

# Conveyor chain guide

System X45, X45H, XS, XL, X65, XM, X70X, X85, X85X, XH, XK, X180, X180X, X300, X300X, XT, XTC, WK, WL, WL222X, WL273X, WL374X, WL526X, WL678X

© Copyright FlexLink 2021

The contents of this publication are the copyright of the publishers and may not be reproduced (even extracts) unless permission is granted. Every care has been taken to ensure the accuracy of the information but no liability can be accepted for any errors or omissions. The right is reserved to make design modifications.

## Patents

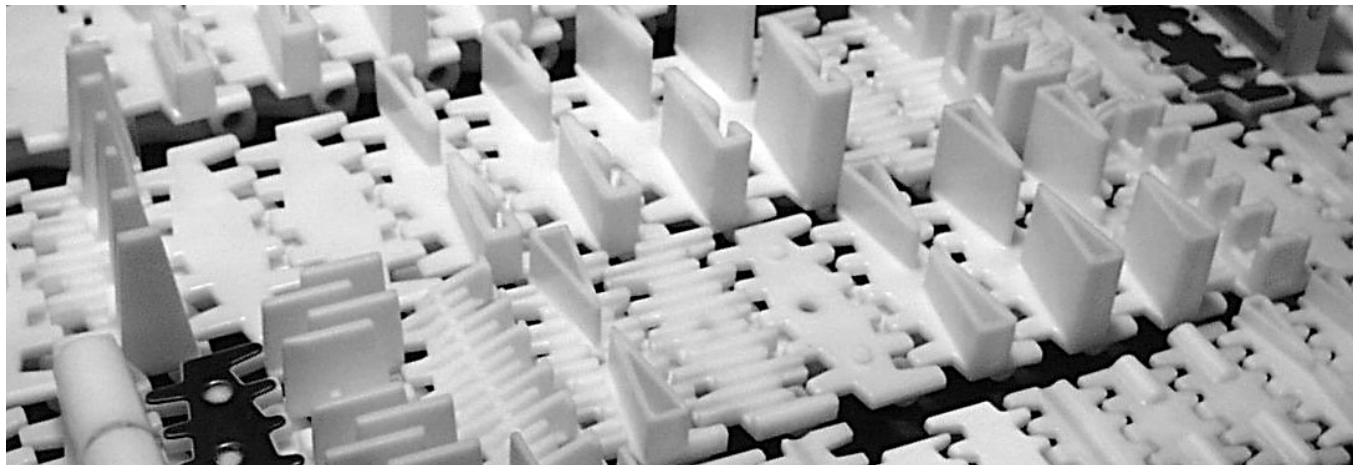
Essential parts of the FlexLink product range are protected by patents and design regulations.

Drawings are made to European standards.

For the latest version of the chain guide and other catalogues, see the FlexLink technical documentation website <http://www.flexlink.com>

## Content

Conveyor chain guide .....	I
Demo chains	
Chain assembly tool .....	V
Conveyor system X45/X45H - links and chains .....	1
Conveyor system XS - links and chains .....	3
Conveyor system XL - links and chains .....	11
Conveyor system X65 - links and chains .....	31
Conveyor system XM - links and chains .....	41
Conveyor system X70X - links and chains .....	53
Conveyor system X85, links and chains .....	55
Conveyor system X85X - links and chains .....	67
Conveyor system XH - links and chains .....	71
Conveyor system XK - links and chains .....	79
Conveyor system X180 - links and chains .....	81
Conveyor system X180X - links and chains .....	83
Conveyor system X300- links and chains .....	87
Conveyor system X300X - links and chains .....	89
Conveyor system XT - links and chains .....	91
Conveyor system XTC - links and chains .....	93
Conveyor system WK - links and belts .....	95
Conveyor system WL - links and belts .....	97
Conveyor system WL222X – Links and belts .....	99
Conveyor system WL273X – Links and belts .....	101
Conveyor system WL374X – Links and belts .....	103
Conveyor system WL526X – Links and belts .....	105
Conveyor system WL678X – Links and belts .....	107
Product index .....	109



## Chain and link designations

This catalogue presents currently available FlexLink conveyor chain types, catalogue items as well as special order types. Please consult the FlexLink conveyor catalogue for basic information about our conveyor program, and about conveyor chains.

Two forms of product designations are used. Most catalogue products use a designation beginning with X, whereas most non-catalogue products are identified by means of a 7-digit specification number.

As a standard the chains come in approximately 5 m lengths (XB and XT Compact: 3 m).

**Note.** Cleated chains are specified using the online configurator.

### Link kits

For replacement purposes, the chain links are available in Link kits. Each link kit contains 10 links, 10 plastic pivots, and 10 stainless steel pins, unless otherwise specified.

**Note.** Individual links cannot be ordered. Link designations are only intended for reference purposes

### Pin and pivot kits

Kits containing only steel pins and pivots are available. Each kit contains 25 items.

System	Pin kit Stainless steel	Pivot kit PA66	Pivot kit PA66 ISD	Pivot kit PDVF
X45	5045030	-	-	-
X45H	5116330	5116331	-	-
XT (compact)	5045030	-	-	-
XS/XL	5111492	5111489	5111490	5111491
X65	5116330	5117478	-	-
XM	5111172	5111493	5111494	5111495
X85	5111172	5111169	5111171	5111170
X85X	5111172	5111169	5111171	5111170
XH	5111502	5056588	5111500	5111501
XK	5111498	5111497	-	-
X180/X300	5111172	5111169	5111171	5111170
X180X/X300X	5111172	5111169	5111171	5111170
WK	WKTD 5X3000 P	-	-	-
WL	-	-	-	-
WL222X	-	-	-	-
WL273X	-	-	-	-
WL374X	-	-	-	-
WL526X	-	-	-	-
WL676X	-	-	-	-

## Selecting the right chain material

### Links

The base link parts of the chain links have the same basic shape, and the same technical properties. Five different materials are used. The standard material is acetal resin (POM). Different materials are used.

POM A: Copolymer Acetal with silicon

POM B: Homopolymer Acetal, silicon free

POM C: Copolymer Acetal, silicon free

POM D: Homopolymer with ultra low wear additive

Properties	Copolymer POM A / C	Homopolymer POM B / D
Heat ageing	(+) Superior	0
Hot water resistance	(+) Superior	(-)
Chemical resistance	(+) Superior ph 4-14	(-) ph 4-10
Tensile strength	0	(+) Superior
Stiffness	0	(+) Superior
Impact Strength	0	(+) Superior

Strength values at 20 °C:

Product (POM)	X45	XS	X65	X85, XH, X180/X300	XK	XT, X45H	XT Compact
Maximum working tension	200 N	500 N	1000 N	1250 N	2500 N	900 N	180 N

The other materials are not as strong as POM:

- Polyester (PBT): 50% of POM value
- Polyvinylidene fluoride (PVDF): 40% of POM value.
- Conductive POM: 40% of POM value
- High temperature resistant material, 50% of POM value
- Intrinsically static dissipative (ISD) POM: see the following table..

Product (POM ISD)	X65	X85	XH	XT X45H	XT Compact
Maximum working tension	400 N	400 N	550 N	450 N	180 N

### Pivots

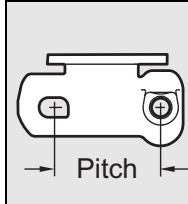
Most pivots are made in materials as specified in the table below. Otherwise the material is specified next to the link designation.

Link	POM	POM (ISD)	PBT	PVDF
Pivot	PA66	PA66 (ISD)	PA66	PVDF

### Chain pitch and weight

The *Chain guide* lists the weight of most links. To calculate chain weight, you need to know the chain pitch (see picture below), the weight of the plastic pivot, the weight of the steel pin, and the cleat separation. See the following table.

Parameter	Conveyor type						
	XS	X85	XH	XK	X180/X300	XT X45H X65	XT Compact, X45
Chain pitch, mm	25,4	33,5	35,5	38,1	33,5	25,4	12,7
Plastic pivot weight, g	1	2	3	5	2	1	n.a.
Steel pin weight, g	4	10	17	24	10	3	1



### Note

Some of the chains require modification of the drive units. There may also be limitations on minimum bend radius.

### Material abbreviations

Material abbreviation	Material
POM*	Acetal resin
POM* polished	Acetal resin, polished surface
POM*, pivot PVDF	Acetal resin, pivot: PVDF
POM* GY	Acetal resin, grey
POM* BK	Acetal resin, black
POM* COND	Acetal resin, conductive
POM* ISD NAT	Acetal resin ISD, natural colour (will turn darker when exposed to UV light)
POM* ISD GY	Acetal resin ISD, grey
PBT	Polyester
PVDF	Polyvinylidene fluoride
PVDF, pivot PA66	Polyvinylidene fluoride, pivot: PA66
POM* + steel	Acetal resin, steel top
POM* + SS	Acetal resin, stainless steel top
PA	Polyamide

### Chain strength and expansion vs. temperature

Temperature °C	-20	0	20	40	60	80	100	120
Tensile strength factor	1,2	1,1	1,0	0,9	0,8	0,6	0,5	0,3
Linear expansion%	-0,4	-0,2	0	0,2	0,5	0,8	1,0	1,3

# Chains – configuration strings

Below, example of text strings obtained from the configurator with explanations.

## Input

**Platform:** "X85"

**Chain type:** "XBTF 5A85 U"

**CC distance (mm) [133..167]:** "167" (depending on the PAR value, the CC distance will change.)

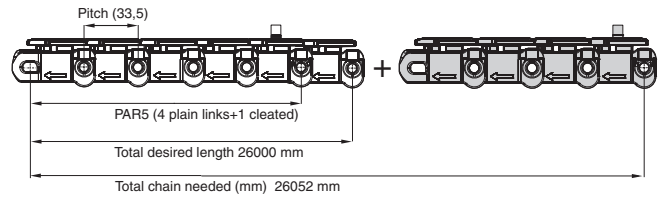
**PAR 1-20:** "5" (depending on the CC distance, the PAR value will change.)

**Total desired length (m):** "26"

The screenshot shows a configuration window with the following data:

Step 1	
Platform	X85
Chain type	XBTF 5A85 U
CC distance (mm) [ 133 .. 167 ]	167
PAR 1-20	5
Total desired length (m)	26.0
-----	
Chain pitch (mm)	33,5
Actual CC distance (mm)	167
Actual chain length (mm)	5010
Total chain needed (mm)	26052
Qty to be delivered	6

Input values are marked with a green checkmark. Output values are shown below a dashed line. Arrows labeled 'Input' and 'Output' point to the respective sections.



**Qty to be delivered:** "6" (The desired length is 26 m and items will be delivered in multiples of 5 -meter lengths; to cover demand of necessary length, 6 packages of chains are needed.)

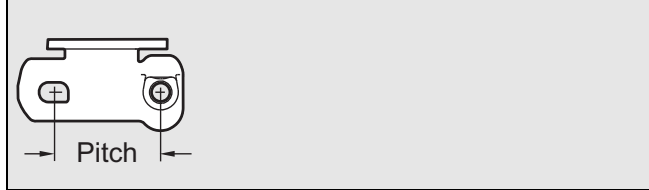
## Configuration result:

Item no	Qty	Description
XBTF 5A85 U	6	XBTF 5A85 U PAR5

## Output

**Chain pitch:** "33,5" (see table below)

Parameter	Conveyor type				
	XS, X45H, X65, XT	X85	XH	XK	X180/X300
Chain pitch, mm	25,4	33,5	35,5	38,1	33,5



**Actual CC distance (mm):** The selected CC distance will be round off to the closest value which matches the chain pitch.

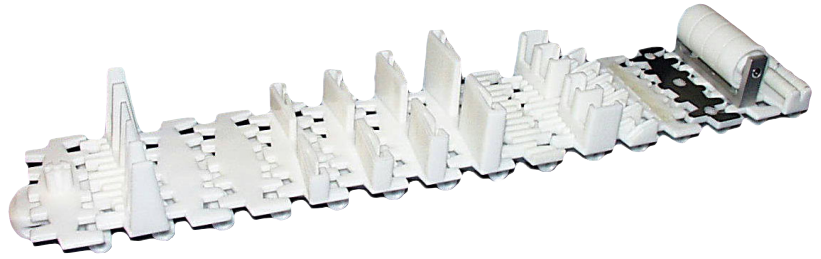
E.g. for value 400, Platform X85 (pitch 33,5 mm), CC distance= 400 mm, the Actual CC will be 402 mm.

**Actual chain length (mm):** The actual length depending on the CC/PAR value and that the chain always ends with a cleated link. This causes the length to vary from 3000-3250 mm or 5000 to 5500 mm depending on selected platform.

**Total chain needed (mm):** "26 052" (All configurable chains start with a number of plain links in this case 4 links before the cleated link (PAR5)). The desired length is 26 000 mm and the chain pitch for X85 is 33,5 mm. This creates an incorrect number of plain links before the last cleated link. The length is corrected by adding plain links (according to the desired PAR value) and a cleated link after the "last" cleated link. See picture.

# Demo chains

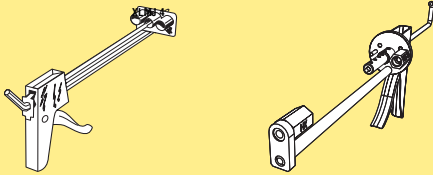
3905780	Demo chain XS
3905781	Demo chain XL
5117552	Demo chain X65
3905782	Demo chain XM
5111222	Demo chain X85
3905783	Demo chain XH
3925720	Demo chain XK



Each demo chain contains the most common links (one of each type).  
Standard material only.

## Chain assembly tool

### Chain assembly tool for FlexLink chains.

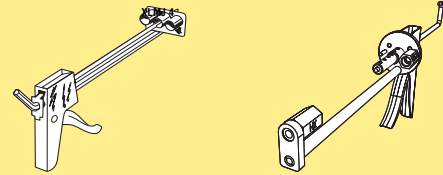


Chain assembly tool  
XS-X65-XT  
XS-X65-XT, PRO-Version

**XLMJ 4**  
**XLMJ 4 P**

*This product is suitable for frequent users..*

### Chain assembly tool for FlexLink chains

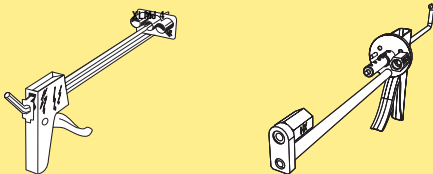


Chain assembly tool  
X85-X180/X300  
X85-X180/X300, XH PRO-Version

**XMMJ 6**  
**XBMJ 6 P**

*This product is suitable for frequent users..*

### Chain assembly tool for FlexLink chains

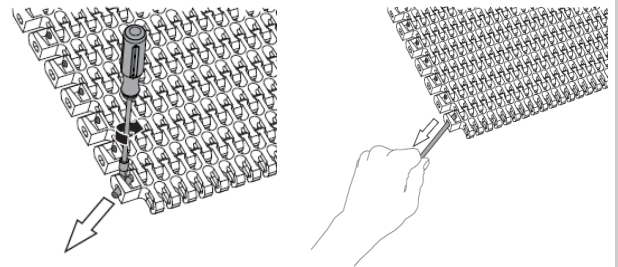


Chain assembly tool  
XH  
X85-X180/X300- XH, PRO-Version

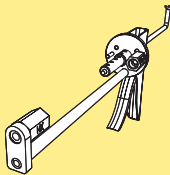
**XHMJ 6**  
**XBMJ 6 P**

*This product is suitable for frequent users..*

### Disassemble WL and WLX belts



### Chain assembly tool for FlexLink chains



Chain assembly tool XK

**XKMJ 8 P**

