

Clamp construction

Installation guide



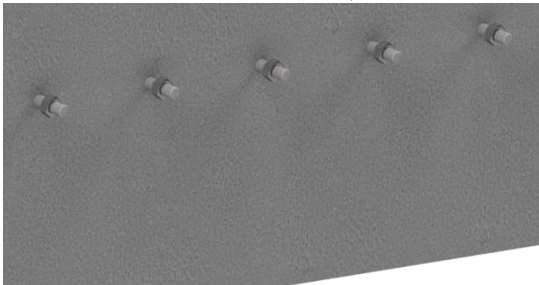
Preliminary observation

The clamping range (existing concrete) must be constituted as follows:

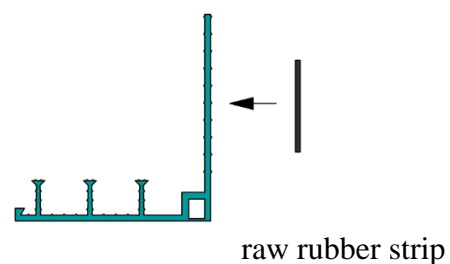
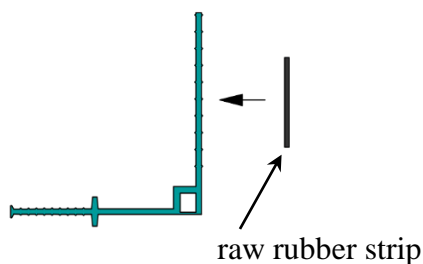
- min. width 25 cm
- clean, smooth, level and free of unevenness and offsets
- free of voids, cracks and loose parts
- waterproof
- stable, surface tensile strength min. 1,5 N/mm², Druckfestigkeit > 25 N/mm² (C25/30)

Installation notes

- Check existing concrete for disturbances in the concrete structure, cracks, stable capacity and WU- suitability. Grind and clean the ground. If necessary also prime the ground.
- Dimensioning the position of clamp construction at existing concrete. The clamping rail is used as a downhole gauge. Fix the rail, drill and clean the boreholes (air - mechanical - air).
- Insert the shear connector into the borehole. Place shear connector with rotatory motion. Do not move the shear connector during the curing time (observe manufacturer's instructions).

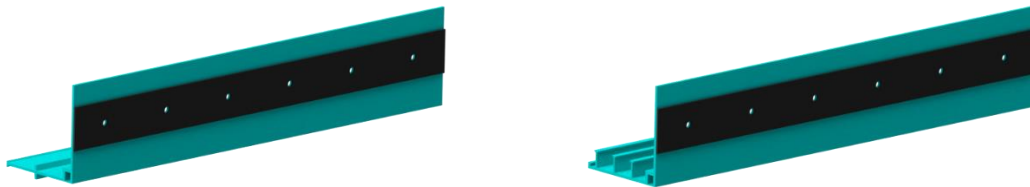


- Fix the raw rubber strips on the outside of the clamp waterstop and punch. Use the clamping rail as a gauge.
- Assemble waterstop with raw rubber strip and clamping rail.

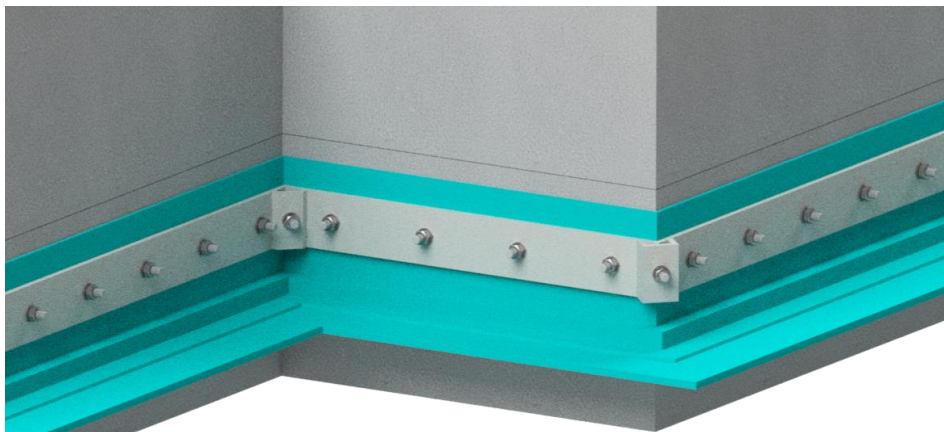


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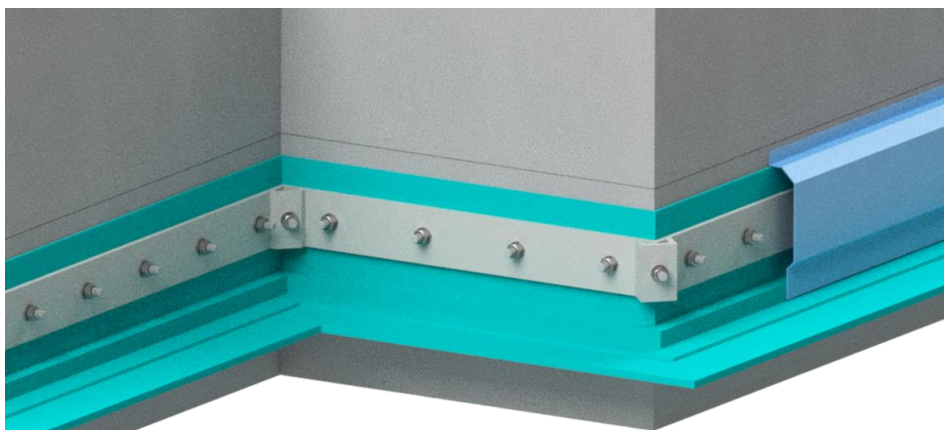
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- Assemble washer and nut. Tighten with max. valid torque of the shear connector (see instructions for use of the manufacturer). Retighten the nuts twice over a period of at least 24 hours. Repeat this process after 7 days.



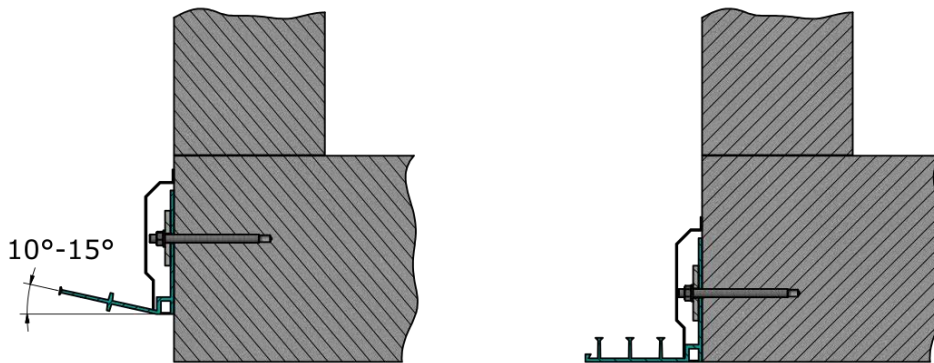
- To protect the expansion joint of a clamp construction, mount the clamp protection profile with a knock-in dowel.



- Internal waterstops must be secured in their position before the concrete pour at an angle $> 10^\circ$.

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Corner waterstops according to DIN 18541 & DIN 7865 Part 2

Components which are connected to existing buildings, usually require special care in sealing. A possible and common variant is the clamping construction with corner waterstops, clamping rail and raw rubber sealing strips.

The connection surface must be level, clean and stable. The concrete grade must correspond to at least one B 25. Concrete punctures and larger unevenness are filled with epoxy mortar.

The clamping part of the waterstop is fastened to the existing component. The seal is achieved by the loose flange (fix very close to the middle tube) and the waterstop with raw rubber sealing strips. The required contact pressure is achieved by tightening nuts and threaded rods. The required forces can be found in the respective fastening system. These are to be checked by a torque wrench. The seal in the new component is carried out as in conventional waterstops on the "labyrinth system".

For design reasons, the clamping rail should not exceed a total length of 1.50 meters. Here we use the standard 80 x 8 mm clamping rail and the associated shear connector M12 x 160 mm. The hole centre distance is 150 mm. Furthermore, in DIN 18195 Part 9 further important dimensions for the clamping rail, bolt spacing, hole diameter, etc. are regulated.

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Set-up

