Guide rail components

Guide rail components

Guide rails are used to guide the products being conveyed and also to prevent them from falling off the conveyor. The conveyor system includes a versatile system of guide rails and guide rail brackets which make it possible to accommodate many different product sizes and shapes. Guide rail brackets are available in fixed or adjustable configurations.

Most guide rail components in this catalogue section can be used with any of the sizes XS, X45 H, X65, X85, XH, XK, X180/X300 and WL.

Note however that the distance from the T-slot in the conveyor beam to the top of chain (TOC) varies between conveyor platforms and with the chain selection. Special guide rail systems are used for the X65, X85 and XK pallet systems.

Note

Mounting hardware for guide rail brackets etc. must be ordered separately, unless otherwise noted.

Adjustable guide rail components

The guide rail components assortment includes several adjustable guide rail bracket components which allow manual width adjustment without the use of tools, for reduced setup time. A guide rail system for automatic adjustment of the track width has been developed. See page 327.

Distance between brackets

The distance between guide rail brackets depends on the side forces to be expected, and on the guide rail type and material. In buffer conveyors with side forces, much shorter distances between brackets are required than in non-buffering applications. The distance should be somewhere between 0,3 m and 1,5 m.
Track width calculations

Basic parameters
The calculations of resulting track width require insertion of values for beam width $W_B$ and spacer width $A$. See Tables 1 and 2. $A$ is the sum of all spacers on one side.

<table>
<thead>
<tr>
<th>Table 1. Beam width</th>
<th>Table 2. Spacer width</th>
</tr>
</thead>
<tbody>
<tr>
<td>System</td>
<td>$W_B$ mm</td>
</tr>
<tr>
<td>X45H</td>
<td>45</td>
</tr>
<tr>
<td>XS</td>
<td>45</td>
</tr>
<tr>
<td>X65</td>
<td>65</td>
</tr>
<tr>
<td>X85</td>
<td>85</td>
</tr>
<tr>
<td>XH, XK</td>
<td>105</td>
</tr>
<tr>
<td>X180/X300</td>
<td>182/300</td>
</tr>
</tbody>
</table>

Parameters $W_B$ and $A$

Using guide rail bracket support XLRF 42x18 V/VD
The following formula can be used to calculate the track width for a specific symmetrical combination of supports, clamps, and guide rails. For $W_B$ and $A$: see Tables 1 and 2 in “Basic parameters”, page 304. For parameter $B$: see Tables 3 and 4.

$$W = W_B + 2A + 80 - 2B$$

<table>
<thead>
<tr>
<th>Table 3. Parameter $B$ when using support type XLRF 42x18 V/VD and XLRK/XLRL guide rail clamps</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guide rail</td>
</tr>
<tr>
<td>------------</td>
</tr>
<tr>
<td>XLRF 18x60 C</td>
</tr>
<tr>
<td>XLRF 18x80 C</td>
</tr>
<tr>
<td>XLRL 18x110 C</td>
</tr>
<tr>
<td>XLRF 18 CE</td>
</tr>
</tbody>
</table>

Note
The illustration shows a design with vertical 18 mm tube and cross connector XLRX 18 X. An alternative is to use guide rail clamp support Type CA (XLRL 18x... CA). The $B$ values are the same.

Clamp type XLRK 18 CE is used in combination with a piece of horizontal 18 mm tube XLRR ...x18 C.

<table>
<thead>
<tr>
<th>Table 4. Parameter $B$ when using support type XLRF 42x18 V/VD and quick release guide rail clamp support XLRL 18x97 CQ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guide rail</td>
</tr>
<tr>
<td>------------</td>
</tr>
<tr>
<td>XLRL 18x120 C</td>
</tr>
<tr>
<td>XLRL 18x120 C</td>
</tr>
</tbody>
</table>

*Suitable for stainless steel applications.

Note.
Guide rail clamp XLRK 12x100 D69 cannot be used with the quick release guide rail clamp support.
Track width calculations (continued)

**Using guide rail bracket support XLRF 42x62 A35/110**

The following formula can be used to calculate the track width for a specific symmetrical combination of supports, clamps, and guide rails (see illustrations). For \( W_B \) and \( A \): see Table 1 and 2. For parameter \( B \): see Table 5.

\[
W = W_B + 2A + 84 - 2B
\]

**Table 5. Parameter \( B \) when using support type XLRF 42x62 A35/110**

<table>
<thead>
<tr>
<th>Guide rail</th>
<th>( B ) mm</th>
<th>( 10 ) mm</th>
<th>( 15 ) mm</th>
<th>( 15+2 ) mm</th>
<th>( 18 ) mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>XLRF 18x40</td>
<td>28–43</td>
<td>33–48</td>
<td>35–50</td>
<td>28–43</td>
<td></td>
</tr>
<tr>
<td>XLRF 18x60</td>
<td>28–63</td>
<td>33–68</td>
<td>35–70</td>
<td>28–63</td>
<td></td>
</tr>
<tr>
<td>XLRF 18x80</td>
<td>28–83</td>
<td>33–88</td>
<td>35–90</td>
<td>28–83</td>
<td></td>
</tr>
<tr>
<td>XLRF 18 CE</td>
<td>44–</td>
<td>49–</td>
<td>51–</td>
<td>45–</td>
<td></td>
</tr>
</tbody>
</table>

**Note**

The maximum \( B \) value for XLRF 18x40/60/80 C applies to the guide rail clamp installed at the top level. At lower levels the maximum \( B \) value is up to 5 mm smaller.

The lowest level of XLRF 42x62 A35/110 cannot be used in an X180 conveyor for track widths smaller than 170 mm.

XLRF 18 CE is used in combination with 18 mm tube XLRR ...x18 C.

**Using guide rail bracket support XLRF 30x71 K**

The following formula can be used to calculate the track width for a specific symmetrical combination of supports, clamps, and guide rails. For \( W_B \) and \( A \): see Table 1 and 2. For parameter \( B \): see Table 6.

\[
W = W_B + 2A + 90 - 2B
\]
Examples

Fixed guide rail support

A. Guide rails with fixed guide rail brackets
B. Guide rails with fixed guide rail brackets, polyamide

Adjustable guide rail support

C. Guide rails with adjustable guide rail brackets, aluminium
D. Guide rails with polyamide guide rail brackets adjustable in height
E. Guide rails at two levels with polyamide guide rail brackets, adjustable in width
F. Guide rails with quick adjust guide rail support
G. Guide rails with built-up guide rail brackets
H. Roller module guide rails with polyamide guide rail brackets
I. Two-level guide rail structure with polyamide guide rail bracket components
1. Guide rails with XLRF 42×62 A110
2. Guidance of wide & high products
3. Twin-level steel guide rails

4. Guide rails with XLRF 42×62 A35
5. Double track guide rails
6. Steel guide rails, quick adjustment

7. Application for tissue paper
8. Attachment of sensors I
9. Plastic/aluminium guide rails, quick adjustment
10. Adjustable in width and height

11. Guidance of bottles, etc.

12. Roller module guidance, quick adjustment

13. Quick-release guide rail brackets

14. Attachment of sensors II
Circular guide rails

Steel rod 12 mm
Straight steel rod 12 mm
Stainless steel
Length 3 m

5048965

Guide rails 10 mm

Guide rail 10 mm, aluminium
Straight rail 10 mm
Aluminium, length 3 m

XLRS 3×10

Guide rail 10 mm, steel
Straight rail 10 mm
Steel, length 3 m

XLRS 3×10 T

Guide rail 10 mm, polyethylene
Flexible rail 10 mm
Polyethylene, length 3 m

XLRS 3×10 P

Aluminium tube 18 mm
Aluminium tube 18 mm

See page 322

XLR ...×18 C

Guide rail 10 mm, aluminium, flanged
Straight rail 10 mm, flanged
Aluminium, length 3 m

XLRS 3×10 F

Connecting plug 10 mm
Connecting plug 10 mm

XLRJ 10


End plug, 10 mm
End plug 10 mm

XLRE 10

Guide rails 15 mm

Guide rail 15 mm, aluminium

Guide rail 15 mm, polyethylene

Guide rail cover for 15 mm aluminium guide rail

Guide rail cover, flanged, for 15 mm aluminium guide rail

Connecting plug, 15 mm

End plug, 15 mm

Flocked tape

Guide rail bending machine
Connecting sleeve

Including set screws. For connecting two 10 mm or 15 mm XLRS guide rails end to end.

Flexible roller module

Mounting to profile 5050889: SK6SS 4×20

Roller module profile

For use with roller module 5050902 A. Use connecting strip XLCJ 5×140 for joints.
Guide discs

Guide discs are used in place of conventional guide rail for the inner bend of Plain bends/Bend drive units. The guide discs are snap-fitted onto the large discs.

The guide discs correspond to fixed guide rail brackets as shown in the following tables. Other combinations are possible if a non-symmetrical track can be accepted.

Conveyor system XS. Outer guide rail: 10 mm

<table>
<thead>
<tr>
<th>Track width</th>
<th>Guide rail bracket</th>
<th>Guide disc</th>
</tr>
</thead>
<tbody>
<tr>
<td>56 mm</td>
<td>XLRB 11x30</td>
<td>XLRG 235</td>
</tr>
<tr>
<td>80 mm</td>
<td>XLRB 23x30</td>
<td>XLRG 212</td>
</tr>
<tr>
<td>104 mm</td>
<td>XLRB 35x30</td>
<td>XLRG 187</td>
</tr>
<tr>
<td>130 mm</td>
<td>XLRB 48x30</td>
<td>XLRG 162</td>
</tr>
</tbody>
</table>

Conveyor system X65. Outer guide rail: 10 mm

<table>
<thead>
<tr>
<th>Track width</th>
<th>Guide rail bracket</th>
<th>Guide disc</th>
</tr>
</thead>
<tbody>
<tr>
<td>67 mm</td>
<td>XLRB 11x30</td>
<td>XLRG 235</td>
</tr>
<tr>
<td>90 mm</td>
<td>XLRB 23x30</td>
<td>XLRG 212</td>
</tr>
<tr>
<td>115 mm</td>
<td>XLRB 35x30</td>
<td>XLRG 187</td>
</tr>
<tr>
<td>140 mm</td>
<td>XLRB 48x30</td>
<td>XLRG 162</td>
</tr>
</tbody>
</table>

Conveyor system X85. Outer guide rail: 15 mm

<table>
<thead>
<tr>
<th>Track width</th>
<th>Guide rail bracket</th>
<th>Guide disc</th>
</tr>
</thead>
<tbody>
<tr>
<td>87 mm</td>
<td>XLRB 16x42</td>
<td>XLRG 235</td>
</tr>
<tr>
<td>110 mm</td>
<td>XLRB 28x42</td>
<td>XLRG 212</td>
</tr>
<tr>
<td>135 mm</td>
<td>XLRB 40x42</td>
<td>XLRG 187</td>
</tr>
<tr>
<td>160 mm</td>
<td>XLRB 53x42</td>
<td>XLRG 162</td>
</tr>
</tbody>
</table>

Conveyor system XH. Outer guide rail: 15 mm

<table>
<thead>
<tr>
<th>Track width</th>
<th>Guide rail bracket</th>
<th>Guide disc</th>
</tr>
</thead>
<tbody>
<tr>
<td>107 mm</td>
<td>XLRB 16x42</td>
<td>XLRG 235</td>
</tr>
<tr>
<td>130 mm</td>
<td>XLRB 28x42</td>
<td>XLRG 212</td>
</tr>
<tr>
<td>155 mm</td>
<td>XLRB 40x42</td>
<td>XLRG 187</td>
</tr>
<tr>
<td>180 mm</td>
<td>XLRB 53x42</td>
<td>XLRG 162</td>
</tr>
</tbody>
</table>

Note

Guide discs are not used with conveyor systems XK and X180/X300.
Fixed guide rail brackets

Effective track width

Effective track width W (see illustration) for symmetrical tracks with 15 mm guide rail. For 10 mm guide rail: add 10 mm.

<table>
<thead>
<tr>
<th>Bracket type</th>
<th>XS mm</th>
<th>X65 mm</th>
<th>X85 mm</th>
<th>XH mm</th>
<th>XK mm</th>
<th>X180 mm</th>
<th>X300 mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>XLRB 11×30</td>
<td>47</td>
<td>67</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>XLRB 23×30</td>
<td>61</td>
<td>81</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>XLRB 35×30</td>
<td>85</td>
<td>105</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>XLRB 48×30</td>
<td>111</td>
<td>131</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>XLRB 29×36</td>
<td>72</td>
<td>92</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>XLRB 16×42</td>
<td>47</td>
<td>67</td>
<td>87</td>
<td>107</td>
<td>–</td>
<td>184</td>
<td>302</td>
</tr>
<tr>
<td>XLRB 28×42</td>
<td>71</td>
<td>91</td>
<td>111</td>
<td>131</td>
<td>–</td>
<td>208</td>
<td>326</td>
</tr>
<tr>
<td>XLRB 40×42</td>
<td>95</td>
<td>115</td>
<td>135</td>
<td>155</td>
<td>–</td>
<td>232</td>
<td>350</td>
</tr>
<tr>
<td>XLRB 49×42</td>
<td>113</td>
<td>133</td>
<td>153</td>
<td>173</td>
<td>–</td>
<td>258</td>
<td>376</td>
</tr>
<tr>
<td>XLRB 53×42</td>
<td>121</td>
<td>141</td>
<td>161</td>
<td>181</td>
<td>–</td>
<td>258</td>
<td>376</td>
</tr>
<tr>
<td>XLRB 65×42</td>
<td>145</td>
<td>165</td>
<td>185</td>
<td>205</td>
<td>–</td>
<td>282</td>
<td>400</td>
</tr>
<tr>
<td>XLRB 90×42</td>
<td>195</td>
<td>215</td>
<td>235</td>
<td>255</td>
<td>–</td>
<td>332</td>
<td>450</td>
</tr>
<tr>
<td>XLRB 16×54</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>107</td>
<td>184</td>
<td>302</td>
</tr>
<tr>
<td>XLRB 40×54</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>155</td>
<td>232</td>
<td>350</td>
</tr>
<tr>
<td>XLRB 65×54</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>205</td>
<td>282</td>
<td>400</td>
</tr>
</tbody>
</table>

10 mm guide rail only

If type XLRB 35×30 is used with angle plate, use 10 mm guide rail.

Mounting hardware

Screws, nuts, and washers for mounting of guide rail brackets to the conveyor beam must be ordered separately.

Fixed guide rail bracket, aluminium (XS, X65)

Fixed guide rail bracket, aluminium (XK, X180/X300)

W=11 mm Fig. A
W=23 mm Fig. A
W=35 mm Fig. B
W=48 mm Fig. B

Fixed guide rail bracket for X65 pallets

W=29 mm

Note. Bracket type B can take angle plates when used with X65 conveyor. Type XLRB 35×30 with angle plate can only be used with 10 mm guide rail. The XLRB..×30 brackets cannot be used with a guide rail passing through the inner curve of a wheel bend. The guide rail will interfere with the wheel. If possible, use a guide disc.

Mounting to beam: XLAT 17, XLAN 8, BRB 8.4×16.
Fixed guide rail brackets (continued)

Fixed guide rail bracket, aluminium
(XS, X65, X85, XH, X180/X300)

*W=16 mm Fig. A  XLRB 16x42
W=28 mm Fig. A  XLRB 28x42
W=40 mm Fig. B  XLRB 40x42
W=49 mm Fig. B  XLRB 49x42
W=53 mm Fig. B  XLRB 53x42
W=65 mm Fig. B  XLRB 65x42
W=90 mm Fig. B  XLRB 90x42

Note. All brackets except 16 mm and 28 mm types can take angle plates when used with X85 and XH conveyor. (XLRB 40x42: angle plate XLRP 3/6 only). Although XLRB ..x42 can be used with X180/X300 conveyors, the resulting height of the guide rail is often insufficient for safe guidance, especially for the wider brackets. Use adjustable polyamide brackets or built-up brackets if type XLRB ..x54 are not suitable.

Mounting to beam: XLAT 17, XLAN 8, BRB 8.4x16.

Distance piece (aluminium)

Distance piece (aluminium)  XLRD 6
Thickness 6,25 mm
Not for conveyor system XK (use XLRD 6 C).
Suitable, longer T-bolts: see Fasteners.
Note. Contains 10 pcs.

Distance piece (aluminium) for conveyor system XK

Distance piece (aluminium) for conveyor system XK  XLRD 6 C
Thicknes 6,25 mm
Suitable, longer T-bolts: see Fasteners.
Note. Contains 10 pcs.

Distance piece (polyamide)

Distance piece (polyamide)  XLRD 6 P
Thickness 6,25 mm
Can hold angle plates (X65 only)
Not for conveyor system XK (use XLRD 6 C).
Suitable, longer T-bolts: see Fasteners.
Note. Contains 10 pcs.

Spring pin for guide rail bracket

Spring pin for guide rail bracket  XLAP 28
The spring pins are used to secure the guide rails to the guide rail brackets.
Note. Contains 50 pcs.
Adjustable guide rail brackets, aluminium

Effective track width
Effective track width W (see illustration) with 15 mm guide rail. For 10 mm guide rail: add 10 mm.

<table>
<thead>
<tr>
<th>Bracket type</th>
<th>XS</th>
<th>X65</th>
<th>X85</th>
<th>XH</th>
</tr>
</thead>
<tbody>
<tr>
<td>XLRA 8×9×45</td>
<td>16–34</td>
<td>36–54</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>XLRA 8×39×45</td>
<td>0–34</td>
<td>0–54</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>XLRA 26×9×45</td>
<td>52–70</td>
<td>72–90</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>XLRA 26×39×45</td>
<td>0–70</td>
<td>12–90</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>XLRA 16×30×52</td>
<td>0–49</td>
<td>9–69</td>
<td>29–89</td>
<td>49–109</td>
</tr>
<tr>
<td>XLRA 41×30×52</td>
<td>39–99</td>
<td>59–119</td>
<td>79–139</td>
<td>99–159</td>
</tr>
</tbody>
</table>

Bracket type | XK  | X180 | X300 |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>XLRA 16×30×64</td>
<td>49–109</td>
<td>126–186</td>
<td>246–306</td>
</tr>
<tr>
<td>XLRA 41×30×52</td>
<td>–</td>
<td>176–236</td>
<td>296–356</td>
</tr>
</tbody>
</table>

Adjustable guide rail bracket, aluminium (XS, X65, X85, XH, X180/X300)

Adjustable guide rail bracket assembly
See Figure A, C
See Figure B, C

Including bolt and nut
Note. Bracket type B can take angle plates when used with X85 and XH conveyor.
Mounting to beam: XLAT 17, XLAN 8, BRB 8.4×16.

Adjustable guide rail bracket, aluminium (XK, X180/X300)

Adjustable guide rail bracket assembly

Including bolt and nut
Mounting to beam: XLAT 17, XLAN 8, BRB 8.4×16.
Adjustable guide rail brackets, aluminium (continued)

**Distance piece (aluminium)**

**XLRD 6**

Distance piece (aluminium)  
Thickness 6,25 mm  
Not for conveyor system XK (use XLRD 6 C).  
Suitable, longer T-bolts: see Fasteners.  
Note. Contains 10 pcs.

**Distance piece (aluminium) for conveyor system XK**

**XLRD 6 C**

Distance piece (aluminium) for conveyor system XK  
Thickness 6,25 mm  
Not for conveyor system XK (use XLRD 6 C).  
Suitable, longer T-bolts: see Fasteners.  
Note. Contains 10 pcs.

**Distance piece (polyamide)**

**XLRD 6 P**

Distance piece (polyamide)  
Thickness 6,25 mm  
Can hold angle plates (X65 only)  
Not for conveyor system XK (use XLRD 6 C).  
Suitable, longer T-bolts: see Fasteners.  
Note. Contains 10 pcs.

**Spring pin for guide rail bracket**

**XLAP 28**

Spring pin for guide rail bracket  
The spring pins are used to secure the guide rails to the guide rail brackets.  
Note. Contains 50 pcs.
Fixed guide rail brackets, polyamide

**Fixed guide rail bracket, polyamide (XS, X65)**

**XLRB 11×30 C**

*Can be used with XS and X65 conveyor beam.*

*Track widths: see table on page 313.*

*Mounting to beam: XLAT 17, XLAN 8, BRB 8.4×16.*

*Do not overtighten (max torque: 10 Nm).*

**Fixed guide rail bracket, polyamide (XS, X65, X85, XH, X180/X300)**

**XLRB 16×42 C**

*Can be used with XS, X65, X85, XH, X180/X300 conveyor beam.*

*Track widths: see table on page 313.*

*Mounting to beam: XLAT 17, XLAN 8, BRB 8.4×16.*

*Do not overtighten (max torque: 10 Nm).*

**Spacer for guide rail bracket, polyamide**

**XLRD 6 A**

**XLRD 18 A**

*Distance piece Type A*

*D= 6 mm*

*D= 18 mm*

*Spacer beams are also available. See page 319.*

*Note. Contains 10 pcs.*

**Bracket support components, polyamide**

**Guide rail bracket support Type A35**

**XLRF 42×62 A35**

*Guide rail bracket support*

*To be used with guide rail clamp XLRK 18×40/60/80 C.*

*For 1–2 guide rail levels. Including screw and nut.*

*Screw can be replaced by star knob XLAR 6×20.*

*Mounting to beam: XLAT 17, XLAN 8, BRB 8.4×16.*

*Use socket wrench with 3/8" drive. Do not overtighten (max torque: 10 Nm).*

*Note. Always install dummy plugs XLAK 18 (page 318) in unused clamp positions to ensure positive locking of the adjacent clamp.*
Bracket support components, polyamide (continued)

Guide rail bracket support Type A110

Guide rail bracket support XLRF 42×62 A110
To be used with guide rail clamp XLRK 18×40/60/80 C. For 1–4 guide rail levels. Including screw and nut. Screw can be replaced by star knob XLAR 6×20
Mounting to beam: XLAT 17, XLAN 8, BRB 8.4×16
Use socket wrench with 3/8" drive. Do not overtighten (max torque: 10 Nm).
Note. Always install dummy plugs XLAK 18 (page 318) in unused clamp positions to ensure positive locking of the adjacent clamp.

Guide rail bracket support Type V

Guide rail bracket support XLRF 42×18 V
To be used with vertical 18 mm tube or rod, guide rail clamp XLRL/XLRC 18×110 C, or with quick release clamp XLRL 18×97 CQ.
Mounting to beam: XLAT 17, XLAN 8, BRB 8.4×16
Use socket wrench with 3/8" drive.
Do not overtighten (max torque: 10 Nm).
Clamp screw can be replaced by star knob XLAR 6×20

Guide rail bracket support Type K

Guide rail bracket support with star knob XLRF 30×71 K
To be used with guide rail clamps based on 12 mm steel rods, e.g. XLRK 12×100 D69, 5050986, or 5050887 (for roller module).
Mounting to beam: XLAT 17, XLAN 8, BRB 8.4×16

Guide rail bracket support Type VD

Guide rail bracket support XLRF 40×18 VD
To be used with vertical 18 mm tube or rod, or guide rail clamp XLRL/XLRC 18×110 C.
Mounting to beam: 2 each of MC6S 8×14, XLAQ 8, BRB 8.4×16

Guide rail bracket support with star knob XLRF 40×18 K
To be used with guide rail clamps based on 12 mm steel rods, e.g. XLRK 12×100 D69, 5050986, or 5050887 (for roller module).
Mounting to beam: XLAT 17, XLAN 8, BRB 8.4×16

Dummy plug

Dummy plug for XLRF 42×62 A35/110 XLAK 18
Note. Contains 10 pcs.
Reinforced Guide rail bracket support Type VH

Reinforced Guide rail bracket support, material: Zinc  XLRF 42×18 VH

To be used with vertical 18 mm tube or rod, guide rail clamp XLRL/XLRC 18×110 C, or with quick release clamp XLRL 18×97 CQ.

Mounting to beam: XLAT 17, XLAN 8, BRB 8.4×16

Use socket wrench with 3/8" drive.

Do not overtighten (max torque: 10 Nm).

Spacers

Spacer for guide rail bracket support Type A

Distance piece Type A

Polyamide

D=  6 mm
D=  18 mm

XLRD 6 A
XLRD 18 A

For use with guide rail bracket supports XLRF 42x...

Note. Contains 10 pcs.

Spacer for guide rail bracket support Type K

Distance piece Type K

Polyamide

XLRD 6 K

For use with guide rail bracket support XLRF 30×71 K

Note. Contains 10 pcs.

Spacer beam for guide rail bracket support

Spacer beam with flat sides

Length 3 m (3030 ±5 mm)

Length to order (30- 3000 mm)

XLRN 3 U
XLRN L U

For use with guide rail bracket supports XLRF 42x...

Mounting: M8 through screw BRB 8.4×16, XLAQ 8, XLRD 3 D
Spacers (continued)

**Spacer beam for guide rail bracket support**

Spacer beam with T-slots
- Length 3 m (3030 ±5 mm)
- Length to order (30-3000 mm)

*For use with guide rail bracket supports XLRF 42x...*

Mounting, conveyor beam side: XCFA 44 B (2), XLAT 17 (4), XLAN 8 (4)
Mounting, bracket side: ISO 4762 M8 x16 St 8.8, BRB 8.4x16 (M8 threading of centre hole in beam is required)

**Spacer beam connector**

*XLRD 3 D*

For use with spacer beam type XLRN 3 U
Note. Contains 10 pcs.

---

**Guide rail clamp supports**

**Guide rail clamp support Type CA**

- Guide rail clamp support
  - L=60 mm: XLRL 18x60 CA
  - L=110 mm: XLRL 18x110 CA
  - L=160 mm: XLRL 18x160 CA

*Including screw and nut. For use with XLRK 18x40/60/80 C*

**Quick release guide rail clamp support**

*XLRL 18x97 CQ*

For use with guide rail bracket support XLRF 42x18 V and a 12 mm guide rail clamp rod, e.g. 5051168 (or 5050986 with custom grooves)

**Guide rail clamp support Type CAT, Transparent**

- Guide rail clamp support
  - Material: Plastic
  - XLRL 18x160 CAT

*Including screw and nut. For use together with sensor and reflector brackets.*
Guide rail clamps

Guide rail clamp 1

Guide rail clamp 1
L=40 mm  XLRK 18×40 C
L=60 mm  XLRK 18×60 C
L=80 mm  XLRK 18×80 C

Including screw and nut
For use with guide rail bracket supports Type A35/A110, guide rail clamp supports Type CA, or cross connector XLRX 18 X.

Guide rail clamp for double track conveyor

Guide rail clamp for double track conveyor
XLRC 18×110 C

Including screw and nut. Suitable for use with cross connector XLRX 18 X and a crossing 18 mm aluminium tube above the double track.

Guide rail clamp 2

Guide rail clamp 2
XLRL 18×110 C

Including screw. To be used directly with guide rail bracket supports XLRF 42×18 V or XLRF 40×18 VO.

Guide rail clamp 3

Guide rail clamp 3
XLRK 18 CE

Including screw and nut. For use with 18 mm tube XLRR ...×18 C.

Guide rail clamp 4

Guide rail clamp 4
XLRK 12 CE

Including screw and nut. For use with 12 mm guide rail clamp rod 5051168 or 5050986. Suitable guide rail types: XLRS ... or 18 mm tube/rod.

Guide rail clamp 5

Guide rail clamp 5
XLRK 12 DE

Including stainless steel screw and nut. For use with 12 mm guide rail clamp rod 5051168 or 5050986. Suitable guide rail type: 12 mm steel rod type 5048965.

Guide rail clamp rod with grooves, 12 mm

Guide rail clamp rod with grooves
Stainless steel

5051168
For use with guide rail clamps XLRK 12 CE/DE and clamp support XLRL 18×97 CQ.
Guide rail clamp rod, plain, 12 mm

Guide rail clamp rod, plain, 12 mm
Stainless steel
5050986
For use with guide rail clamp XLRK 12 CE/DE and bracket support XLRF 30×71 K.

Guide rail clamp, double

Guide rail clamp, double
XLRK 12×100 D69
Including stainless steel rod, screw and nut. Suitable guide rail type: 12 mm steel rod type 5048965. For use with bracket support XLRF 30×71 K.

Guide rail support tube, aluminium

Guide rail support tube
Aluminium
Length 3 m (3030 ±5 mm)
Length to order (30-3000 mm)
End cap
Note. Contains 10 pcs.
The tube can also be used as guide rail in combination with suitable guide rail clamps.

Cross connector

Cross connector
XLRX 18 X
Including screws and nuts. For use with 18 mm aluminium tube type XLR ...× 18 C and/or guide rail clamps XLRL/XLRC 18×110 C.
Can be used with star knob XLAR 6×20 for easy re-adjustment.

Corner connector

Corner connector
XLRX 18 C
Including screws and nuts. For use with 18 mm aluminium tube type XLR ...× 18 C.

Star knob

Star knob
XLAR 6×20
Note. Contains 10 pcs.
To be used with XLRF 42×18 V, XLRF 42×62 A35/110, and XLRX 18 X.
Guide rails system X45, X45H and X65

Width adjustment

Width adjustment XURA 30x41x37 and XLRA 30x41x50 A

When using XURA 30x41x37 the minimum A width is 2 mm and the maximum B width is 84 mm
When using XLRA 30x41x50 A the minimum A width is 34 mm and the maximum B width is 104 mm

Width adjustment XURA 40x41x37 and XLRA 40x41x50 A

When using XURA 40x41x37 the minimum A width is 20 mm and the maximum B width is 102 mm
When using XLRA 40x41x50 A the minimum A width is 50 mm and the maximum B width is 120 mm

Width scale

The guide rail bracket has an adjustment scale which can be used as a reference when adjusting the guide rails to correct width
Using Guide rail cover

Guide rail cover XLRT 3x23, XLRT 3x23E

When not using the Guide rail cover the guide rail can be orientated with the long flange down.

When using the Guide rail cover the rail is to be orientated with the long flange up.

Straight guide rails

Guide rail, aluminium

Guide rail
Length 3 m

T-slot for XDAN T-slot nuts

Connecting strips

Connecting strip for guide rail

Connecting strip, straight
Including set screws
Steel, electro-zinc-plated

Guide rail cover

Guide rail cover XLRT 3x23
Polyethylene, length 3 m

Guide rail cover XLRT 3x23 E
PE-UHMW, (conductive) length 3 m

T-slot nut

M5 Contains 10 pcs

End plug

Contains 10 pcs, pair
Guide rail bracket for X45

Guide rail bracket for X45

Including mounting hardware

Guide rail bracket for X65 and X45H

Including mounting hardware

Guide rail bracket for X65 and X45H

Including mounting hardware

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Guide rail bracket for X45

325
Built-up guide rail brackets

Small beam 24×34
Beam 24 mm × 34 mm
Length 3 m (3030 ±5 mm)
Length to order (30-3000 mm)
End cap for XCBB 3×24×34
XCBB 3×24×34
XCBB L×24×34
XCBE 24×34

Small beam 24×44
Beam 24 mm × 44 mm
Length 3 m (3030 ±5 mm)
Length to order (30-3000 mm)
End cap for XCBB 3×24×44
XCBB 3×24×44
XCBB L×24×44
XCBE 24×44

Guide rail bracket
Guide rail bracket
XLRC 20

Guide rail bracket
Guide rail bracket
XLRC 20 A

Inner fitting 90°
Inner fitting 90°
Including T-bolt, nut, set screw
Note. Contains 10 pcs.

Inner fitting 90°
Inner fitting 90°
Including screws
Note. Contains 10 pcs.

Inner fitting 90°
Corner fitting 90°
Including set screws
Note. Contains 10 pcs.

Spring pin for guide rail bracket
Spring pin for guide rail bracket
Note. Contains 50 pcs.
Guide rail system for easy adjustment of track width

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

The system has a modular design and consists of guide units for the guiding, control boxes for the control of the guide units and junction boxes for power supply. The system can be linked to the line control system and one control box can control up to 132 or 220 guide units.

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

Standard products
A system includes the following standard products:
- Guide units (standard or feedback type, basic or heavy version)
- Guide rail components
- Control box (Type 1/2/2b)
- Junction box

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

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

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

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

**Basic GU version**
The basic version is designed to be positioned above the conveyor track. It comes with Ø12 mm vertical bars in two lengths: 196 mm and 296 mm and includes a 2 m GU cable. Recommended distance between guide units is 1 m. Using standard FlexLink’s guide rail components, it is possible to get two guide rail configurations: A and B:

**Configuration A**

**Configuration B**

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Guide rail system for easy adjustment of track width
Control system

**System with one control box**

**System with one control box and three junction boxes**

Control box

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

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

**Position feedback system**

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

**Junction box**

In addition to one GU group, a control box can have a maximum of 10 junction boxes (5 in each direction). Each junction box can control one GU group. A group of basic guide units can include up to 20 guide units, whereas a heavy GU group can include maximum 12 guide units. This means a total of 220 basic guide units.
Automatic guiding system components

Guide unit

Guide unit, including horizontal beam XFBM 30, no feedback
- Guide unit 284x196 C: XLRQ 284x196 D
- Guide unit 455x196 C: XLRQ 455x196 D
- Guide unit 284x296 C: XLRQ 284x296 D
- Guide unit 455x296 C: XLRQ 455x296 D

Guide unit, including horizontal beam XFBM 30, with position feedback
- Guide unit 284x196 CF: XLRQ 284x196 DF
- Guide unit 455x196 CF: XLRQ 455x196 DF
- Guide unit 284x296 CF: XLRQ 284x296 DF
- Guide unit 455x296 CF: XLRQ 455x296 DF

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

Distance piece

Distance piece 5055818

Adapter for fitting cross connectors or guide rail clamps to the Ø12 mm vertical bars of the guide units.

Extra GU cable

Cable, 2 m 5057678
Cable, 3 m 5057691

Additional components

Components required for both configurations A&B (page 327):

<table>
<thead>
<tr>
<th>Item</th>
<th>Designation</th>
<th>Qty</th>
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<tbody>
<tr>
<td>Washer M6</td>
<td>BRB 6.4×12</td>
<td>4</td>
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<tr>
<td>Beam 30x30 mm</td>
<td>XFBM L×30</td>
<td>720–1160 mm</td>
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<tr>
<td>End cap</td>
<td>XFBE 30</td>
<td>4</td>
</tr>
<tr>
<td>Fastener yoke</td>
<td>XFAF 30</td>
<td>4</td>
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<tr>
<td>Mounting plate</td>
<td>XFFB 30</td>
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<td>Screw</td>
<td>MF6S 6×30</td>
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<tr>
<td>Screw</td>
<td>MC6S 6×14</td>
<td>4</td>
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<td>Square nut</td>
<td>XLAQ 6</td>
<td>4</td>
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<tr>
<td>Cross connector</td>
<td>XLRX 18 X</td>
<td>2–4</td>
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<tr>
<td>Distance piece (see above)</td>
<td>5055818</td>
<td>2–4</td>
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Additional components required for configuration A (page 327)

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<tbody>
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<td>Guide rail clamp</td>
<td>XLRK 18x40 C</td>
<td>2–4</td>
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Additional components required for configuration B (page 327)

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<th>Item</th>
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<tr>
<td>Guide rail clamp, double</td>
<td>XLRKX 18x50 D69</td>
<td>2</td>
</tr>
</tbody>
</table>

Compatibility with previous GU models

Due to a speed difference, GU types XLRQ ... B/XLRQ ... BF should not be mixed with the previous types without B in the suffix in a line controlled by a common control unit.
Guide rails in bends

Example: 90° plain bend:
The guide rail is divided into 45° segments. Two guide units are used for each 45° segment. These guide units must be mounted in parallel.

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

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