

The dimensioning of the lateral concrete surrounding (x) must be adapted to local site conditions and equals at least 8 cm (see table). In cases where the connection between subgrade and lateral concrete surrounding of the channel is avoided by for example by expansion joints, then dowel bars made of  $\varnothing 8$  mm reinforced steel have to be installed every 30 cm.

With complete concrete surrounded channels system, BIRCO recommends a fully sealing of the channel joints, so as to prevent damage through freeze – thaw conditions (see jointing information!)

All adjoining pavement surfaces must run permanently at a level of approximately 3 to 5 mm higher than the upper edge of the channel. In order to achieve this, we recommend laying the first two to three rows of block paving or paving slabs in a mortar bed. Because there is no concrete encasing, the surfacing can run right up to the channel. In the case of block paving or paving slabs being used as the adjoining surfacing, a durable sealing joint of some 10 mm must be established between the channel and the surfacing. The joints between the first two to three rows of the block paving or paving slabs must be sealed durably in a tight and impermeable manner. It must be ensured that horizontal forces, which may result from the expansion or shifting of the pavement, have no impact on the two to three rows of pavement set in the mortar bed.

### Joining Information

Sealing of the channel joint / safety seam with SF-Connect after the laying of the drainage channels.

Properties:

Coated bases must be inspected in advance for adhesion and compatibility. The hardening period depends on the temperature and moisture. Higher temperatures reduce the drying period time. SF-Connect does not contain solvents, isocyanate or silicones and does not require special warning labelling. Prior to beginning the work, it is necessary to make oneself familiar with the handling and safety instructions by reading the material safety data sheet.

1. Use the industrial grouting pistol (item code 608500) to apply the sealant to the channel joint / safety seam.
2. Prior to applying the sealant to the safety joint, clean the channel end / safety seam and remove separating agents, dust, soiling, oil and other residues that could inhibit adhesion.
3. Wear protective gloves and eyewear when conducting the work.
4. Insert tubular bag (600 ml) into the industrial grouting gun.
5. Inject SF-Connect into joint.
6. Then smooth out the channel joint / safety seam surface with a jointer or putty knife that has been dipped in a soap solution.
7. Allow material residue to dry. Dried residue can be disposed of as residual waste.

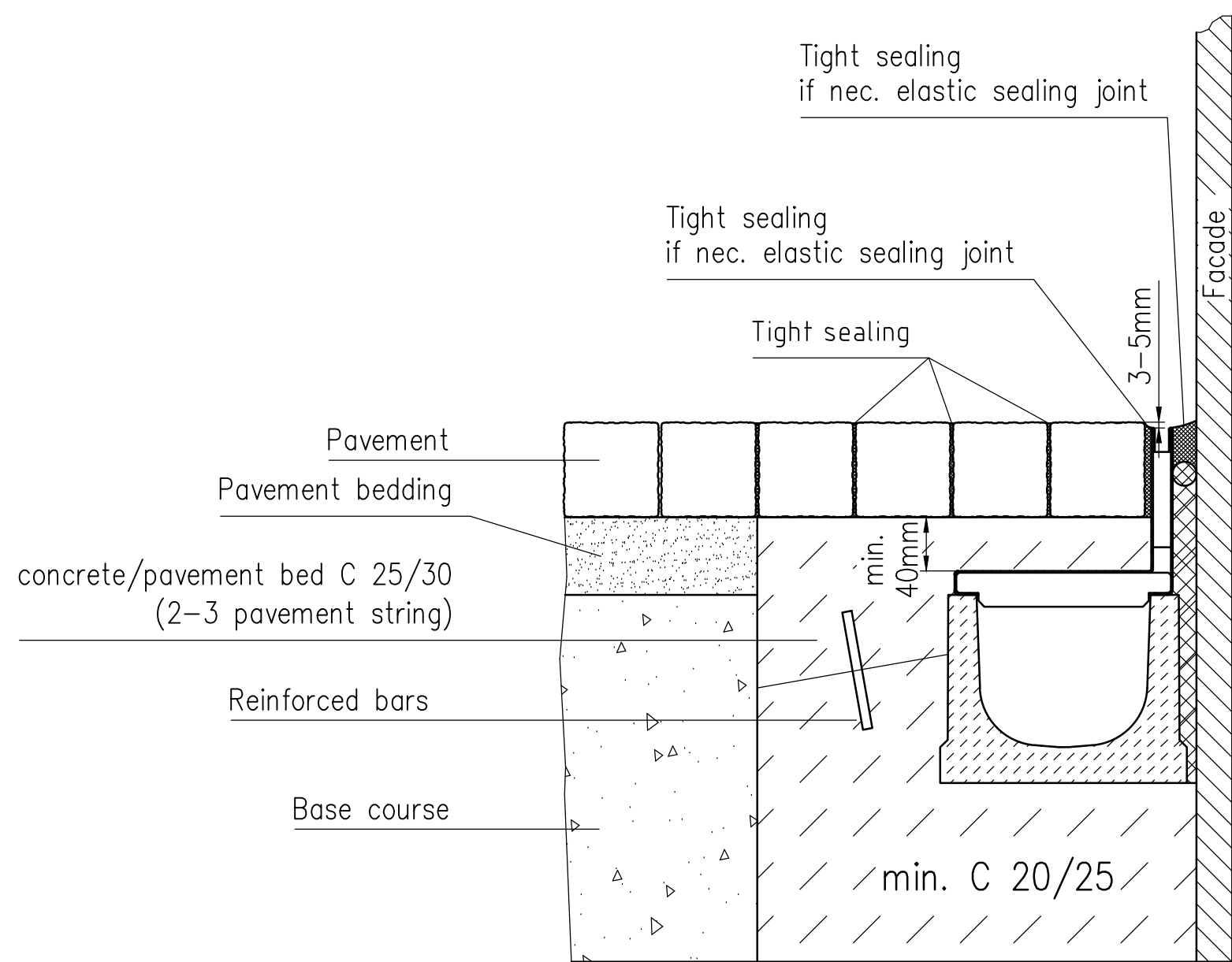
For screw fastening of the gratings, torque moments are to be set at  $M_{12} = 60 \text{ Nm}$ ,  $M_{11} = 100 \text{ Nm}$ . The bolts must be re-tightened at regular intervals.

Local particularities have to be examined and taken into account by the planner.  
Installation must comply with the latest international/local regulations and guidelines .

- + The correct load class in accordance with DIN EN 1433 "Drainage channels for vehicular and pedestrian areas" has to be respected.

Technical cross-section diagram of a road pavement structure showing a central drainage channel. The diagram is symmetrical, with layers labeled on both sides: Pavement, Pavement bedding, concrete/pavement bed C 25/30 (2-3 pavement string), Reinforced bars, and Base course. The central channel has a depth of 40mm and is filled with "min. C 20/25" concrete. A 3-5mm gap is shown at the top of the channel. "Tight sealing" is indicated at the top and bottom of the channel walls. "Tight sealing if nec. elastic sealing joint" is noted at the top of the channel walls. The base course contains reinforced bars. The entire structure is constructed in accordance with local specifications using non-settling frost-free sub-bases (E.g. RSTO).

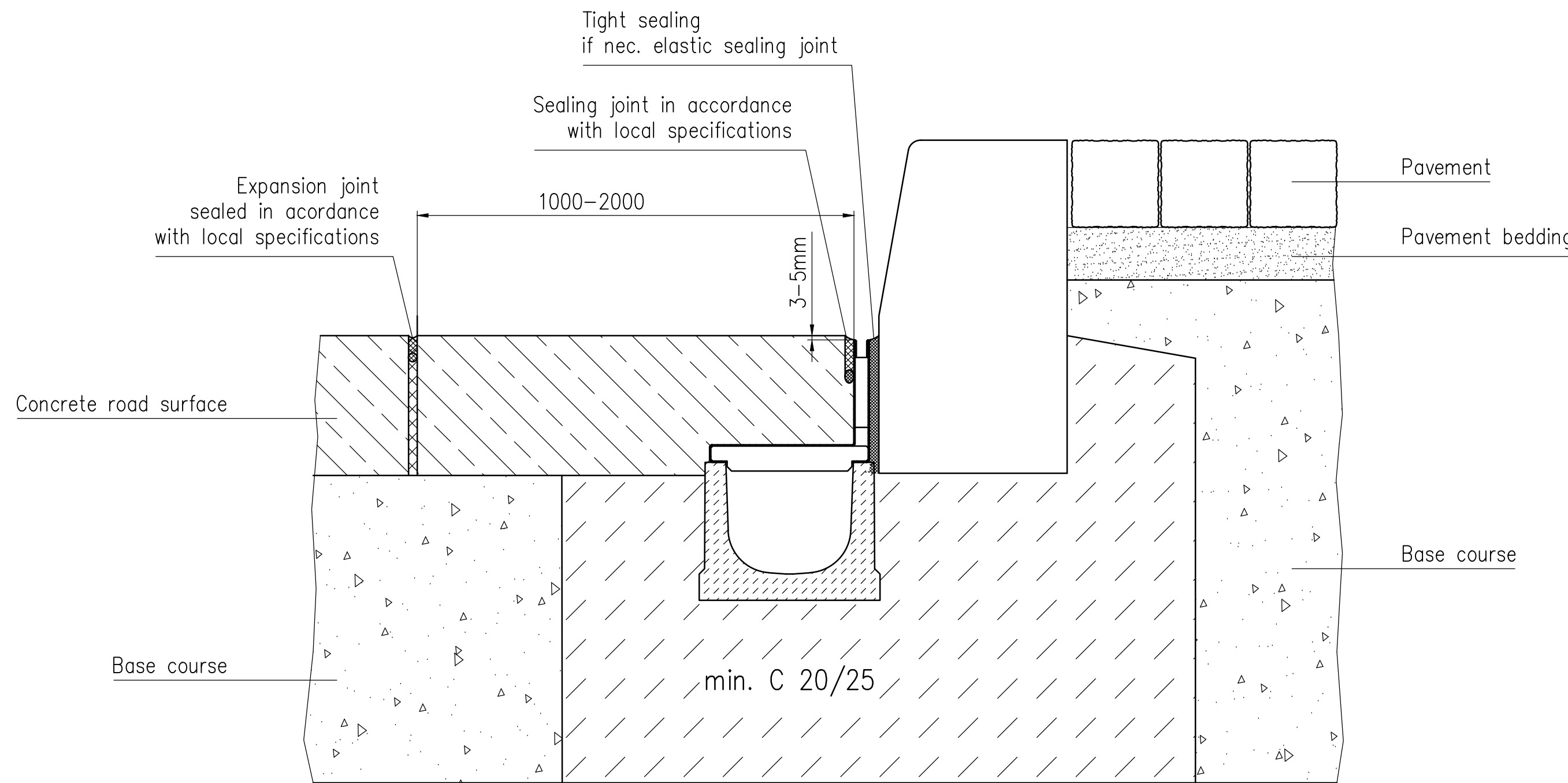
Constructed in accordance with local specifications using non-settling frost-free sub-bases (E.g. RSTO)



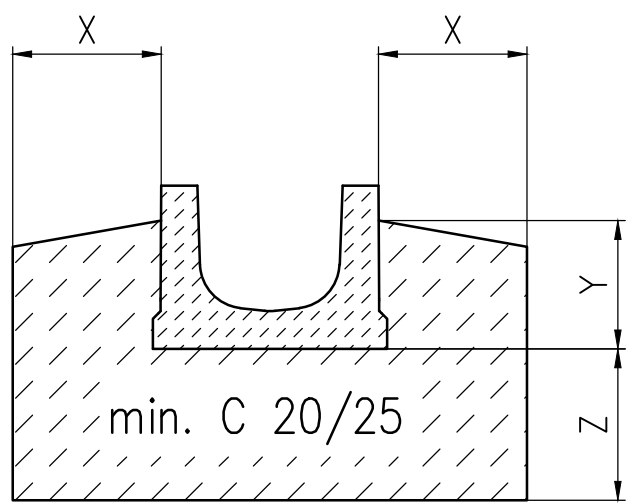
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The diagram illustrates two types of road joints: a full-depth joint (left) and a half-depth joint (right). Both joints are sealed with an elastic sealing joint. The full-depth joint shows a U-shaped cut through the pavement, bedding, and base course, with a 40mm gap and 3-5mm sealant. The half-depth joint shows a shallower cut. Labels include: Pavement, Pavement bedding, concrete/pavement bed C 25/30 (2-3 pavement string), Reinforced bars, Base course, Tight sealing if nec. elastic sealing joint, 3-5mm, min. 40mm, and min. C 20/25.

Constructed in accordance with local specifications using non-settling frost-free sub-bases (E.g. RSTO)



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Loadclass	X [mm]	Y [mm]	Z [mm]
A 15	≥80	height - 50	≥80
B 125	≥100	height - 50	≥100
C 250	≥150	height - 50	≥150

Informations depending on the adjoining pavement surfaces

[illegible]