

XK pallet handling components

System information



Pallet handling components for conveyor system XK

The pallet handling components for conveyor system XK satisfy the demands for a sturdy pallet conveyor for medium to heavy loads in demanding environments. Heavy-duty conveyor beams, sturdy product carriers (pallets), and a strong chain permit item weights up to 30 kg. The maximum size of the products on the pallets depends on the shape of the products and the location of their centre of gravity. Robust side support components permit accumulation up to 200 kg per stop device, even in wheel bends.

The XK pallet system also includes components for construction of 45° and 90° diverters and merge devices, complete with drip pan kits.

RFID functions

All pallets are equipped with sockets for RFID chips. System components for automatic pallet handling are available. Please contact FlexLink Systems for more information

Chain for XK pallet handling

A special chain type XKTP 5 A was developed for use with the XK pallet handling system. The standard plain chain XKTP 5 cannot be used. Since XKTP 5 A can also be used in non-pallet systems, it is listed under “Conveyor chains” in catalogue section “Conveyor system XK”.

Examples of application areas

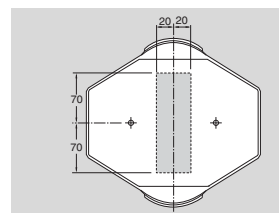
Transport and assembly of pistons, water taps, connecting rods, ball and roller bearings, gear wheels, crankshafts, and hydraulic pumps.

Function modules

Several pre-designed function modules, including merge, divert and locate functions, can be ordered using the FlexLink on-line configuration tool. Please contact FlexLink Systems for more information.

Pallet loading

The centre of gravity of the product on the pallet (including fixture) must be located inside a 40 mm × 140 mm rectangle on the pallet. See figure.

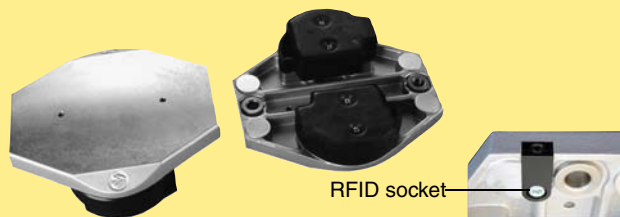


Technical characteristics

Pallet sizes (W×L×H) 200 mm × 150 mm × 53 mm
250 mm × 225 mm × 53 mm
300 mm × 300 mm × 53 mm
Max. load on pallet..... 30 kg (including pallet and fixture)

Pallets

Pallet 200×150 with RFID socket



Pallet 200 mm × 150 mm

XKPP 200×150 A

Fully assembled unit, including two guide discs and RFID socket.

Weight: 1,4 kg.

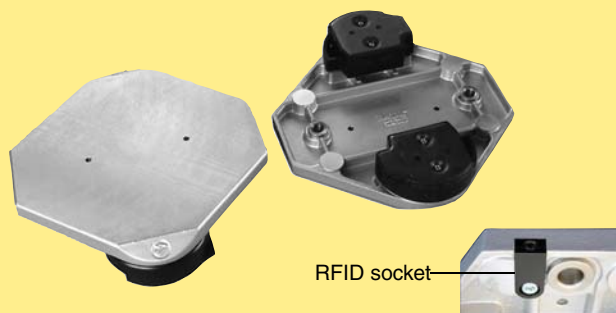
Pallet plate: cast aluminium.

Guide disc: acetal resin POM.

See page 202 for detailed pallet dimensions.

Pallet accessories/spare parts

Pallet 250×225 with RFID socket



Pallet 250 mm × 225 mm

XKPP 250×225 A

Fully assembled unit, including two guide discs and RFID socket.

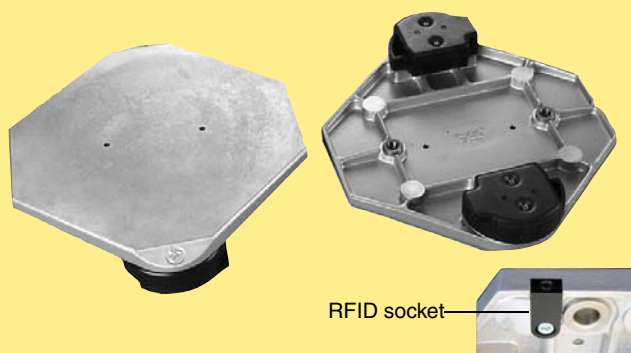
Weight: 1,8 kg.

Pallet plate: cast aluminium.

Guide disc: acetal resin POM.

See page 202 for detailed pallet dimensions.

Pallet 300×300 with RFID socket



Pallet 300 mm × 300 mm

XKPP 300×300 A

Note. This pallet cannot be accumulated through 180° bends.

Fully assembled unit, including two guide discs and RFID socket.

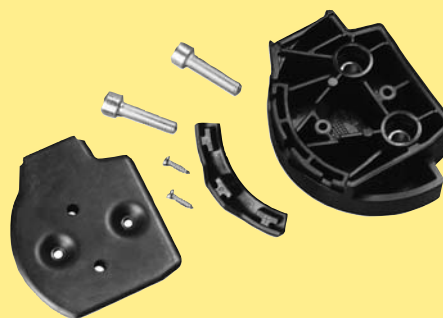
Weight: 2,3 kg.

Pallet plate: cast aluminium.

Guide disc: acetal resin POM.

See page 203 for detailed pallet dimensions.

Guide disc for pallet



Guide disc

XKPG 105 A

Body: acetal resin POM

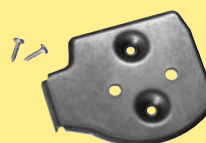
Weight: 0,24 kg

See page 203 for detailed guide disc information.

Including screws, slide plate, shock absorber.

Note. The previous version of this product (**XKPG 105**) can be ordered as a spare part.

Slide plate for pallet



Slide plate

XKPS 105

Steel. Including screws

Shock absorber for pallet

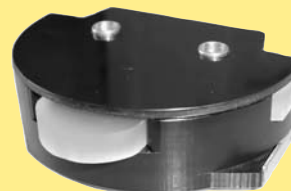


Shock absorber

Polyurethane

3926430

Guide disc with integrated damping function



Guide disc with damping

XKPG D105 A

Body: acetal resin POM.

Shock absorber: polyurethane.

Weight: 0,38 kg.

See page 203 for detailed guide disc information.

Including screws, slide plate, shock absorber.

Note. The previous version of this product (**XKPG D105**) can be ordered as a spare part.

RFID tag

The RFID tag is a passive 15-bit data code tag operating at 125 kHz. The tag can be read reliably at speeds up to 30 m/min. The tag has an M5 grub screw like design and is mounted in a plastic holder.



RFID tag **5058153**

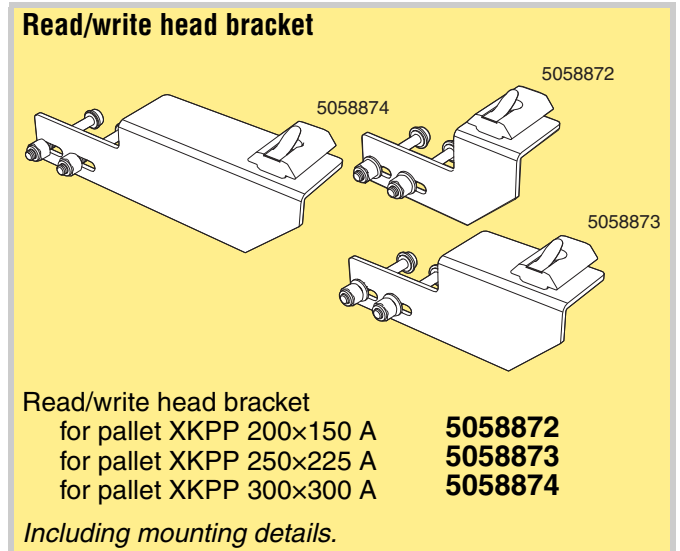
1) The RFID tag holder is included in all pallets

Read/write head

The read/write heads exchange data with the passive RFID tags at a maximum distance of 20 mm. The read/write head has an M12 connector. The M12 cable is connected to an M12 ASi socket. Up to 31 read/write heads can be connected to one ASi system.



Read/write head **5058152**

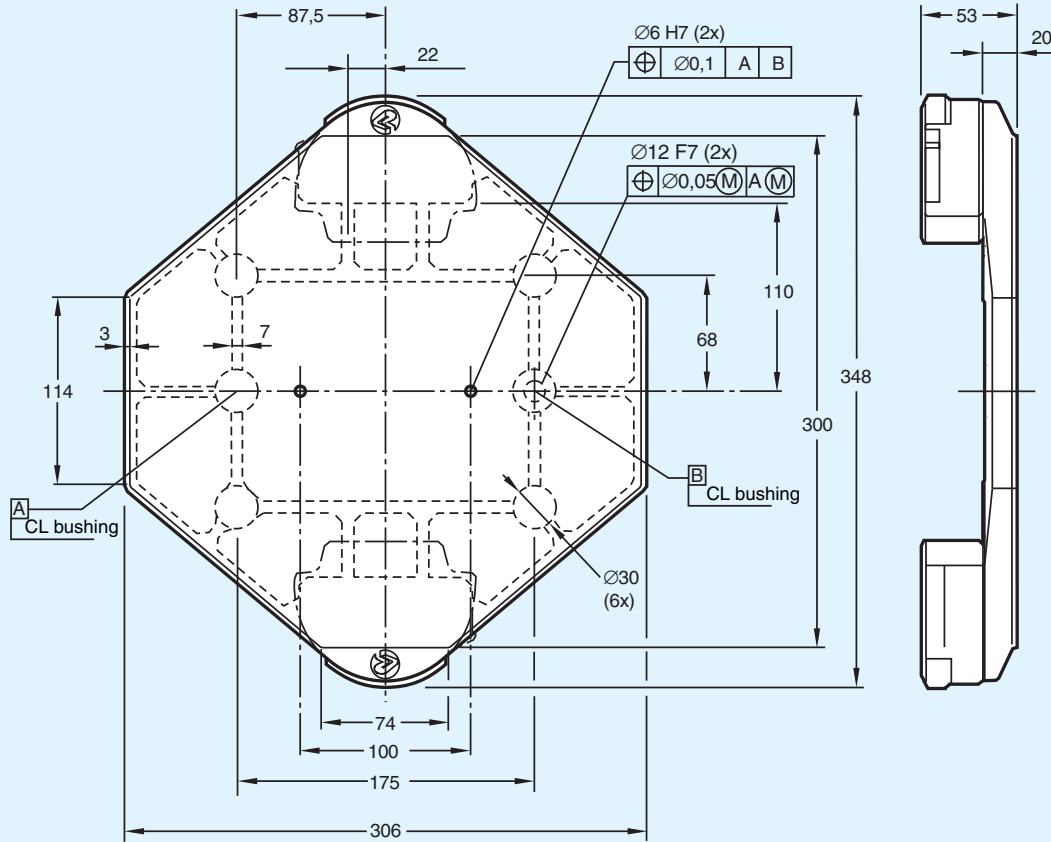


Read/write head bracket
 for pallet XKPP 200×150 A **5058872**
 for pallet XKPP 250×225 A **5058873**
 for pallet XKPP 300×300 A **5058874**

Including mounting details.

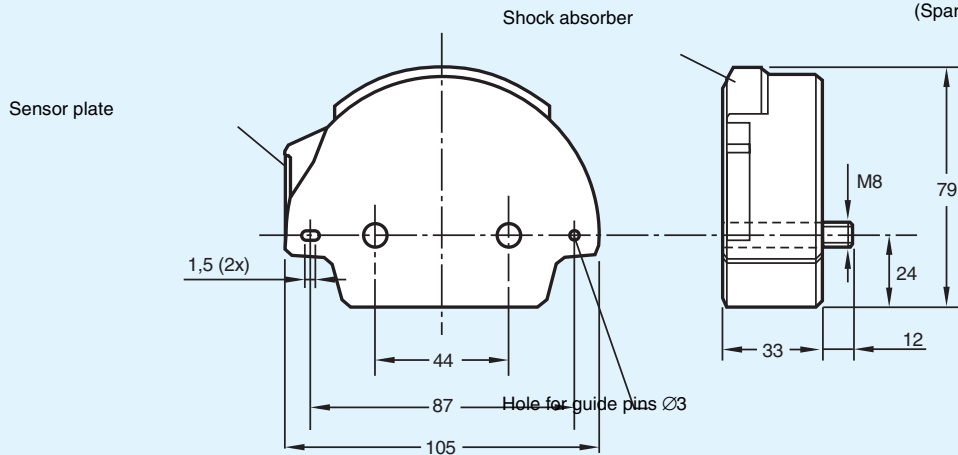


XKPP 300x300



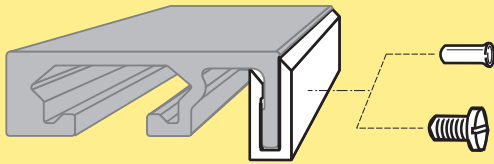
XKPG 105

(Spare part only)



Slide rails

Slide rails



Slide rail

Length 25 m
UHMW-PE (White)
PVDF (Transparent white)
PA-PE (Grey)

XKCR 25 U
XWCR 25 P
XKCR 25 H

Plastic screw for slide rail

XWAG 5*

Aluminium rivet (brown colour)

XLAH 4x7**

*Note. Must be ordered in multiples of 50

**Note. Must be ordered in multiples of 250

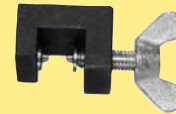
Rivet crimping pliers



Rivet crimping pliers
For 4 mm rivets

5051395

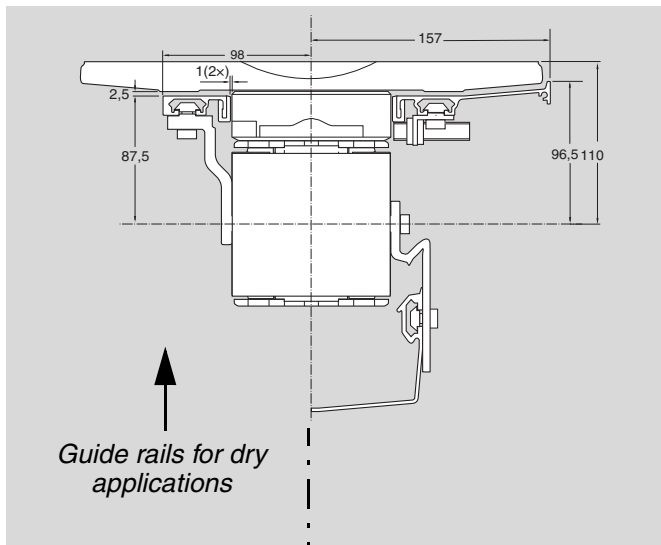
Rivet crimping clamp



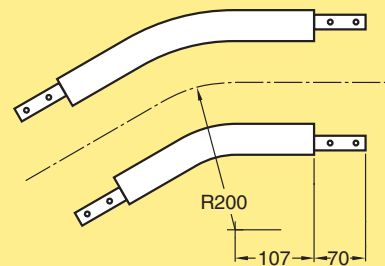
Rivet crimping clamp
For 4 mm rivets

3923005

Guide rails (dry applications)



Guide rails for pallets in bends 30°



Guide rail for pallets in bends

Outer guide rail, 30°

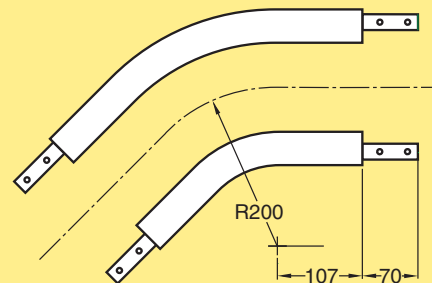
3927174

Inner guide rail, 30°

3927170

Including connecting strips

Guide rails for pallets in bends 45°



Guide rail for pallets in bends

Outer guide rail, 45°

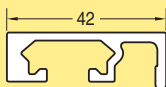
3927173

Inner guide rail, 45°

3927169

Including connecting strips

Straight guide rail



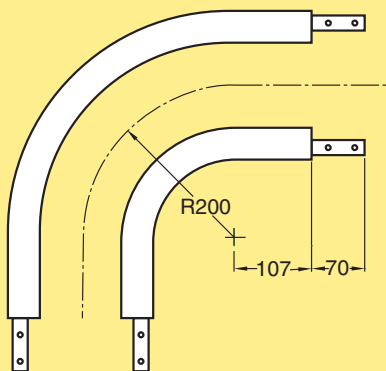
Guide rail

Length 3 m

XKRS 3x42

Guide rail bracket: see page 206.

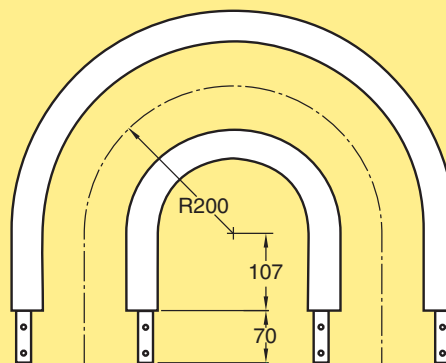
Guide rails for pallets in bends 90°



Guide rail for pallets in bends
Outer guide rail, 90° **3927172**
Inner guide rail, 90° **3927168**

Including connecting strips

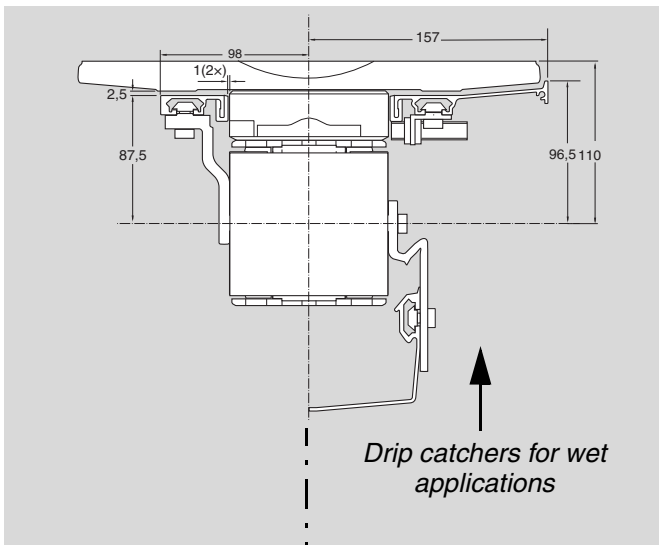
Guide rails for pallets in bends 180°



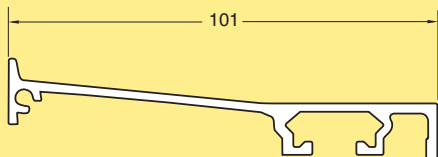
Guide rail for pallets in bends
Outer guide rail, 180° **3927171**
Inner guide rail, 180° **3927167**

Including connecting strips

Drip catchers (wet applications)



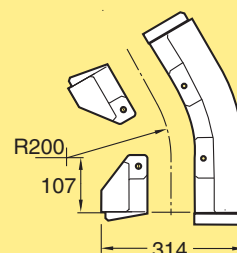
Straight guide rail with drip catcher



Guide rail with drip catcher
Length 3 m **XKRS 3x100**

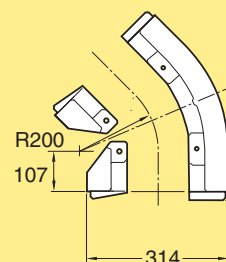
Guide rail bracket: see page 206.

Drip catcher for wheel bend 30°



Drip catcher kit for 30° bend **XKDW 30R355**
ABS plastic. Including screw kit

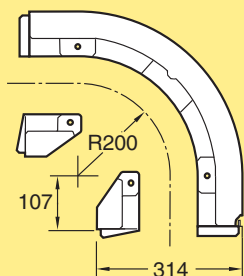
Drip catcher for wheel bend 45°



Drip catcher kit for 45° bend **XKDW 45R355**
ABS plastic. Including screw kit

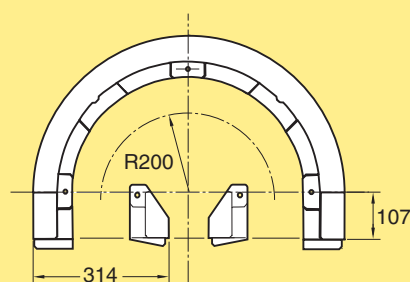
Drip catchers (wet applications, continued)

Drip catcher for wheel bend 90°



Drip catcher kit for 90° bend **XKDW 90R355**
ABS plastic. Including screw kit

Drip catcher for wheel bend 180°



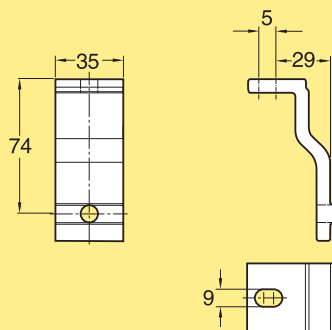
Drip catcher kit for 180° bend **XKDW 180R355**
ABS plastic. Including screw kit

Drip trays

Drip tray
Length 3 m **XKDT 3x147**
See page 195 for more information.

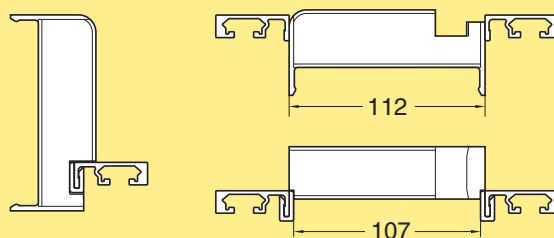
Accessories and tools

Guide rail bracket



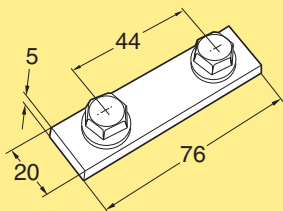
Guide rail bracket for XK pallets **XKRB 30x74**
Note. Designed for use with chain XKTP 5 A. Chain XKTP 5 cannot be used for XK pallet handling.

Mounting toolkit for guide rail



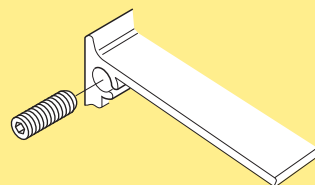
Mounting toolkit for guide rail **3926757**
Use the kit to ensure that the guide rails are attached with a correct and consistent spacing. Including assembly instructions

Connecting strips for XK guide rails



Connecting strips for XK guide rails **3924731**
Two connecting strips with screws

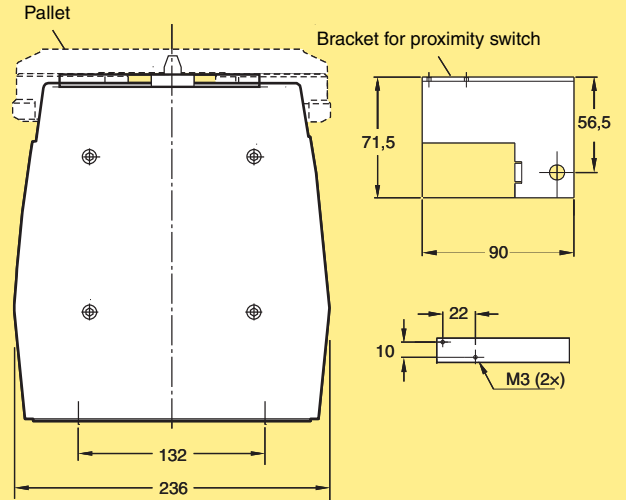
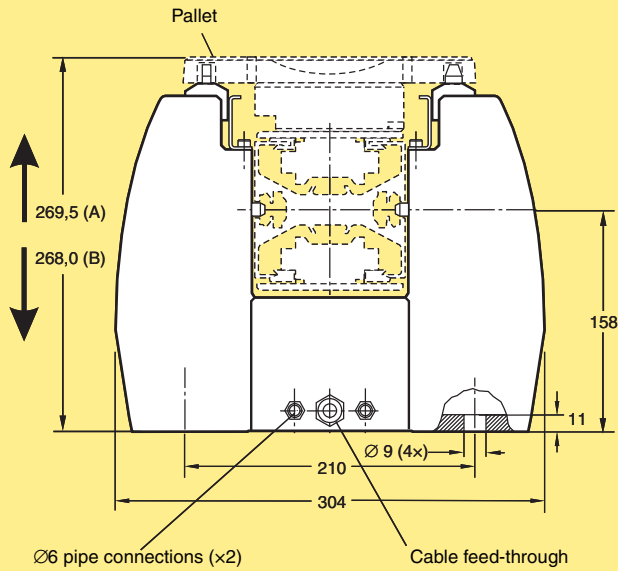
Set screw (used as guide pin)



Set screw, ISO 7436: 1983 M4x 20 **SK6SS 4x20**
Note. Must be ordered in multiples of 50

P0
X45
XS
XL
XLP
X85
X85P
XH
XK
XKP
XB
GR
CS
XT
XC
XF
XD
FST
XMY
XLX
XMX
GRX
CSX
ELV
CTL
TR
APX
IDX

Pallet locating station



Pneumatic locating station

(A) = located, (B) = non-located.

Note. Designed for use with chain XKTP 5 A. Chain XKTP 5 cannot be used for XK pallet handling. Frame: cast aluminium. Rulers and guide pins: hardened steel.

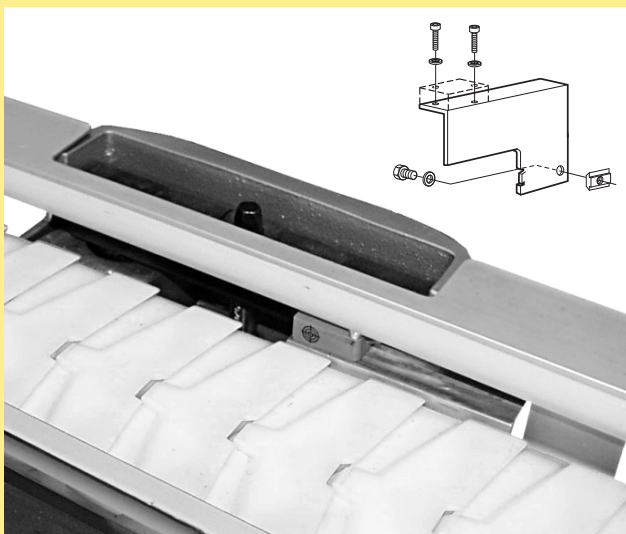
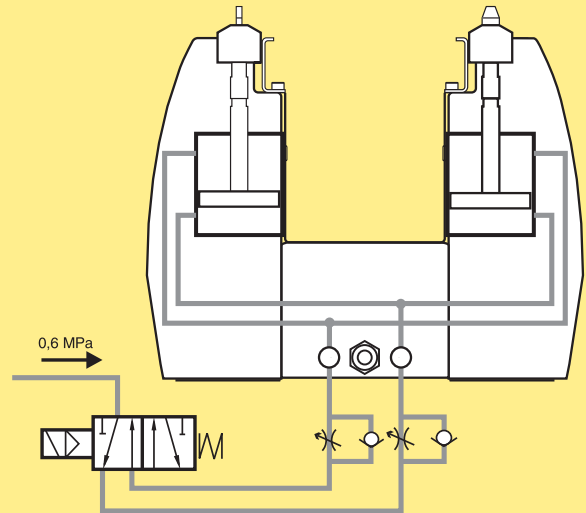
Locating accuracy: $\pm 0,1$ mm. Maximum vertical force per ruler at 0,6 MPa: 600 N including pallet weight.

The locating station should be installed on a separate support which is not rigidly connected to the conveyor beam.

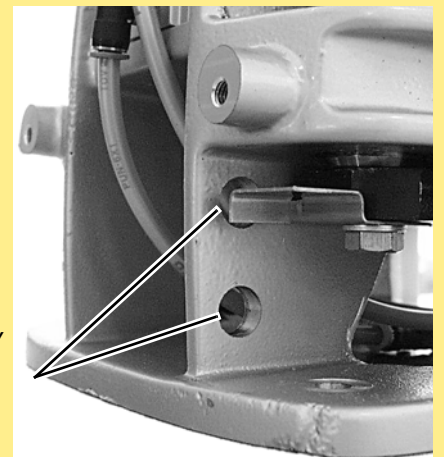
Specify the locating station with guide rails with or without drip catcher.

Proximity switches are not supplied by FlexLink Systems. To indicate "pallet ready to lift", a SICK proximity switch (IQ 10 series, sensing range 6 mm) or similar can be used. See figure below.

XKPx 175 A

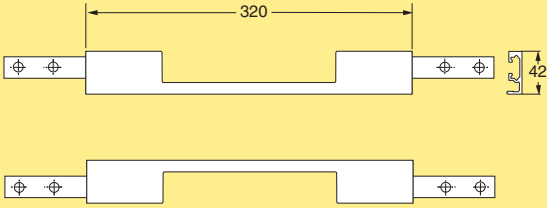


Two $\varnothing 12$ holes are prepared in the locating station for additional proximity switches, to indicate lifting of the pallet.



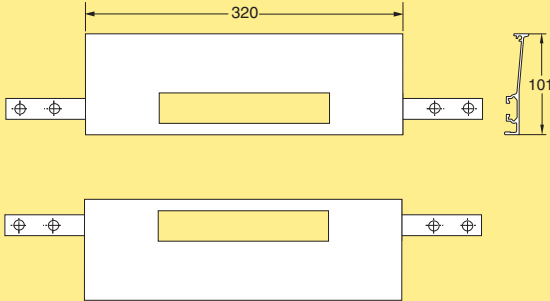
Locating station accessories

Guide rail kit for locating station



Guide rail kit for locating station **3927386**
One pair, including connecting strips

Guide rail kit with drip catcher for locating station



Guide rail kit for locating station
With integrated drip catcher **3927387**
One pair, including connecting strips

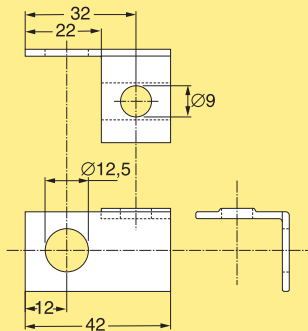
About proximity switches

The proximity switch (not supplied by FlexLink) must have a minimum effective sensing distance of 3,5 mm to the steel initiator plate.

Example: the effective sensing distance for SICK (IM12 sensing range 6 mm) is 4,86 mm. This is calculated as follows: $6 \text{ mm} \times 0,81^* = 4,86 \text{ mm}$.

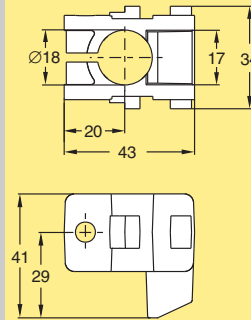
*Useful sensing range = $0,81 \times$ nominal sensing range.

Bracket for horizontal proximity switch



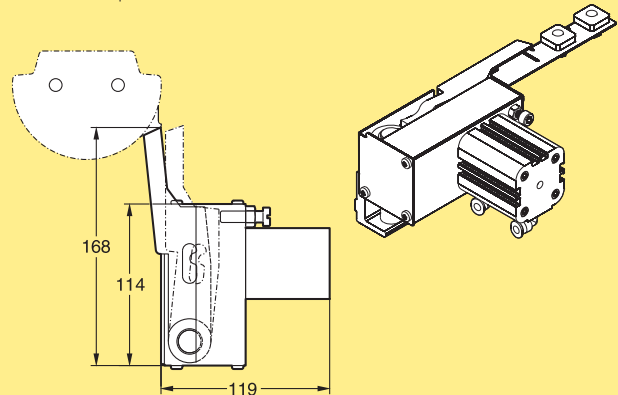
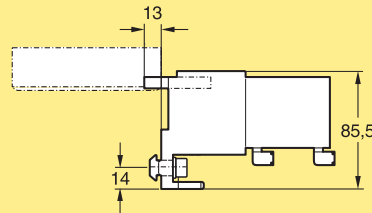
Bracket for horizontal proximity switch $\varnothing 12 \text{ mm}$ **XKPB 12 H**

Bracket for horizontal proximity switch



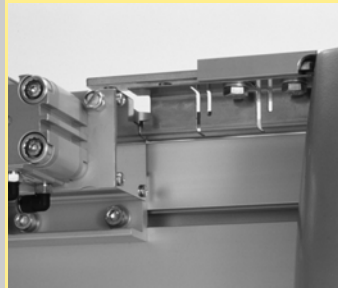
Bracket for horizontal proximity switch $\varnothing 18 \text{ mm}$ **XKPB 18 H**
Acetal resin. Including screw, T-slot nut and washer

Pneumatic stop for pallet locating station



Pneumatic stop for pallet locating station, double-actuated **XKPD 32x15 LB**

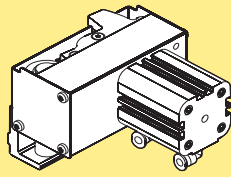
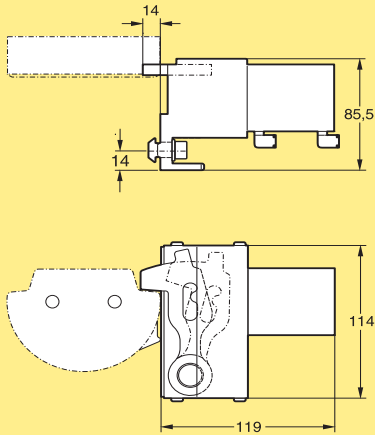
Housing: anodized aluminium. Cover: stainless steel.
For use with cylinder position sensor. Including $\varnothing 6$ pipe connections and the necessary mounting hardware.



The stop device comes with a cover for the stop lever. The cover dimensions are for use with the largest pallet. It can easily be cut for use with the other standard pallet sizes. The cover is fastened to the T-slot of the guide rail.

Note. Designed for use with chain XKTP 5 A. Chain XKTP 5 cannot be used for XK pallet handling.

Pneumatic stop

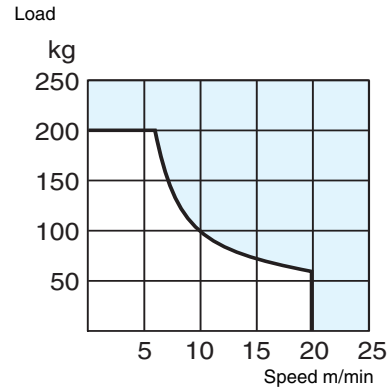


Pneumatic stop device
Double-actuated

XKPD 32x15 B

Housing: anodized aluminium. Cover: stainless steel. For use with cylinder position sensor. Including Ø6 pipe connections and the necessary mounting hardware. Connection: G 1/8". Stroke: 15 mm. Locating accuracy: ±1 mm.

Note. Designed for use with chain XKTP 5 A. Chain XKTP 5 cannot be used for XK pallet handling.



The diagram shows the maximum permissible weight of a group of pallets (product weight + pallet weight) that the stop device is capable of stopping, as a function of the conveyor speed.

Proximity switches

See page 208.

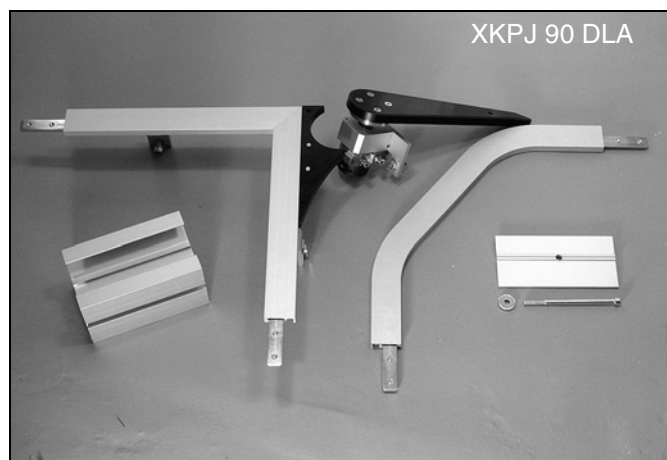
About pallet divert/merge devices

Diverter kits

A diverter kit contains:

- Connection components to interconnect the conveyors.
- Diverter arm assembly, including pneumatic cylinder and attachment components.
- Preassembled guide rails (42 mm or 101 mm) for guidance of the pallets in the diverter area.
- Mounting hardware.
- Detailed assembly instructions.

The diverter kits are delivered complete with pneumatic pipe connections and mounting bracket type Festo WSR-16-J for inductive transducers with M8 threads.



Combined divert/merge kits

A combined divert/merge device kit contains:

- Stay bracket to interconnect the conveyors.
- Diverter arm assembly, including pneumatic cylinder and attachment components.
- Preassembled guide rails (42 mm or 101 mm) for guidance of the pallets in the diverter area.
- Mounting hardware.
- Detailed assembly instructions.

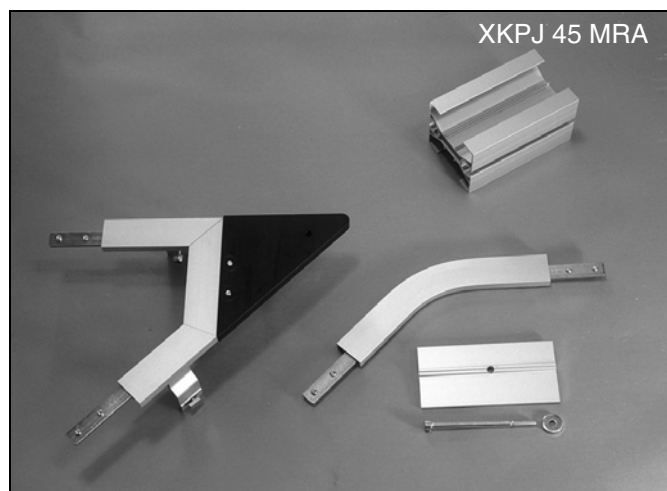
The combined divert/merge device kits are delivered complete with pneumatic pipe connections and mounting bracket type Festo WSR-16-J for inductive transducers with M8 threads.



Merge kits

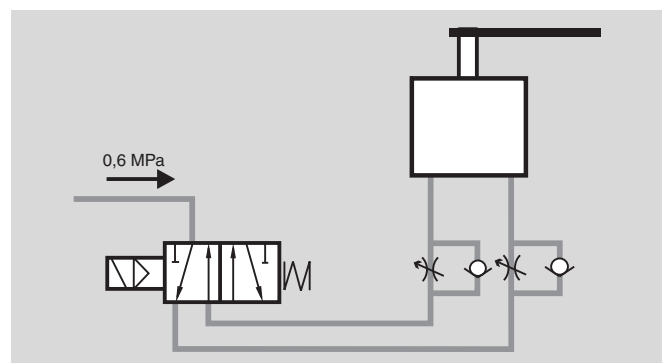
A pallet merge kit contains:

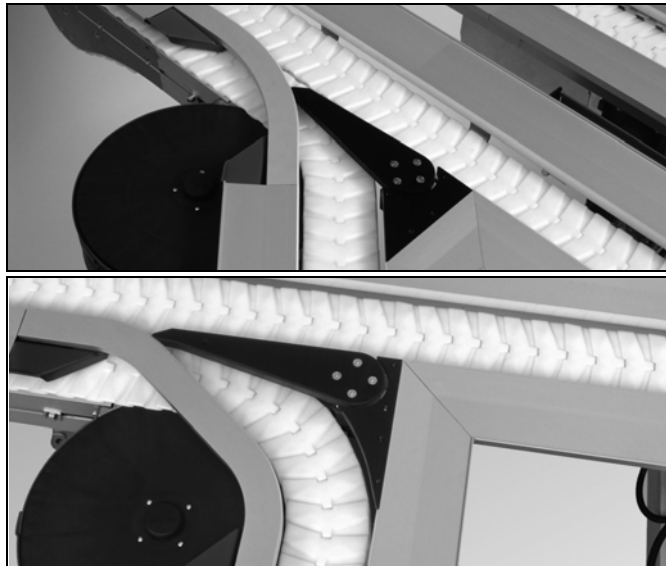
- Connection components to interconnect the conveyors.
- Preassembled guide rails (42 mm or 101 mm) for guidance of the pallets in the merge area.
- Mounting hardware.
- Detailed assembly instructions.



Pneumatics

Applies to diverter kits and combined divert/merge kits.





Pallet diverter kit, 45°/42 mm

Pallet diverter kit, 45°
 42 mm guide rail
 Diversion left **XKPJ 45 DLA**
 Diversion right (not shown) **XKPJ 45 DRA**

*Side guides, diverter arm: Acetal resin.
 Including the necessary mounting hardware.
 Note. Designed for use with chain XKTP 5 A. Chain XKTP 5 cannot be used for XK pallet handling.*

Pallet diverter kit, 90°/42 mm

Pallet diverter kit, 90°
 42 mm guide rail
 Diversion left **XKPJ 90 DLA**
 Diversion right (not shown) **XKPJ 90 DRA**

*Side guides, diverter arm: Acetal resin.
 Including the necessary mounting hardware.
 Note. Designed for use with chain XKTP 5 A. Chain XKTP 5 cannot be used for XK pallet handling.*

Pallet diverter kit, 45°/101 mm

Pallet diverter kit, 45°
 101 mm guide rail, drip catcher
 Diversion left **XKPJ 45 DLWA**
 Diversion right (not shown) **XKPJ 45 DRWA**

*Side guides, diverter arm: Acetal resin.
 Including the necessary mounting hardware.
 Note. Designed for use with chain XKTP 5 A. Chain XKTP 5 cannot be used for XK pallet handling.*

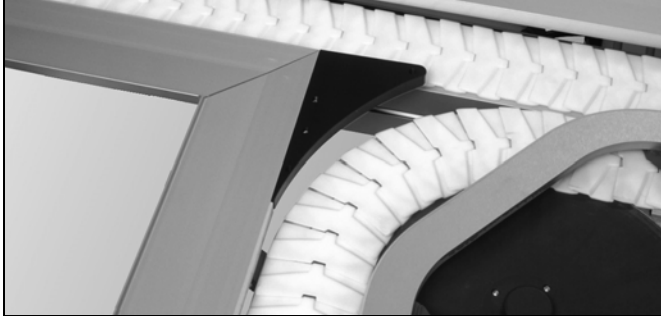
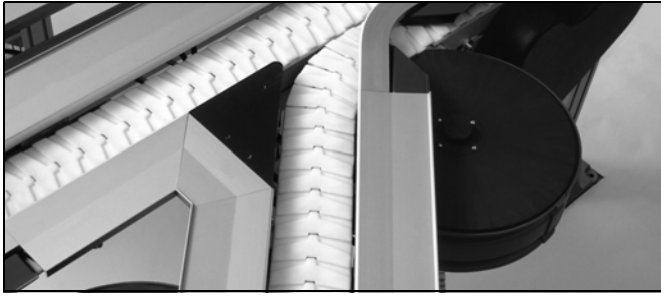
Pallet diverter kit, 90°/101 mm

Pallet diverter kit, 90°
 101 mm guide rail, drip catcher
 Diversion left **XKPJ 90 DLWA**
 Diversion right (not shown) **XKPJ 90 DRWA**

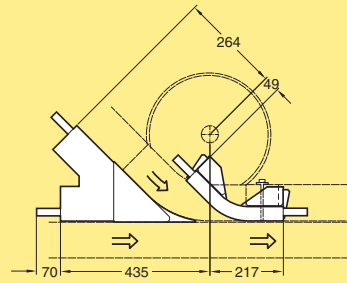
*Side guides, diverter arm: Acetal resin.
 Including the necessary mounting hardware.
 Note. Designed for use with chain XKTP 5 A. Chain XKTP 5 cannot be used for XK pallet handling.*

P0
 X45
 XS
 XL
 XLP
 X85
 X85P
 XH
 XK
 XKP
 XB
 GR
 CS
 XT
 XC
 XF
 XD
 FST
 XMY
 XLX
 XMX
 GRX
 CSX
 ELV
 CTL
 TR
 APX
 IDX

Pallet merge kits



Pallet merge kit, 45°/101 mm



Pallet merge kit, 45°

101 mm guide rail, drip catcher

Merge from left

Merge from right (not shown)

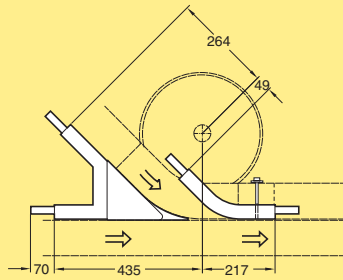
XKPJ 45 MLWA
XKPJ 45 MRWA

Side guides: Acetal resin.

Including the necessary mounting hardware.

Note. Designed for use with chain XKTP 5 A. Chain XKTP 5 cannot be used for XK pallet handling.

Pallet merge kit, 45°/42 mm



Pallet merge kit, 45°

42 mm guide rail

Merge from left

Merge from right (not shown)

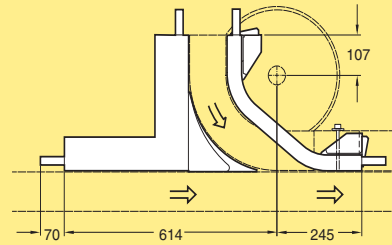
XKPJ 45 MLA
XKPJ 45 MRA

Side guides: Acetal resin.

Including the necessary mounting hardware.

Note. Designed for use with chain XKTP 5 A. Chain XKTP 5 cannot be used for XK pallet handling.

Pallet merge kit, 90°/101 mm



Pallet merge kit, 90°

101 mm guide rail, drip catcher

Merge from left

Merge from right (not shown)

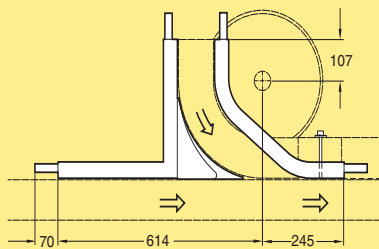
XKPJ 90 MLWA
XKPJ 90 MRWA

Side guides: Acetal resin.

Including the necessary mounting hardware.

Note. Designed for use with chain XKTP 5 A. Chain XKTP 5 cannot be used for XK pallet handling.

Pallet merge kit, 90°/42 mm



Pallet merge kit, 90°

42 mm guide rail

Merge from left

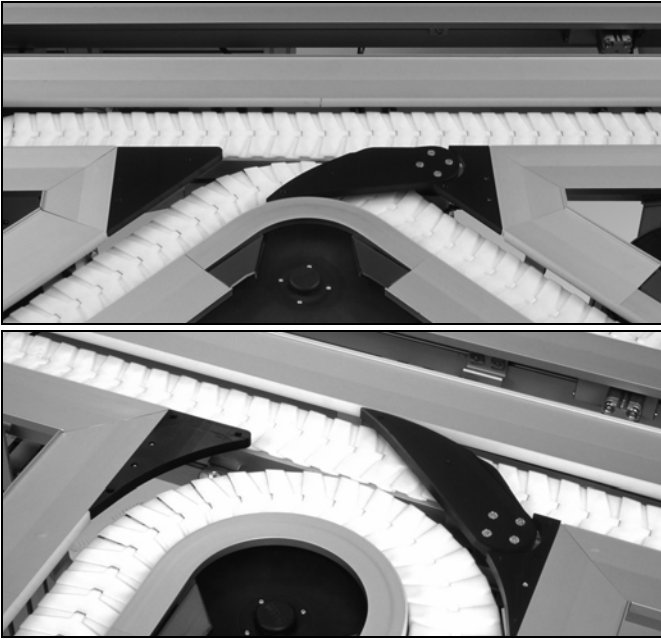
Merge from right (not shown)

XKPJ 90 MLA
XKPJ 90 MRA

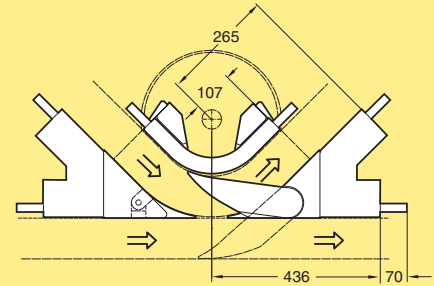
Side guides: Acetal resin.

Including the necessary mounting hardware.

Note. Designed for use with chain XKTP 5 A. Chain XKTP 5 cannot be used for XK pallet handling.



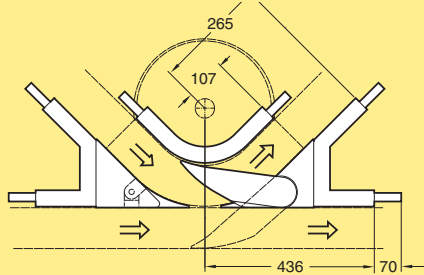
Pallet divert/merge kit, 45°/101 mm



Pallet divert/merge kit, 45°
 101 mm guide rail, drip catcher
 Diversion/merge left **XKPJ 45 CLWA**
 Diversion/merge right (not shown) **XKPJ 45 CRWA**

Side guides, diverter arm: Acetal resin.
 Including the necessary mounting hardware.
 Note. Designed for use with chain XKTP 5 A. Chain
 XKTP 5 cannot be used for XK pallet handling.

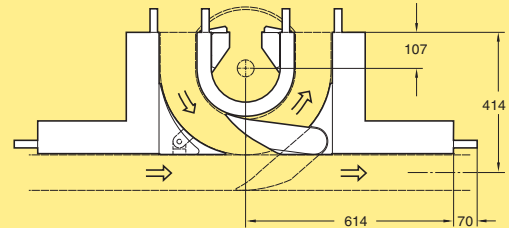
Pallet divert/merge kit, 45°/42 mm



Pallet divert/merge kit, 45°
 42 mm guide rail
 Diversion/merge left **XKPJ 45 CLA**
 Diversion/merge right (not shown) **XKPJ 45 CRA**

Side guides, diverter arm: Acetal resin.
 Including the necessary mounting hardware.
 Note. Designed for use with chain XKTP 5 A. Chain
 XKTP 5 cannot be used for XK pallet handling.

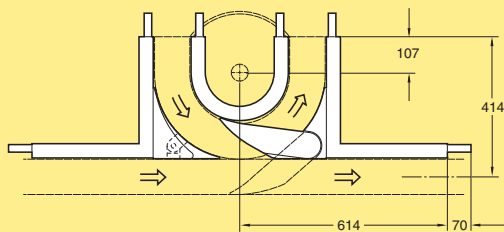
Pallet divert/merge kit, 90°/101 mm



Pallet divert/merge kit, 90°
 101 mm guide rail, drip catcher
 Diversion/merge left **XKPJ 90 CLWA**
 Diversion/merge right (not shown) **XKPJ 90 CRWA**

Side guides, diverter arm: Acetal resin.
 Including the necessary mounting hardware.
 Note. Designed for use with chain XKTP 5 A. Chain
 XKTP 5 cannot be used for XK pallet handling.

Pallet divert/merge kit, 90°/42 mm



Pallet divert/merge kit, 90°
 42 mm guide rail
 Diversion/merge left **XKPJ 90 CLA**
 Diversion/merge right (not shown) **XKPJ 90 CRA**

Side guides, diverter arm: Acetal resin.
 Including the necessary mounting hardware.
 Note. Designed for use with chain XKTP 5 A. Chain
 XKTP 5 cannot be used for XK pallet handling.

P0
 X45
 XS
 XL
 XLP
 X85
 X85P
 XH
 XK
 XKP
 XB
 GR
 CS
 XT
 XC
 XF
 XD
 FST
 XMY
 XLX
 XMX
 GRX
 CSX
 ELV
 CTL
 TR
 APX
 IDX

