

Schlüter®-TROBA-LINE

Drainage channel
for low connecting heights

7.4

Product data sheet

Application and Function

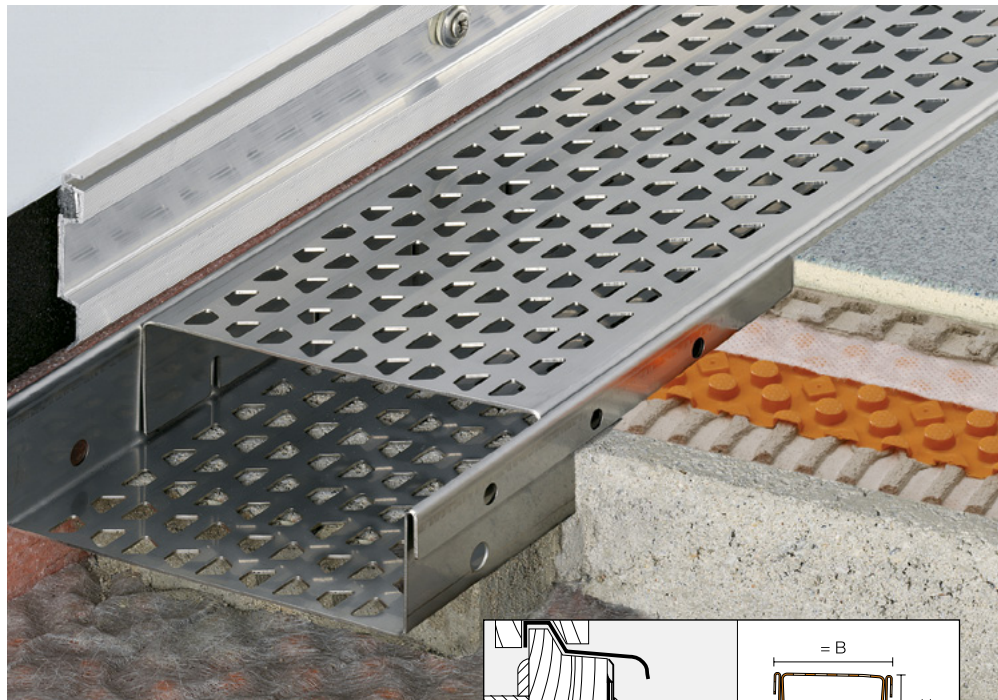
Waterproofing assemblies on balconies and terraces frequently lack sufficient height to connect smoothly to fixed building parts, door elements or walls.

According to DIN 18 195, Part 5, 7.1.6, waterproofing layers must overlap the upper edge of the covering by 15 cm. The same DIN standard requires door connections to have thresholds with a height of 15 cm. However, this requirement may be waived in accordance with building directives for flat roofs if suitable measures are in place to ensure drainage. The installation of Schlüter®-TROBA-LINE guarantees drainage even with low connection heights. The system also allows for special constructions with stepless transitions.

Schlüter®-TROBA-LINE-TL consists of a perforated, U-shaped lower section and a perforated, U-shaped upper section. It is installed over the area drainage systems Schlüter®-TROBA or Schlüter®-TROBA-PLUS.

Schlüter®-TROBA-LINE-TLR is a variation with an upper drainage screen of galvanized steel, which is inserted into the U-shaped lower section of stainless steel. The water drains through the openings of the channel to the waterproofing layer, where it runs off in the area drainage between the waterproofing layer and the surface covering toward the drainage exit. This prevents the accumulation of water in the door area or in all places with low connecting heights.

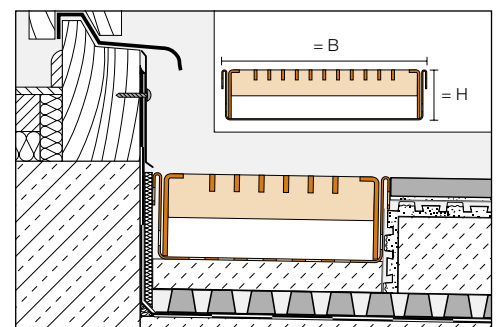
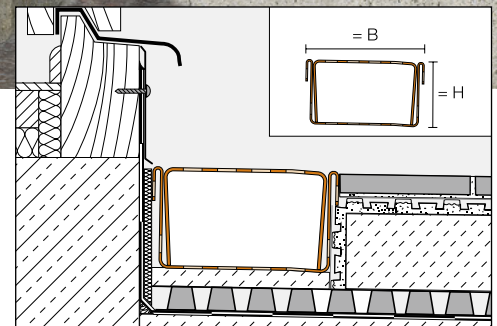
Schlüter®-TROBA-LINE-TLG is a variation with a closed lower section, which is used to drain water to a lateral exit point.



Material

Schlüter®-TROBA-LINE-TL consists of stainless steel (material no. 1.4301) and is roll formed from bands of perforated stainless steel.

The upper screen of Schlüter®-TROBA-LINE-TLR, which is inserted into the lower section of stainless steel, is made of galvanized steel.





Material properties and areas of application

The suitability of the various drainage elements and the appropriate width (75 mm, 110 mm, 160 mm) must be clarified for each project in accordance with the anticipated volumes of water as well as mechanical and other stresses.

Installation

1. The balcony or terrace area must feature a functional and sloped waterproofing assembly.

2. Set Schlüter®-TROBA-LINE onto mortar points or install Schlüter®-TROBA-LINE-TLH in the area of door elements or wall connections with the use of the height adjustment feature to stop water from accumulating.

When installing Schlüter®-TROBA-LINE, it must be ensured that the number of mortar points or height adjustments, on which Schlüter®-TROBA-LINE rests, matches the expected loads. In order to guarantee proper water drainage, a sufficient part of the channel may not have mortar underneath.

3. In typical installations, Schlüter®-TROBA or Schlüter®-TROBA-PLUS should first be laid over the waterproofing layer as an area drainage and protective layer.

Regardless of the installation system of the surface covering, a sufficiently large drainage space must be ensured above the waterproofing layer, in which the water draining off through Schlüter®-TROBA-LINE can securely run off to the drainage exit.

4. If several channel elements are to be combined, they can be connected with the U-shaped parts (see Fig. 1). The same U-shaped parts can also serve as end caps (Fig. 2).

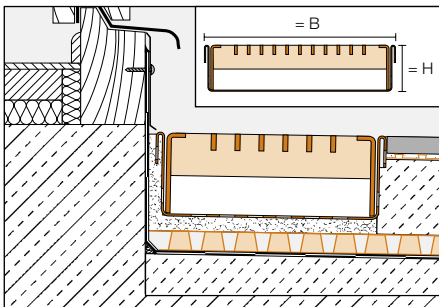
5. The screed or other selected covering construction is now installed in such a way that it abuts the properly aligned Schlüter®-TROBA-LINE.

Reinforcement:

When using the drainage channels Schlüter®-TROBA LINE-TL and -TLG in the widths 110 mm and 160 mm, it may be necessary to install the reinforcement Schlüter®-TROBA-LINE-TLV, depending on the load.

Maintenance

Schlüter®-TROBA-LINE does not require special maintenance or care. The drainage channel must be kept clean and free of debris that can cause clogging. The upper section can be removed for cleaning out the lower section.



Note: The visible screen of Schlüter®-TROBA-LINE-TLR is divided into two pieces in the 1.50 m (2 x 0.75 m) and the 2.00 m model.

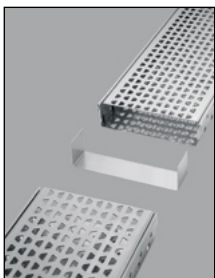
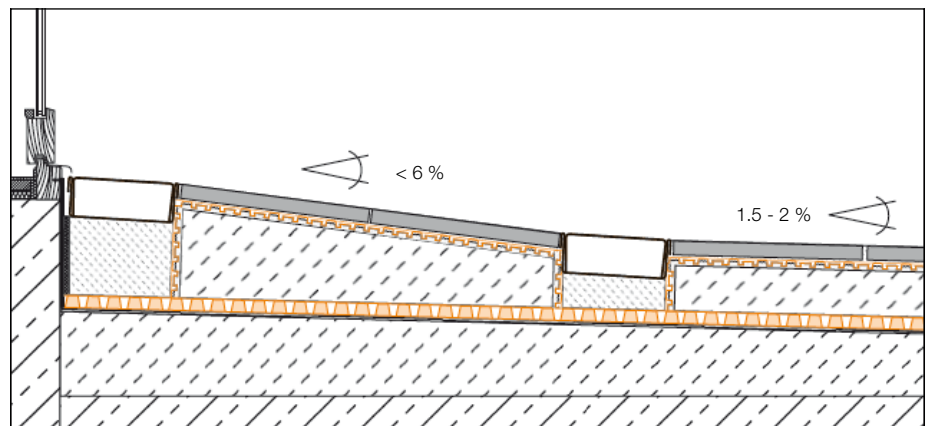


Fig. 1
Connectors/ end caps:

All Schlüter®-TROBA-LINE drainage channels are supplied with two U-shaped parts, which can be used either for connecting two channel elements or as end caps.



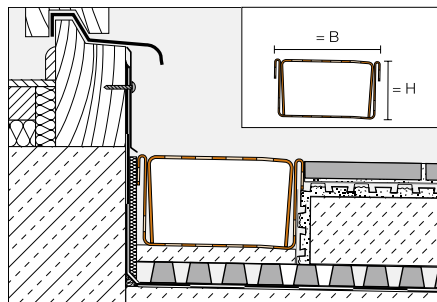
Seamless transitions can be produced with special constructions, in which two Schlüter®-TROBA-LINE channels are installed parallel with a space and the covering between the two channels is heavily sloped (approx. $< 6\%$).



Schlüter®-TROBA-LINE-TL

Schlüter®-TROBA-LINE-TL is a drainage channel of stainless steel, which can be installed in balconies and terraces with a low connecting height to door elements to prevent the accumulation of water. Water runs off below the surface covering in the area drainage system to the drainage exit.

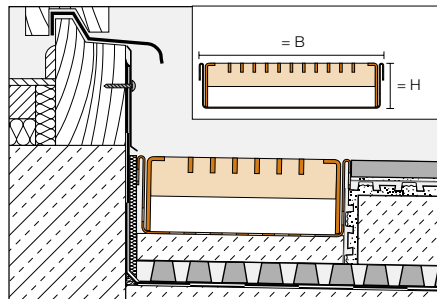
Width: 75 mm / 110 mm / 160 mm
 Height: 20 mm / 40 mm
 Length: 0.75 m / 1.0 m / 1.5 m / 2.0 m



Schlüter®-TROBA-LINE-TLR

Schlüter®-TROBA-LINE-TLR is a drainage channel with a lower section of stainless steel and an upper drainage screen of galvanized steel, which can be installed in balconies and terraces with a low connecting height to door elements to prevent the accumulation of water. Water runs off below the surface covering in the area drainage system to the drainage exit. The grates are able to support relatively high traffic loads.

Width: 110 mm / 160 mm
 Height: 20 mm / 40 mm
 Length: 0.75 m / 1.0 m / 1.5 m / 2.0 m

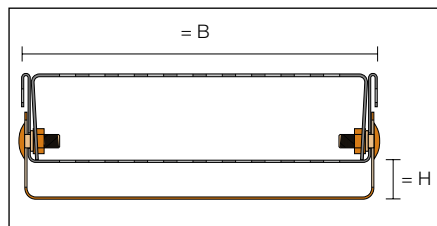


Supplementary system products

Schlüter®-TROBA-LINE-TLH

Schlüter®-TROBA-LINE-TLH is a height adjustment insert that allows for the seamless height adjustment of the drainage channels Schlüter®-TROBA-LINE-TL4 and Schlüter®-TROBA-LINE-TL4R up to approx. 40 mm height.

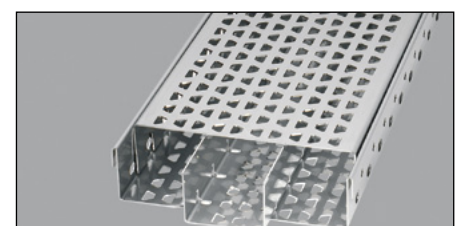
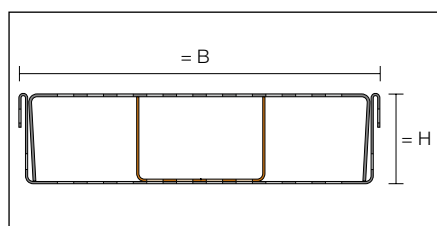
TL2H
 height adjustment from H = 0 - 20 mm
 TL4H
 height adjustment from H = 20 - 40 mm
 Width: 75 mm / 110 mm / 160 mm
 Length: 135 mm



Schlüter®-TROBA-LINE-TLV

In the event of higher traffic loads, e.g. from foot traffic or wheelchairs, it is recommended to use the reinforcement Schlüter®-TROBA-LINE-TLV along with the widths 110 and 160 mm.

Height: 20 mm / 40 mm
 Length: 0.75 m / 1.0 m / 1.5 m / 2.0 m





Product Overview

Schlüter®-TROBA-LINE-TL

TL = Channel of perforated stainless steel
Supplied length: 2.00 m, 1.50 m, 1.00 m and 0.75 m

TL	H = 20 mm	H = 40 mm
B = 75 mm	•	•
B = 110 mm	•	•
B = 160 mm	•	•

Schlüter®-TROBA-LINE-TLG

TLG = Closed channel, stainless steel
Supplied length: 2.00 m, 1.50 m, 1.00 m and 0.75 m

TLG	H = 20 mm	H = 40 mm
B = 75 mm	•	•
B = 110 mm	•	•
B = 160 mm	•	•

Schlüter®-TROBA-LINE-TLV

TLV = Reinforcement for TL and TLG
Supplied length: 2.00 m, 1.50 m, 1.00 m and 0.75 m

H = mm	20	40
TLV	•	•

Schlüter®-TROBA-LINE-TLR

TLR = Channel of perforated stainless steel with grate of galvanized steel
Supplied length: 2.00 m, 1.50 m, 1.00 m and 0.75 m

TLR	H = 20 mm	H = 40 mm
B = 110 mm	•	•
B = 160 mm	•	•

Schlüter®-TROBA-LINE-TLGR

TLGR = Closed channel of stainless steel with grate of galvanized steel
Supplied length: 2.00 m, 1.50 m, 1.00 m and 0.75 m

TLGR	H = 40 mm
B = 110 mm	•
B = 160 mm	•

Schlüter®-TROBA-LINE-TLH

TLH = Height adjustment
Supplied length: 135 mm

TLH	0 - 20 mm	20 - 40 mm
B = 75 mm	•	•
B = 110 mm	•	•
B = 160 mm	•	•

Text template for tenders:

_____ linear metres of Schlüter®-TROBA-LINE-TL as a stainless steel drainage channel consisting of a trapezoid perforated U-shaped lower section and a trapezoid perforated U-shaped upper section, to be supplied and professionally installed in the door element/ wall transition area, while observing the manufacturer's instructions.

Height: 20 mm 40 mm
Width: 75 mm 110 mm 160 mm
Art.-No.: _____
Material: _____/m
Labour: _____/m
Total: _____/m

Text template for tenders:

_____ linear metres of Schlüter®-TROBA-LINE-TLR as a drainage channel consisting of a galvanized steel screen inserted into a trapezoid perforated stainless steel U-shaped lower section, to be supplied and professionally installed in the door element/ wall transition area, while observing the manufacturer's instructions.

Height: 20 mm 40 mm
Width: 110 mm 160 mm
Art.-No.: _____
Material: _____/m
Labour: _____/m
Total: _____/m