

 THIELE	Single Plane (SP-SX) Connectors	Operating Instructions	
		Article No.	B10572
Name	Wache	Change Index	B
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Read these instructions carefully before installing and using the THIELE SP connector.

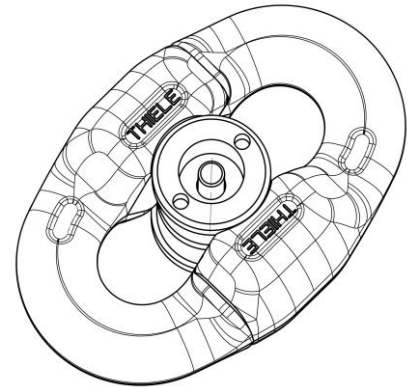
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1 Product description

Single Plane Connectors are intended to connect chain strands of mining conveyor chains at their end links.

The connectors consist of two symmetrical forged halves which are locked against unintended opening by a plug-in module. The plug-in module is secured by two dowel pins assembled into each other. Single Plane Connectors must only be used horizontally. (SP-type connector: Only in a single plane, means only horizontal plane.) SP-Connectors drive only in a horizontal orientation around the sprocket.

The halves are manufactured as a matched module and should be used together. For simple identification each half is marked by a number (as shown in Figure 2).

The radial/symmetric lock allows for easy assembly and disassembly.

Use only original THIELE spare parts.

2 Assembly / Disassembly

2.1 Preparation

- Check the Single Plane Connector for completeness and identical marking.
- Shut down the conveyor and take appropriate measures to isolate in accordance with site requirements.
- Check the tight fit of the screw in the lower lockhalf.
- These instructions are to be read in accordance with all other relevant site requirements and documents, in particular any conveyor operating instructions.

2.2 Assembly

Tools:

- Hammer
- Torque wrench
- Face pin wrench
- Underlay

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- Open the connector by sliding the halves apart. Hitting the connector side vertical on a flat massive surface simplifies this (the 3 bottom arrows in Figure 1 show the best hitting area). Take care, that nothing is in the opening area when the connector opens (Figure 1)!

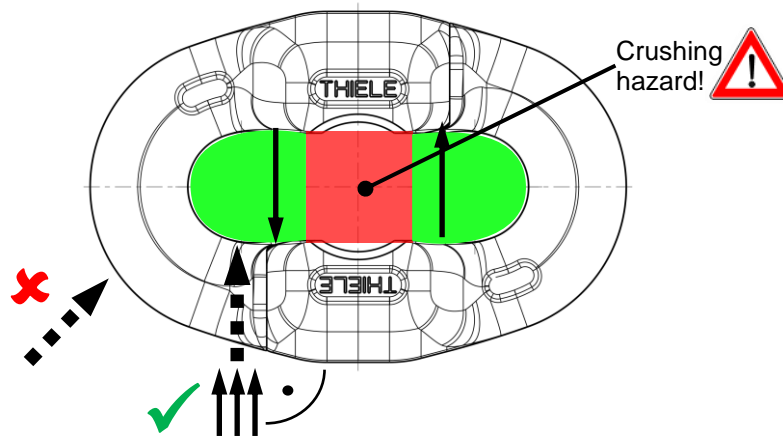


Figure 1: Open the pre-assembled connector

- Position the two connector halves and the chain ends to be connected as shown in Figure 2.
- Slide the two halves together as far as they will go. Make sure the mating faces are free of any foreign bodies/material prior to sliding the halves together.

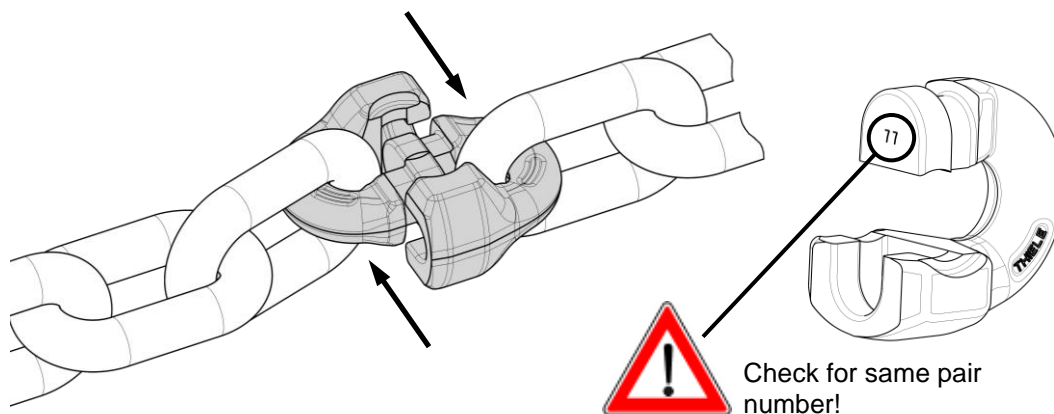


Figure 2: Assemble connector halves

- Move the lower lock half with the preassembled screw from the bottom into the connector (step 1, Figure 3) and position it on a pad or flat surface. The following assembly is made simpler if the two dowel pins align with the chain center line.
- Place the upper lock half (Step 2, Figure 3) centrally above the lower lock half. Take care, that the holes to accept the dowel pins align correctly. Underlay the lower lock half.
- Push both halves together until the mating faces are flush.

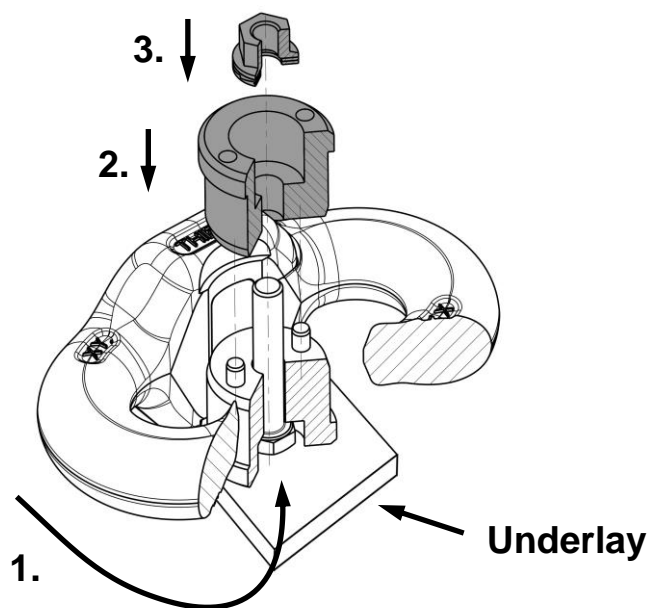


Figure 3: Assemble lock

- Secure the lock module with the wedge washer. Use the face pin wrench to secure the lock from rotating (refer Figure 4 below) and torque the wedge washer nut in accordance with torque values tabled below.

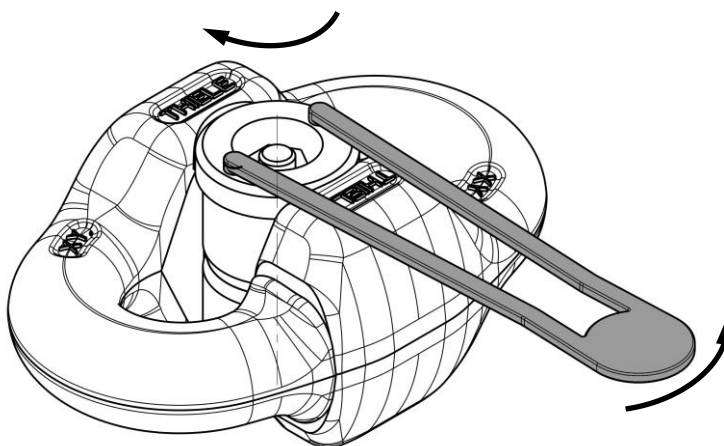


Figure 4: Secure lock

Once complete remove any tools and material from the area prior to starting the conveyor

2.3 Disassembly

Tools:

- Hammer
- Socket wrench
- Face pin wrench
- Punch

Procedure:

- Shut down the conveyor and take appropriate measures to isolate in accordance with site requirements.
- Remove any tension on the chain and provide slack to allow for removal.
- Loose and remove the wedge washer nut using the face pin wrench to stop the lock module from rotating.
- To disassemble the lock halves, strike the lock on the lower overhang (refer Figure 5 below) using the hammer and punch. Alternate between both sides until the two halves are free.

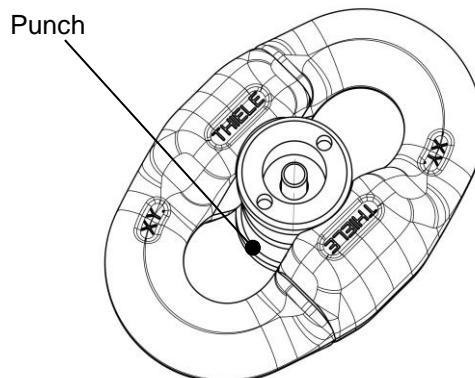


Figure 5: Remove lock

- Remove the lower and upper lock module halves.
- Slide the connector halves apart.

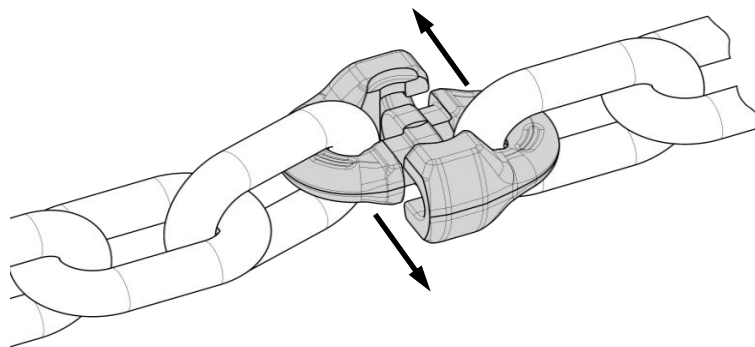


Figure 6: Slide apart

3 Technical Data

3.1 Single Plane Connector

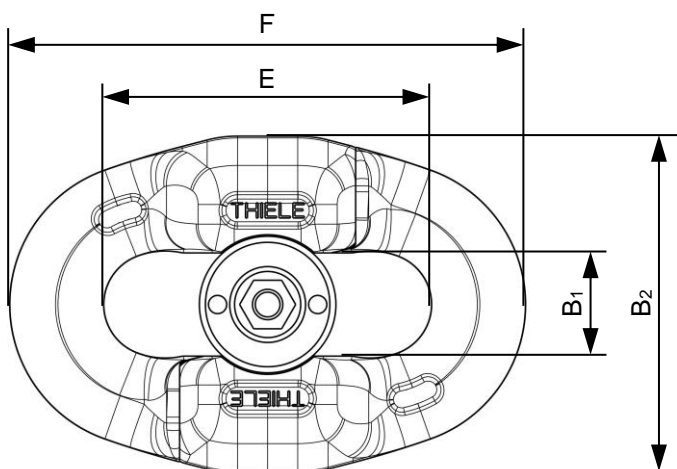


Table 1: Technical data Single Plane Connector

Size	Article-No.	Dimensions				Workforce max. [kN]	Breakforce (nsw) min. [kN]	Mass [kg]
		E [mm]	F [mm]	B1 min. [mm]	B2 max. [mm]			
30 x 108	F26141X	108	172	35	111	707	1130	4,1
34 x 126	F26151X	126	194	37	122	907	1550	5,8
34 x 131 BIG-T	F26153X	131	205	45	115	907	1450	5,3
38 x 126	F26164X	126	202	42	134	1130	1820	7,2
38 x 137	F26161X	137	213	42	134	1130	1820	7,5
38 x 148 BB	F26167X	148	224	63	144	1130	1820	8,0
42 x 146	F26171X	146	235	46	181	1380	2220	10,5

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3.2 Lock

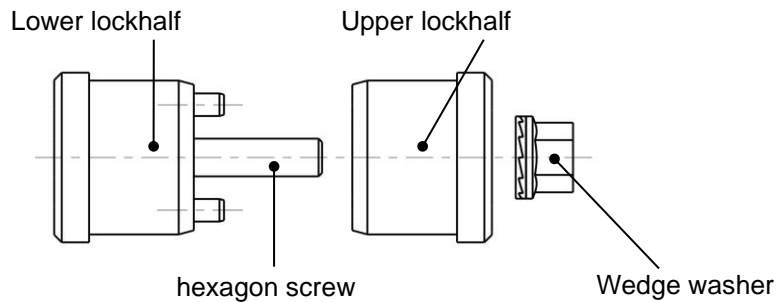


Table 2: Technical data lock

Size	Lock, full set Article-No.	tightening torque [Nm]	Screw type	face pin wrench diameter [mm]	Wedge washer wrench size [mm]	Mass [kg]
30 x 108	H261413X	70,3	M10 x 60, 10.9	6	16	0,7
34 x 126	F261502X	120,5	M12 x 70, 10.9	6	18	0,85
34 x 131 BIG-T	F261512X	120,5	M12 x 70, 10.9	6	18	0,98
38 x 126	F261612X	120,5	M12 x 70, 10.9	6	18	1,07
38 x 137	F261612X	120,5	M12 x 70, 10.9	6	18	1,07
38 x 148 BB	F261672X	120,5	M12 x 70, 10.9	6	18	1,33
42 x 146	H261711X	120,5	M12 x 70, 10.9	6	18	1,36

4 Inspection and Maintenance

Check Single Plane Connectors at regular intervals, at least once a week.

In the event of damage (impact notches, cracks, corrosion) or pitch elongation of more than 3 % replacement is recommended.

5 Spare parts

Face pin wrenches are available under Article-No. Z11001.

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