ENGINEERING MANUAL

Up to Four Curves on a Single Conveyor

Compact, Sleek Frame Structure Safe & Robust Chain Design Driven Transfers for Small Part Handling



FIEXIO TO SERIES CONVEYORS

Compact, Heavy Duty, Flexible Chain Conveyors





Compact Design Saves Critical Floor Space

Infeed and exit sections as short as 460 mm

• Turn radius of 2X the belt width

 Innovative bearing chain design allows for up to four curves on a single gearmotor

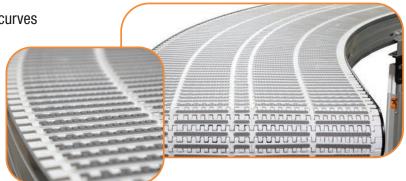


Safest Modular Belt Conveyor in the Industry

Chain openings less than 4 mm, even on curves

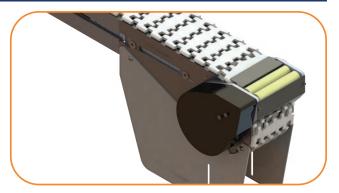
 Covered side tabs along the full length of the conveyor rail

 Contained drive eliminates catenary belt for operator safety



Small Parts Transfers - Driven Bridge Option

- Transfer small parts, as small as 75 mm long in-line
- Driven rollers provide smooth transfer
- Provides interface to other large roller conveyors such as spirals or freezers



The Benefits of a Dorner FlexMove FX Series Conveyor

Flexibility in Layout and Design

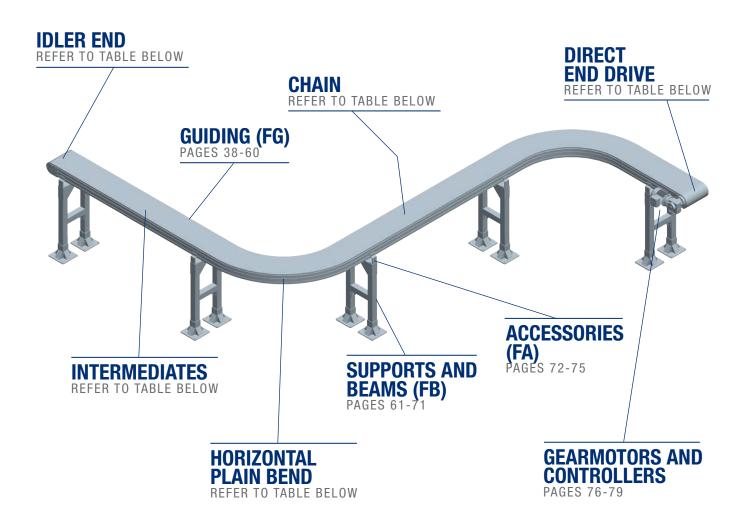
- T-slot aluminum frames allows for easy-to-install add-ons and custom design changes
- · Variety of chain tops with features to suit different application needs

Heavy Duty Performance

- Straightforward and compact design maximizes space while minimizing noise, maintenance, and space
- High speeds up to 50 m/min and product loads up to 272 kg
- Robust single pin chain design with 1/4 turn screw for easy removal anywhere along the length of the straight
- Stainless Steel center bearing chain design features enhanced turning performance







FX 152

152 mm wide

PAGES 6-13

FX 304

304 mm wide

PAGES 14-21

FX 457

457 mm wide

PAGES 22-29

FX 609

609 mm wide

PAGES 30-37









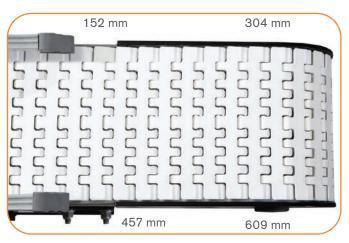
EFFICIENT DESIGN:

INNOVATIVE STAINLESS STEEL CENTER BEARING CHAIN VIRTUALLY ELIMINATES FRICTION AND PROVIDES THE ABILITY OF UP TO FOUR CURVES ON A SINGLE GEARMOTOR.

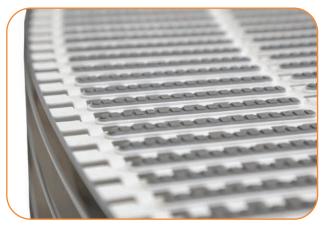


COMPACT FOOTPRINT:

INFEED AND OUTFEED SECTIONS AS SHORT AS 450MM, VERTICAL BENDS FROM 5 TO 25 DEGREES AND HORIZONTAL BENDS FROM 15 TO 180 DEGREES IN STANDARD CHOICES, THE FX SERIES MAKES EFFICIENT USE OF THE SPACE.







CHAIN SAFETY:

THE FX SERIES CHAIN IS DESIGNED SO THAT NO OPENING IN THE CHAIN WILL EXCEED 4MM, EVEN IN CURVES. THE TOP OF THE CHAIN HAS A FLAT TOP SURFACE WITH NO EDGES.

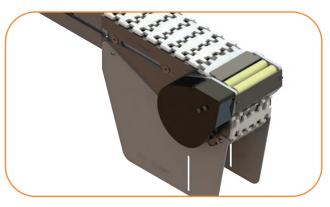
(4) STANDARD CHAIN WIDTHS:

WIDTHS FROM 152 MM TO 609 MM PROVIDE A CONSISTENT FLAT CHAIN SURFACE TO SUPPORT SMALL PACKAGES, BAGS, POUCHES UP TO LARGE CASES.









SMALL PART HANDLING:

TRANSFERING PARTS OR MATERIALS FROM CONVEYOR TO THE NEXT IS CRITICAL, THAT IS WHY THE SMOOTH POWER TRANSFER TAIL OPTION THAT CAN TRANSFER PARTS AS SHORT AS 75MM IN DIAMETER WAS DESIGNED. ALONG WITH THE ROLLER TRANSFER THESE OPTIONS ARE AVAILABLE ON THE DRIVE AND IDLER ENDS TO MOVE PRODUCTS WITHOUT ISSUE THROUGH THE PROCESS LINE.



ROBUST CHAIN:

THE CHAIN IS MOLDED TO WIDTH UP TO 609 MM, THE STRONGEST 25MM PITCH CURVED CHAIN STRENGTH AT 2700N AND HAS A SINGLE 1/4 TURN NYLON PIN FOR MAKING ADJUSTMENTS TO CHAIN LENGTH.



CONTAINED DRIVE SYSTEM:

THE CONTAINED DRIVE SYSTEM FOR THE FX SERIES IS A SAFER, QUIETER OPTION WITH ITS NO CATENARY DESIGN.





FX152 Series Characteristic

Beam Width: 163 mm

Product Width: Refer to Guide Rail Assembly

Accessories Needed

Slide Rail Required:

FASR-3E

Slide Rail Material:

HDPE

Slide Rail Color:

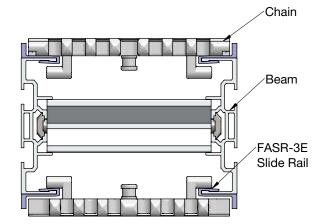
White

Slide Rail Rivet and Screw:

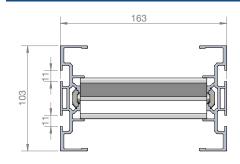
FASLR-4X6 or FASLS-M5

Connecting strip is used to connect 2 beams.

Connecting Strip: FACS-20X140



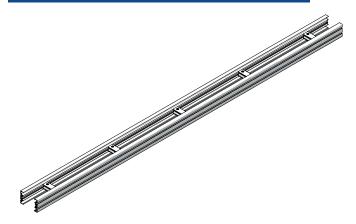
Conveyor Beam FXCB152-LLLL



Where LLLL = Length (mm) Minimum Length: 150 mm Maximum Length: 3000 mm

UOM: each

Conveyor Beam Assembly



FlexMove FX Series conveyors are designed to be flexible in length.

For ease of fabrication, conveyor beam should be disassembled for cutting to specific lengths.





Chain Common Data

Packaging: 3 m per box Width: 152 mm

Pitch: 25.4 mm Tensile Strength at 20°C: 8470 N

Color: White (Standard)

Blue (Optional - contact factory)

Material

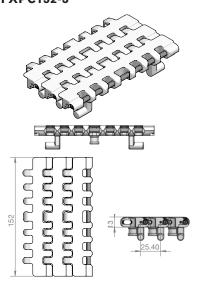
Chain: White Acetal / POM

Pivot Pin: Nylon

Insert (Wedge & Friction): TPE Grey

Straight Conveyors

Standard Plain Chain **FXPC152-3**

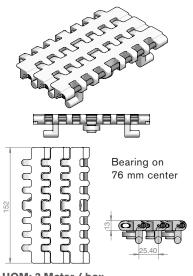


UOM: 3 Meter / box

Application: Suitable for horizontal and slope <5 Degree transport of products without/ with light accumulation

Curved Conveyors

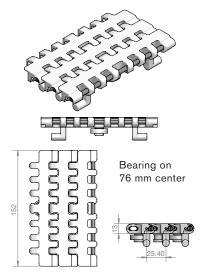
Standard Plain Chain with Alternate Bearing **FXPC152-3R2**



UOM: 3 Meter / box

Application: Suitable for horizontal and slope <5 Degree transport of products without/ with light accumulation

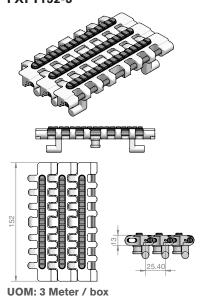
Standard Plain Chain with Alternate S/Steel Bearing **FXPC152-3RS2**



UOM: 3 Meter / box

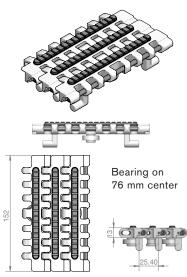
Application: Suitable for horizontal and slope <5 Degree transport of products without/ with light accumulation

Friction Top Chain FXFT152-3



Application: Suitable for horizontal and slope >5 Degree but </= 25 Degree transport of products without accumulation

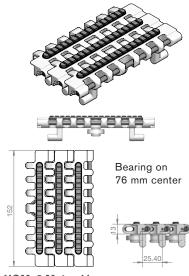
Friction Top Chain with Alternate Bearing **FXFT152-3R2**



UOM: 3 Meter / box

Application: Suitable for horizontal and slope >5 Degree but </= 25 Degree transport of products without accumulation

Friction Top Chain with Alternate S/Steel Bearing FXFT152-3RS2



UOM: 3 Meter / box

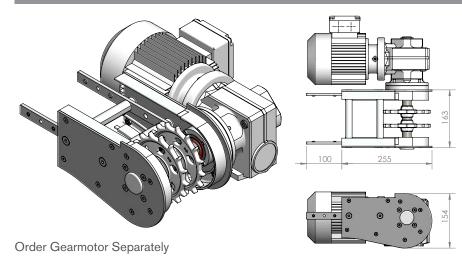
Application: Suitable for horizontal and slope >5 Degree but </= 25 Degree transport of products without accumulation





FX152 Direct End Drive (LEFT)

FXDD152-0L



Max Traction Force: 1150 N

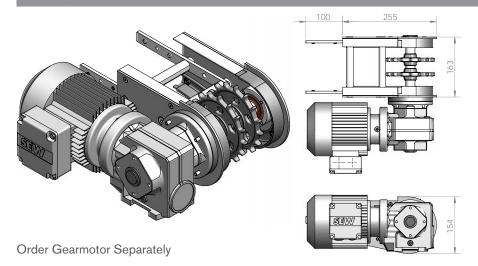
The Direct End Drive Unit is without torque limiter.

UOM: pc

Chain required 2-way: 0.58 m Slide rail required 2-way: 0.8 m

FX152 Direct End Drive (RIGHT)

FXDD152-0R



Max Traction Force: 1150 N

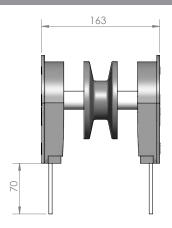
The Direct End Drive Unit is without torque limiter.

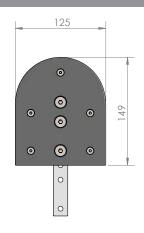
UOM: pc

Chain required 2-way: 0.58 m Slide rail required 2-way: 0.8 m

FX152 Idler End

FXIE152





UOM: pc

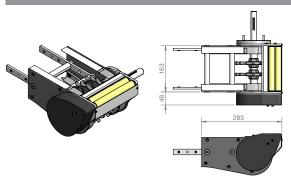
Chain required 2-way: 0.35 m Slide rail required 2-way: 0.0 m

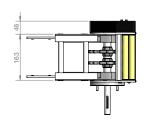


Driven Transfer Drive

FXDD152-DB-A-0L (LEFT)

FXDD152-DB-A-0R (RIGHT)







Max Traction Force: 1150 N

The Direct End Drive Unit is without torque limiter.

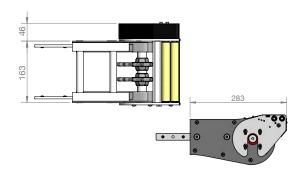
UOM: pc

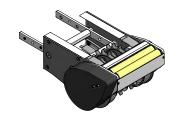
Chain required 2-way: 0.58 m Slide rail required 2-way: 0.8 m

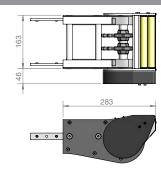
Driven Transfer Idler

FXIE152-DB-A-L (LEFT)

FXIE152-DB-A-R (RIGHT)





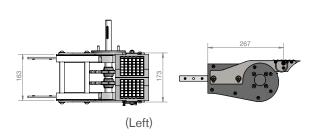


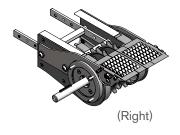
UOM: pc

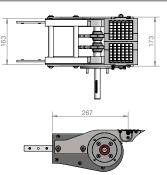
Chain required 2-way: 0.58 m Slide rail required 2-way: 0.8 m

Roller Transfer Drive

FXTB-A152



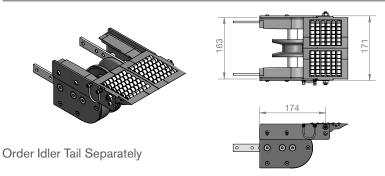




Order Drive Tail Separately

Roller Transfer Idler

FXETB-A152

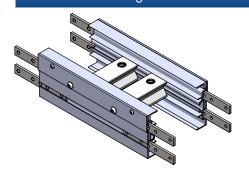


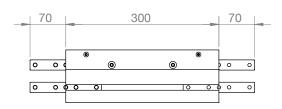




Chain Connecting Module

FXCC152

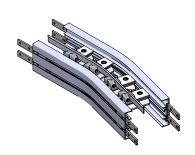


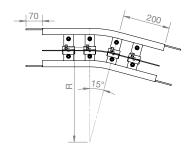


Required on all conveyors

UOM: pc

FX152 Horizontal Plain Bend 15°





Horizontal plain bend, 15° ± 1°

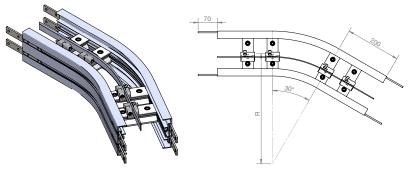
Where X = Blank or S

S = Includes outer pinch guard slide rail Blank = No slide rail included

UOM: pc

Chain required 2-way (400, 800): 1.0, 1.2 meter Slide rail required 2-way (400, 800): 2.5, 3.0 meter

FX152 Horizontal Plain Bend 30°



Horizontal plain bend, 30° ± 1°

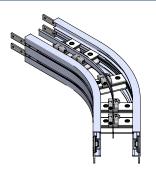
Where X = Blank or S

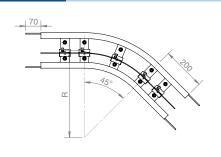
S = Includes outer pinch guard slide rail Blank = No slide rail included

UOM: pc

Chain required 2-way (400, 800): 1.2, 1.6 meter Slide rail required 2-way (400, 800): 3.1, 4.1 meter

FX152 Horizontal Plain Bend 45°





Horizontal plain bend, 45° ± 1°

Where X = Blank or S

S = Includes outer pinch guard slide rail Blank = No slide rail included

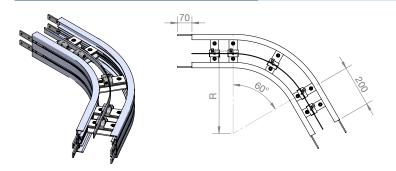
UOM: pc

Chain required 2-way (400, 800): 1.5, 2.1 meter Slide rail required 2-way (400, 800): 3.6, 5.2 meter





FX152 Horizontal Plain Bend 60°



Horizontal plain bend, 60° ± 1°

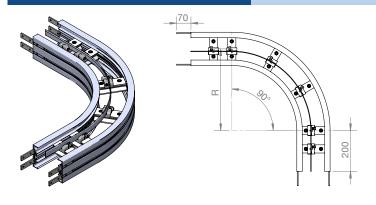
Where X = Blank or S

S = Includes outer pinch guard slide rail Blank = No slide rail included

UOM: pc

Chain required 2-way (400, 800): 1.7, 2.5 meter Slide rail required 2-way (400, 800): 4.1, 6.2 meter

FX152 Horizontal Plain Bend 90°



Horizontal plain bend, 90° ± 1°

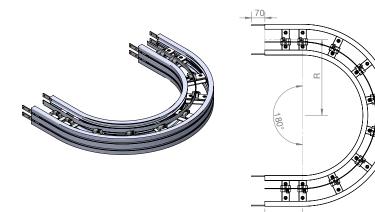
Where X = Blank or S

S = Includes outer pinch guard slide rail Blank = No slide rail included

UOM: pc

Chain required 2-way (400, 800): 2.1, 3.3 meter Slide rail required 2-way (400, 800): 5.2, 8.3 meter

FX152 Horizontal Plain Bend 180°



Horizontal plain bend, 180° ± 1°

Where X = Blank or S

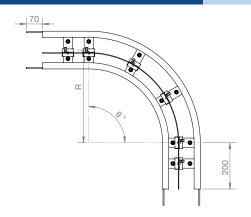
S = Includes outer pinch guard slide rail

Blank = No slide rail included

UOM: pc

Chain required 2-way (400, 800): 3.3, 5.9 meter Slide rail required 2-way (400, 800): 8.3, 14.6 meter

FX152 Horizontal Bend 5 - 180°



Example for FX152 Horizontal Bend Ordering

Horizontal Bend, \pm 1°

 $R = 800 \pm 10 \text{mm}$ FXHB152X-R800

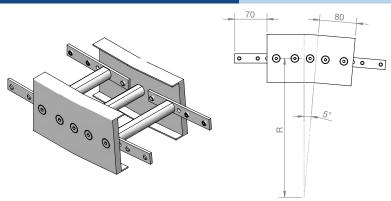
FXHB152X-120R800

Where X = Blank or S S = Includes outer pinch guard slide rail Blank = No slide rail included





FX152 Vertical Bend 5°

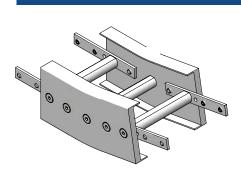


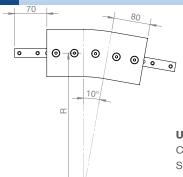
Vertical bend, 5° ± 1°

UOM: pc

Chain required 2-way (300, 500): 0.4, 0.4 meter Slide rail required 2-way (300, 500): 0.8, 0.8 meter

FX152 Vertical Bend 10°



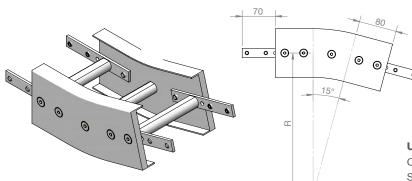


Vertical bend, 10° ± 1°

UOM: pc

Chain required 2-way (300, 500): 0.4, 0.5 meter Slide rail required 2-way (300, 500): 0.9, 1.0 meter

FX152 Vertical Bend 15°

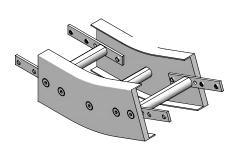


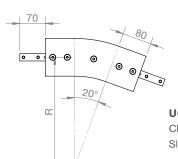
Vertical bend, 15° ± 1°

UOM: pc

Chain required 2-way (300, 500): 0.5, 0.6 meter Slide rail required 2-way (300, 500): 1.0, 1.2 meter

FX152 Vertical Bend 20°





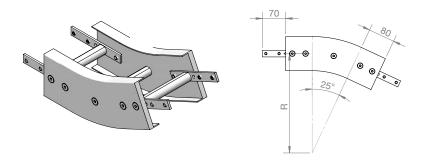
Vertical bend, 20 ± 1°

UOM: pc

Chain required 2-way (300, 500): 0.5, 0.7 meter Slide rail required 2-way (300, 500): 1.1, 1.4 meter



FX152 Vertical Bend 25°

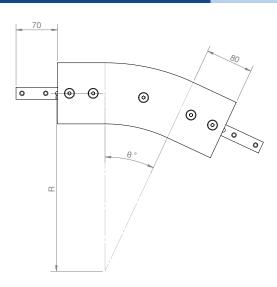


Vertical bend, 25 ± 1°

UOM: pc

Chain required 2-way (300, 500): 0.6, 0.8 meter Slide rail required 2-way (300, 500): 1.2, 1.5 meter

FX152 Vertical Bend 5 - 25°



Example for FX152 Vertical Bend Ordering

Vertical Bend, ± 1°

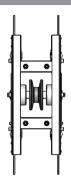
FXVB152-R300

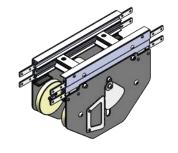
If a 7° angle is needed for vertical bend, the ordering part number is

FXVB152-7R300

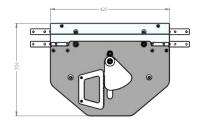
FX152 Weighted Take-up

FX152WTU









Recommended for conveyors over 12 m long. Provides gravity take-up for chain stretch. Locate close to drive end for proper performance.

UOM: pc

Chain required: 1 meter Slide rail required: 1 meter





FX304 Series Characteristic

Beam Width: 315 mm

Product Width: Refer to Guide Rail Assembly

Accessories Needed

Inner Slide Rail Required:

FASR-25U, FASR-25X, FASR-25T

Outer Slide Rail Required:

FASR-3E

Inner Slide Rail Material:

UHMWPE, SPECIAL PE, PAPE

Outer Slide Rail Material:

HDPE

Slide Rail Color:

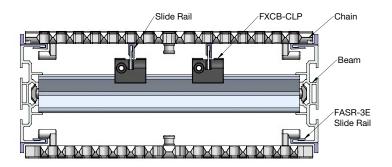
White, Natural, Blue, or Grey

Slide Rail Rivet and Screw:

FASLR-4X6 or FASLS-M5

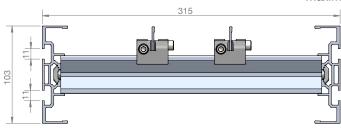
Connecting strip is used to connect 2 beams.

Connecting Strip: FACS-20X140



Conveyor Beam FXCB304-LLLL

Where LLLL = Length (mm) Minimum Length: 150 mm Maximum Length: 3000 mm



UOM: each

Conveyor Beam Assembly



FlexMove FX Series conveyors are designed to be flexible in length. For ease of fabrication, conveyor beam should be disassembled for cutting to specific lengths.





Chain Common Data

Packaging: 3 m per box Width: 304 mm

Pitch: 25.4 mm Tensile Strength at 20°C: 18500 N

Color: White (Standard)

Blue (Optional - contact factory)

Material

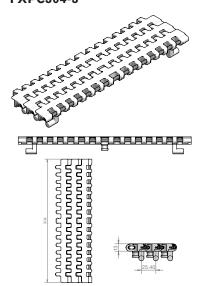
Chain: White Acetal / POM

Pivot Pin: Nylon

Insert (Wedge & Friction): TPE Grey

Straight Conveyors

Standard Plain Chain **FXPC304-3**

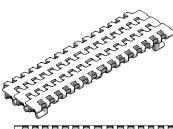


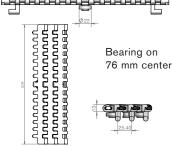
UOM: 3 Meter / box

Application: Suitable for horizontal and slope <5 Degree transport of products without/ with light accumulation

Curved Conveyors

Standard Plain Chain with Alternate Bearing **FXPC304-3R2**

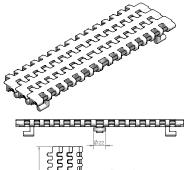


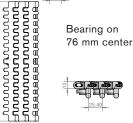


UOM: 3 Meter / box

Application: Suitable for horizontal and slope <5 Degree transport of products without/ with light accumulation

Standard Plain Chain with Alternate S/Steel Bearing **FXPC304-3RS2**

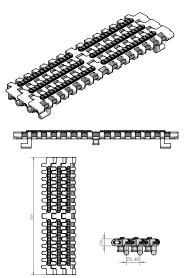




UOM: 3 Meter / box

Application: Suitable for horizontal and slope <5 Degree transport of products without/ with light accumulation

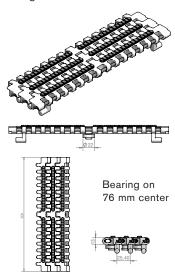
Friction Top Chain **FXFT304-3**



UOM: 3 Meter / box

Application: Suitable for horizontal and slope >5 Degree but </= 25 Degree transport of products without accumulation

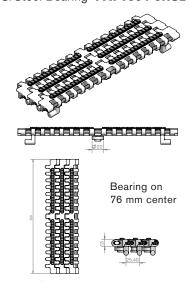
Friction Top Chain with Alternate Bearing **FXFT304-3R2**



UOM: 3 Meter / box

Application: Suitable for horizontal and slope >5 Degree but </= 25 Degree transport of products without accumulation

Friction Top Chain with Alternate S/Steel Bearing FXFT304-3RS2



UOM: 3 Meter / box

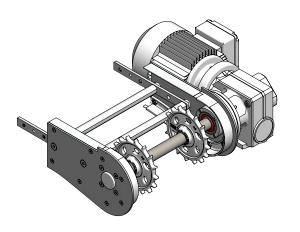
Application: Suitable for horizontal and slope >5 Degree but </= 25 Degree transport of products without accumulation



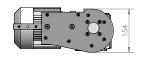


FX304 Direct End Drive (LEFT)

FXDD304-0L



100 255



Max Traction Force: 2170 N

The Direct End Drive Unit is without torque limiter.

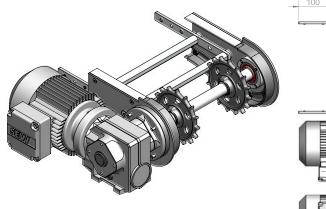
UOM: pc

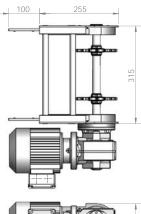
Chain required 2-way: 0.58 m Slide rail required 2-way: 0.8 m

FX304 Direct End Drive (RIGHT)

Order Gearmotor Separately

FXDD304-0R







torque limiter.

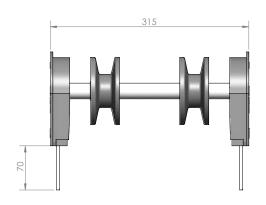
UOM: pc Chain required 2-way: 0.58 m Slide rail required 2-way: 0.8 m

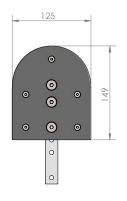
Max Traction Force: 2170 N
The Direct End Drive Unit is without

Order Gearmotor Separately

FX304 Idler End

FXIE304





UOM: pc

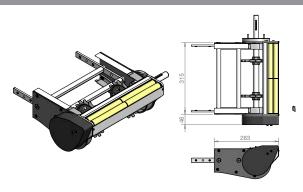
Chain required 2-way: 0.35 m Slide rail required 2-way: 0.0 m

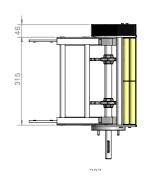


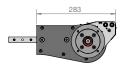
Driven Transfer Drive

FXDD304-DB-A-0L (LEFT)

FXDD304-DB-A-0R (RIGHT)







Max Traction Force: 2170 N

The Direct End Drive Unit is without torque limiter.

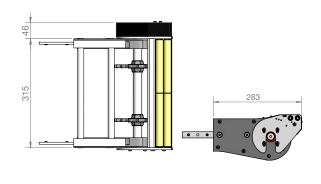
UOM: pc

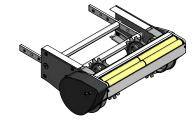
Chain required 2-way: 0.58 m Slide rail required 2-way: 0.8 m

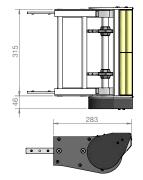
Driven Transfer Idler

FXIE304-DB-A-L (LEFT)

FXIE304-DB-A-R (RIGHT)





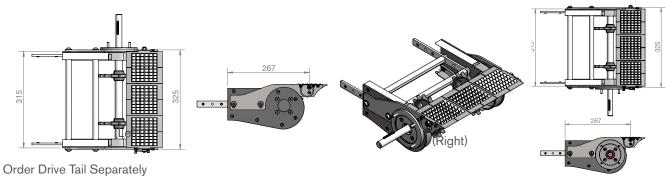


UOM: pc

Chain required 2-way: 0.58 m Slide rail required 2-way: 0.8 m

Roller Transfer Drive

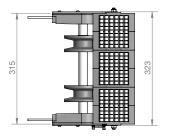
FXTB-A304

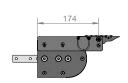


Roller Transfer Idler

FXETB-A304







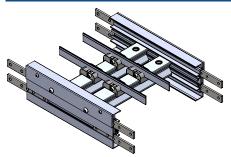
Order Idler Tail Separately

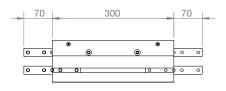




Chain Connecting Module

FXCC304

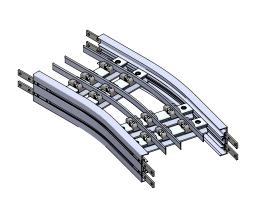


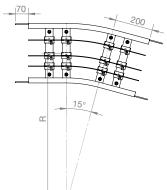


Required on all conveyors

UOM: pc

FX304 Horizontal Plain Bend 15°





Horizontal plain bend, 15° ± 1°

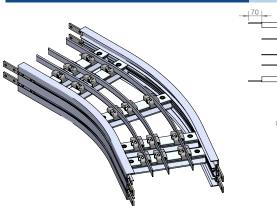
Where X = Blank or S

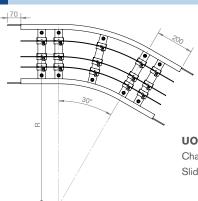
S = Includes outer pinch guard slide rail Blank = No slide rail included

UOM: pc

Chain required 2-way (800, 1200): 1.2, 1.4 meter Slide rail required 2-way (800, 1200): 4.3, 5.0 meter

FX304 Horizontal Plain Bend 30°





Horizontal plain bend, 30° ± 1°

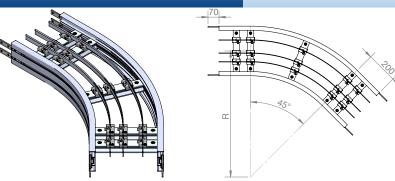
Where X = Blank or S

S = Includes outer pinch guard slide rail Blank = No slide rail included

UOM: pc

Chain required 2-way (800, 1200): 1.6, 2.1 meter Slide rail required 2-way (800, 1200): 5.7, 7.2 meter

FX304 Horizontal Plain Bend 45°



Horizontal plain bend, 45° ± 1°

Where X = Blank or S

S = Includes outer pinch guard slide rail Blank = No slide rail included

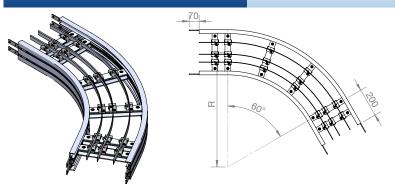
UOM: pc

Chain required 2-way (800, 1200): 2.1, 2.7 meter Slide rail required 2-way (800, 1200): 7.2, 9.4 meter





FX304 Horizontal Plain Bend 60°



Horizontal plain bend, 60° ± 1°

Where X = Blank or S

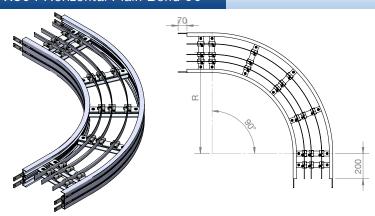
S = Includes outer pinch guard slide rail

Blank = No slide rail included

UOM: pc

Chain required 2-way (800, 1200): 2.5, 3.3 meter Slide rail required 2-way (800, 1200): 8.7, 11.6 meter

FX304 Horizontal Plain Bend 90°



Horizontal plain bend, 90° ± 1°

 $R = 800 \pm 10 \text{ mm} \\ R = 1200 \pm 10 \text{ mm} \\ \text{FXHB304X-90R800} \\ \text{FXHB304X-90R1200} \\ \text{FXHB304X-90R1200}$

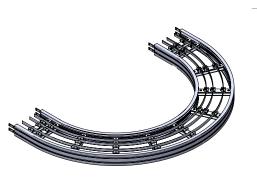
Where X = Blank or S

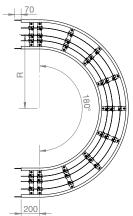
S = Includes outer pinch guard slide rail Blank = No slide rail included

UOM: pc

Chain required 2-way (800, 1200): 3.3, 4.6 meter Slide rail required 2-way (800, 1200): 11.6, 16.0 meter

FX304 Horizontal Plain Bend 180°





Horizontal plain bend, 180° ± 1°

Where X = Blank or S

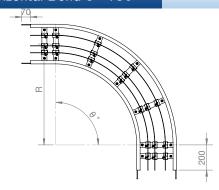
S = Includes outer pinch guard slide rail

Blank = No slide rail included

UOM: pc

Chain required 2-way (800, 1200): 5.9, 8.4 meter Slide rail required 2-way (800, 1200): 20.4, 29.2 meter

FX304 Horizontal Bend 5 - 180°



Example for FX304 Horizontal Bend Ordering

Horizontal Bend, ± 1°

 $R = 1200 \pm 10 mm$ FXHB304X-R1200

If a 120° angle is needed for horizontal bend, the ordering part number is

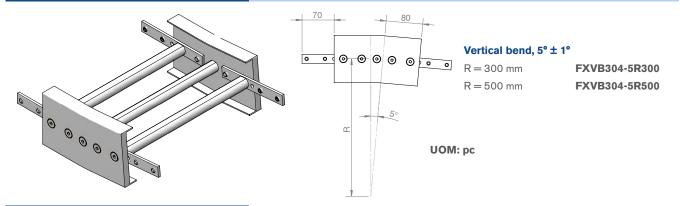
FXHB304X-120R1200

Where X = Blank or S S = Includes outer pinch guard slide rail Blank = No slide rail included

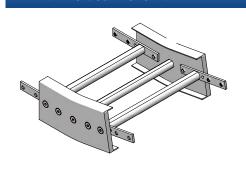


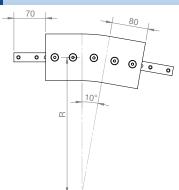


FX304 Vertical Bend 5°



FX304 Vertical Bend 10°



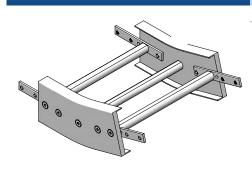


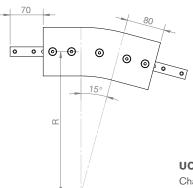
Vertical bend, 10° ± 1°

UOM: pc

Chain required 2-way (300, 500): 0.4, 0.5 meter Slide rail required 2-way (300, 500): 0.9, 1.0 meter

FX304 Vertical Bend 15°



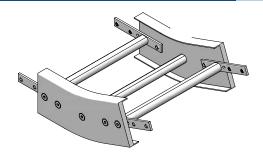


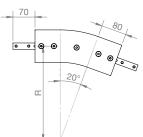
Vertical bend, 15° ± 1°

UOM: pc

Chain required 2-way (300, 500): 0.5, 0.6 meter Slide rail required 2-way (300, 500): 1.0, 1.2 meter

FX304 Vertical Bend 20°





Vertical bend, 20 ± 1°

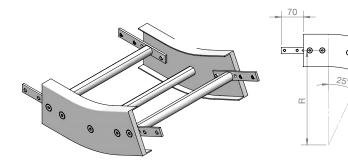
UOM: pc

Chain required 2-way (300, 500): 0.5, 0.7 meter Slide rail required 2-way (300, 500): 1.1, 1.4 meter





FX304 Vertical Bend 25°

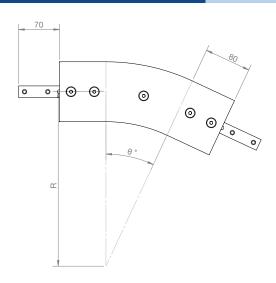


Vertical bend, 25 ± 1°

UOM: pc

Chain required 2-way (300, 500): 0.6, 0.8 meter Slide rail required 2-way (300, 500): 1.2, 1.5 meter

FX304 Vertical Bend 5 - 25°



Example for FX304 Vertical Bend Ordering

Vertical Bend, ±1°

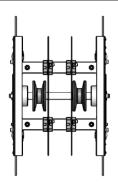
FXVB304-R300

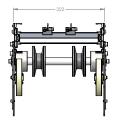
If a 7° angle is needed for vertical bend, the ordering part number is

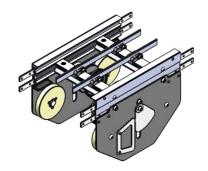
FXVB304-7R300

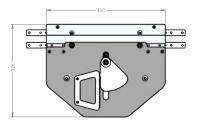
FX304 Weighted Take-up

FX304WTU









Recommended for conveyors over 12 m long. Provides gravity take-up for chain stretch. Locate close to drive end for proper performance.

UOM: pc

Chain required: 1 meter Slide rail required: 1 meter





FX457 Series Characteristic

Beam Width: 468 mm

Product Width: Refer to Guide Rail Assembly

Accessories Needed

Inner Slide Rail Required:

FASR-25U, FASR-25X, FASR-25T

Outer Slide Rail Required:

FASR-3E

Inner Slide Rail Material:

UHMWPE, SPECIAL PE, PAPE

Outer Slide Rail Material:

HDPE

Slide Rail Color:

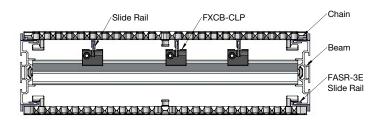
White, Natural, Blue, or Grey

Slide Rail Rivet and Screw:

FASLR-4X6 or FASLS-M5

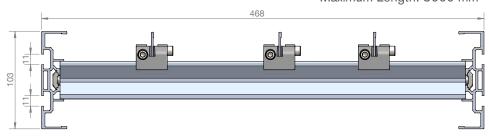
Connecting strip is used to connect 2 beams.

Connecting Strip: FACS-20X140



Conveyor Beam FXCB457-LLLL

Where LLLL = Length (mm) Minimum Length: 150 mm Maximum Length: 3000 mm



UOM: each

Conveyor Beam Assembly



FlexMove FX Series conveyors are designed to be flexible in length. For ease of fabrication, conveyor beam should be disassembled for cutting to specific lengths.





Chain Common Data

Packaging: 3 m per box Width: 457 mm

Pitch: 25.4 mm Tensile Strength at 20°C: 26600 N

Color: White (Standard)

Blue (Optional - contact factory)

Material

Chain: White Acetal / POM

Pivot Pin: Nylon

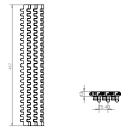
Insert (Wedge & Friction): TPE Grey

Straight Conveyors

Standard Plain Chain **FXPC457-3**



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UOM: 3 Meter / box

Application: Suitable for horizontal and slope <5 Degree transport of products without/ with light accumulation

Curved Conveyors

Standard Plain Chain with Alternate Bearing **FXPC457-3R2**



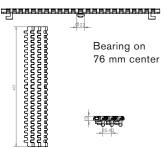
Bearing on 76 mm center

UOM: 3 Meter / box

Application: Suitable for horizontal and slope <5 Degree transport of products without/ with light accumulation

Standard Plain Chain with Alternate S/Steel Bearing **FXPC457-3RS2**

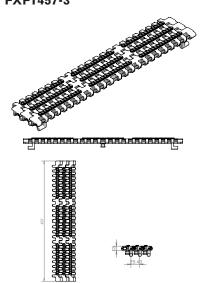




UOM: 3 Meter / box

Application: Suitable for horizontal and slope <5 Degree transport of products without/ with light accumulation

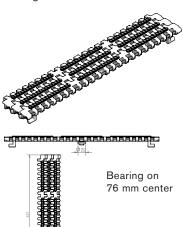
Friction Top Chain **FXFT457-3**



UOM: 3 Meter / box

Application: Suitable for horizontal and slope >5 Degree but </= 25 Degree transport of products without accumulation

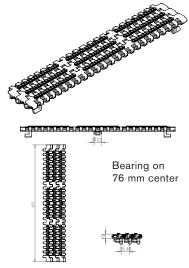
Friction Top Chain with Alternate Bearing **FXFT457-3R2**



UOM: 3 Meter / box

Application: Suitable for horizontal and slope >5 Degree but </= 25 Degree transport of products without accumulation

Friction Top Chain with Alternate S/Steel Bearing FXFT457-3RS2



UOM: 3 Meter / box

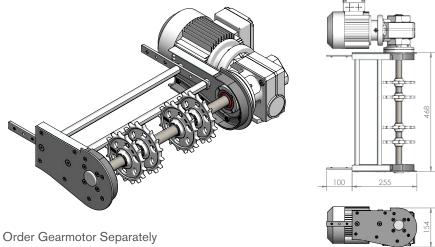
Application: Suitable for horizontal and slope >5 Degree but </= 25 Degree transport of products without accumulation





FX457 Direct End Drive (LEFT)

FXDD457-0L



Max Traction Force: 2730 N

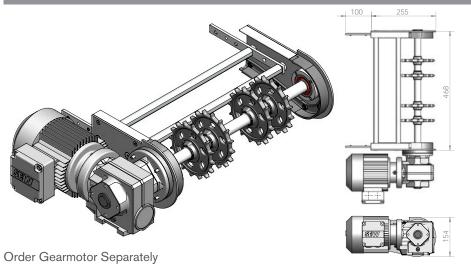
The Direct End Drive Unit is without torque limiter.

UOM: pc

Chain required 2-way: 0.58 m Slide rail required 2-way: 0.8 m

FX457 Direct End Drive (RIGHT)

FXDD457-0R



Max Traction Force: 2730 N

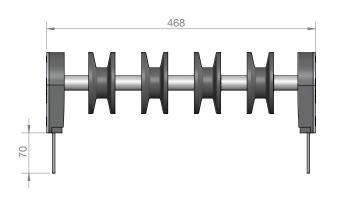
The Direct End Drive Unit is without torque limiter.

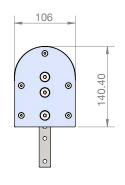
UOM: pc

Chain required 2-way: 0.58 m Slide rail required 2-way: 0.8 m

FX457 Idler End

FXIE457





UOM: pc

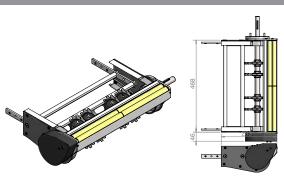
Chain required 2-way: 0.35 m Slide rail required 2-way: 0.0 m

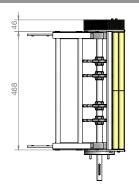


Driven Transfer Drive

FXDD457-DB-A-0L (LEFT)

FXDD457-DB-A-0R (RIGHT)







Max Traction Force: 2730 N

The Direct End Drive Unit is without torque limiter.

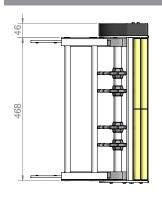
UOM: pc

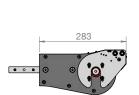
Chain required 2-way: 0.58 m Slide rail required 2-way: 0.8 m

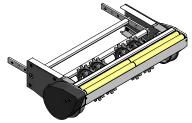
Driven Transfer Idler

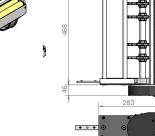
FXIE457-DB-A-L (LEFT)

FXIE457-DB-A-R (RIGHT)







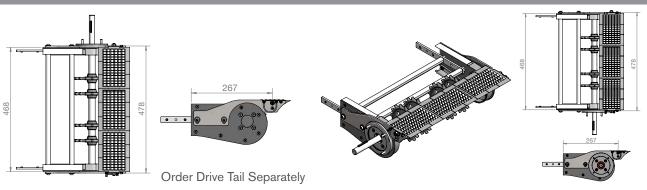


UOM: pc

Chain required 2-way: 0.58 m Slide rail required 2-way: 0.8 m

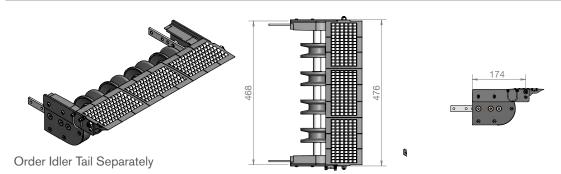
Roller Transfer Drive

FXTB-A457



Roller Transfer Idler

FXETB-A457

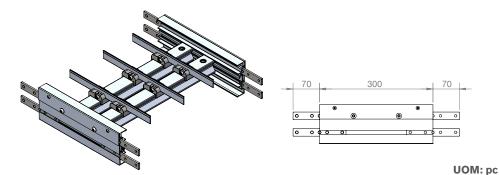






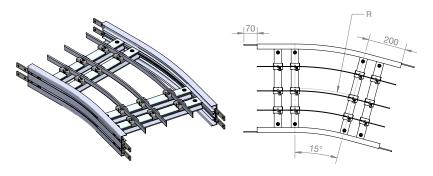
Chain Connecting Module

FXCC457



Required on all conveyors

FX457 Horizontal Plain Bend 15°



Horizontal plain bend, 15° ± 1°

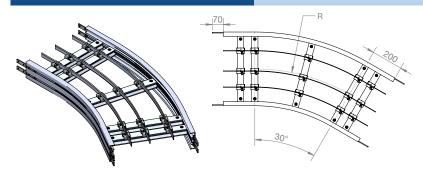
Where X = Blank or S

S = Includes outer pinch guard slide rail Blank = No slide rail included

UOM: pc

Chain required 2-way (1200, 1600): 1.4, 1.6 meter Slide rail required 2-way (1200, 1600): 5.0, 5.8 meter

FX457 Horizontal Plain Bend 30°



Horizontal plain bend, 30° ± 1°

 $R = 1200 \pm 10 \text{ mm}$ FXHB457X-30R1200 $R = 1600 \pm 10 \text{ mm}$ FXHB457X-30R1600

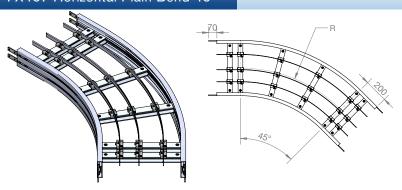
Where X = Blank or S

S = Includes outer pinch guard slide rail Blank = No slide rail included

UOM: pc

Chain required 2-way (1200, 1600): 2.1, 2.5 meter Slide rail required 2-way (1200, 1600): 7.2, 8.7 meter

FX457 Horizontal Plain Bend 45°



Horizontal plain bend, $45^{\circ} \pm 1^{\circ}$

Where X = Blank or S

S = Includes outer pinch guard slide rail Blank = No slide rail included

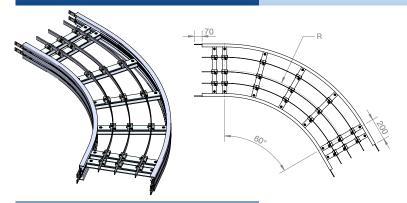
UOM: pc

Chain required 2-way (1200, 1600): 2.7, 3.3 meter Slide rail required 2-way (1200, 1600): 9.4, 11.6 meter





FX457 Horizontal Plain Bend 60°



Horizontal plain bend, 60° ± 1°

 $R = 1200 \pm 10 \text{ mm}$ FXHB457X-60R1200 $R = 1600 \pm 10 \text{mm}$ FXHB457X-60R1600

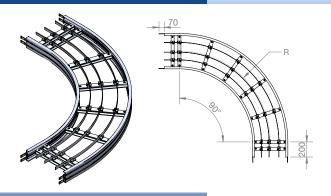
Where X = Blank or S

S = Includes outer pinch guard slide rail Blank = No slide rail included

UOM: pc

Chain required 2-way (1200, 1600): 3.3, 4.2 meter Slide rail required 2-way (1200, 1600): 11.6, 14.5 meter

FX457 Horizontal Plain Bend 90°



Horizontal plain bend, 90° ± 1°

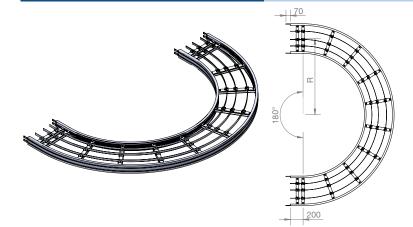
Where X = Blank or S

S = Includes outer pinch guard slide rail Blank = No slide rail included

UOM: pc

Chain required 2-way (1200, 1600): 4.6, 5.9 meter Slide rail required 2-way (1200, 1600): 16.0, 20.4 meter

FX457 Horizontal Plain Bend 180°



Horizontal plain bend, 180° ± 1°

 $R = 1200 \pm 10 \text{ mm}$ FXHB457X-180R1200 $R = 1600 \pm 10 \text{ mm}$ FXHB457X-180R1600

Where X = Blank or S

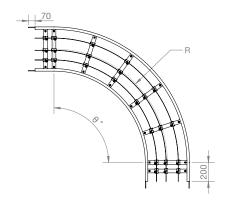
S = Includes outer pinch guard slide rail

Blank = No slide rail included

UOM: pc

Chain required 2-way (1200, 1600): 8.4, 10.9 meter Slide rail required 2-way (1200, 1600): 29.2, 38.0 meter

FX457 Horizontal Bend 5 - 180°



Example for FX457 Horizontal Bend Ordering

Horizontal Bend, ± 1°

 $R = 1600 \pm 10 \text{mm}$ FXHB457X-R1600

If a 120° angle is needed for horizontal bend, the ordering part number is

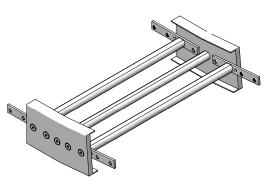
FXHB457X-120R1600

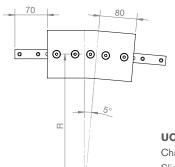
Where X = Blank or S S = Includes outer pinch guard slide rail Blank = No slide rail included





FX457 Vertical Bend 5°





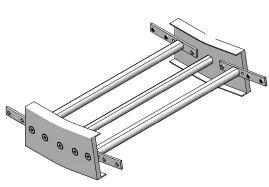
Vertical bend, 5° ± 1°

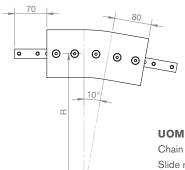
R = 300 mmFXVB457-5R300 R = 500 mmFXVB457-5R500

UOM: pc

Chain required 2-way (300, 500): 0.4, 0.4 meter Slide rail required 2-way (300, 500): 0.8, 0.8 meter

FX457 Vertical Bend 10°





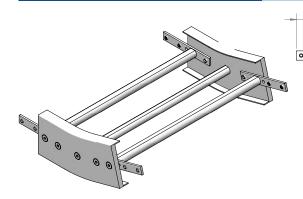
Vertical bend, 10° ± 1°

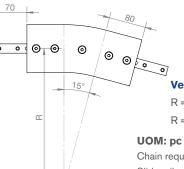
R = 300 mmFXVB457-10R300 R = 500 mmFXVB457-10R500

UOM: pc

Chain required 2-way (300, 500): 0.4, 0.5 meter Slide rail required 2-way (300, 500): 0.9, 1.0 meter

FX457 Vertical Bend 15°



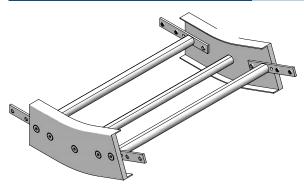


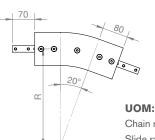
Vertical bend, 15° ± 1°

R = 300 mm FXVB457-15R300 R = 500 mmFXVB457-15R500

Chain required 2-way (300, 500): 0.5, 0.6 meter Slide rail required 2-way (300, 500): 1.0, 1.2 meter

FX457 Vertical Bend 20°





Vertical bend, 20 ± 1°

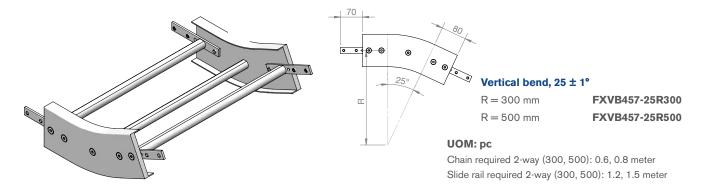
R = 300 mmFXVB457-20R300 R = 500 mmFXVB457-20R500

UOM: pc

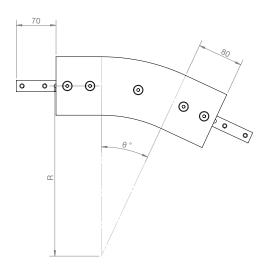
Chain required 2-way (300, 500): 0.5, 0.7 meter Slide rail required 2-way (300, 500): 1.1, 1.4 meter



FX457 Vertical Bend 25°



FX457 Vertical Bend 5 - 25°



Example for FX457 Vertical Bend Ordering

Vertical Bend, ± 1°

FXVB457-R300

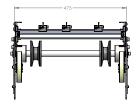
If a 7° angle is needed for vertical bend, the ordering part number is

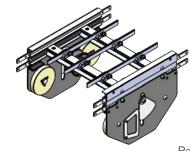
FXVB457-7R300

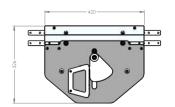
FX457 Weighted Take-up

FX457WTU









Recommended for conveyors over 12 m long. Provides gravity take-up for chain stretch. Locate close to drive end for proper performance.

UOM: pc

Chain required: 1 meter Slide rail required: 1 meter





FX609 Series Characteristic

Beam Width: 620 mm

Product Width: Refer to Guide Rail Assembly

Accessories Needed

Inner Slide Rail Required:

FASR-25U, FASR-25X, FASR-25T

Outer Slide Rail Required:

FASR-3E

Inner Slide Rail Material:

UHMWPE, SPECIAL PE, PAPE

Outer Slide Rail Material:

HDPE

Slide Rail Color:

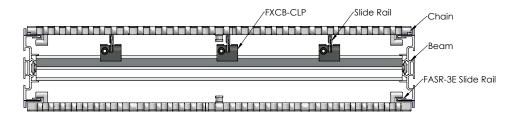
White, Natural, Blue, or Grey

Slide Rail Rivet and Screw:

FASLR-4X6 or FASLS-M5

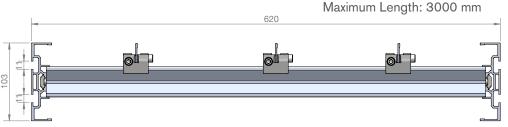
Connecting strip is used to connect 2 beams.

Connecting Strip: FACS-20X140



Conveyor Beam FXCB609-LLLL

Where LLLL = Length (mm)
Minimum Length: 150 mm



UOM: each

Conveyor Beam Assembly



FlexMove FX Series conveyors are designed to be flexible in length.

For ease of fabrication, conveyor beam should be disassembled for cutting to specific lengths.





Chain Common Data

Packaging: 3 m per box

Pitch: 25.4 mm Tensile Strength at 20°C: 34300 N

Width: 609 mm

Color: White (Standard)

Blue (Optional - contact factory)

Material

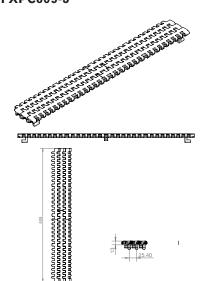
Chain: White Acetal / POM

Pivot Pin: Nylon

Insert (Wedge & Friction): TPE Grey

Straight Conveyors

Standard Plain Chain **FXPC609-3**

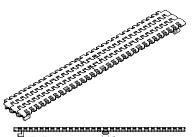


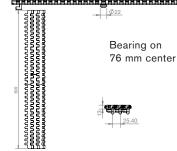
UOM: 3 Meter / box

Application: Suitable for horizontal and slope <5 Degree transport of products without/ with light accumulation

Curved Conveyors

Standard Plain Chain with Alternate Bearing **FXPC609-3R2**

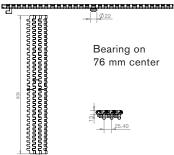




UOM: 3 Meter / box

Application: Suitable for horizontal and slope <5 Degree transport of products without/ with light accumulation Standard Plain Chain with Alternate S/Steel Bearing **FXPC609-3RS2**

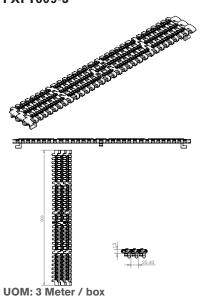




UOM: 3 Meter / box

Application: Suitable for horizontal and slope <5 Degree transport of products without/ with light accumulation

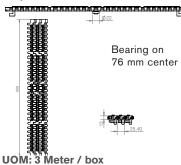
Friction Top Chain FXFT609-3



Application: Suitable for horizontal and slope >5 Degree but </= 25 Degree transport of products without accumulation

Friction Top Chain with Alternate Bearing **FXFT609-3R2**

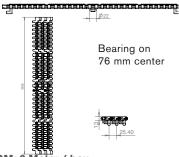




Application: Suitable for horizontal and slope >5 Degree but </= 25 Degree transport of products without accumulation

Friction Top Chain with Alternate S/Steel Bearing FXFT609-3RS2





UOM: 3 Meter / box

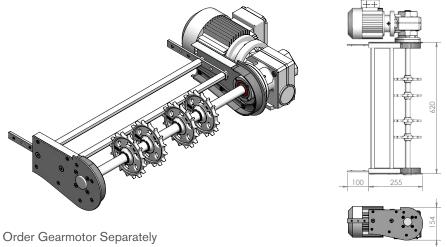
Application: Suitable for horizontal and slope >5 Degree but </= 25 Degree transport of products without accumulation





FX609 Direct End Drive (LEFT)

FXDD609-0L



Max Traction Force: 3400 N

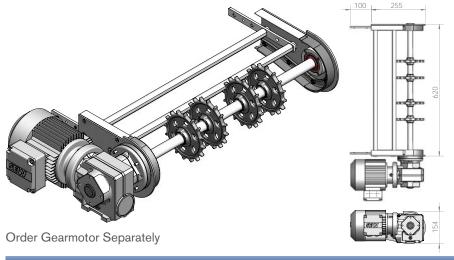
The Direct End Drive Unit is without torque limiter.

UOM: pc

Chain required 2-way: 0.58 m Slide rail required 2-way: 0.8 m

FX609 Direct End Drive (RIGHT)

FXDD609-0R



Max Traction Force: 3400 N

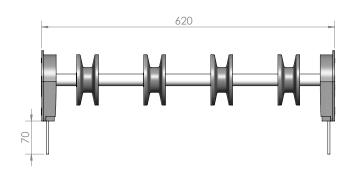
The Direct End Drive Unit is without torque limiter.

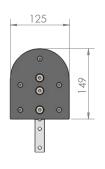
UOM: pc

Chain required 2-way: 0.58 m Slide rail required 2-way: 0.8 m

FX609 Idler End

FXIE609





UOM: pc

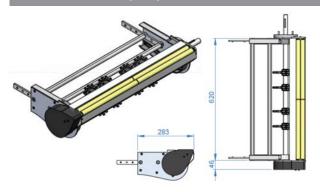
Chain required 2-way: 0.35 m Slide rail required 2-way: 0.0 m

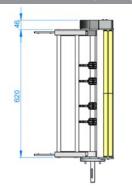


Driven Transfer Drive

FXDD609-DB-A-0L (LEFT)

FXDD609-DB-A-0R (RIGHT)







Max Traction Force: 3400 N

The Direct End Drive Unit is without torque limiter.

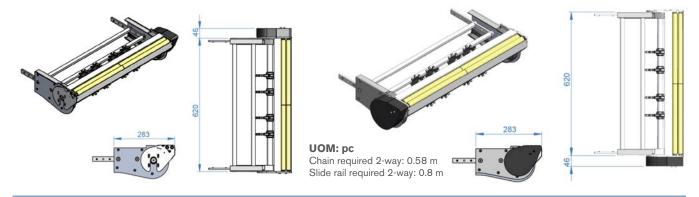
UOM: pc

Chain required 2-way: 0.58 m Slide rail required 2-way: 0.8 m

Driven Transfer Idler

FXIE609-DB-A-L (LEFT)

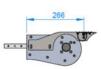
FXIE609-DB-A-R (RIGHT)



Roller Transfer Drive

FXTB-A609



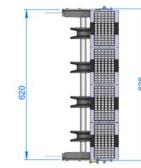


Order Drive Tail Separately

Roller Transfer Idler

FXETB-A609







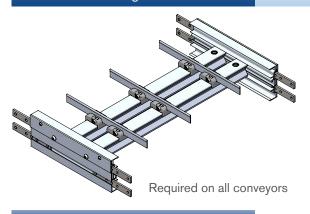
Order Idler Tail Separately

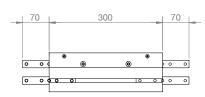




Chain Connecting Module

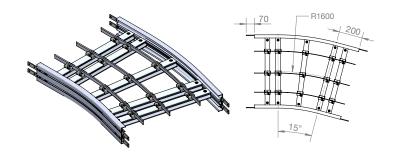
FXCC609





UOM: pc

FX609 Horizontal Plain Bend 15°



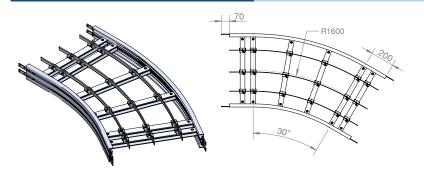
Horizontal plain bend, 15° ± 1°

R = 1600 ± 10 mm FXHB609X-15R1600 Where X = Blank or S S = Includes outer pinch guard slide rail Blank = No slide rail included

UOM: pc

Chain required 2-way: 1.7 meter Slide rail required 2-way: 8.7 meter

FX609 Horizontal Plain Bend 30°

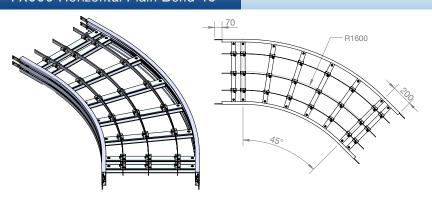


Horizontal plain bend, 30° ± 1°

UOM: pc

Chain required 2-way: 2.5 meter Slide rail required 2-way: 8.7 meter

FX609 Horizontal Plain Bend 45°



Horizontal plain bend, 45° ± 1°

 $R = 1600 \pm 10 \text{ mm} \qquad \textbf{FXHB609X-45R1600}$ Where X = Blank or S S = Includes outer pinch guard slide rail Blank = No slide rail included

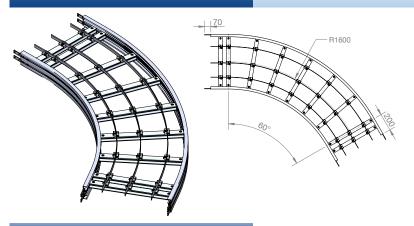
UOM: pc

Chain required 2-way: 3.3 meter Slide rail required 2-way: 11.6 meter





FX609 Horizontal Plain Bend 60°



Horizontal plain bend, 60° ± 1°

 $R = 1600 \pm 10 \text{ mm}$ **FXHB609X-60R1600**

Where X = Blank or S

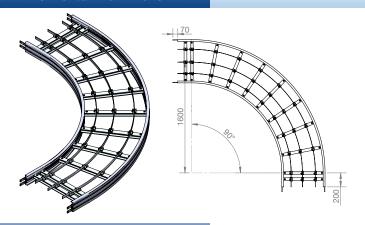
S = Includes outer pinch guard slide rail

Blank = No slide rail included

UOM: pc

Chain required 2-way: 4.2 meter Slide rail required 2-way: 14.5 meter

FX609 Horizontal Plain Bend 90°



Horizontal plain bend, 90° ± 1°

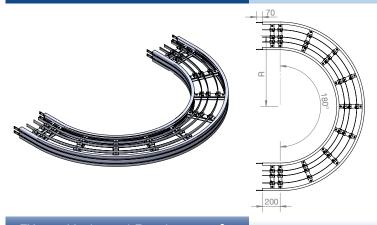
 $R = 1600 \pm 10 \text{ mm}$ FXHB609X-90R1600 Where X = Blank or S S = Includes outer pinch guard slide rail

Blank = No slide rail included

UOM: pc

Chain required 2-way: 5.9 meter Slide rail required 2-way: 20.4 meter

FX609 Horizontal Plain Bend 180°



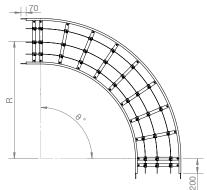
Horizontal plain bend, 180° ± 1°

 $R = 1600 \pm 10 \text{ mm} \qquad \textbf{FXHB609X-180R1600}$ Where X = Blank or S S = Includes outer pinch guard slide rail Blank = No slide rail included

UOM: pc

Chain required 2-way: 10.9 meter Slide rail required 2-way: 38.0 meter

FX609 Horizontal Bend 5 - 180°



Example for FX609 Horizontal Bend Ordering

Horizontal Bend, ± 1°

 $R = 1600 \pm 10 mm$ FXHB609X-R1600

If a 120° angle is needed for horizontal bend, the ordering part number is

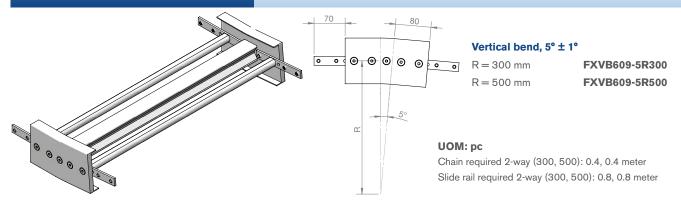
FXHB609X-120R1600

Where X = Blank or S S = Includes outer pinch guard slide rail Blank = No slide rail included

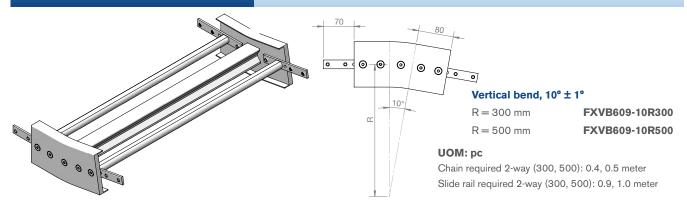




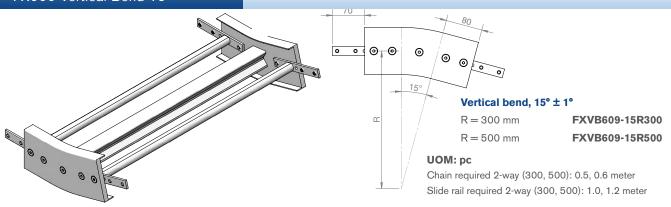
FX609 Vertical Bend 5°



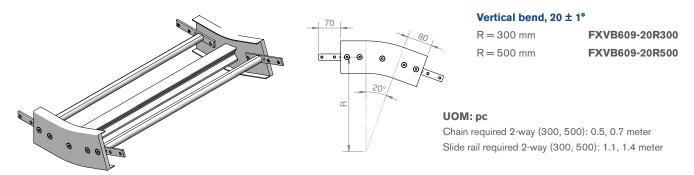
FX609 Vertical Bend 10°



FX609 Vertical Bend 15°



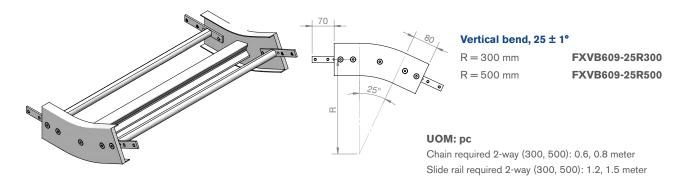
FX609 Vertical Bend 20°



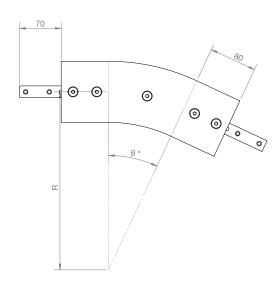




FX609 Vertical Bend 25°



FX609 Vertical Bend 5 - 25°



Example for FX609 Vertical Bend Ordering

Vertical Bend, ± 1°

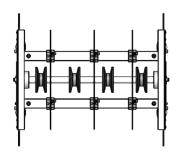
FXVB609-R300

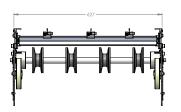
If a 7° angle is needed for vertical bend, the ordering part number is

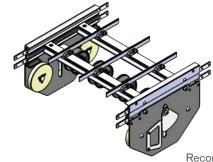
FXVB609-7R300

FX609 Weighted Take-up

FX609WTU







420

Recommended for conveyors over 12 m long. Provides gravity take-up for chain stretch. Locate close to drive end for proper performance.

UOM: pc

Chain required: 1 meter Slide rail required: 1 meter



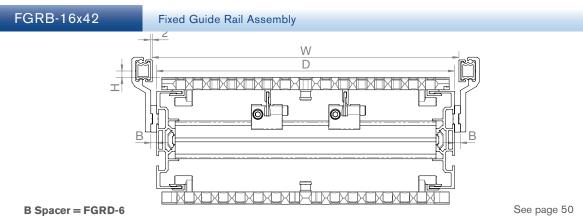


FGRB-16x54 Fixed Guide Rail Assembly W D

B Spacer = FGRD-6

See page 50 for components

Guide Rail Bracket	Series	D (mm)	H (mm)	W (mm) B = 0	W (mm) B = 6.3	W (mm) B = 12.6	W (mm) B = 18.9
FGRB - 16x54	FX152	163	18.9	-	172.3	184.9	197.5
FGRB - 16x54	FX304	315	18.9	-	324.3	336.9	349.5
FGRB - 16x54	FX457	468	18.9	-	477.3	489.9	502.5
FGRB - 16x54	FX609	620	18.9	-	629.3	641.9	654.5



B Spacer = FGRD-6

for components

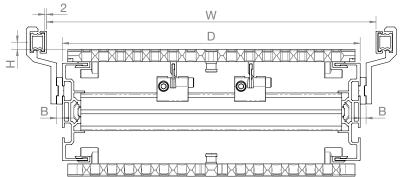
Guide Rail Bracket	Series	D (mm)	H (mm)	W (mm) B = 0	W (mm) B = 6.3	W (mm) B = 12.6	W (mm) B = 18.9
FGRB - 16x42	FX152	163	6.9	_	172.3	184.9	197.5
FGRB - 16x42	FX304	315	6.9		324.3	336.9	349.5
FGRB - 16x42	FX457	468	6.9	_	477.3	489.9	502.5
FGRB - 16x42	FX609	620	6.9	-	629.3	641.9	654.5





FGRB-28x42

Fixed Guide Rail Assembly



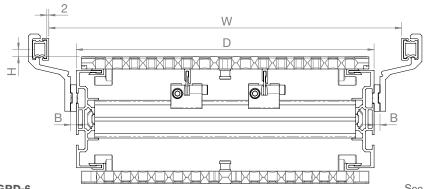
B Spacer = FGRD-6

See page 50 for components

Guide Rail Bracket	Series	D (mm)	H (mm)	W (mm) B = 0	W (mm) B = 6.3	W (mm) B = 12.6	W (mm) B = 18.9
FGRB - 28x42	FX152	163	7.7	183.8	196.4	209	221.6
FGRB - 28x42	FX304	315	7.7	335.8	348.4	361	373.6
FGRB - 28x42	FX457	468	7.7	488.8	501.4	514	526.6
FGRB - 28x42	FX609	620	7.7	640.8	653.4	666	678.6

FGRB-40x42

Fixed Guide Rail Assembly



B Spacer = FGRD-6

See page 50 for components

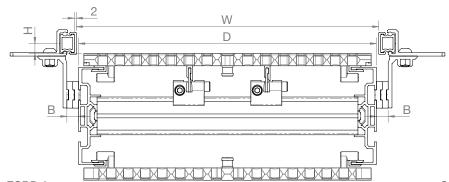
Guide Rail Bracket	Series	D (mm)	H (mm)	W (mm) B = 0	W (mm) B = 6.3	W (mm) B = 12.6	W (mm) B = 18.9
FGRB - 40x42	FX152	163	7.9	208.6	221.2	233.8	246.4
FGRB - 40x42	FX304	315	7.9	360.6	373.2	385.8	398.4
FGRB - 40x42	FX457	468	7.9	513.6	526.2	538.8	551.4
FGRB - 40x42	FX609	620	7.9	665.6	678.2	690.8	703.4





FGRA-8x39x45

Adjustable Guide Rail Assembly



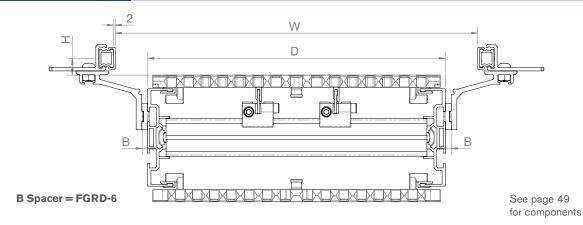
B Spacer = FGRD-6

See page 49 for components

Guide Rail Bracket	Series	D (mm)	H (mm)	W (mm) min B = 12.6	W (mm) max B = 12.6	W (mm) min B = 18.9	W (mm) max B = 18.9
FGRA - 8x39x45	FX152	163	10.6	163	166	163	180.6
FGRA - 8x39x45	FX304	315	10.6	315	318	315	332.6
FGRA - 8x39x45	FX457	468	10.6	468	471	468	485.6
FGRA - 8x39x45	FX609	620	10.6	620	623	620	637.6

FGRA-26x39x45

Adjustable Guide Rail Assembly

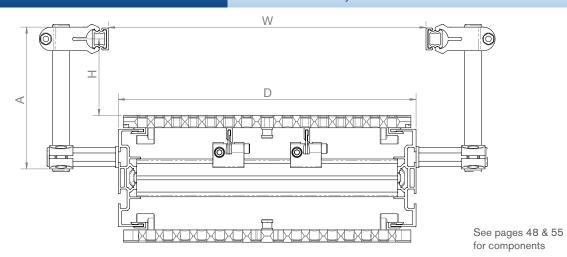


Guide Rail Bracket	Series	D (mm)	H (mm)	W (mm) min B = 0	W (mm) max B = 0	W (mm) min B = 6.3	W (mm) max B = 6.3
FGRB - 26X39X45	FX152	163	17.7	163	218.8	163	231.4
FGRB - 26X39X45	FX304	315	17.7	315	370.8	315	383.4
FGRB - 26X39X45	FX457	468	17.7	468	523.8	468	536.4
FGRB - 26X39X45	FX609	620	17.7	620	675.8	620	688.4





FGRS-18 & FGDT- & FGGR-



A (mm)	Series	D (mm)	H (mm) Min	H (mm) Max
FGGR-18X100	FX152	163	17	31
FGGR-18X100	FX304	315	17	31
FGGR-18X100	FX457	468	17	31
FGGR-18X100	FX609	620	17	31

B (mm)	Series	D (mm)	H (mm) Min	H (mm) Max
FGDT-70	FX152	163	94	184
FGDT-70	FX304	315	246	336
FGDT-70	FX457	468	399	489
FGDT-70	FX609	620	551	641

A (mm)	Series	D (mm)	H (mm) Min	H (mm) Max
FGGR-18X150	FX152	163	17	81
FGGR-18X150	FX304	315	17	81
FGGR-18X150	FX457	468	17	81
FGGR-18X150	FX609	620	17	81

B (mm)	Series	D (mm)	H (mm) Min	H (mm) Max
FGDT-100	FX152	163	94	244
FGDT-100	FX304	315	246	396
FGDT-100	FX457	468	399	549
FGDT-100	FX609	620	551	701

A (mm)	Series	D (mm)	H (mm) Min	H (mm) Max
FGGR-18X200	FX152	163	17	131
FGGR-18X200	FX304	315	17	131
FGGR-18X200	FX457	468	17	131
FGGR-18X200	FX609	620	17	131

B (mm)	Series	D (mm)	H (mm) Min	H (mm) Max
FGDT-150	FX152	163	94	344
FGDT-150	FX304	315	246	496
FGDT-150	FX457	468	399	649
FGDT-150	FX609	620	551	801

A (mm)	Series	D (mm)	H (mm) Min	H (mm) Max
FGGR-18X250	FX152	163	17	181
FGGR-18X250	FX304	315	17	181
FGGR-18X250	FX457	468	17	181
FGGR-18X250	FX609	620	17	181

B (mm)	Series	D (mm)	H (mm) Min	H (mm) Max
FGDT-200	FX152	163	94	444
FGDT-200	FX304	315	246	596
FGDT-200	FX457	468	399	749
FGDT-200	FX609	620	551	901





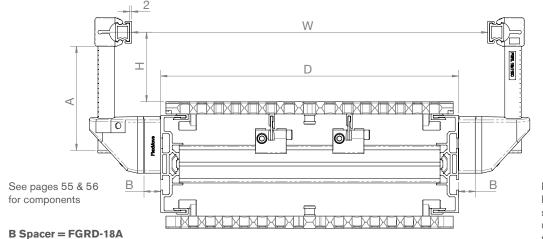
See pages 55 & 56 for components Guide Rail Assembly Rail Assembly Note: Plastic guide representation of the property of th

B Spacer = FGRD-18A

Plastic guide supports used for light products.

Guide Rail	Guide Rail	Series	D (mm)	A (mm)	H (mm) Min	H (mm) Max	W (mm) B = 0	W (mm) B = 18	W (mm) B = 36
FGRL - 18x110C	FGRF - 42x18V	FX152	163	110	0	73.5	189	225	261
FGRL - 18x110C	FGRF - 42x18V	FX304	315	110	0	73.5	341	377	413
FGRL - 18x110C	FGRF - 42x18V	FX457	468	110	0	73.5	494	530	566
FGRL - 18x110C	FGRF - 42x18V	FX609	620	110	0	73.5	646	682	718

FGRL-18x160C & FGRF-42x18V



Note: Plastic guide supports used for light products.

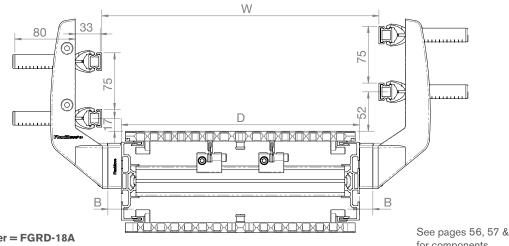
Guide Rail	Guide Rail	Series	D (mm)	A (mm)	H (mm) Min	H (mm) Max	W (mm) B = 0	W (mm) B = 18	W (mm) B = 36
FGRL - 18x160C	FGRF - 42x18V	FX152	163	160	0	123.5	189	225	261
FGRL - 18x160C	FGRF - 42x18V	FX304	315	160	0	123.5	341	377	413
FGRL - 18x160C	FGRF - 42x18V	FX457	468	160	0	123.5	494	530	566
FGRL - 18x160C	FGRF - 42x18V	FX609	620	160	0	123.5	646	682	718





FGRF-A110 & FGRK-18x80A

Guide Rail Assembly

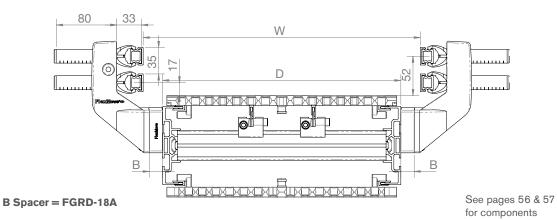


B Spacer = FGRD-18A

See pages 56, 57 & 58 for components

Guide Rail	Guide Rail	Series	D (mm)	A (mm)	H (mm) Min	H (mm) Max	W (mm) B = 0	W (mm) B = 18	W (mm) B = 36
FGRF-A110	FGRK-18x80A	FX152	163	85	121	157	179	215	251
FGRF-A110	FGRK-18x80A	FX304	315	237	273	309	331	367	403
FGRF-A110	FGRK-18x80A	FX457	468	390	426	462	484	520	556
FGRF-A110	FGRK-18x80A	FX609	620	572	608	644	636	672	708

FGRF-A35 & FGRK-18x80A



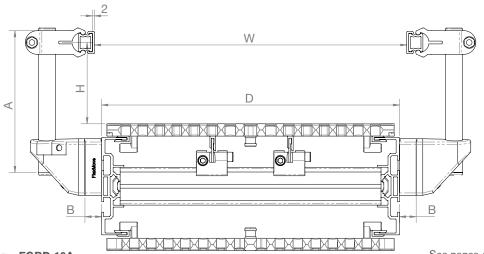
Guide Rail	Guide Rail	Series	D (mm)	A (mm)	H (mm) Min	H (mm) Max	W (mm) B = 0	W (mm) B = 18	W (mm) B = 36
FGRF-A35	FGRK - 18x80A	FX152	163	85	121	157	179	215	251
FGRF-A35	FGRK - 18x80A	FX304	315	237	273	309	331	367	403
FGRF-A35	FGRK - 18x80A	FX457	468	390	426	462	484	520	556
FGRF-A35	FGRK - 18x80A	FX609	620	572	608	644	636	672	708





FGRF-42x18V FGRS-18 & FGGR-18X150

Guide Rail Assembly

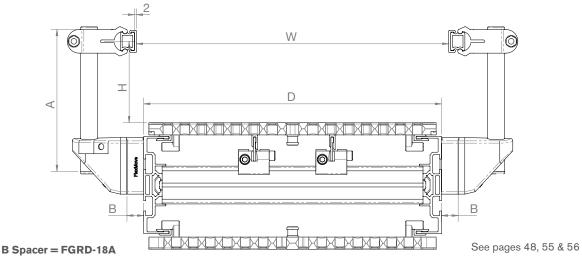


B Spacer = FGRD-18A

See pages 48, 55 & 56 for components

Guide Rail	Guide Rail	Series	D (mm)	A (mm)	H (mm) Min	H (mm) Max	W (mm) B = 0	W (mm) B = 18	W (mm) B = 36
FGRS-18	FGGR-18X150	FX152	163	150	0	86	142	178	214
FGRS-18	FGGR-18X150	FX304	315	150	0	86	294	330	366
FGRS-18	FGGR-18X150	FX457	468	150	0	86	447	483	519
FGRS-18	FGGR-18X150	FX609	620	150	0	86	599	635	671

FGRF-42x18V FGRS-18 & FGGR-18X200



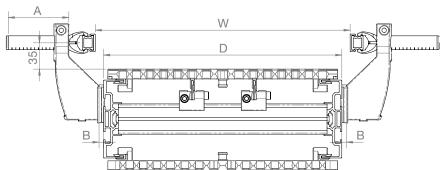
for components

Guide Rail	Guide Rail	Series	D (mm)	A (mm)	H (mm) Min	H (mm) Max	W (mm) B = 0	W (mm) B = 18	W (mm) B = 36
FGRS-18	FGGR-18X200	FX152	163	200	0	136	142	178	214
FGRS-18	FGGR-18X200	FX304	315	200	0	136	294	330	366
FGRS-18	FGGR-18X200	FX457	468	200	0	136	447	483	519
FGRS-18	FGGR-18X200	FX609	620	200	0	136	599	635	671





FGRB-40x18 & FGRK-18x80



B Spacer = FGRD-6B

See pages 56, 58 & 59 for components

Guide Rail (Guide Rail	Series	A (mm)	B (mm)	D (mm)	W (mm) Min	W (mm) Max
FGRB-40x18 FC	GRK-18x80	FX152	80	0	163	73	173
FGRB-40x18 FC	GRK-18x80	FX304	80	0	315	225	325
FGRB-40x18 FC	GRK-18x80	FX457	80	0	468	376	476
FGRB-40x18 FC	GRK-18x80	FX609	80	0	620	530	630
FGRB-40x18 FC	GRK-18x80	FX152	80	6	163	85	185
FGRB-40x18 FC	GRK-18x80	FX304	80	6	315	237	337
FGRB-40x18 FC	GRK-18x80	FX457	80	6	468	388	488
FGRB-40x18 FC	GRK-18x80	FX609	80	6	620	542	642
FGRB-40x18 FC	GRK-18x80	FX152	80	12	163	97	197
FGRB-40x18 FC	GRK-18x80	FX304	80	12	315	249	349
FGRB-40x18 FC	GRK-18x80	FX457	80	12	468	400	500
FGRB-40x18 FC	GRK-18x80	FX609	80	12	620	554	654
FGRB-40x18 FC	GRK-18x80	FX152	80	18	163	109	209
FGRB-40x18 FC	GRK-18x80	FX304	80	18	315	261	361
FGRB-40x18 FC	GRK-18x80	FX457	80	18	468	412	512
FGRB-40x18 FC	GRK-18x80	FX609	80	18	620	566	666

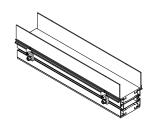


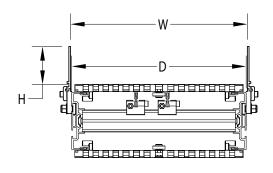


FGHS-30/FGHS-70

Fixed High Side Guide Assembly

FGHS-30/-70 Assembly





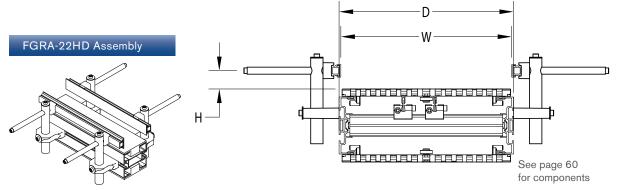
See pages 59 & 60 for components

			FGHS-30 Rail	FGHS-70 Rail	
Guide Rail Bracket	FX Series	D (mm)	H (mm)	H (mm)	W (mm) B = 0
FGRD-HS	152	163	30.4	68.5	167
FGRD-HS	304	315	30.4	68.5	319
FGRD-HS	452	468	30.4	68.5	472
FGRD-HS	609	620	30.4	68.5	624



FGRA-22HD

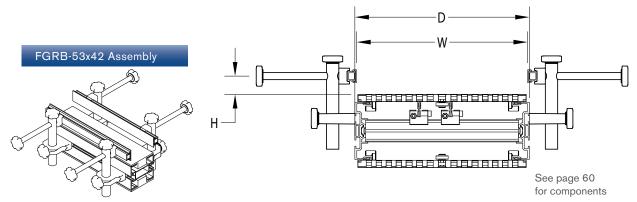
Heavy Duty Fully Adjustable Guide Assembly



Bracket Assembly	FX Series	D (mm)	H (mm) Min	H (mm) Max	W (mm) Min	W (mm) Max
FGRA-22HD	152	163	14	77	0	156
FGRA-22HD	304	315	14	77	82	308
FGRA-22HD	452	468	14	77	235	461
FGRA-22HD	609	620	14	77	387	613

FGRA-22HDT

Heavy Duty Tool-less Fully Adjustable Guide Assembly



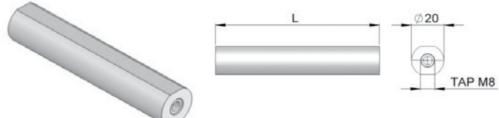
Bracket Assembly	FX Series	D (mm)	H (mm) Min	H (mm) Max	W (mm) Min	W (mm) Max
FGRA-22HDT	152	163	14	77	0	156
FGRA-22HDT	304	315	14	77	82	308
FGRA-22HDT	452	468	14	77	235	461
FGRA-22HDT	609	620	14	77	387	613





FGDT-70	Distance Tube, L = 70 mm - Aluminum						
FGDT-80	Distance Tube, L = 80 mm - Aluminum						
FGDT-100	Distance Tube, L = 100 mm - Aluminum						
FGDT-150	Distance Tube, L = 150 mm - Aluminum						
FGDT-200	Distance Tube, L = 200 mm - Aluminum						
FGDT-250	Distance Tube, L = 250 mm - Aluminum						
	L Ø20						

UOM: 10 pcs / pk

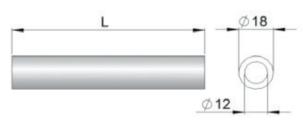


FGGR-18X100	18mm Tube, L = 100 mm - Aluminum
FGGR-18X150	18mm Tube, L = 150 mm - Aluminum
FGGR-18X200	18mm Tube, L = 200 mm - Aluminum
FGGR-18X250	18mm Tube, L = 250 mm - Aluminum
FGGR-18X300	18mm Tube, L = 300 mm - Aluminum

UOM: 10 pcs / pk

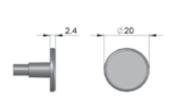
UOM: 10 pcs / pk





FGEC-18 End cap. 18 mm Tube - Polyamide

1



End cap , Distance Tube - Polyamide

UOM: 10 pcs / pk

FGEC-20

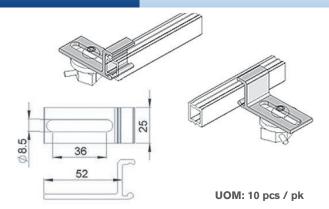




UOM: 50pcs / pk

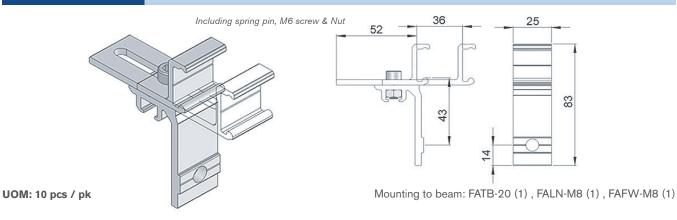
FGRA-26x39x45A

Bracket for sensor - Aluminum



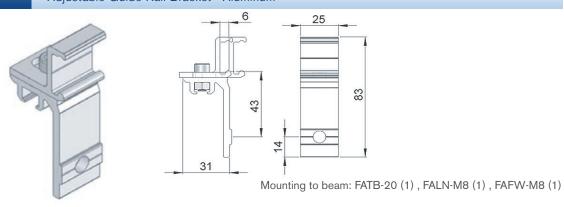
FGRA-8x39x45

Adjustable Guide Rail Bracket - Aluminum



FGRA-8x9x45

Adjustable Guide Rail Bracket - Aluminum

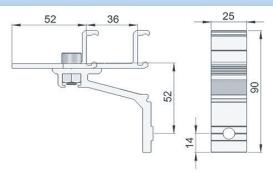


FGRA-26x39x45

UOM: 10 pcs / pk

Adjustable Guide Rail Bracket - Aluminum

Including spring pin, M8 screw & nut



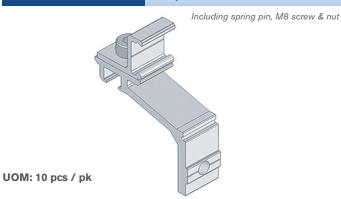
Mounting to beam: FATB-20 (1) , FALN-M8 (1) , FAFW-M8 (1)

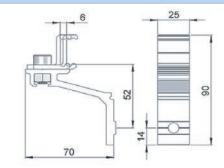




FGRA-26x9x45

Adjustable Guide Rail Bracket - Aluminum

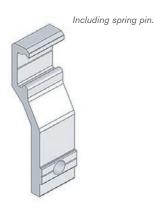


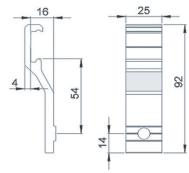


Mounting to beam: FATB-20 (1) , FALN-M8 (1) , FAFW-M8 (1)

FGRB-16x54

Fixed Guide Rail Bracket - Aluminum



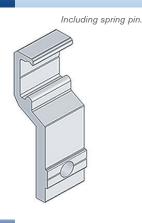


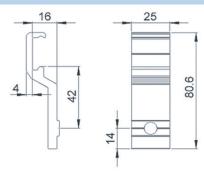
Mounting to beam: FATB-20 (1), FALN-M8 (1), FAFW-M8 (1)

FGRB-16x42

UOM: 10 pcs / pk

Fixed Guide Rail Bracket - Aluminum





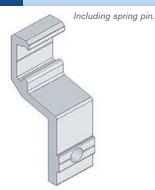
Mounting to beam: FATB-20 (1), FALN-M8 (1), FAFW-M8 (1)

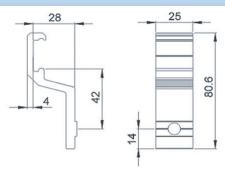
FGRB-28x42

UOM: 10 pcs / pk

UOM: 10 pcs / pk

Fixed Guide Rail Bracket - Aluminum



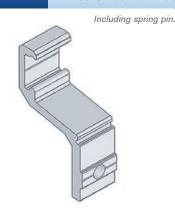


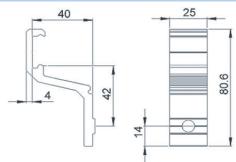
Mounting to beam: FATB-20 (1) , FALN-M8 (1) , FAFW-M8 (1)





Fixed Guide Rail Bracket - Aluminum



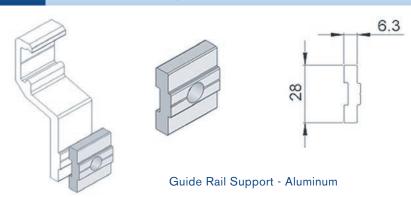


Mounting to beam: FATB-20 (1) , FALN-M8 (1) , FAFW-M8 (1)

FGRD-6

UOM: 10 pcs / pk

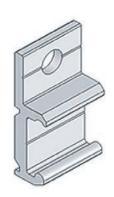
Guide Rail Bracket Spacer - Aluminum

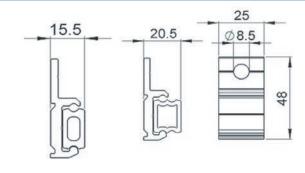


FGRC-20

UOM: 10 pcs / pk

Guide Rail Support - Aluminum



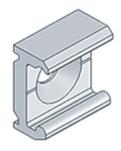


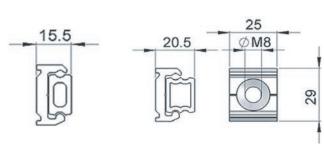
Mounting: FAHB-M8 x 12 (1) , FASN-M8 (1) , FAFW-M8 (1)

FGRC-20A

UOM: 10 pcs / pk

Guide Rail Support - Aluminum





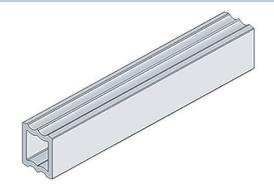
Mounting: C'SUNK M8 x 12

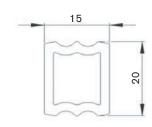




FGRR-15x20

Guide Rail Rectangular, 15mm x 20 mm - Aluminum

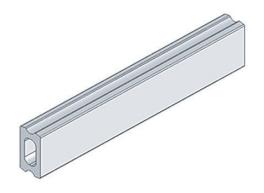


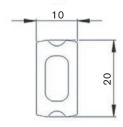


UOM: 3 meter / length

FGRR-10x20

Guide Rail Rectangular, 10 mm x 20 mm - Aluminum



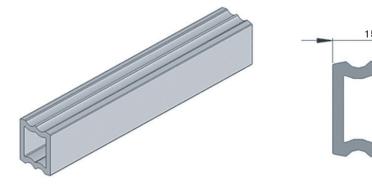


20

UOM: 3 meter / length

FGRR-15X20P

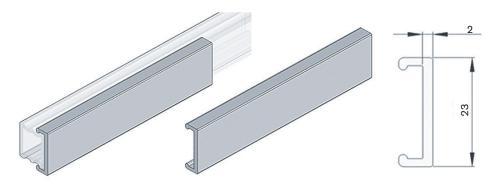
Guide Rail Rectangular, 15mm x 20 mm - HDPE



UOM: 3 meter / length

FGRT-3x23 Guide Rail Cover - HDPE

FGRT-3x23A



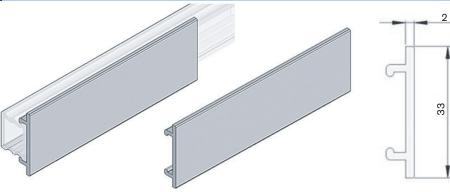
UOM: 3 meter / length





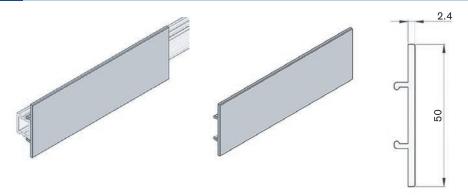


UOM: 3 meter / length



FGRT-3x50

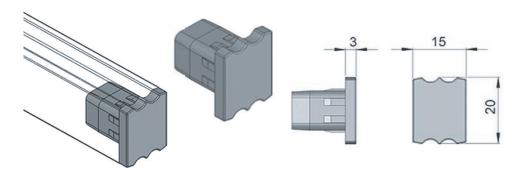
Guide Rail Cover - HDPE



UOM: 3 meter / length

FGEC-15x20

End Cap for FGRR-15x20 - Polyamide



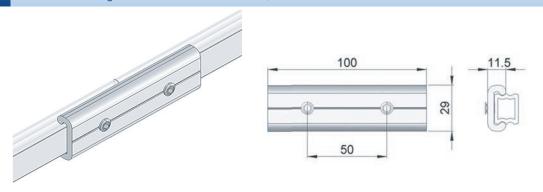
UOM: 10pcs / pk

FGRC-100

Rail Connecting – Aluminum L = 100 mm, B = 50 mm

FGRC-60

Rail Connecting – Aluminum L = 60 mm, B = 30 mm

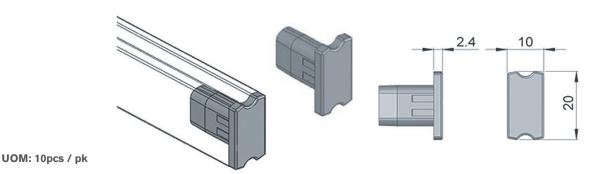






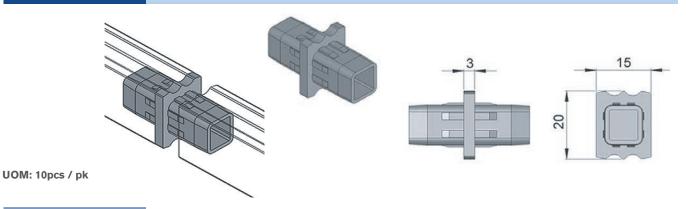
FGEC-10x20

End Cap for FGRR-10x20 & FGRR10x20F - Polyamide



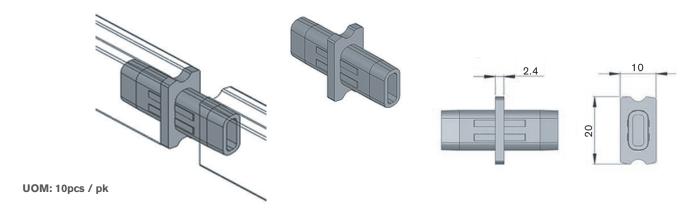
FGRJ-15x20

Connecting Plug for FGRR-15x20 - Polyamide



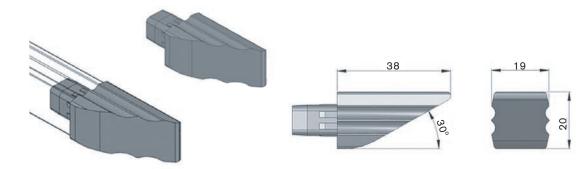
FGRJ-10x20

Connecting Plug for FGRR-10x20 & FGRR-10x20F - Polyamide



FGEC-30D

30° End Cap for FGRR-15x20 - Polyamide







FGRS-18

Guide Rail Support - Polyamide



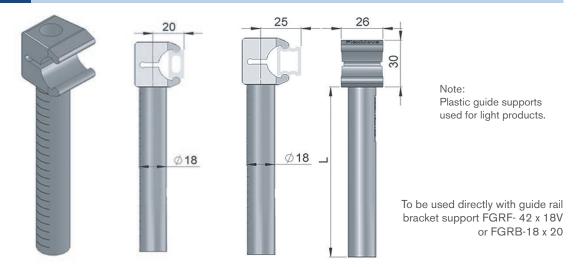
UOM: 10pcs / pk

FGRL-18x110C

Guide Rail Support, L = 110 mm - Polyamide

FGRL-18x160C

Guide Rail Support, L = 160 mm - Polyamide



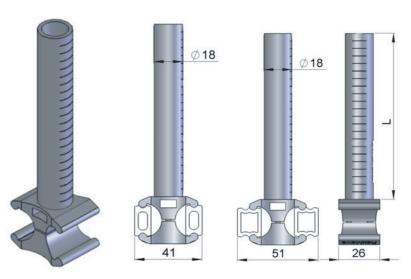
UOM: 10pcs / pk

FGRC-18x110C

Double Guide Rail Support, L = 110 mm - Polyamide

FGRC-18x160C

Double Guide Rail Support, $L = 160 \text{ mm} - Polyamide}$



Note:

Plastic guide supports used for light products.

Suitable for use with cross connector FGRB-18 x18 and a crossing 18 mm aluminum tube above the double track.



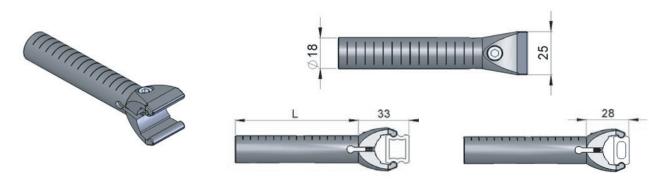


FGRK-18x40A Guide Rail Support, L = 40 mm - Polyamide

FGRK-18x60A Guide Rail Support, L = 60 mm - Polyamide

FGRK-18x80A Guide Rail Support, L = 80 mm - Polyamide

FGRK-18x130A Guide Rail Support, L = 130 mm - Polyamide

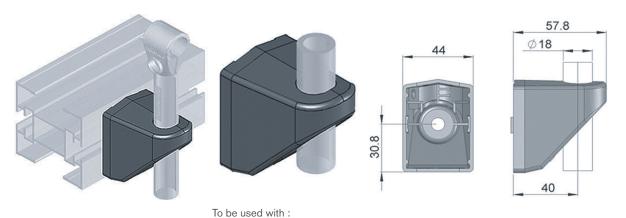


UOM: 10pcs / pk

Suitable for use with cross connector FGRB-18 x18 and FGRF - 42 x 18V

FGRF-42x18V

Guide Rail Bracket - Polyamide



- FGGR - 18 x * 100 - FGRL - 18 x 110C / 160C - FGRC - 18 x 110C / 160C



For use with guide rail bracket support FGRF -42 x 18V

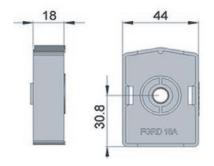


FGRD-18A

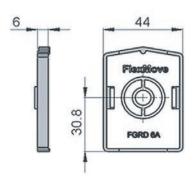
Spacer for FGRF-42x18V -Polyamide

FGRD-6A

Spacer for FGRF-42x18V -Polyamide



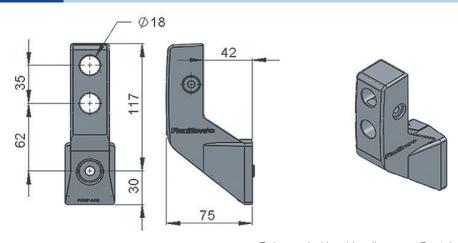
UOM: 10pcs / pk



UOM: 10pcs / pk

FGRF-A35

Guide Rail Bracket A35 - Polyamide



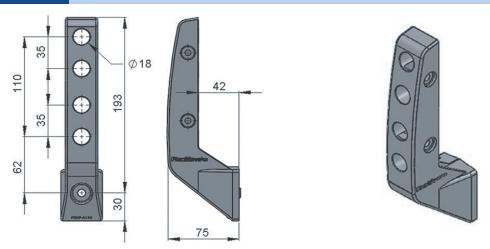
UOM: 10pcs / pk

To be used with guide rail support. For 1-2 guide rail levels.



FGRF-A110

Guide Rail Bracket A110 - Polyamide



UOM: 10pcs / pk

To be used with guide rail support. For 1-4 guide rail levels.

FGRF-DP

FGRF Dummy Plug

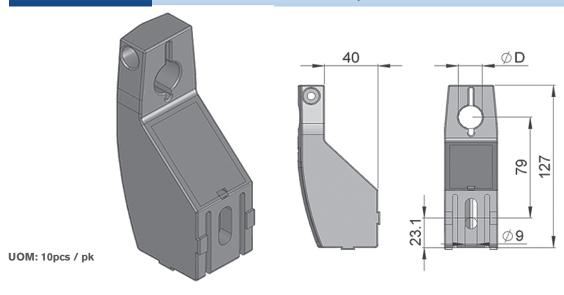


FGRB-40x18

Guide Rail Bracket, D = 18 mm - Polyamide

FGRB-40x20

Guide Rail Bracket, D = 20 mm - Polyamide

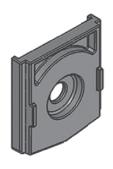


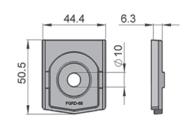




FGRD-6B

Spacer for FGRB-40x ## - Polyamide

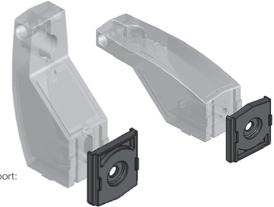




UOM: 10pcs / pk

For use with guide rail bracket support: FGRB - 40 x 18 / 20

FGRB - 40 x 15 x 20



FGRB-18x18

Guide Rail Bracket, $\emptyset A = 18$ mm, $\emptyset B = 18$ mm - Polyamide

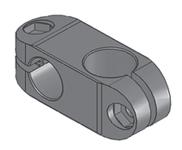
FGRB-18x20

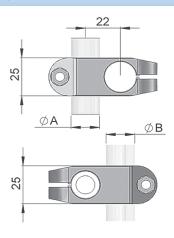
Guide Rail Bracket, $\emptyset A = 18$ mm, $\emptyset B = 20$ mm - Polyamide

FGRB-20x20

Guide Rail Bracket, $\emptyset A = 20$ mm, $\emptyset B = 20$ mm - Polyamide







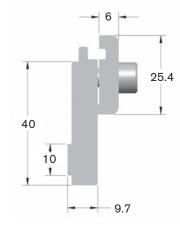
UOM: 10pcs / pk

FGRD-HS

High Side Guide Clip Assembly





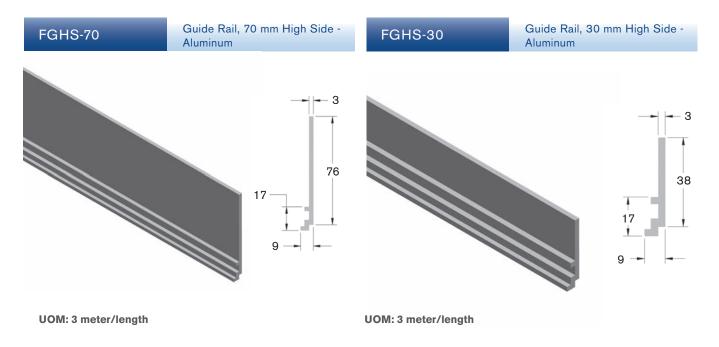




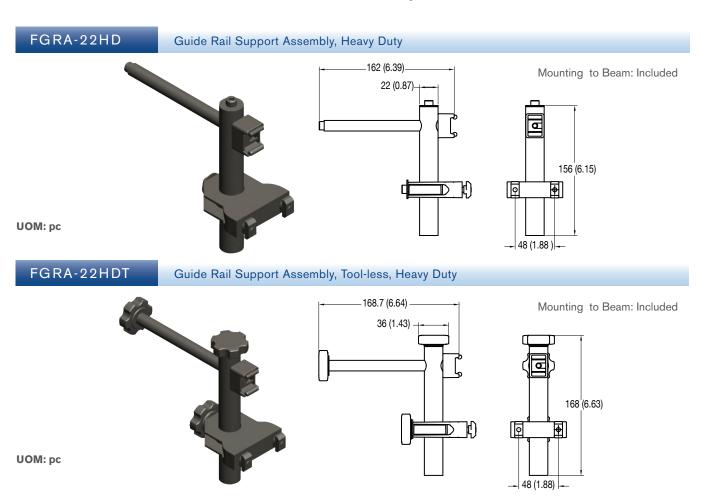
Mounting to Beam: FATB-20(1) FALN-M8(1) FAFN-M8(1)

Available in North America only.





Available in North America only.





Pre-assembled Support Stands

- Up to 457 mm height adjustment range
- · Includes height indicator
- Full width is top plate on 305 mm wide stands only
- Angle Adjustable
- 305 mm wide stand for FX157 and FX304 conveyors. Requires FAHBS-60FX mounting brackets
- 458 mm and 608 mm wide stands for FX457 and FX609 conveyors. Requires FAHBS-80FX mounting brackets



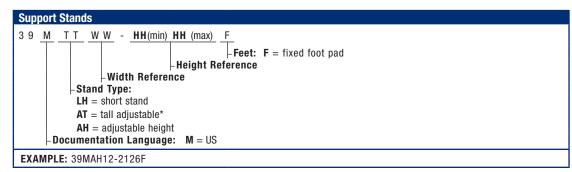
Fixed Foot Model											
Stand Width (WW)	305 mm		51 mm increments up to				608 mm				
Part # Reference	12			in 02 increments up to				24			
Stand Height (HH) Belt	305- 330 mm	330- 381 mm	356- 432 mm	406- 660 mm	483- 686 mm	610- 914 mm	762- 1,219 mm	1,067- 1,524 mm*	1,372- 1,829 mm*	1,676- 2,134 mm*	1,981- 2,438 mm*
Part # Reference Belt	1213	1315	1417	1621	1926	2436	3048	4260	5472	6684	7896

Short Support Stands

- For top belt heights below 508 mm
- Full width is top plate on 305 mm wide stands only
- 305 mm wide stand for FX157 and FX304 conveyors. Requires FAHBS-60FX mounting brackets
- 458 mm and 608 mm wide stands for FX457 and FX609 conveyors. Requires FAHBS-80FX mounting brackets

Fixed Foot Model						
Stand Width (WW)	305 mm	51 mm increments up to	608 mm			
Part # Reference	12	in 02 increments up to	24			
Stand Height (HH)* Belt	152 - 203 mm	in 25 mm increments up to	305 - 356 mm			
Part # Reference Belt	0608	in 0101 increments up to	1214			





Note: Due to the wide variety of conveyor and stand options along with possible configurations, stability is final setup of the responsibility of the end user. *Tall stands are required when the stand width is 3.5 times the stand height.

Note: Due to the wide variety of conveyor and stand options along with possible configurations, stability of the final setup is the responsibility of the end user.

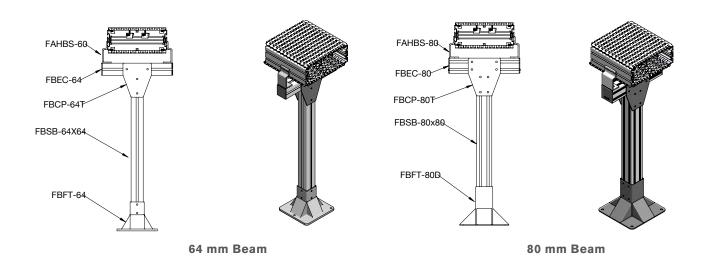




Customer Assembled Support Stands

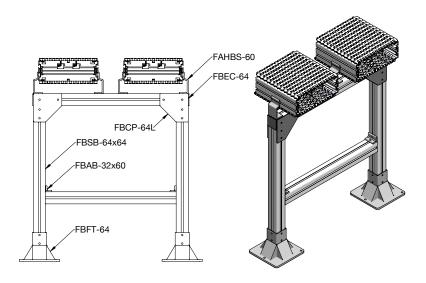
Single Support Structure

FX-152, 304, 457, 609



Dual Support Structure

FX-152, 304, 457, 609



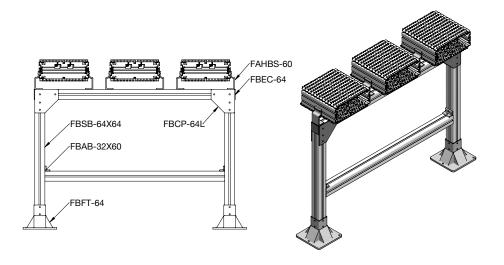




Customer Assembled Support Stands

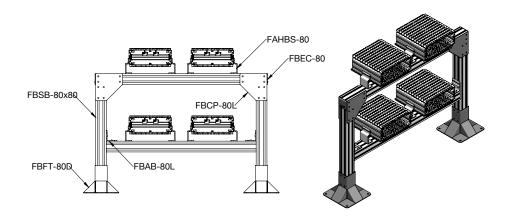
Multi-Lane Support Structure

FX-152, 304, 457, 609



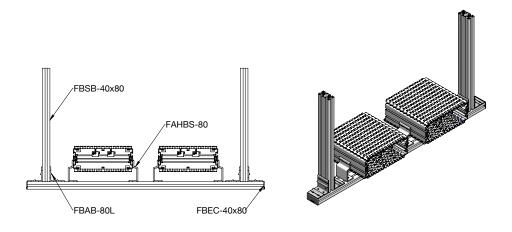
Multi-Lane Double Layer Support Structure

FX-152, 304, 457, 609



Ceiling Hanger Support Structure

FX-152, 304, 457, 609

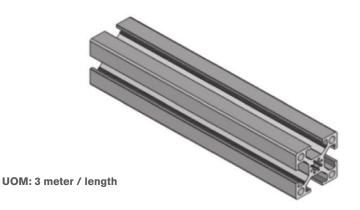


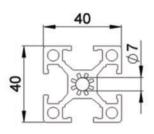




FBSB-40x40

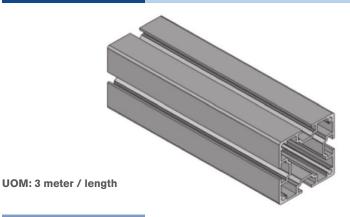
Support Beam 40x40 - Aluminum Anodized

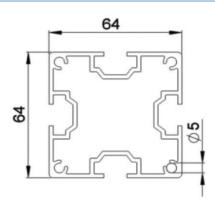




FBSB-64x64

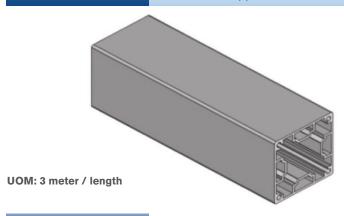
Support Beam 64x64 - Aluminum Anodized

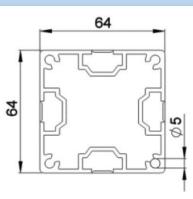




FBSB-64x64C

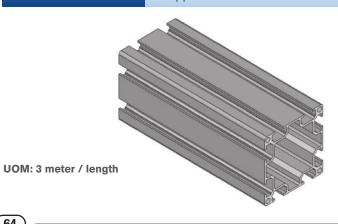
Close slot Support Beam - Aluminum Anodized

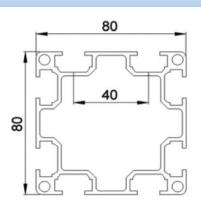




FBSB-80x80

Support Beam 80x80 - Aluminum Anodized



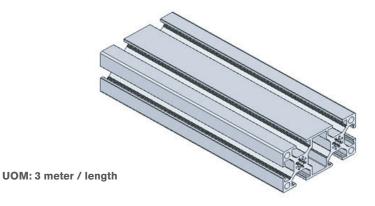


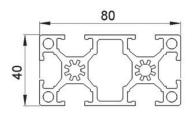




FBSB-40x80

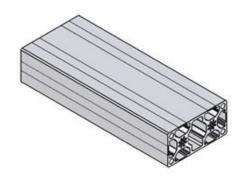
Support Beam - Aluminum Anodized

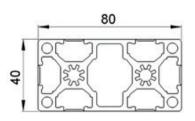




FBSB-40x80C

Close Slot Support Beam - Aluminum Anodized



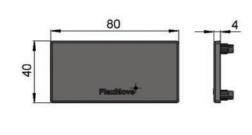


UOM: 3 meter / length

FBEC-40x80

End Cap. 40x80 mm Support Beam - Polyamide

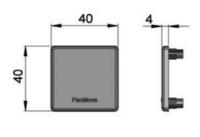




FBEC-40

End Cap, 40x40 mm Support Beam - Polyamide



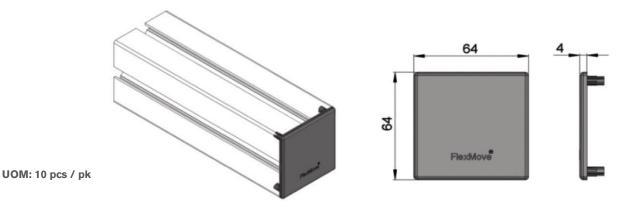






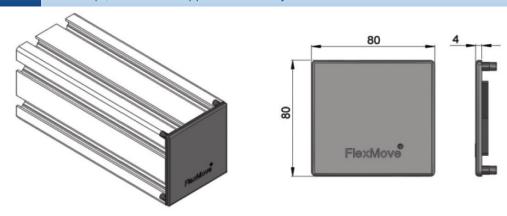
FBEC-64

End cap, 64x64mm Support Beam - Polyamide



FBEC-80

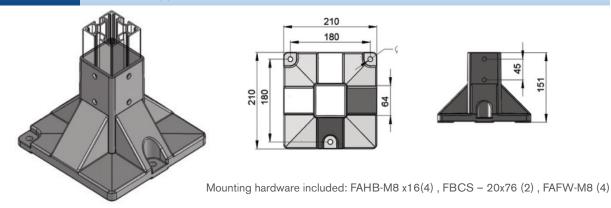
End cap, 80x80 mm Support Beam - Polyamide



FBFT-64

UOM: 10 pcs / pk

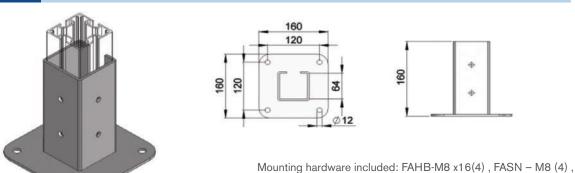
Foot For Support Beam 64x64 - Aluminum Die Cast



FBFT-64A

UOM: pc

Foot For Support Beam 64x64 - Steel, Powder Coating





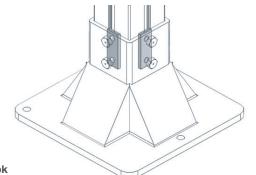


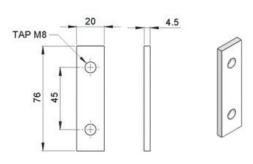
FB SERIES: SUPPORTS AND BEAMS



FBCS-20x76

Connecting Strip For Foot - Steel, Electro Zinc Plated

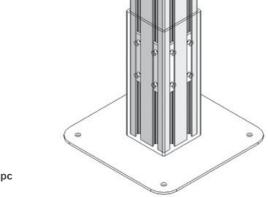


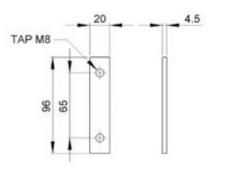


UOM: 10pcs / pk

FBCS-20x96

Connecting Strip For Foot 80x80 mm- Steel, Electro Zinc Plated





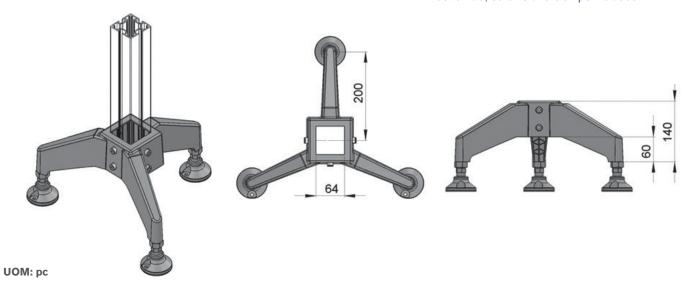


UOM: pc

FBFT-64TP

Tripod Foot For FBSB-64x64 - Polyamide , Glass Fiber reinforced

Plastic Pad, screws and clamps included







FBFT-64BP

Bipod Foot For FBSB-64x64 - Polyamide , Glass Fiber reinforced

Plastic Pad, screws and clamps included

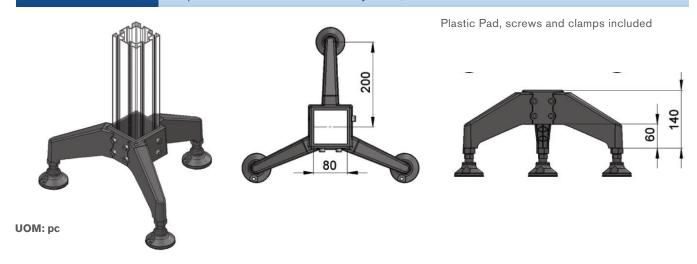
200

64

UOM: pc

FBFT-80TP

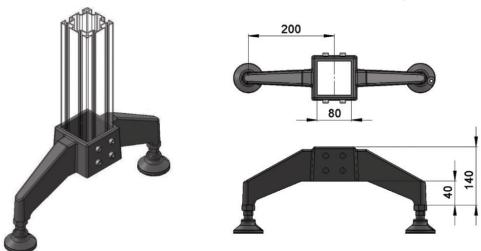
Tripod Foot For FBSB-80x80 - Polyamide, Glass Fiber reinforced



FBFT-80BP

Bipod Foot For FBSB-80x80 - Polyamide , Glass Fiber reinforced

Plastic Pad, screws and clamps included



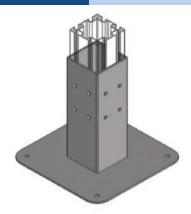


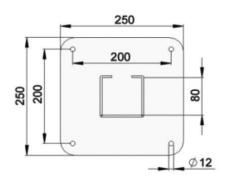
FB SERIES: SUPPORTS AND BEAMS

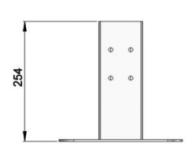


FBFT-80B

Foot For Support Beam 80x80 - Steel, Powder Coating





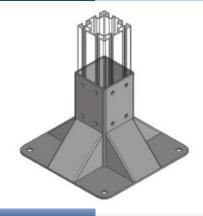


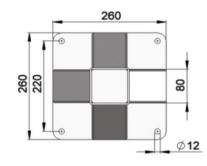
UOM: pc

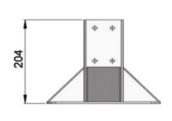
Mounting hardware included: FAHB-M8 x16(8) , FBCS – 20 x 96 (4), FAFW-M8 (8) , FAWP-M10(4)

FBFT-80D

Foot For Support Beam 80x80 - Steel, Powder Coating





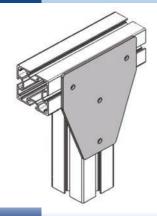


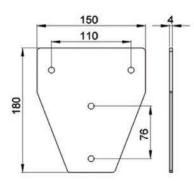
UOM: pc

Mounting: FAHB-M8 \times 16(8) , FBCS – 20 \times 96 (4) , FAFW-M8 (8) , FAWP-M10 (4)

FBCP-64T

T connecting Plate for Support Beam 64x64 - Steel, Zinc Plated



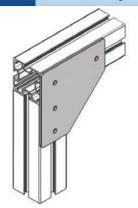


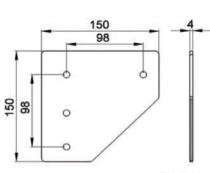
UOM: pc

Mounting: FAHB-M8 x16(4) , FASN-M8 (4) , FAFW-M8 (4)

FBCP-64L

L Connecting Plate for Support Beam 64x64- Steel, Zinc Plated



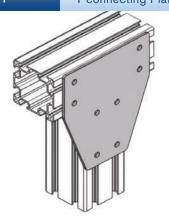


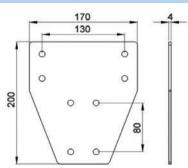
Mounting: FAHB-M8 x16(4) , FASN-M8 (4) , FAFW-M8 (4)



FBCP-80T

T connecting Plate for Support Beam 80x80 - Steel, Zinc Plated



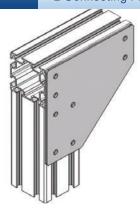


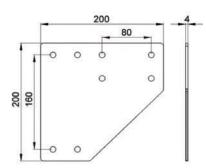
Mounting: FAHB-M8 x16(8), FASN-M8 (8), FAFW-M8 (8)

FBCP-80L

UOM: pc

L Connecting Plate for Support Beam 80x80- Steel, Zinc Plated



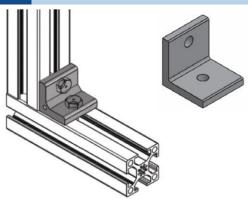


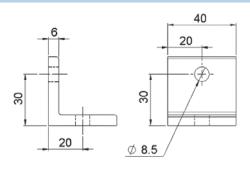
UOM: pc

Mounting: FAHB-M8 x16(8), FASN-M8 (8), FAFW-M8 (8)

FBAB-40x40

Angle Bracket for Support Beam 40x40 - Aluminum

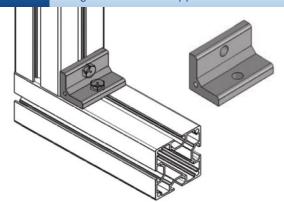


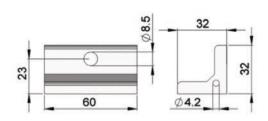


UOM: pcMounting: FAHB-M8 x20(2) , FASN-M8 (2) , FAFW-M8 (2)

FBAB-32x60

Angle Bracket for Support Beam 64x64 - Aluminum



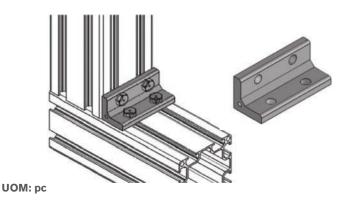


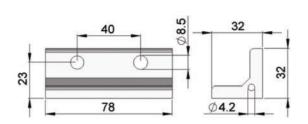
Mounting: FAHB-M8 x20 (2) , FASN-M8 (2) , FAFW-M8 (2)



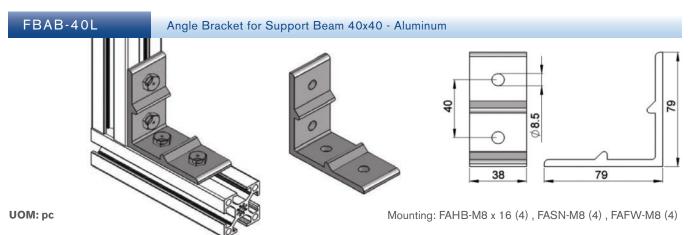
FBAB-32x80

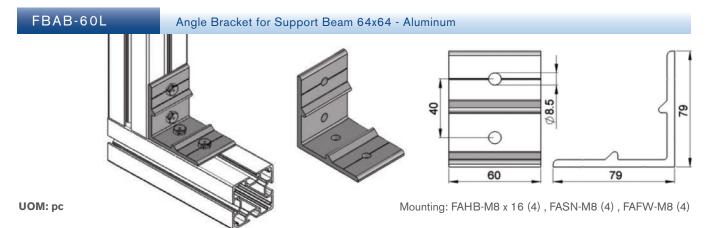
Angle Bracket for Support Beam 80x80 - Aluminum





Mounting: FAHB-M8 x20 (4), FASN-M8 (4), FAFW-M8 (4)





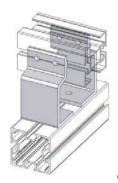


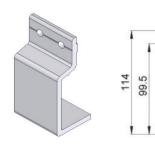


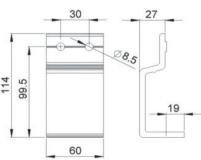


FAHBS-60FX

Horizontal beam support bracket - Aluminum







JOM: pc

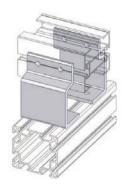
For 64 mm horizontal crossing support beam

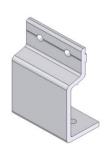
Mounting: FATB-20(2) , FALN-M8(2), FAHB-M8 x16(1) , FASN-M8(1) , FAFW-M8 (3)

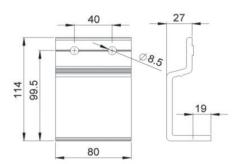
Compatible with 60 mm beam and 305 mm wide adjustable height support stand

FAHBS-80FX

Horizontal beam support bracket - Aluminum







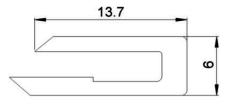
UOM: pc

For 80 mm horizontal crossing support beam

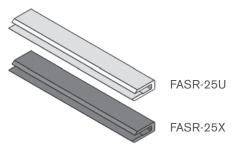
Mounting: FATB-20(2) , FALN-M8(2), FAHB-M8 x16(2) , FASN-M8(2) , FAFW-M8 (4)

Compatible with 80 mm beam and adjustable height support stand

FASR-25U	UHMW-PE slide rail - White	"Low Friction, suitable for accumulation"
FASR-25X	Special PE slide rail - Blue	"Lowest Friction, suitable for accumulation"
FASR-25T	PAPE slide rail - Grey	"High abrasive and High load"
FASR-25CD	Conductive slide rail - Black	"Static conductive"
FASR-25P	PVDF slide rail - White	"For Abrasive application"



See page 220 for detail slide rail information

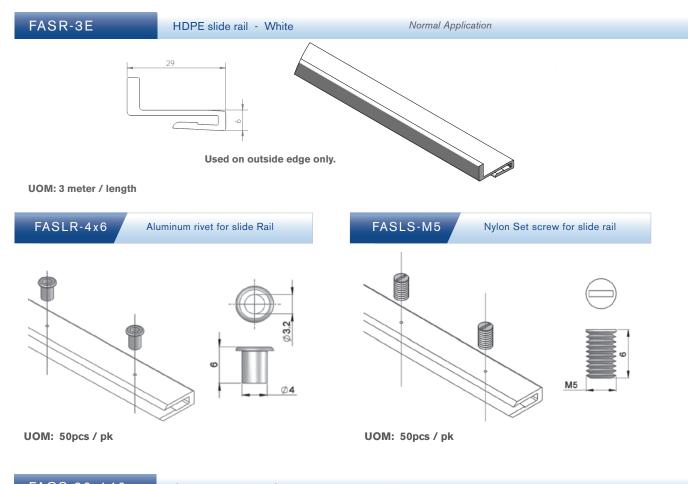


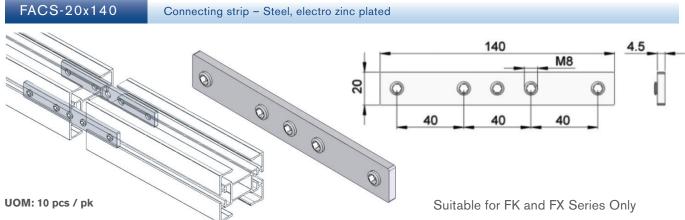




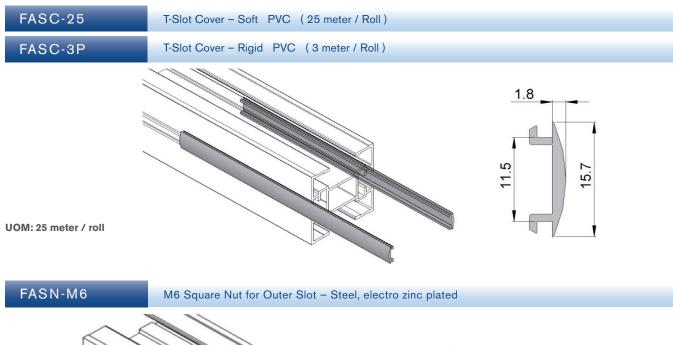


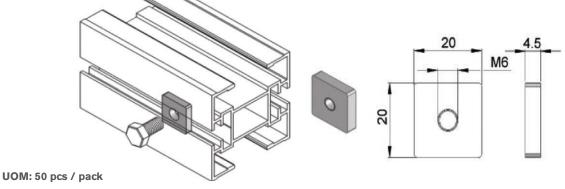


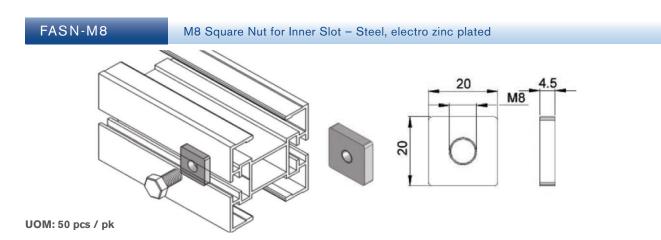








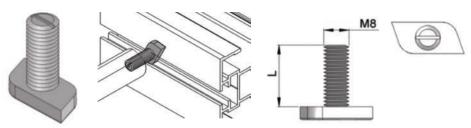




FA SERIES: ACCESSORIES



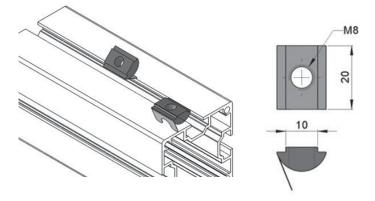
FATB-20	T-bolt, L = 20 - Steel, zinc plated
FATB-35	T-bolt, L = 35 - Steel, zinc plated
FATB-53	T-bolt, L = 53 - Steel, zinc plated
FATB-71	T-bolt, L = 71 - Steel, zinc plated



UOM: 50 pcs / pk

FASL-M8

Spring Leaf Nut M8 for 40x40, 64x64 , 40x80, 80x80 Support Beam - Steel, zinc plated



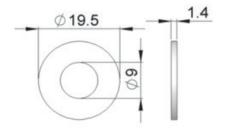
UOM: 50 pcs / pk

FAFW-M8

M8 Flat washer - Steel, zinc plated

FALN-M8

M8 Lock Nut - Steel, zinc plated



UOM: 50 pcs / pk

M8 8 8 13 13

UOM: 50 pcs / pk

FAHB- M8 x 16

M8 Flat washer- Steel, zinc plated

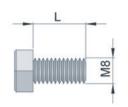
FACW-M8

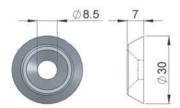
Countersunk washer - POM

FAHB-M8 x 20

Hex bolt, L = 16 - Steel, zinc plated Hex bolt, L = 20 - Steel, zinc plated









UOM: 50 pcs / pk



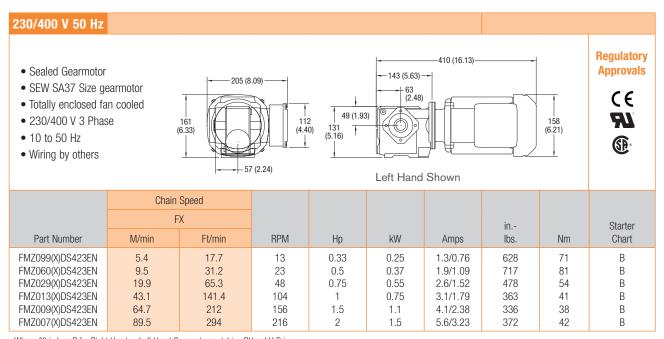
UOM: 50 pcs / pk



Direct Mount, SEW Equivalent, Fixed Speed - 20 mm Shaft

230/460 V 60 Hz 410 (16.13) Regulatory · Sealed Gearmotor -143 (5.63) -- **Approvals** 205 (8.09) • SEW SA37 Size gearmotor (2.48) ϵ · Totally enclosed fan cooled 49 (1.93) 112 (4.40) 158 (6.21) 161 • 230/460 V 3 Phase R131 (5.16) (6.33)• 10 to 60 Hz (F) · Wiring by others -57 (2.24) Left Hand Shown Chain Speed FΧ Starter in.-Ft/min **RPM** kW Part Number M/min Нр Amps lbs. Nm Chart FMM129(X)DS423EN 5.4 17.7 13 0.25 0.18 1.1/0.56 837 95 D FMM067(X)DS423EN 10.4 25 0.5 0.37 1.9/0.95 699 79 D 34.1 FMM032(X)DS423EN 22 72.2 53 0.75 0.55 2.7/1.35 653 74 D FMM015(X)DS423EN 47.3 155 114 0.75 0.55 2.7/1.35 341 39 D FMM013(X)DS423EN 177 130 0.75 425 48 D 54 1 3.1/1.57 FMM010(X)DS423EN 71 233 171 1.5 4.2/2.1 490 56 D

Where (X) is L or R for Right Hand or Left Hand Gearmotor matching RH or LH Drive



Where (X) is L or R for Right Hand or Left Hand Gearmotor matching RH or LH Drive

SEW gearmotors are products of SEW Eurodrive

 $\sf C \in Note:$ When buying a gearmotor only without the starter, the customer must supply their own on/off switch and motor overload protection to comply with the CE Safety Directive.

FLA = Full Load Amperes Some motors and gear reducers may normally operate hot to the touch. Consult factory for specific operating temperatures.

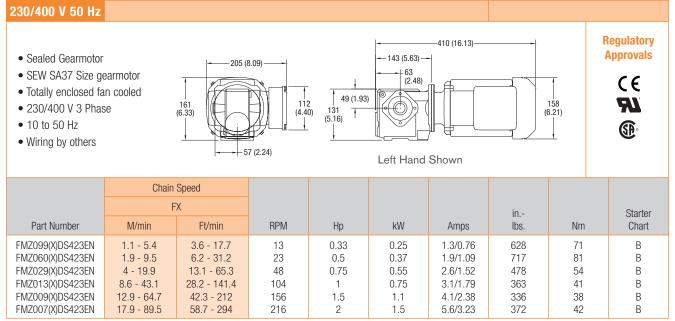




Direct Mount, SEW Equivalent, Variable Speed - 20 mm Shaft

230/460 V 60 Hz 410 (16.13) Regulatory Sealed Gearmotor - 143 (5.63) -**Approvals** 205 (8.09) • SEW SA37 Size gearmotor (2.48) ϵ • Totally enclosed fan cooled 49 (1.93) 112 (4.40) 158 (6.21) 161 (6.33) • 230/460 V 3 Phase 131 (5.16) 1 • 10 to 60 Hz · Wiring by others -57 (2.24) Left Hand Shown Chain Speed FX in.-Starter **RPM** Part Number M/min Ft/min Нр kW Amps lbs. Nm Chart FMM129(X)DS423EN 1.1 - 5.4 3.6 - 17.7 13 0.25 0.18 1.1/0.56 837 95 D FMM067(X)DS423EN 79 D 2.1 - 10.4 6.9 - 34.1 25 0.5 0.37 1.9/0.95 699 FMM032(X)DS423EN 4.4 - 22 14.4 - 72.2 53 0.75 0.55 2.7/1.35 653 74 D 9.5 - 47.3 2.7/1.35 FMM015(X)DS423EN 31.1 - 155 114 0.75 0.55 341 39 D FMM013(X)DS423EN 10.8 - 54 35.4 - 177 130 0.75 3.1/1.57 425 48 D FMM010(X)DS423EN 1.5 4.2/2.1 490 56 D

Where (X) is L or R for Right Hand or Left Hand Gearmotor matching RH or LH Drive



Where (X) is L or R for Right Hand or Left Hand Gearmotor matching RH or LH Drive

SEW gearmotors are products of SEW Eurodrive

C € Note: When buying a gearmotor only without the starter, the customer must supply their own on/off switch and motor overload protection to comply with the CE Safety Directive.

FLA = Full Load Amperes Some motors and gear reducers may normally operate hot to the touch. Consult factory for specific operating temperatures.



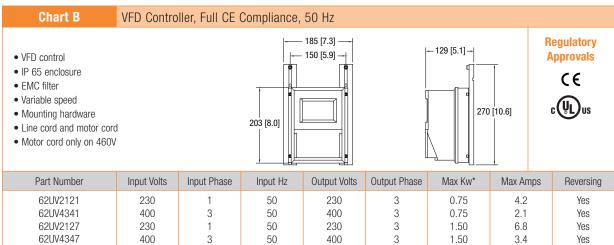


Variable Speed Controllers

• Power to controller by others

· Mounting hardware

• 62MV1122 includes line cord to controller



62UV4347 400 50 400 1.50 Yes **Chart D** VFD Controller, 60 Hz 185 [7.3] -• Full feature VFD control Regulatory - 129 [5.1] --150 [5.9] --• NEMA 4 enclosure **Approvals** Digital display ϵ · Keypad with Start/Stop, Forward/Reverse and speed variations 270 [10.6] Includes cord to motor

203 [8.0]

						<u> </u>	-	
Part Number	Input Volts	Input Phase	Input Hz	Output Volts	Output Phase	Max Hp	Output Amps*	Reversing
32MV1122	115	1	60	230	3	0.5	2.2	Yes
32MV2122	230	1	60	230	3	0.5	2.2	Yes
32MV1121	115	1	60	230	3	1.0	4.0	Yes
32MV2121	230	1	60	230	3	1.0	4.0	Yes
32MV2127	230	1	60	230	3	2.0	6.8	Yes
32MV2322	230	3	60	230	3	0.5	2.2	Yes
32MV2327	230	3	60	230	3	2.0	6.8	Yes
32MV4341	460	3	60	460	3	1.0	2.0	Yes
32MV4347	460	3	60	460	3	2.0	3.4	Yes

In order for this drive to meet full CE requirements for European application a separate CE approve RFI filter must be installed. Product shown in chart B above have this filter pre-installed and are recommended for use in the European Union.

SEW gearmotors are products of SEW Eurodrive



Manual Motor Starters

Manual motor starts are manual electronic disconnects that provide motor overload protection and are required by the National Electric Code (NEC) for safe motor operation.

• IP 55 Enclosure

- Push button Start / Stop
- Includes mounting hardware



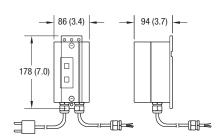


Illustration A

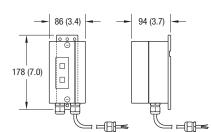


Illustration **B**

Chart I

230/400V 50Hz to 2.5 amp

- 230 Volts, 1 phase includes cord, plug and starter
- 230/400 Volts, 3 phase wiring to starter by others
- Wiring between motor and starter provided when ordered together
- 50 Hz

Part Number	In Volts	In Phase	Amp Range	Illustration
62(c)M21T 62(c)M23T	230 230	1 3	1.6 - 2.5 1.0 - 1.6	A B
62(c)M43T	400	3	0.63 - 1.0	В

Chart J

230/400V 50 Hz to 4 amp

- 230 Volts, 1 phase includes cord, plug and starter
- 230/400V, 3 phase wiring to starter by others
- Wiring between motor and starter provided when ordered together
- 50 Hz

Part Number	In Volts	In Phase	Amp Range	Illustration
62(c)M21J	230	1	2.5 - 4.0	А
62(c)M23J	230	3	1.6 - 2.5	В
62(c)M43J	400	3	1.0 - 1.6	В

Chart L 230/460V 60 Hz to 1.6 amp

- 230/460 Volts, 3 phase wiring to starter by others
- Wiring between motor and starter provided when ordered together
- 60 Hz

Part Number	In Volts	In Phase	Amp Range	Illustration
62MM23L	230	3	1.0 - 1.6	B
62MM43L	460	3	0.463	B

Chart M

230/460V 60Hz to 2.5 amp

- 230/460 Volts, 3 phase wiring to starter by others
- Wiring between motor and starter provided when ordered together
- 60 Hz

Part Number	In Volts	In Phase	Amp Range	Illustration
62MM23M	208-230	3	1.6 - 2.5	B
62MM43M	460	3	1.0 - 1.6	B

Chart P

230/460V 60Hz to 4 amp

- 230/460 Volts, 3 phase wiring to starter by others
- Wiring between motor and starter provided when ordered together
- 60 Hz

Part Number	In Volts	In Phase	Amp Range	Illustration
62MM23U 62MM43P	208-230	3	2.5 - 4.0 1.6 - 2.5	В

Chart Q

230/460V 60Hz to 6.3 amp

- 230/460 Volts, 3 phase wiring to starter by others
- Wiring between motor and starter provided when ordered together
- 60 Hz

Part Number	In Volts	In Phase	Amp Range	Illustration
62MM23Q	208-230	3	4.0 - 6.3	B
62MM43Q	460	3	2.5 - 4.0	B

C € Note: When buying a gearmotor only without the starter, the customer must supply their own on/off switch and motor overload protection to comply with NEC and CE safety directive.

(c) = Electrical Configuration







TECHNICAL DATA & CALCULATIONS

Material

Material	FlexMove Parts
POM (Polyoxymethylene)	Conveyor chain, rollers
POM Conductive (Polyoxymethylene)	Conductive chain
Aluminum, extruded & anodized	Angle bracket, beam support bracket, conveyor beam, support beam, guide rail, distance tube, fixed and adjustable side guide bracket, spacer
Steel, electro-zinc plated	Bolts and nuts, connecting strips, foot connecting strip
Steel, powder coated	Foot, connecting plate
PA, Polyamide	Chain pivot, side guide bracket, side guide support, drive and idler steering guide, end caps, wheel guide
Polyamide PA + Glass fibre	Drive sprocket, idler wheel
PVC, Polyvinyl Chloride	T-slot cover
HDPE, High Density Polyethylene	Slide rail, guide rail
UHMW-PE, Ultra High Molecular Weight Polyethylene	Slide Rail, drive and idler steering guides
PVDF, Polyvinylidene fluoride	Slide Rail
TPE, Thermoplastic Elastomer	Chain insert for friction top and wedge top

Chains

Max. conveyor length (m) 30 m 30 m 30 m 30 m Max. conveyor length (ft) 100 ft 100 ft 100 ft 100 ft Min. turning radius (mm) 304 mm 608 mm 914 mm 1218 mm Min. turning radius (inch) 12" 24" 36" 48" Link spacing (mm) 25.4 mm 25.4 mm 25.4 mm 25.4 mm Link spacing (inch) 1.0" 1.0" 1.0" 1.0" Chain weight (plain) (kg/m) 2.11 kg/m 3.85 kg/m 5.71 kg/m 7.16 kg/m Chain weight (plain) (lb/ft) 1.42 lb/ft 2.59 lb/ft 3.84 lb/ft 4.81 lb/ft Max. weight on conveyor (kg/m) 25 kg/m 65 kg/m 65 kg/m 100 kg/m Max. weight on conveyor (lb/ft) 16.8 lb/f 43.7 lb/ft 43.7 lb/ft 67.2 lb/ft Item width (mm) 50 - 400 mm 100 - 600 mm 150 - 900 mm 200 - 1200 mm	Series	FX	FX	FX	FX
Tensile strength at 20°C (N) 8470 N 18500 N 26000 N 34300 N Tensile strength at 68°F (lbf) 1904 lbf 4158 lbf 5845 lbf 7710 lbf Max. working tensile at 20°C (N) 1150 N 2170 N 2730 N 3400 N Max. working tensile at 68°F (lbf) 258 lbf 487 lbf 614 lbf 764 lbf Working temperature (°C) -20 - 60° C -20 -	Chain width (mm)	152 mm	304 mm	457 mm	609 mm
Tensile strength at 68°F (lbf) 1904 lbf 4158 lbf 5845 lbf 7710 lbf Max. working tensile at 20°C (N) 1150 N 2170 N 2730 N 3400 N Max. working tensile at 68°F (lbf) 258 lbf 487 lbf 614 lbf 764 lbf Working temperature (°C) -20 - 60° C	Chain width (inch)	6.0"	12.0"	18.0"	24.0"
Max. working tensile at 20°C (N) 1150 N 2170 N 2730 N 3400 N Max. working tensile at 68°F (lbf) 258 lbf 487 lbf 614 lbf 764 lbf Working temperature (°C) -20 - 60° C	Tensile strength at 20°C (N)	8470 N	18500 N	26000 N	34300 N
Max. working tensile at 68°F (lbf) 258 lbf 487 lbf 614 lbf 764 lbf Working temperature (°C) -20 - 60° C -4 - 140° F -4 - 140° F<	Tensile strength at 68°F (lbf)	1904 lbf	4158 lbf	5845 lbf	7710 lbf
Working temperature (°C) -20 − 60° C -4 − 140° F -4 − 140	Max. working tensile at 20°C (N)	1150 N	2170 N	2730 N	3400 N
Working temperature (°F) -4 - 140° F -165 ft/min 10 - 165 ft/min	Max. working tensile at 68°F (lbf)	258 lbf	487 lbf	614 lbf	764 lbf
Standard conveyor speed (m/min) 3 – 50 m/min 10 – 165 ft/min 10 – 165	Working temperature (°C)	-20 – 60° C			
Standard conveyor speed (ft/min) 10 - 165 ft/min 10 m 30 m	Working temperature (°F)	-4 – 140° F			
Max. conveyor length (m) 30 m 30 m 30 m 30 m Max. conveyor length (ft) 100 ft 100 ft 100 ft 100 ft Min. turning radius (mm) 304 mm 608 mm 914 mm 1218 mm Min. turning radius (inch) 12" 24" 36" 48" Link spacing (mm) 25.4 mm 25.4 mm 25.4 mm 25.4 mm Link spacing (inch) 1.0" 1.0" 1.0" 1.0" Chain weight (plain) (kg/m) 2.11 kg/m 3.85 kg/m 5.71 kg/m 7.16 kg/m Chain weight (plain) (lb/ft) 1.42 lb/ft 2.59 lb/ft 3.84 lb/ft 4.81 lb/ft Max. weight on conveyor (kg/m) 25 kg/m 65 kg/m 65 kg/m 100 kg/m Max. weight on conveyor (lb/ft) 16.8 lb/f 43.7 lb/ft 43.7 lb/ft 67.2 lb/ft Item width (mm) 50 - 400 mm 100 - 600 mm 150 - 900 mm 200 - 1200 mm	Standard conveyor speed (m/min)	3 – 50 m/min			
Max. conveyor length (ft) 100 ft	Standard conveyor speed (ft/min)	10 – 165 ft/min			
Min. turning radius (mm) 304 mm 608 mm 914 mm 1218 mm Min. turning radius (inch) 12" 24" 36" 48" Link spacing (mm) 25.4 mm 25.4 mm 25.4 mm 25.4 mm Link spacing (inch) 1.0" 1.0" 1.0" 1.0" Chain weight (plain) (kg/m) 2.11 kg/m 3.85 kg/m 5.71 kg/m 7.16 kg/m Chain weight (plain) (lb/ft) 1.42 lb/ft 2.59 lb/ft 3.84 lb/ft 4.81 lb/ft Max. weight on conveyor (kg/m) 25 kg/m 65 kg/m 65 kg/m 100 kg/m Max. weight on conveyor (lb/ft) 16.8 lb/f 43.7 lb/ft 43.7 lb/ft 67.2 lb/ft Item width (mm) 50 - 400 mm 100 - 600 mm 150 - 900 mm 200 - 1200 mm	Max. conveyor length (m)	30 m	30 m	30 m	30 m
Min. turning radius (inch) 12" 24" 36" 48" Link spacing (mm) 25.4 mm 25.4 mm 25.4 mm 25.4 mm Link spacing (inch) 1.0" 1.0" 1.0" 1.0" Chain weight (plain) (kg/m) 2.11 kg/m 3.85 kg/m 5.71 kg/m 7.16 kg/m Chain weight (plain) (lb/ft) 1.42 lb/ft 2.59 lb/ft 3.84 lb/ft 4.81 lb/ft Max. weight on conveyor (kg/m) 25 kg/m 65 kg/m 65 kg/m 100 kg/m Max. weight on conveyor (lb/ft) 16.8 lb/f 43.7 lb/ft 43.7 lb/ft 67.2 lb/ft Item width (mm) 50 - 400 mm 100 - 600 mm 150 - 900 mm 200 - 1200 mm	Max. conveyor length (ft)	100 ft	100 ft	100 ft	100 ft
Link spacing (mm) 25.4 mm 25.4 mm 25.4 mm 25.4 mm Link spacing (inch) 1.0" 1.0" 1.0" 1.0" Chain weight (plain) (kg/m) 2.11 kg/m 3.85 kg/m 5.71 kg/m 7.16 kg/m Chain weight (plain) (lb/ft) 1.42 lb/ft 2.59 lb/ft 3.84 lb/ft 4.81 lb/ft Max. weight on conveyor (kg/m) 25 kg/m 65 kg/m 65 kg/m 100 kg/m Max. weight on conveyor (lb/ft) 16.8 lb/f 43.7 lb/ft 43.7 lb/ft 67.2 lb/ft Item width (mm) 50 - 400 mm 100 - 600 mm 150 - 900 mm 200 - 1200 mm	Min. turning radius (mm)	304 mm	608 mm	914 mm	1218 mm
Link spacing (inch) 1.0"	Min. turning radius (inch)	12"	24"	36"	48"
Chain weight (plain) (kg/m) 2.11 kg/m 3.85 kg/m 5.71 kg/m 7.16 kg/m Chain weight (plain) (lb/ft) 1.42 lb/ft 2.59 lb/ft 3.84 lb/ft 4.81 lb/ft Max. weight on conveyor (kg/m) 25 kg/m 65 kg/m 65 kg/m 100 kg/m Max. weight on conveyor (lb/ft) 16.8 lb/f 43.7 lb/ft 43.7 lb/ft 67.2 lb/ft Item width (mm) 50 - 400 mm 100 - 600 mm 150 - 900 mm 200 - 1200 mm	Link spacing (mm)	25.4 mm	25.4 mm	25.4 mm	25.4 mm
Chain weight (plain) (lb/ft) 1.42 lb/ft 2.59 lb/ft 3.84 lb/ft 4.81 lb/ft Max. weight on conveyor (kg/m) 25 kg/m 65 kg/m 65 kg/m 100 kg/m Max. weight on conveyor (lb/ft) 16.8 lb/f 43.7 lb/ft 43.7 lb/ft 67.2 lb/ft Item width (mm) 50 - 400 mm 100 - 600 mm 150 - 900 mm 200 - 1200 mm	Link spacing (inch)	1.0"	1.0"	1.0"	1.0"
Max. weight on conveyor (kg/m) 25 kg/m 65 kg/m 65 kg/m 100 kg/m Max. weight on conveyor (lb/ft) 16.8 lb/f 43.7 lb/ft 43.7 lb/ft 67.2 lb/ft Item width (mm) 50 - 400 mm 100 - 600 mm 150 - 900 mm 200 - 1200 mm	Chain weight (plain) (kg/m)	2.11 kg/m	3.85 kg/m	5.71 kg/m	7.16 kg/m
Max. weight on conveyor (lb/ft) 16.8 lb/f 43.7 lb/ft 43.7 lb/ft 67.2 lb/ft Item width (mm) 50 - 400 mm 100 - 600 mm 150 - 900 mm 200 - 1200 mm	Chain weight (plain) (lb/ft)	1.42 lb/ft	2.59 lb/ft	3.84 lb/ft	4.81 lb/ft
Item width (mm) 50 – 400 mm 100 – 600 mm 150 – 900 mm 200 – 1200 mm	Max. weight on conveyor (kg/m)	25 kg/m	65 kg/m	65 kg/m	100 kg/m
	Max. weight on conveyor (lb/ft)	16.8 lb/f	43.7 lb/ft	43.7 lb/ft	67.2 lb/ft
Item width (inch) 3.9 – 23.6" 3.9 – 23.6" 5.9 – 35" 7.9 – 47.2"	Item width (mm)	50 – 400 mm	100 – 600 mm	150 – 900 mm	200 – 1200 mm
5.5 25.5 5.5 5.5 5.7	Item width (inch)	3.9 - 23.6"	3.9 - 23.6"	5.9 – 35"	7.9 – 47.2"





Chain strength and expansion vs. temperature

Temperature °C	Tensile strength factor	Linear expansion %
-20	1.2	-0.4
0	1.1	-0.2
20	1.0	0.1
40	0.9	0.2
60	0.8	0.5
80	0.6	0.8
100	0.5	1.0
120	0.3	1.3

Resistance to chemical

FlexMove® components can withstand continuous contact with most chemicals. However, it is recommended to avoid:

Acids with pH less than 4

• Bases with pH higher than 9

The following table specifies the resistance of several material used in the conveyor on selected chemicals

Legend

1 = Very good

2 = Good

3 = Moderate resistance

4 = Not recommended 5 = No data available

Material	Acetal POM	Polyamide PA	High-density Polyethylene HDPE	Thermoplastic Elastomer TPE	Aluminum AL
Acids:					
Acetic acid	3	4	3	-	2
Benzoic acid	3	4	1	-	4
Citric acid	3	2	2	-	2
Chromic acid	4	4	1	-	3
Hydrofluoric acid	4	4	1	-	4
Hydrochloric acid	4	4	1	-	3
Hydro cyanic acid	4	4	2	-	1
Nitric acid	4	4	4	-	3
Phosphoric acid	4	4	1	-	3
Sulphuric acid	4	4	2	1	3
Tartaric acid	3	2	1	-	1
Basic compounds:					
Ammonia	1	2	1	-	2
Calcium hydroxide	1	2	1	-	4
Caustic soda	1	2	1	1	3
Potassium hydroxide	1	2	1	-	4
Salts:					
Potassium bicarbonate	2	2	2	-	1
Potassium permanganate	2	4	2	-	1
Sodium cyanic	2	2	2	-	4
Sodium hydrochloride	3	4	1	-	4
Acid salt	2	3	1	-	-
Basic salt	1	2	1	-	-
Neutral salt	1	2	1	-	-





Chains

Material	Acetal POM	Polyamide PA	High-density Polyethylene HDPE	Thermoplastic Elastomer TPE	Aluminum AL
Organic compounds and solvents:					
Acetone	1	1	4	3	1
Benzene	1	1	4	3	1
Butyl alcohol	2	2	2	-	1
Carbon disulphide	1	1	3	-	1
Chloroform	1	1	4	-	-
Ethyl acetate	1	1	2	-	1
Ethyl alcohol	1	1	1	-	1
Heptane	2	2	2	-	-
Methyl alcohol	1	1	1	-	2
Methyl ethyl ketone	1	1	4	4	2
Nitrobenzene	2	2	3	-	1
Phenol	3	3	2	-	1
Gasses:					
Carbon dioxide	3	1	1	-	1
Carbon monoxide	2	1	1	-	1
Chlorine	2	4	3	-	1
Hydrogen sulphide	3	1	2	-	1
Sulphur dioxide	2	3	2	-	1
Others:					
Beer	1	2	2	-	1
Fruit juices	1	2	3	-	2
Gasoline	1	2	2	_	1
Milk	1	1	2	_	1
Oil	1	1	2	_	1
Vinegar	1	2	3	_	1

Note: the table above is valid for temperature range up to 60°C and it is to be considered as guideline only. Furthermore, precautions should be taken when using cleaning agents. If you are in doubt on the material to withstand your special environment, you should go for chemical testing or contact our local distributor.

Friction Coefficient

Friction coefficients between chain and slide rails are 0.10 - 0.15. the friction coefficients between chain and products are as follow:

Product	Plain Chain
Steel (dry)	0.15-0.25
Steel (lubricated)	0.10-0.15
Glass (dry)	0.15-0.20
Glass (lubricated)	0.10-0.15
Aluminum	0.15-0.25
Plastic	0.15-0.25
Wood and paper	0.15-0.30

Temperature Limits

This conveyor system can operate continuously in an environment of between - 20°C to 60°C. The conveyor can withstand up to 100°C for a short period (washing, rinsing).

Static Electricity

The standard plastic materials used for conveyors have low electrical conductivity. So, static electricity can build up in the conveyor. When a conveyor is running under normal environment (20°C and humidity 60%) without load, the static electricity build up should be around the following figures:

Above the drive unit	1800-2500V
Idler end	400-500V
Above the wheel bend	400-500V
Above the straight section	250-350V

With the introduction of anti-static material for slide rail and chain, it shall meet the requirement for electronic industry.



TECHNICAL DATA & CALCULATIONS



Sound Level

Normally, noise level is higher during the run-in period. The noise level should go down after few days of operation. Generally noise level will increase proportionally to the conveyor speed. Typically, the noise level reading in dB should be around the following:

	Conveyor Speed M/min				
Chain	5	10	20	30	40
FX	60	60	70	75	78

Chain Tension Calculation

Calculation is necessary to determine the maximum chain tension on a particular conveyor configuration design, the results are used to decide:

Drive unit capacity
 Tension limit of conveyor chain

For short, light and low speed applications, the tension limit of the chain normally far exceeds the actual requirement of the application. If you are in doubt, always calculate.

Drive Unit Output Capacity, P(W) requirement depend on:

• Traction force F (N) • Chain speed V (m/min)

To calculate power, the equation is P = 1/60 (F x V)

There are several drive unit designs, the maximum permissible traction force on each type of drive unit as below:

	Maximum traction force in Newton (N)				
Drive unit type	FX152	FX304	FX457	FX609	
End	1150	2170	2730	3400	

Chain Tension Limit

Chain tension limit can be derived from the diagram on the next page. It is dependent on various operating conditions, the actual calculation result should be reduced by service factor. Conveyors with high frequency of start/stop will have a high service factor but this could be reduced by providing a frequency inverter incorporated with start/stop function.

Operating conditions	Service factor	
Low speed (<15m/min) & max. 1 start/stop per hour	1.0	
Low speed & max. 10 start/stop per hour	1.2	
Low speed & max. 20 start/stop per hour	1.4	
High speed (>15m/min) & max 20 start/stop per hour	1.6	

It is not advisable to operate a conveyor with more than 20 starts/stops per hour. If your application must operate this way, please consult the factory.

Drive Unit Specifications

Direct Drive unit	FX152	FX304	FX457	FX609
Number of Teeth on sprocket	16 (Twin)	16 (Twin)	16 (Quad)	16 (Quad)
Chain Pitch (mm)	25.4	25.4	25.4	25.4
Max. Traction force (N)	1150	2170	2730	3400
Sprocket Diameter (mm)	132	132	132	132



FlexMove.

TECHNICAL DATA & CALCULATIONS

Bend Factors

Bend factors must be considered and calculated at every plain chain. It depends on the angle of the bend α in radians and friction coefficient μ between chain and slide rails. In application when conveyor is dry and clean, the friction coefficient μ is close to 0.1.

The bend factor is important to calculate since the frictional force of a plain bend depends not only on the weight of chain and product but also the actual the tension throughout the bend. The result an additional pressure force of the chain towards the conveyor beam directed toward the center of the bend. Since the chain tension varies throughout the conveyor, calculation of this additional pressure force is complicated. The highest values are present at the pulling side of the drive unit and virtually zero at the chain inlet. Using bend factor is the easiest way of including added friction in the plain bend for both horizontal and vertical into the calculation. Always use wheel bend unless for exceptional cases. If using plain bend is a must, the combined plain bends angle should not more than 180°, unless it is for a very short and light application.

Bend type, horizontal or vertical plain bend	Bend factor
30°1	.2
45°	1.3
60°1	.4
90°1	.6

8° inclined is the maximum a product could convey for plain chain whereas friction top chain could take up to 30°

Calculation

FlexMove® chain tension calculation could be simplified as follow:

Divide the conveyor in sections, each containing a straight part and up to the next plain bend (horizontal or vertical). First section should be from the end furthest away from the drive unit.

Wheel bends are considered equivalent to straight section. A conveyor with wheel bend but without plain bend should be considered as one straight section. Calculate the force caused by gravity load of the return chain.

Calculate the forces caused by transport friction, accumulation and gravity in the first section and multiply with bend factor. Repeat the step above on each section of the conveyor until the last section with the drive unit. The result of the calculation indicates the amount of traction force required to move the conveyor.

Traction force, the chain tension is caused by several components such as:

- Friction between unloaded chain and slide rail for example on the return chain.
- Friction between loaded chain and slide rails.
- Friction between accumulating products and top surface of chain.
- Gravity force acting on products and top surface of chain.
- Additional friction in horizontal and vertical bend.

Traction force F requires to move the chain depends on the following factors:

- Conveyor length (L)
- Product gravity load / m, Transport (gp)
- Product gravity load / m, Accumulation (gpa)
- Chain gravity load / m (gc)
- Friction coefficient, chain / slide rail (μc)
- Friction coefficient, chain / products (µp)
- Incline angle (A)
- Bend factor for horizontal plain bend and vertical bend (α)





Diagram A

Horizontal conveyor without accumulation.

Therefore, F = L (gc + gp) m

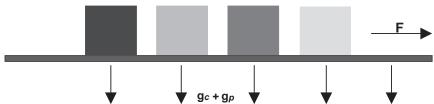


Diagram B

Incline without accumulation.

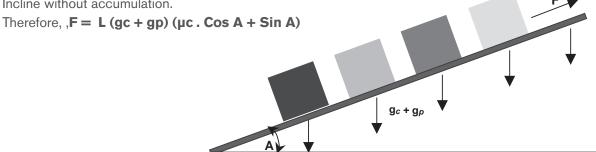
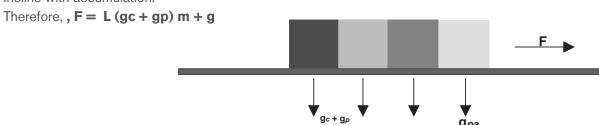


Diagram C

Incline with accumulation.



Note:

If the traction force exceeds the chain or drive unit capacity, therefore:

*Shorten the conveyor or re-layout if possible.

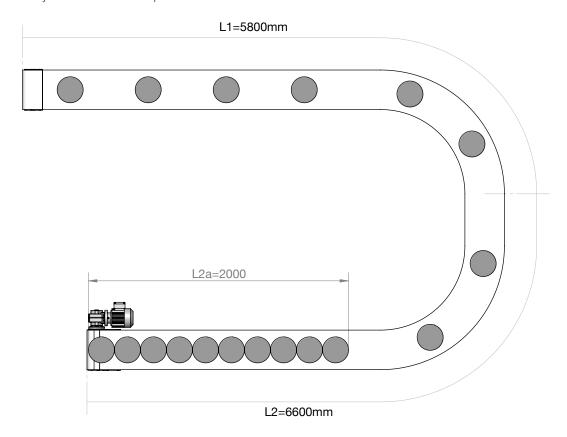
*Break the conveyor into two conveyor with individual drive unit.





Calculation Example

Horizontal conveyor with 90° horizontal plain bends.



Calculation Data

Conveyor series = FX304

Conveyor speed, V = 10 m/min

Start/stop = 15/hour

Total length = 12.4 m

Friction coefficient, $\mu c = 0.1$

Friction coefficient, $\mu p = 0.2$

Chain weight, gc = 37.76 N/m

Transport product weight, gp (4 kg/m) = 39.23 N/m

Accumulation product weight, gpa (14(2kg)/m) = 274.68 N/m

Comparison

The calculation result can now compared with the maximum chain tension for 10 m/min is 1270 N and for 12.4 m of conveyor is 1411 N. Divide the service fac tor for 15 start/stop of 1.4. so the actual permission chain tension limit is 1270/1.4 = 907 N

Section L1

F1 = [F0 + L1 (gc + gp) μc] $k\alpha 1$

= [0+5.8(37.76+39.23)0.1]1.6

= 71.45 N

Section L2

F2 = F1 + [L2a (gc + gpa) μ c + L2b (gc + gp)] μ c + (L2a.gpa. μ p)

= 71.45 + [2(37.76 + 274.68) + 4.6(37.76 + 39.23)]0.1 + (2*274.68*0.2)

Ftotal = 279.22 N



FX Series Conveyors are best for:

- Part Handling
- Transfers
- Tight Spaces
- Elevation Changes
- Accumulation
- Buffering
- Complex Configurations
- Long Lengths
- Curves, Jogs, Incline, Decline

Sizes & Measurements

- Widths: 152 mm, 304 mm, 457 mm and 609 mm
- Lengths: 0.6 m to 20 m
- Up to 4 curves per gearmotor

Loads & Speeds

- . Loads: Up to 272 kgs
- Speeds: Up to 50 meters per minute

Plastic Chain Types

- Standard Low Friction & Friction Insert Chain Surface
- Center bearing for Curve Conveyors
- Non-Bearing Chain for Straight Conveyors









Flat

Friction Top

Bearing Chain

Modules



Drive





Curve 45°, 90°, 135°, 180°

Incline/Decline 5°, 10°, 20°, 30°



Guiding

- Fully Adjustable Single Rail
- Fully Adjustable Double Rail
- Other Options Available



Support Stands

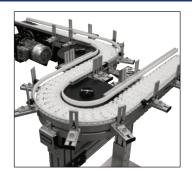
• Single, Double and Multi-Lane Structures Available

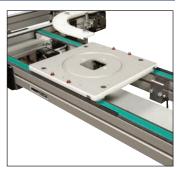


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