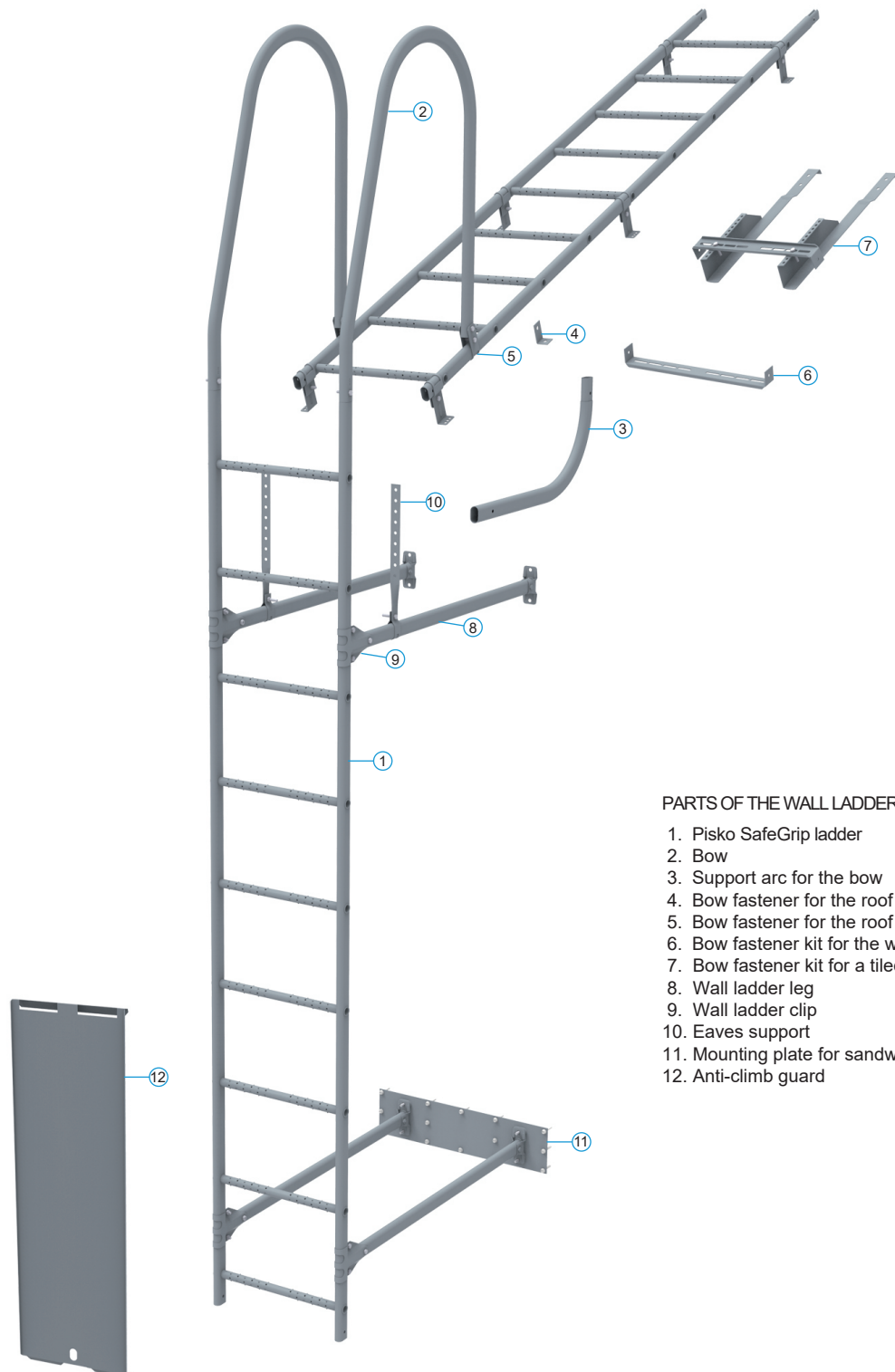


INSTRUCTIONS FOR THE INSTALLATION, USE, AND MAINTENANCE OF THE WALL LADDER

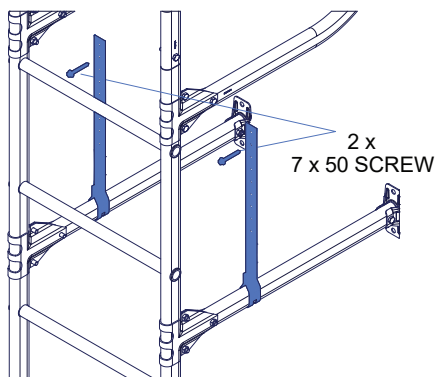


PARTS OF THE WALL LADDER

1. Pisko SafeGrip ladder
2. Bow
3. Support arc for the bow
4. Bow fastener for the roof (L-shaped)
5. Bow fastener for the roof (U-shaped)
6. Bow fastener kit for the walkway
7. Bow fastener kit for a tiled roof
8. Wall ladder leg
9. Wall ladder clip
10. Eaves support
11. Mounting plate for sandwich panels
12. Anti-climb guard

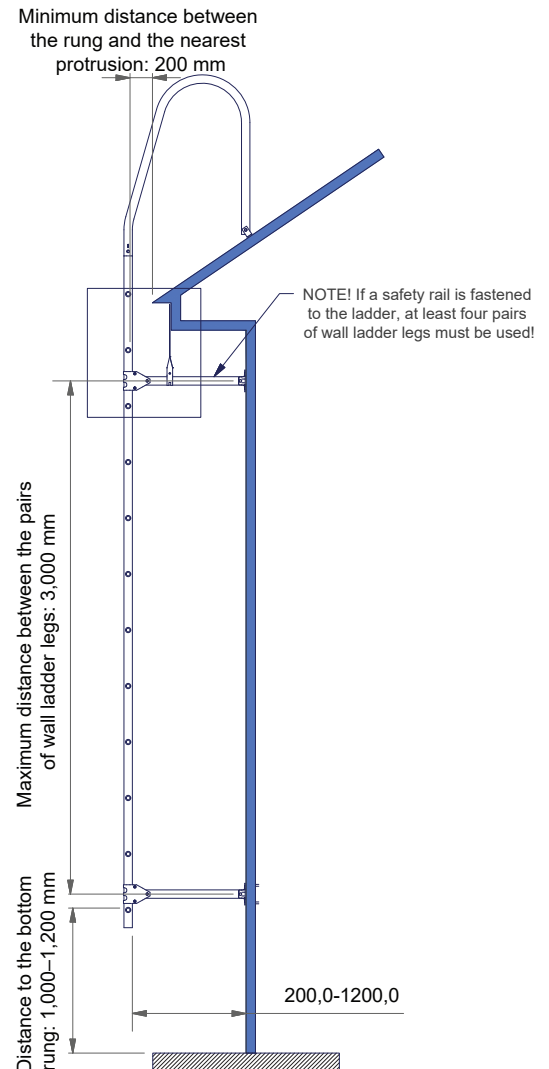
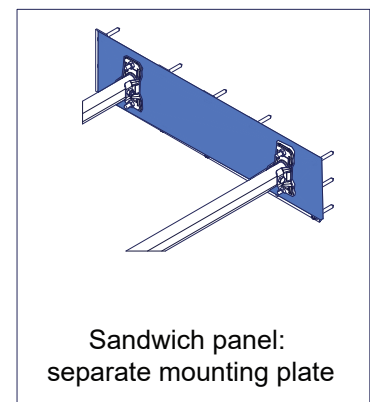
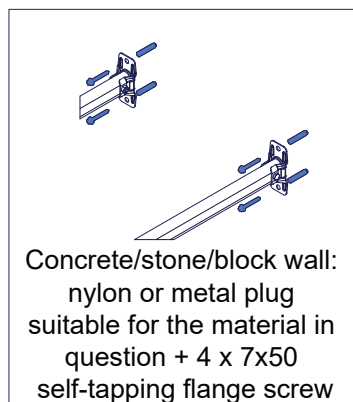
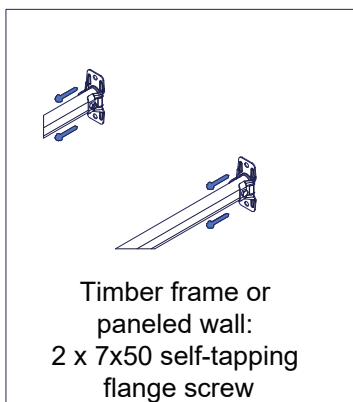
INSTALLATION

- The ladder must be dimensioned so that the topmost rung is located ± 100 mm above the eaves or other access platform. The bottom rung must be located 1,000–1,200 mm above the ground or other departure surface.
- The wall ladder legs must be dimensioned so that the distance between the center line of the ladder's rungs and the eaves or other protrusion is at least 200 mm. The legs are to be shortened to a suitable length, if necessary. The wall ladder legs must be fastened to the wall material with the aid of a suitable fastening method. While fastening the ladder, measures must be taken to prevent water trickling down the wall from entering the wall structures by, e.g., sealing the seams between the cladding and brackets.
- The wall ladder legs must be fastened to the ladder with wall ladder clips so that the topmost pair of legs is located as close to the eaves as possible and the bottom pair of legs is located between the first and second rung. Efforts must be made to always fasten the wall ladder legs to the load-bearing structures of the wall. In the case of brick-cladded houses, it is advisable to install the wall ladder legs in the frame structure before bricklaying. The maximum distance between the pairs of wall ladder legs is 3,000 mm. The wall ladder clips are fastened with two M8x16 screws and one M8x40 screw.



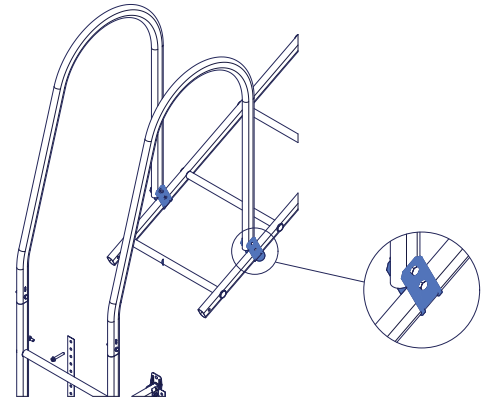
- The wall ladder legs are fastened to the eaves structure with the aid of eaves supports. Eaves supports are to be used when the length of the wall ladder legs exceeds 400 mm. The purpose of the eaves supports is to support the ladder during vertical loading. The eaves support is fastened to the wall ladder leg with an M8x30 screw and to the eaves with a 7x50 self-tapping flange screw.

Methods for fastening wall ladder legs to different materials:



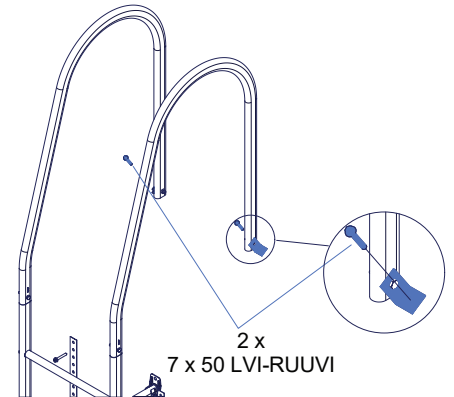
Fastening the Wall Ladder to the Roof Ladder

- The bows are fastened to the roof ladder with a U-shaped bow fastener.
- The U-shaped fastener is placed around the ladder's rail and secured with two M8x40 screws and nuts.



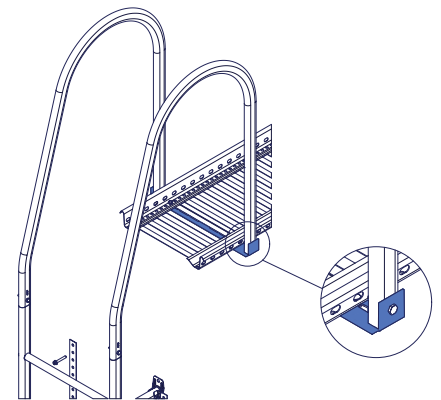
Fastening the Wall Ladder to the Roofing

- The bows are fastened to the roofing battens/auxiliary battens with an L-shaped bow fastener.
- The L-shaped fastener is fastened to the bow with an M8x40 screw and to the roofing with a 7x50 self-tapping flange screw. An EPDM rubber seal must be installed between the roofing and the L-shaped fastener.



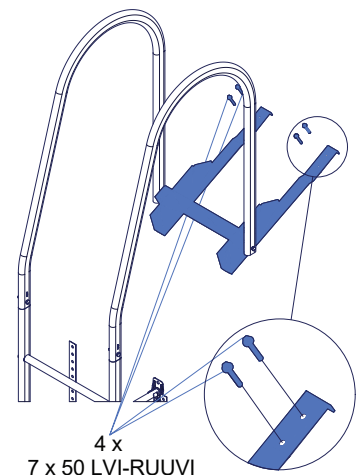
Fastening the Wall Ladder to the Roof Walkway

- When installing the roof ladder, it must be ensured that it is aligned with the roof walkway.
- The bows are fastened to the roof walkway with a separate connector.
- The bows are installed at the top of the ladder and secured with an M8x40 screw and a nut.
- The wall ladder must be installed so that the lowest part of the bow is at the same level as the bottom of the roof walkway.
- The bow connector is to be installed in its place at the bottom of the roof walkway so that it is aligned with the bow.
- The connector is fastened to the roof walkway with two M8x16 screws and nuts.
- The connector is fastened to the bows with two M8x40 screws and nuts.



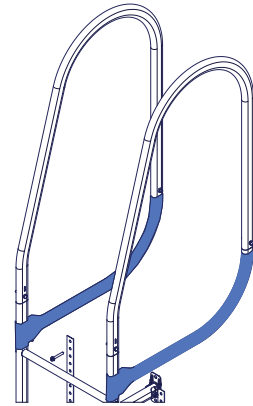
Fastening the Wall Ladder to a Tiled Roof

- The bows are installed to a tiled roof with the aid of a bow fastener kit.
- The auxiliary batten fasteners (2 pcs) included in the bow fastener kit are fastened to the auxiliary batten with two 7x50 self-tapping flange screws. The timber strength class of the auxiliary battens must be at least C24. The auxiliary battens are to be fastened to at least three roof trusses using two 6x120 screws for each roof truss.
- The fastener interval is approximately 300 mm.
- With the aid of the adjustment openings, the connector can be aligned with the bows in the direction of both the pitched roof area and the ridge.
- The connector is fastened to the auxiliary batten fasteners with two M8x16 screws. The bows are fastened to the connector with two M8x40 screws.



Fastening the Bows to the Ladder Frame

- The bows are fastened to the ladder frame with support arcs.
- The contracted end of the support arc is pushed inside the bow's roof-side end. The coupling is secured with an M8x40 screw.
- The other end of the support arc is fastened to the ladder frame with the wall ladder clip and secured with two M8x16 screws and one M8x40 screw.



Installing the Anti-Climb Guard

The anti-climb guard is used when it is desirable to, e.g., prevent small children from climbing the ladder.

- The anti-climb guard is placed on the ladder frame so that it covers the lowest rungs. The anti-climb guard is to be pressed lightly downwards until it is securely in its place.
- The anti-climb guard can be locked to the rung with an Abloy padlock (no. 340, tall), if necessary.



USE

All buildings must be provided with a safe access to the roof and safe passages to the ridge, chimney, hatches, and other structures requiring maintenance. A safe descent from balconies and upstairs rooms must also be ensured.

Buildings that are more than 9 meters high must be equipped with fastening structures for safety ropes (Finnish Ministry of the Environment Decree on the safe use of buildings, 1 January 2018). In the case of the Pisko SafeGrip ladder, fall protection can be carried out with the aid of the Pisko vertical safety rail.

The wall ladder and its fastening must withstand, without damage, at least a 2.6-kN vertical point load and a 2.6-kN vertical overall load per each two meters of ladder. The bow of the wall ladder and its fastening must withstand a horizontal outward-directed minimum load of 0.5 kN (RT 85-11132).

The Pisko SafeGrip ladder meets the abovementioned requirements. In addition, in accordance with the dimensioning requirements, the clear width of the ladder rungs is 400 mm and their distance from each other is 300 mm. The ladder is manufactured from hot-dip galvanized steel tube. The side rails are made of oval 25x45-mm tube and the rungs are made of roughened 25-mm tube. The rungs are attached to the side rails via riveting, while the other joints are screw joints.

MAINTENANCE


When installed in accordance with the instructions, the Pisko ladder and roof safety products are durable and safe to use due to the continuous quality control and research work conducted by Piristeel Oy.

In order to ensure the safe use and durability of the products, the property owner must perform the annual inspection and maintenance procedures and ensure that the snow load stipulated in the regulations is not exceeded.

If a vertical profile has been installed in the ladder, the owner of the property must have it checked annually by a person authorized by the manufacturer.

The annual inspection and maintenance of the Pisko ladder and roof safety products include

- inspecting the tightness of the joints and fastening points
- checking the wall and roof fastenings
- checking the watertightness of the lead-ins in the roof
- taking care of the removal of excess snow in order to minimize the loading of the structures and fastening points (several times during the winter, if necessary)
- removing snow and ice from the ladder, if necessary
- checking the condition of the paint or zinc coating of the products, as well as repairing and touch-up painting local damages
- replacing or repairing damaged or defective parts as soon as possible.

	<p>Piristeel Oy Teollisuustie 5 FI-62100 Lapua</p>
Product	Pisko wall ladder
Intended purpose	Roof safety product – a ladder for climbing on the roof of a building or other platform.
Performance levels	Value
1. Dimensions	<p>a) Rung width 400 mm b) Rung interval 300 mm c) Rung diameter 25 mm d) Distance between the rungs and the wall => 200 mm</p>
2. Coating thickness	Zinc 275 g/m ² + powder-coating
3. Load-bearing capacity and torque resistance	<p>a) Static load-bearing capacity of the rung - With a 1.5-kN load, the maximum deflection is 5 mm. Withstands a load of 2.6 kN. a) Static load-bearing capacity of the side rail - With a 1.5-kN load, the maximum deflection is 10 mm and 1/100 of the length of the bracket interval. Withstands a load of 2.6 kN. c) Static load-bearing capacity of the ladder's fastening and the wall ladder legs - Withstand a load of 2.6 kN. d) Torque-resistance capacity of the rung's fastening - Withstands a torque of 50 Nm. e) Dynamic load-bearing capacity of the ladder - Withstands the load due to a 100-kg mass falling from a height of 2,500 mm. f) Dynamic load-bearing capacity of the vertical safety rail - Withstands the load due to a 100-kg mass falling from a height of 2,500 mm.</p>
4. Corrosion	Corrosion resistance class C3 medium