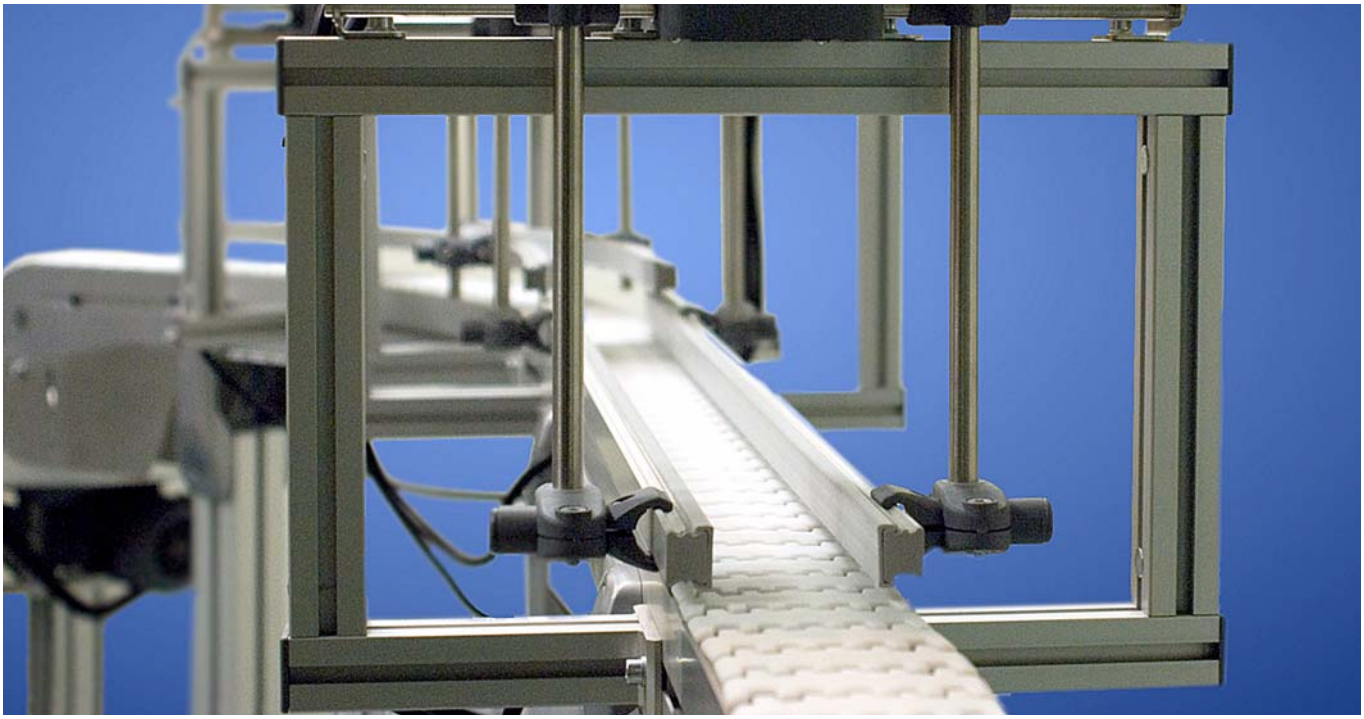
Maximum vertical load 500 N

Vibration absorber



Vibration absorber for XLFS 20 P
Thermoplastic polyester **XLFJ 69**

Guide rail components – introduction



Guide rails for X85 conveyor system

The standard FlexLink guide rail components are suitable for X85 conveyors. The assortment range includes

- Guide rails in aluminium, polyethylene and steel
- Fixed and adjustable guide rail brackets in aluminium or polyamide
- A time-saving system for automatic adjustment of track width (photo above). In systems running many different products, resetting to a new track width is a matter of minutes instead of the hours required for manual resetting. Read more on page 40.

See the FlexLink product catalogue, section GR, for more information about guide rail products. With regard to guide rail components, the X85 system is equivalent to system XM.

Guide rails for X85 pallet handling

The pallet handling system uses a special type of guide rails with T-slots on the bottom side. Suitable guide rails and brackets are presented in the section on X85 pallet handling.

Guide rail system for easy adjustment of track width

The automatic adjustable guiding system provides a very flexible way to add width adjustment for conveyors in a production line. The system offers easy automatic resetting of product guiding systems in production flows. The effect is increased line efficiency and safe product distribution throughout the line.

The system has a modular design and consists of guide units for the guiding, control boxes for the control of the guide units and junction boxes for power supply. The system can be linked to the line control system and one control box can control up to 220 guide units.

Standard features

- Automatic resetting for different product sizes
- Easy to install and expand
- Easy to integrate with existing installations
- Safe
- Each unit is self-driven with high accuracy
- Available in versions with or without position feedback.

Standard products

A system includes the following standard products:

- Guide units (standard or feedback type)
- Guide rail components
- Control box (Type 1/2/2b)
- Junction box

Guide unit (GU)

The guide unit has a built-in gear motor that adjusts the guide rails in and out by means of a rotating threaded shaft. The 24 V AC motor provides high enough force for width adjustment but still low enough force to stop if something gets jammed.

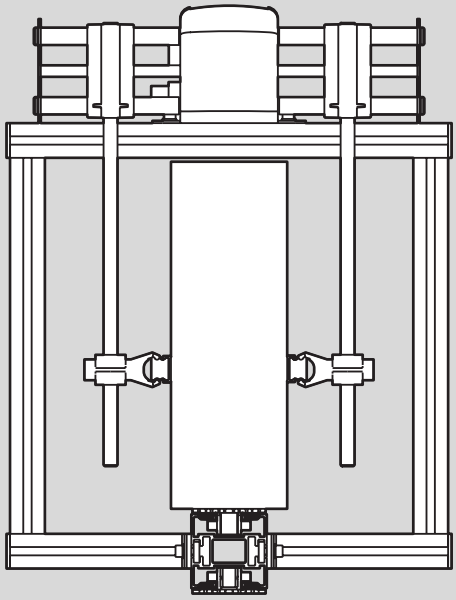
Each guide unit includes a cable that is daisy chained to the next guide unit. The synchronous AC motors ensure that the guide units move in synchronism.

The feedback version (suffix F) has two sensors, one at the outer position for resetting, and one which counts pulses as the threaded shaft rotates, to indicate the current position. Cables from the sensors are connected to the fieldbus module in the control box.

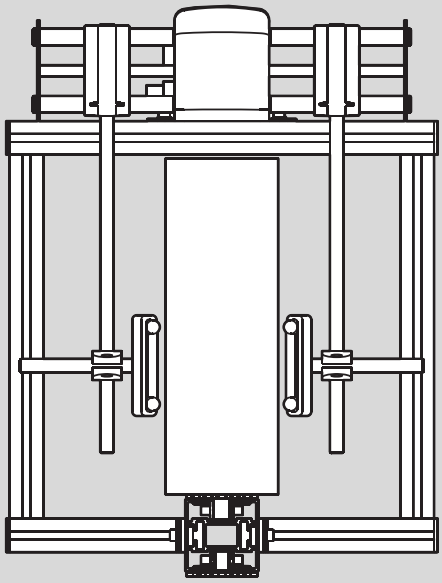
System reset is done by running the guide units until all guide rails are in the maximum width position.

Configuration

The GU is designed to be positioned above the conveyor track. It comes with ∅12 mm vertical bars in two lengths: 196 mm and 296 mm and includes a 2 m GU cable. Recommended distance between guide units is 1 m. Using standard FlexLink guide rail components, it is possible to get two guide rail configurations: A and B:

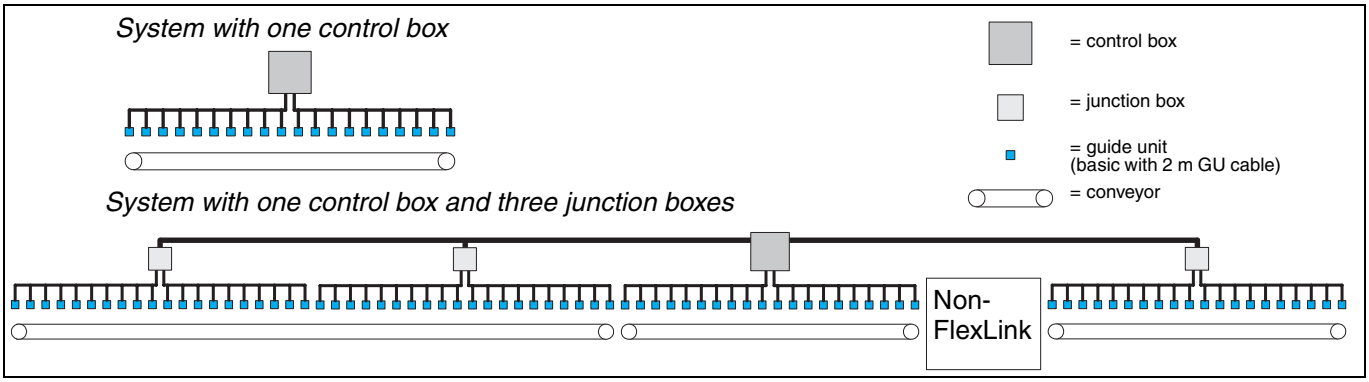


Configuration A



Configuration B

Control system



Control box

- The basic control box, Type 1, for manual setting has a switch with three positions: IN/0/OUT.
- The advanced control box, Type 2, automatic setting, has a built-in fieldbus module, which receives control signals from the conveyor system's PLC.
- Control box Type 2b has provisions for installing customer specified communications, such as any preferred type of fieldbus module, or hardwired communications.

In a small system, one Type 1 or Type 2 control box controls a GU group. A larger system can be built by adding junction boxes. Each additional GU group needs a junction box. Systems larger than this require an extra control box.

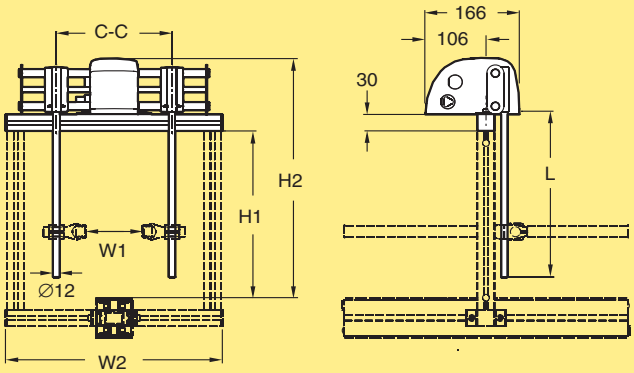
Position feedback system

The track width can be easily controlled from an operator panel if a control box Type 2 is used in combination with a GU made for position feedback (see *Guide unit* above). Only one such GU is required in a line.

Junction box

In addition to one GU group, a control box can have a maximum of 10 junction boxes (5 in each direction). Each junction box can control one GU group. A group of guide units can include up to 20 guide units. This means a total of 220 guide units.

Guide unit



Guide unit, including horizontal beam XFBM 30, no feedback

Guide unit 284×196	**XLRQ 284×196**
Guide unit 455×196	**XLRQ 455×196**
Guide unit 284×296	**XLRQ 284×296**
Guide unit 455×296	**XLRQ 455×296**

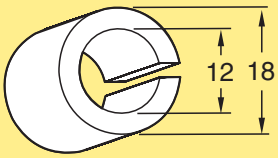
Guide unit, including horizontal beam XFBM 30, with position feedback

Guide unit 284×196 F	**XLRQ 284×196 F**
Guide unit 455×196 F	**XLRQ 455×196 F**
Guide unit 284×296 F	**XLRQ 284×296 F**
Guide unit 455×296 F	**XLRQ 455×296 F**

Item	H1	H2	W1	W2	C-C (max.)	L
XLRQ 284×196	165	295	35–190	377	284	196
XLRQ 455×196	165	295	35–360	548	455	196
XLRQ 284×296	265	395	35–190	377	284	296
XLRQ 455×296	265	395	35–360	548	455	296

Includes a 2 m GU cable.
Feedback version (suffix F) includes the necessary sensors.

Distance piece



Distance piece **5055818**

Adapter for fitting cross connectors or guide rail clamps to the ∅12 mm vertical bars of the guide units.

Extra GU cable

Cable, 2 m	**5057678**
Cable, 3 m	**5057691**

Additional components, basic version

Components required for both configurations A&B (page 40):

Item	Designation	Qty
Washer M6	BRB 6,4×12	4
Beam 30×30 mm	XFBM L×30	720–1160 mm
End cap	XFBE 30	4
Fastener yoke	XFAF 30	4
Mounting plate	XFFB 30	2
Screw	MF6S 6×30	2
Screw	MC6S 6×14	4
Square nut	XLAQ 6	4
Cross connector	XLRX 18 X	2–4
Distance piece (see above)	5055818	2–4

Additional components required for configuration A (page 40)

Item	Designation	Qty
Guide rail clamp	XLRK 18×40 C	2–4

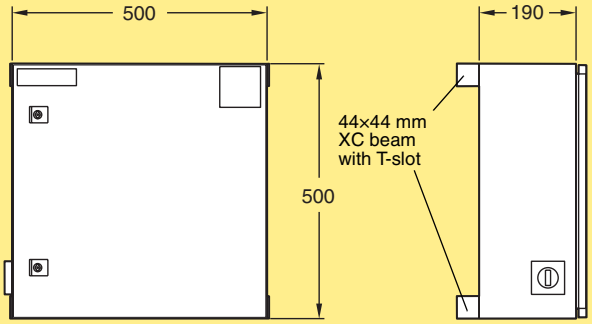
Additional components required for configuration B (page 40)

Item	Designation	Qty
Guide rail clamp, double	XLRKX 18×50 D69	2

Additional components information

All additional components listed here, as well as guide rails and brackets are presented in the FlexLink product catalogue, section GR.

Control box



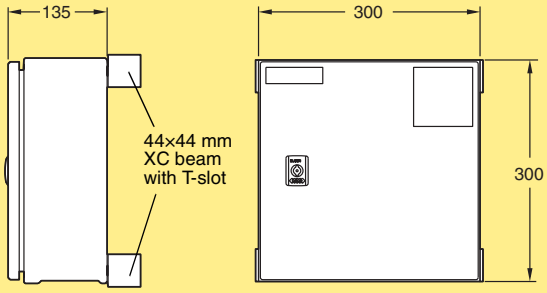
Control box	
Type 1, manual setting, 50 Hz	**5057245**
Type 1, manual setting, 60 Hz	**5057891**
Type 2, automatic (Profibus), 50 Hz	**5057246**
Type 2, automatic (DeviceNet), 60 Hz	**5057420**
Type 2b, automatic*, 50 Hz	**5057308**
Type 2b, automatic*, 60 Hz	**5057310**

Manual control device

Manual control device	**5059071**

A manual switch, temporarily installed in a control box with fieldbus, until fieldbus is up and running.

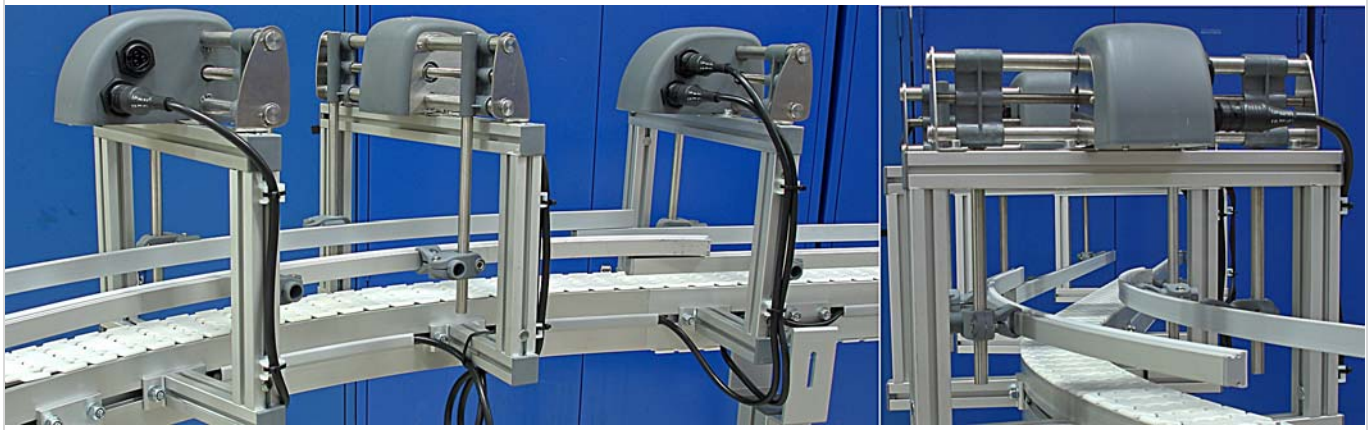
Junction box



Junction box, 50 Hz	**5057247**
Junction box, 60 Hz	**5057479**

* Customer specified communications

Guide rails in bends

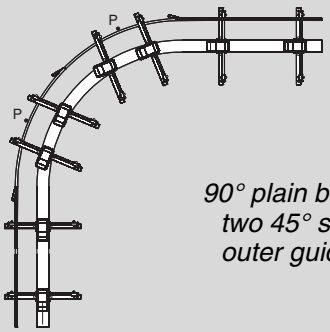


The guide rail sections should overlap each other.

Example: 90° plain bend:

The guide rail is divided into 45° segments. Two guide units are used for each 45° segment. These guide units must be mounted in parallel.

The mid-point of each segment (P) will move with the same accuracy as the straight guide rail sections. If higher accuracy is needed, a 90° bend can be divided into three 30° sections.



90° plain bend divided into two 45° segments (only outer guide rail shown).

More information

Please contact FlexLink Systems for design assistance. See www.flexlink.com for detailed documentation and CAD files.