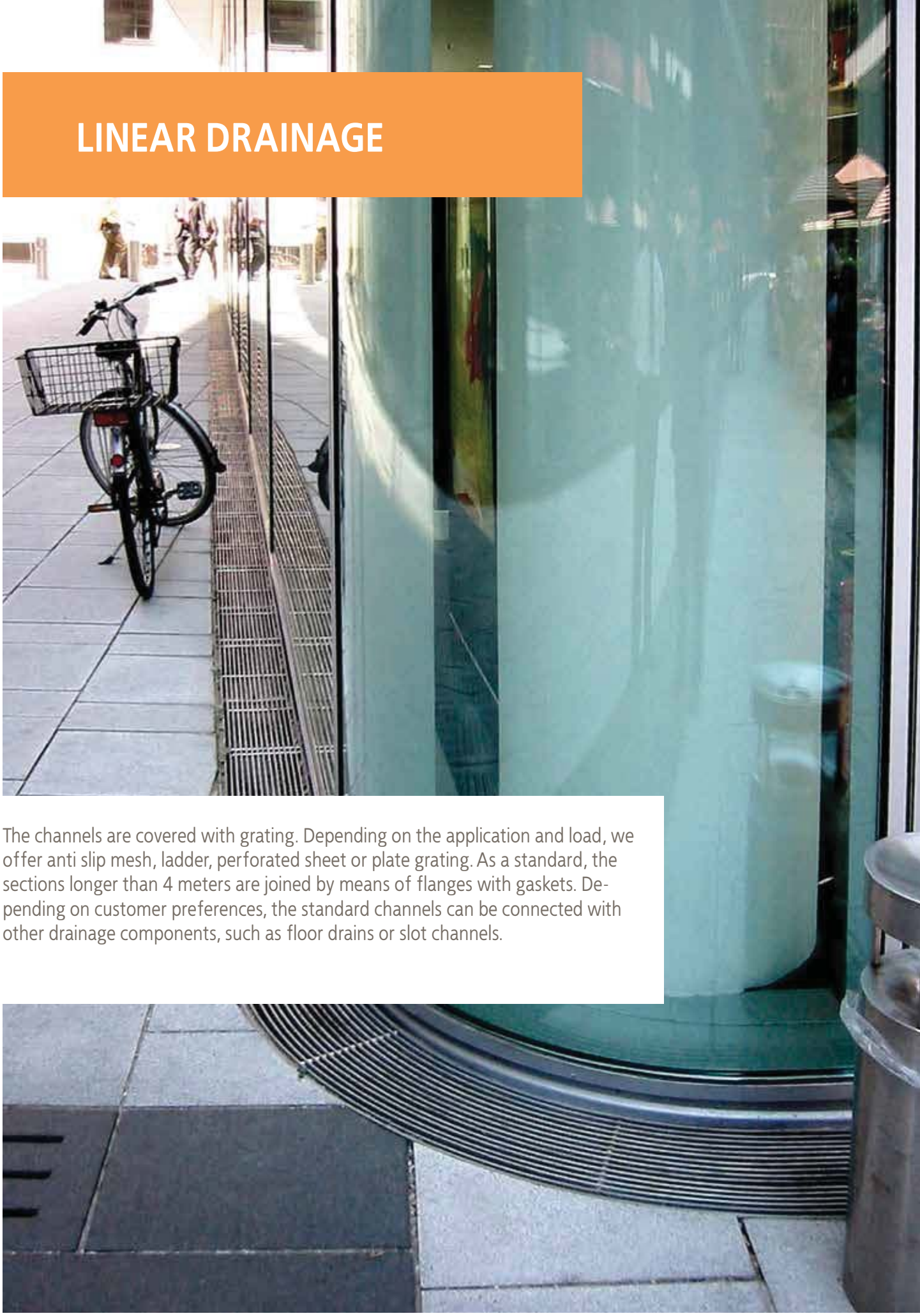
STANDARD CHANNELS

Standard channels are made of stainless steel and they are used to drain water from the floor and discharge it to the sewerage. This type of drainage finds application in food processing plants (breweries, dairy plants, slaughterhouses), chemical plants, restaurants, hospitals etc. Standard channels are also used in the facilities, where the sanitary regulations and technological process require using stainless steel drainage systems.

MANUFACTURING TECHNOLOGY

The standard drainage channels are manufactured in a wide range of sizes and shapes. They are made "to order"; the custom-made drawing is prepared as a result of cooperation between the client, its design or process engineer and the ATT staff. As a standard, the channels are made of 2 [mm] AISI 304 or AISI 316 sheets. The channels have in-built inclination.
To facilitate installation, each channel is equipped with levelling bolts and anchoring elements for correct height adjustment and placement in concrete.

LINEAR DRAINAGE



The channels are covered with grating. Depending on the application and load, we offer anti slip mesh, ladder, perforated sheet or plate grating. As a standard, the sections longer than 4 meters are joined by means of flanges with gaskets. Depending on customer preferences, the standard channels can be connected with other drainage components, such as floor drains or slot channels.

STANDARDS CHANNELS

ADVANTAGES

- draining a large amount of water,
- are easily configurable and can be joined at a required angle with other standard or slot channels,
- can be covered with a variety of gratings,
- easy access in cleaning purposes (rounded internal edges, replaceable gratings, trapped waste basket),
- the channel edges can be adapted to floor type (additional tile flanging, angle for expansion joints),
- the rodding eye to the sewer is located in the outlet.

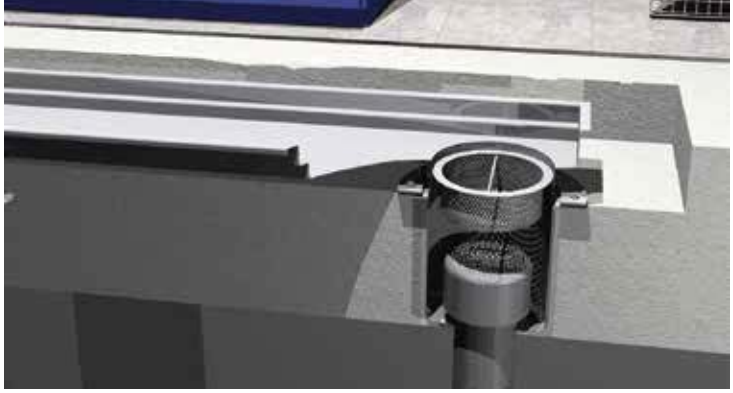
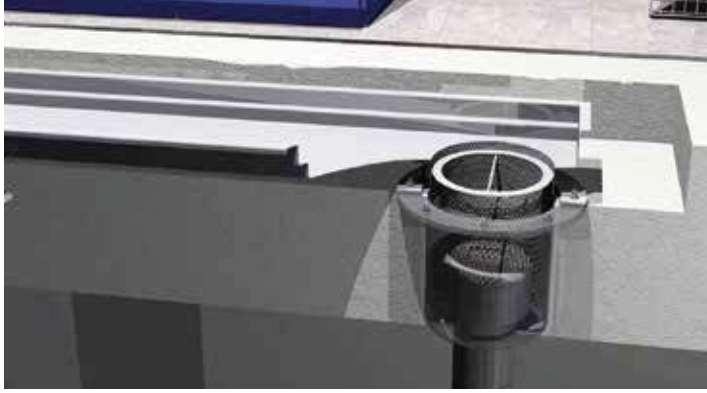
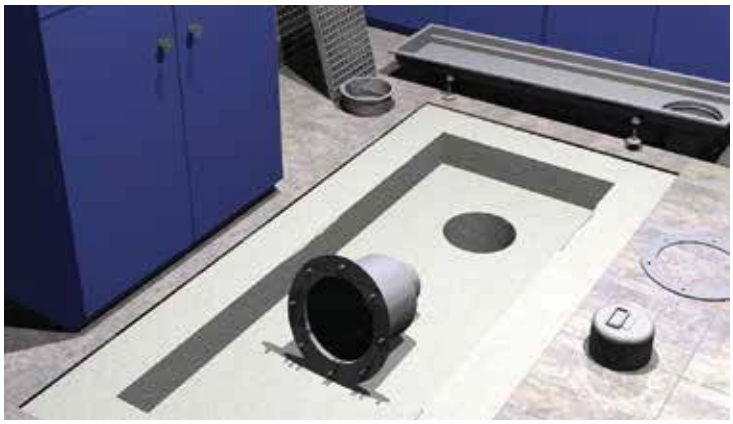
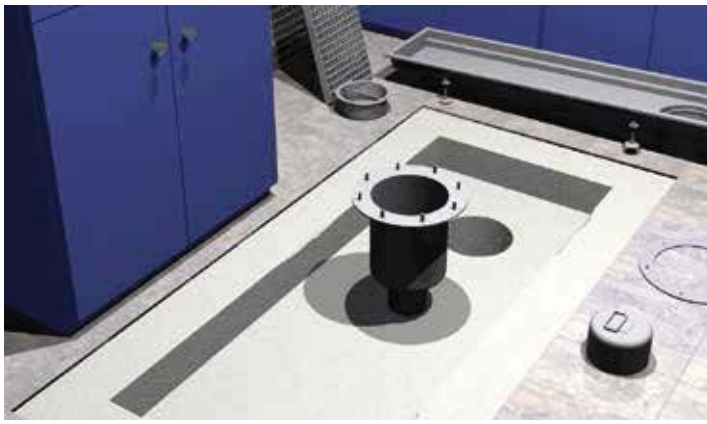
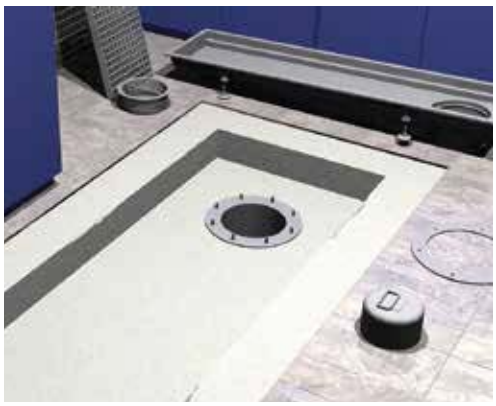
DESIGN SYMBOLS

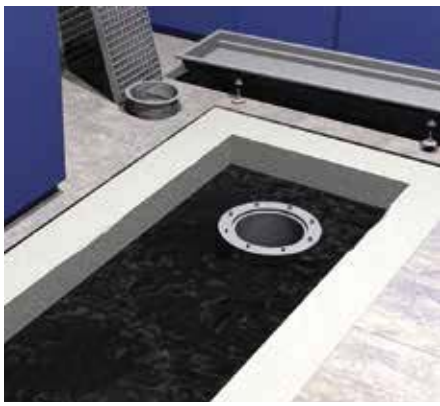
The standard channels are designated by their external width (S150, S200, S220.....S600..... etc.).

EXAMPLE

S150 - it is a channel with 150 [mm] external width.

For the S150 channel, the grating width will be 110 [mm], and the clearance 80[mm].
In addition to the width, the channel parameters should also include type and degree of fall and the drawing of the channel route in the plan.





STANDARD CHANNELS

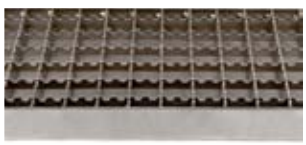
GRATINGS

The most typical grating to cover the standard channels is the anti-slip mesh grating with 23 x 23 [mm] mesh size and the load-bearing angle 25 x 2 or 30 x 2[mm]. Our product range also includes the ladder, plate or perforated sheet gratings, all in different sizes and dimensions.
The grating type is selected according to the channel location, load and functionality requirements. In the areas where forklift trucks traffic is intense, we recommend the plate grating, whereas mesh type is preferable, if the amount of the water to be drained is significant.

Below load classes are stated for the channels S150/200, made of standard material thickness.

perforated sheet grating

ladder hygienic grating



anti-slip mesh grating

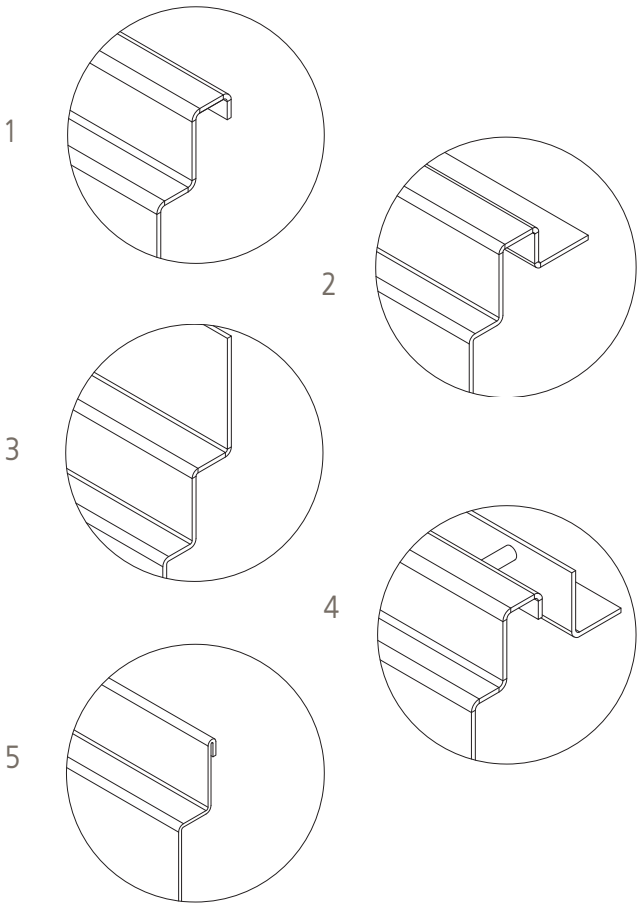
plate grating

ladder grating

CHANNEL EDGE FINISHING

The edge finishing should depend on the flooring and wastewater temperature.
We can offer the following options:

1 - with downward flange (standard)
2 - with flange
3 - with raised back edge
4 - with edge angle section for expansion joint in the floor
5 - with tightly folded edges

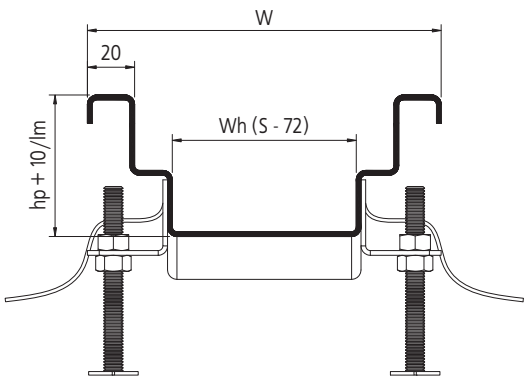


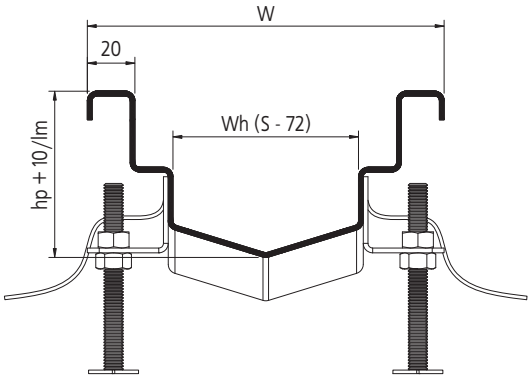
STANDARD CHANNELS

Typical layout of the channel is shown in the figure below. The placement of floor drains and the channel route depends on the needs and the amount of water to be drained from the floor. The two systems we offer, standard and slot channels, can be combined.

The channel route should be decided by the design engineer in cooperation with the process engineer. In case of any technical questions relating to the drainage system, please do not hesitate to contact our consultants.

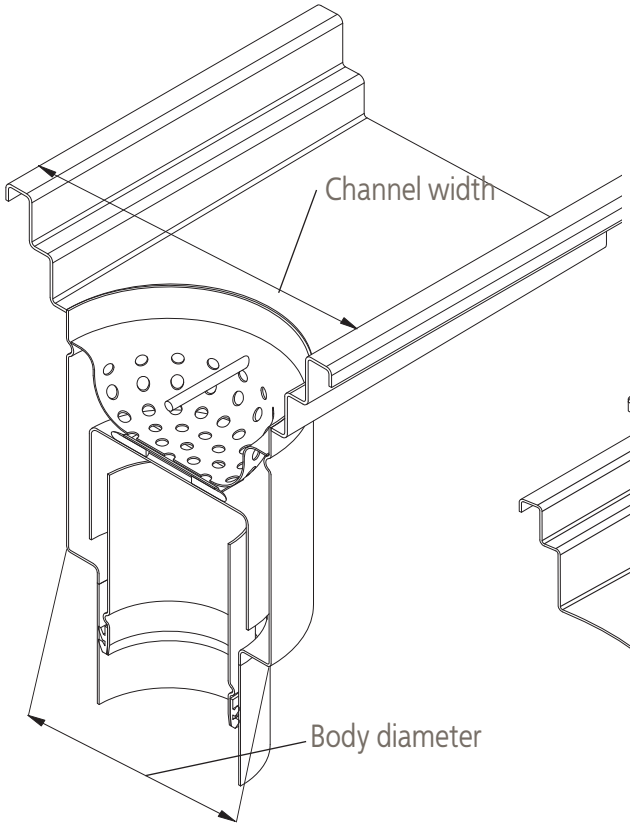
The channel outlet is fitted with trap and waste basket, securing the sewage system from solid impurities. We can insert horizontal water-proof insulation into the flange of the floor drain. This solution assures leak tightness in the area of outflow passage through the floor.

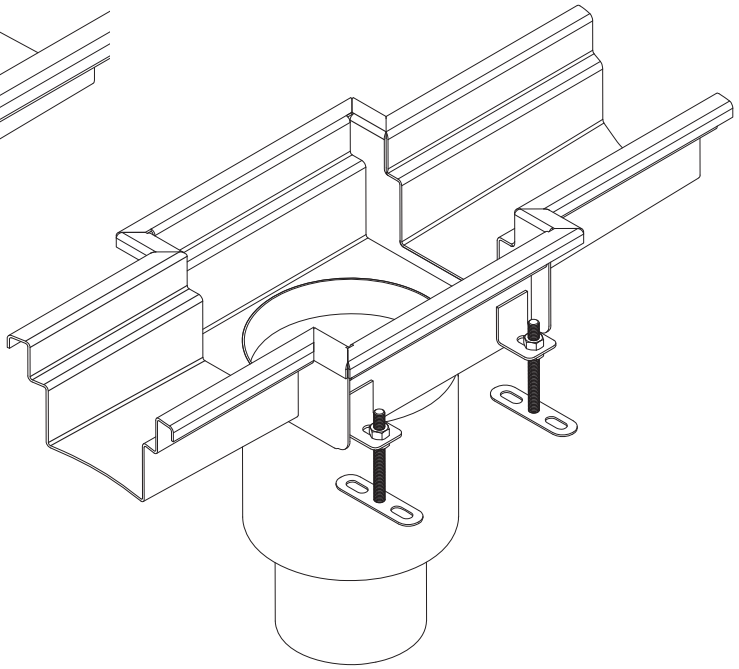




hp – initial height, channel's bottom slope depends on needs and installation abilities
W - channel width
Wh - hydraulic width

STANDARD CHANNELS





The table below shows standard dimensions of channel extension depending on type of used outlet. The extension is always 10 mm deeper than the channel it is connected to.

Due to the fact that the grating has bearing elements of one direction only, the extension is asymmetrical, which prevents incorrect installation.

Outlet type	Outlet diameter [mm]	Body diameter [mm]	Extension size (length x width) [mm]	Channel without extension		Flow rate (l/s)
				Min. channel's width [mm]	Min. Hydraulic width [mm]	
Wm150,200/110V1/2,H1/2	110	110	205x200	S190	120	0,5
W200/110V1p,H1p	110	157	245x240	S240	170	2,2
W200/110V2p,H2p	110	142	245x240	S220	150	2,2
W250/110V1,H1	110	193	275x270	S270	200	3
W250/110V2,H2	110	172	275x270	S250	180	3
W300/160V1,H1	160	255	340x335	S330	260	9
W300/160V2,H2	160	234	340x335	S310	240	9
W400/200V1,H1	200	348	435x430	S430	350	12
W400/200V2,H2	200	308	435x430	S390	320	12

V1 vertical floor drain single part

V2 vertical floor drain two - part

H1 horizontal floor drain single part

H2 horizontal floor drain two part

SLOT CHANNELS

ADVANTAGES

- good match to the interior design,
- cheaper option in comparison to standard drainage channels,
- possible connection to other channel types,
- grating is not required,
- easy installation.

A cheap and simple method for draining the surfaces where high flow capacity is not required. A perfect solution for rooms with condensate dripping from machinery or A/C systems: bakeries, dairies and swimming pools, as a separation of wet and dry areas.

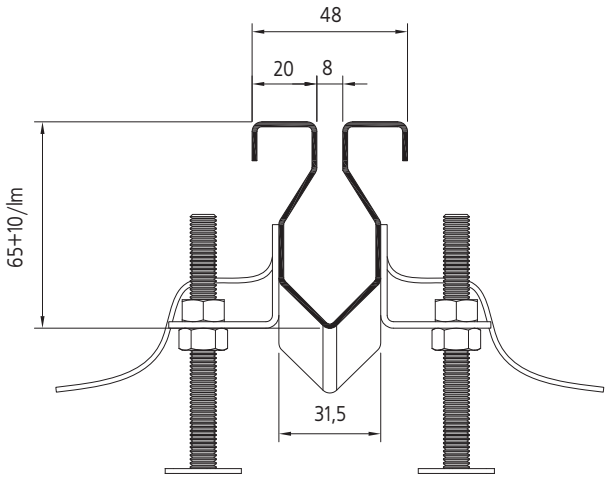
MANUFACTURING TECHNOLOGY

The slot drainage channels are made of 1.5-2 [mm] sheets. They feature inclination and can be adapted to the floor thickness. Water drainage from the slot channel can be via a stub pipe or the trapped floor drain with a waste basket. Standard length of a channel with a single outlet should not exceed 10 [m]. The channel sections exceeding 4 [m] in length are joined by means of flanges with gaskets.

SLOT CHANNELS

MINI SLOT CHANNEL

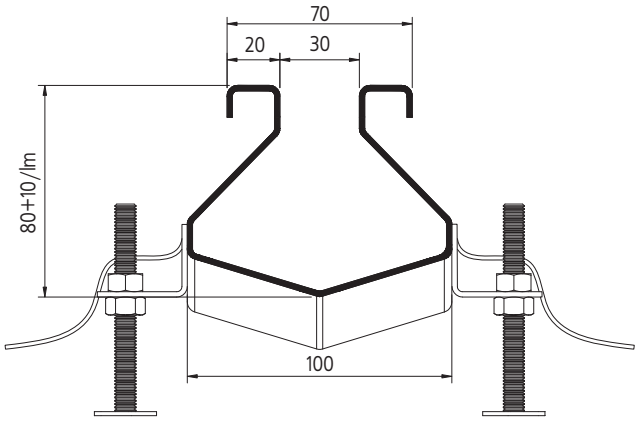
The mini slot channels are made of the 2 [mm] sheet. The channel is not covered with any grating.
It has smaller inlet opening and clearance. It is used in the places where smaller amount of water need to be drained.



Mini slot channel

MAXI SLOT CHANNELS

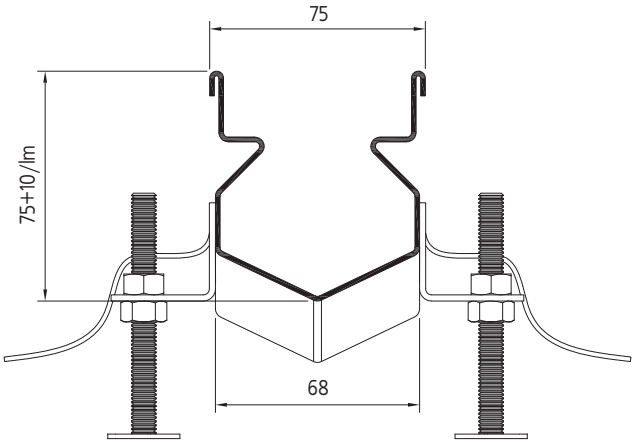
The maxi slot channels are made of the 2 [mm] sheet. This channel does not require grating and features higher flow capacity than standard channels. One of its characteristic features is larger inlet opening and clearance. Used wherever the amount of wastewater to be drained is substantial and standard channel does not need to be used due to the production process requirements (absence of large solids).



Maxi slot channel

STANDARD MINI CHANNEL

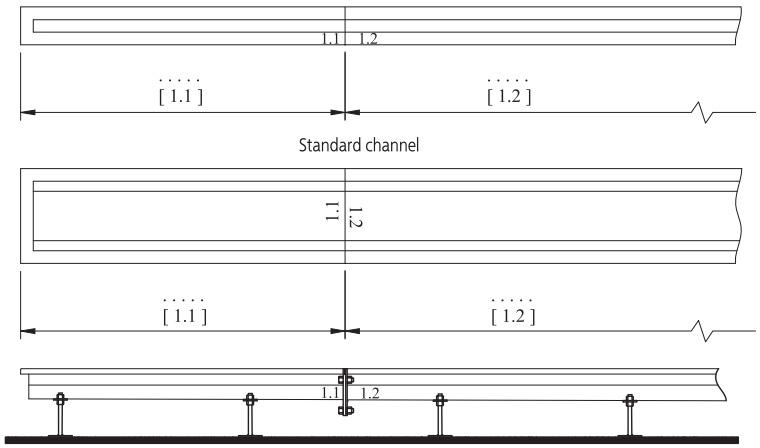
The standard mini channel combines the advantages of the standard and slot channels. It has small dimensions and features gratings. These channel types are used wherever the amount of water to be drained is small, but the rodding eye is necessary. As a standard, such channels are made of 1.5-2 [mm] V2A or V4A sheets.

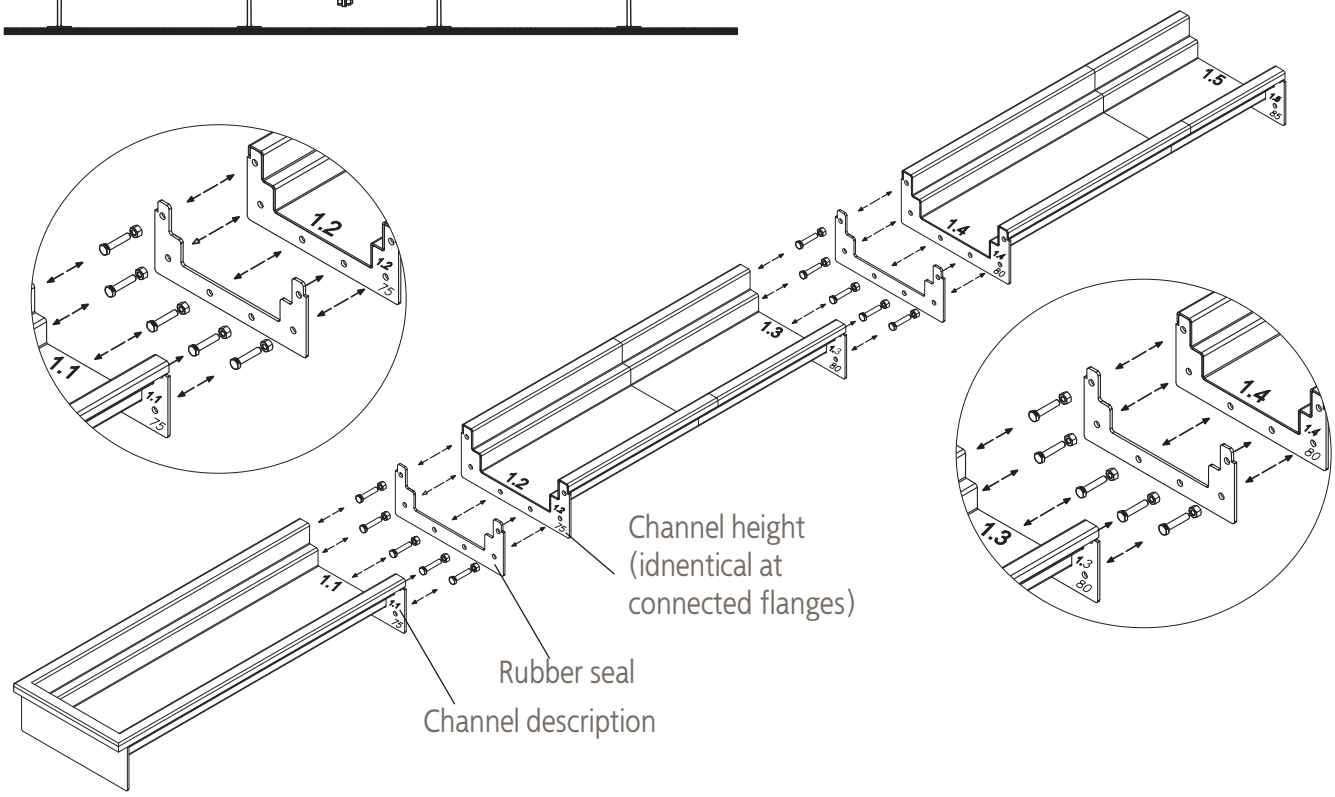


Standard mini channel

LINEAR DRAINAGE

CHANNEL CONNECTION DRAWING





Channels are divided into sections appropriate for transport, as a standard their length does not exceed 4 or 6 meters.
Length of the sections also depends on manufacturing technology.

At the connection point the channel is approximately 25 mm lower, due to the presence of the rim. It is also possible to weld the channel directly at the construction site.

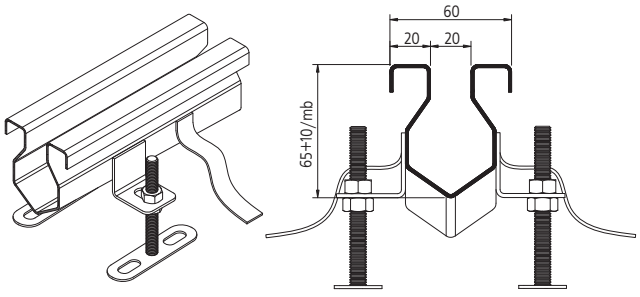
LINEAR DRAINAGE

CHANNEL INSTALLATION

1. Before installing the channel, bolt all its parts according to the "installation guide" to ensure tightness of all flange connections (flange-gasket--flange).
2. Install the channel prepared as above in the sewer service pipe's spigot.
3. The next step involves placing the channel on the required level. The channel edge should be 1-1.5 [mm] below the floor level.
4. When the channel is stabilized, we recommend to secure it against displacement during concrete pouring.
5. Pour concrete on the leveling legs and anchoring elements.
6. In hard to access areas subjected to highest loads, insert the concrete with a spatula.
7. Make sure the elements are clean, free of dirt. Remove gratings, waste baskets and traps.

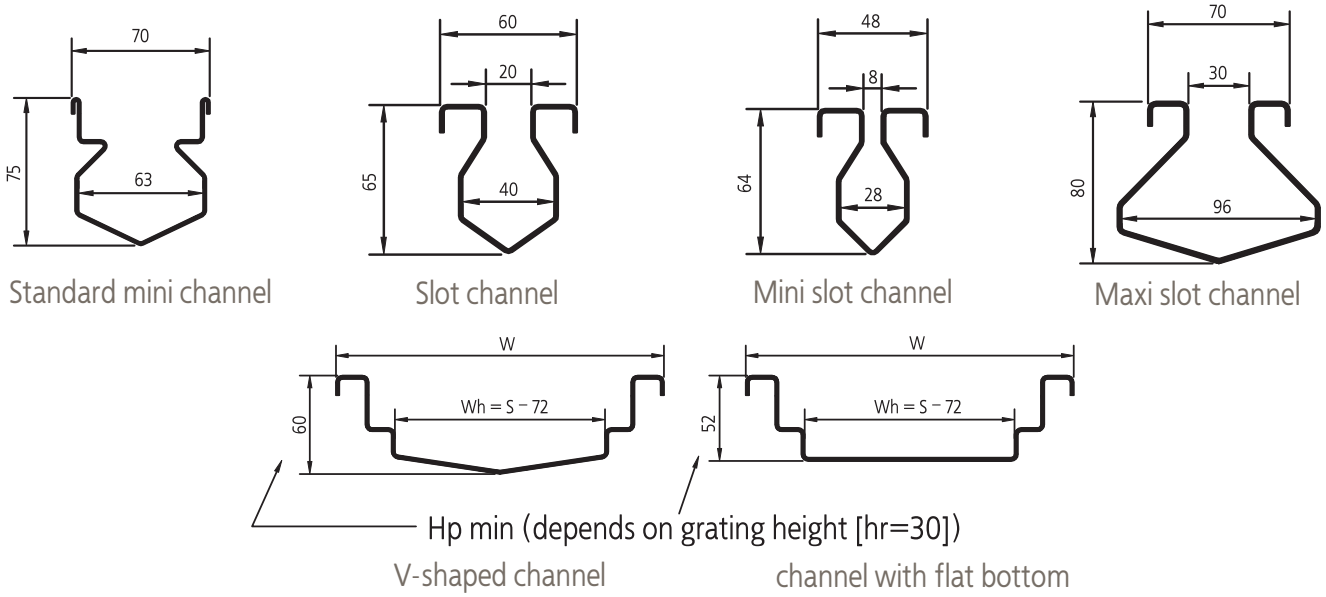
CHANNEL DEPTH

Regarding channels made with the bottom fall, the depth of the channels increases with its length. The channel depth at the outlet depends on the initial height, length and the channel fall (slope).
Standard initial depth of the slot channel is 65 [mm], bottom fall equals 1% and the opening width is 20 [mm]. These parameters can be customized to meet the client's requirements.



LINEAR DRAINAGE

MINIMUM INITIAL HEIGHTS FOR STANDARD AND SLOT CHANNELS



Standard mini channel | Slot channel | Mini slot channel | Maxi slot channel

V-shaped channel | channel with flat bottom

EDGES FILLING

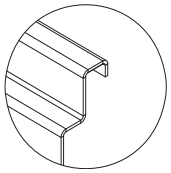
Standard edge (without backfilling).

Edge backfilled with syntetic material. It facilitates installation and prevents formation of a void between the concrete and the edge, protecting the channel perimeter against deformation in case of large loads.

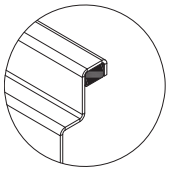
Edge backfilled with stainless steel. The edge backfilled with a steel profile should be used in the areas with intensive traffic and high loads.

Edge with a border angle section. The angle is connected with the channel edge by means of a bar. This edge type is used to make expansion joints along the channel, i.e. when the drained wastewater is hot.

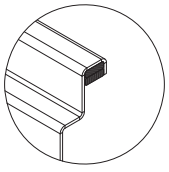
Edge with a strip for vinyl flooring. The strip is installed on the channel edge to ensure tight joint between the channel and the vinyl flooring.



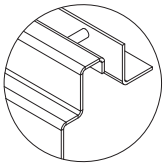
standard edge



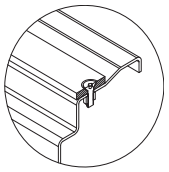
syntetic material



stainless steel



angle section



strip for vinyl floor