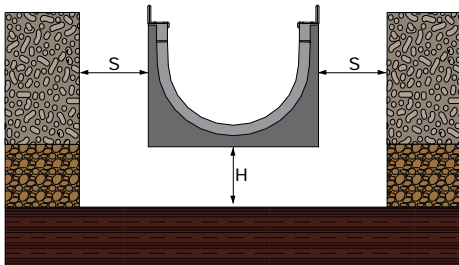


Instruction for the installation Draining Asphalt grating WING 200

azienda certificata ISO 9001:2000
numero verde fax 800 234495

MUFLE spa - via s. maria in potenza, scn - 62017 porto recanati - mc - Italy - tel. +39 071 9799122 - fax +39 071 7592275 - info@mufle.com - www.mufle.com
p.lva 01 448550424 - cap. soc. €1.100.000,00 i.v. - C.I.A.A. MC 01448550424 - R.F.A. n. 165621 - soggetta a direzione e coordinamento ex 2497 cc da Papafin Srl



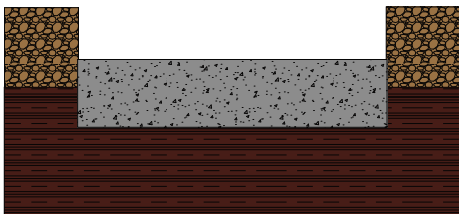
Step 1

Dimensioning of the trench

The excavation to be made for the laying of the Drain System channels must take into account:

- 1) the channel dimension and the discharge outlet pipes;
- 2) adequate space for the foundation H and concrete side flanking S.

The foundation and the flanking dimensions are listed in the table at the bottom of page nr. 2.

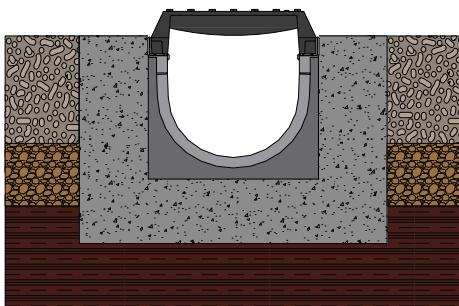


Step 2

Concrete foundation

Lay the concrete foundation H up to the height indicated, arranging, in this phase, eventual inclination in the drain line.

For class of loads E and F, we suggest to strengthen the foundation with reinforcing rods.



Step 3

Channels installation

Lay the channels starting from the flow outlet and block them at the base in order to avoid their floating and their line skew during the concrete cast for the flanking.

Arrange the required discharge outlets and carry out the side flanking up to the maximum height allowed, as shown in the drawings on page 2.

First insert and block the requested gratings: in order to make the layout instruction quicker and to avoid the channels edges shrinkage due to the concrete pressure.

Carry out the concrete flanking with reinforcing rods as well as the concrete foundation (see step 2).

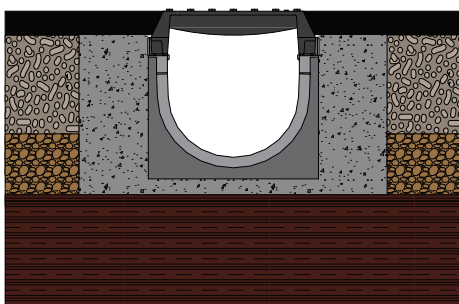
In case it is required a water proofing drainage line, we recommend to use a bituminous silicon sealant; we suggest "Shell Tixophalte". Apply a sealing stripe on each slot between the channels.

We strongly suggest to apply the stripes of "Shell Tixophalte" in the groove before coupling the channels.

Eventually longer lasting and complete waterproofing performance can be obtained by welding the joints.

To avoid concrete stains on the gratings during the installation, we suggest to protect the

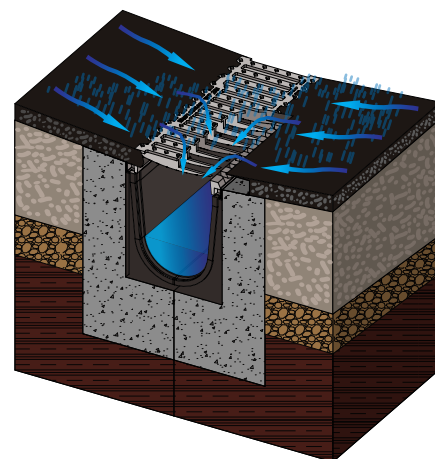
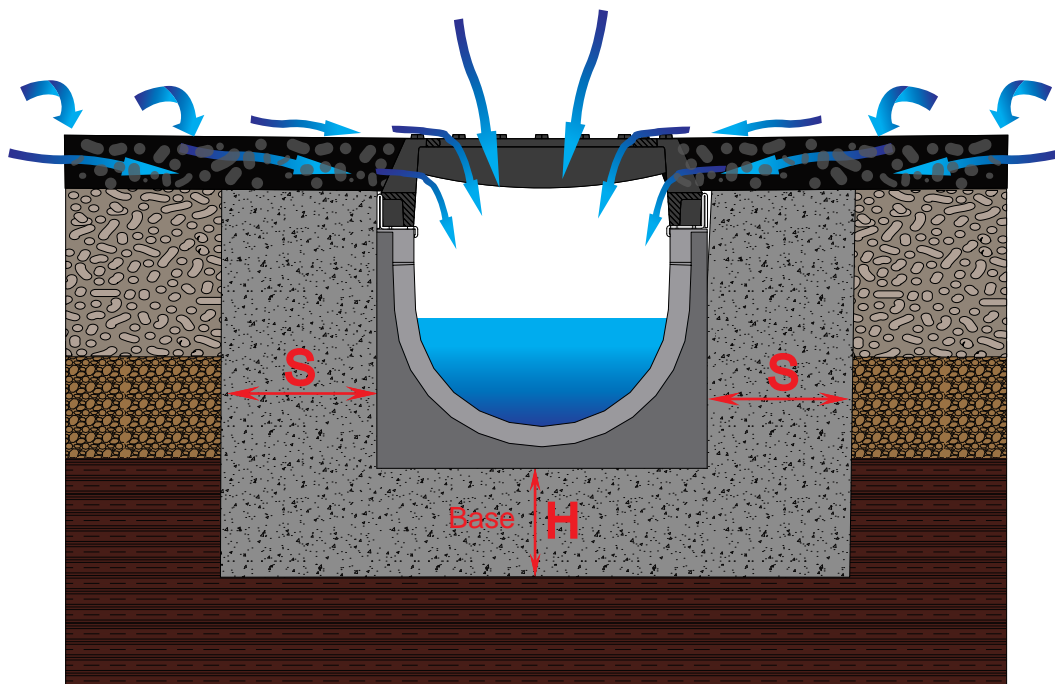
NEW:
The new mufledrain channels can also be joined together with the gratings/covers



Step 4

Final nishing

Install the final finishing making sure to bring the upper profile at least 3 mm above the flow of the grating or channel side. Take off the protective film and fix the grating by required means.



Technical Data

Class of load (EN 1433)	D 400
Applicable load (EN 1433)	400 kN
Minimum height (H) of concrete laying bed	200 mm
Minimum thickness (S) of the concrete flanking	200 mm
Class of concrete (resistance to compression EN 206-1)	C 25/30*
Class of concrete (resistance to compression EN 206-1) ¹	C 30/37 XF4

¹ If concrete can be affected by frost and thaw cycles

*If installation is in road crossing subject to heavy traffic (especially trucks), Class C30/37 concrete should be used.

N.B. We recommend using class S4 concrete (EN 206-1) and stone aggregate with maximum diameter 8mm .

The present data sheet is to be used only as a suggestion for the laying of the MufleDrain channels. For every installation we recommend you to check the following:

- the load capacity of the foundation
- use concrete with the advised characteristics
- respect the height of the laying bed and the flanking thickness.