

Ø 160

Ø 200






Ø 250

UTube





technical data sheet

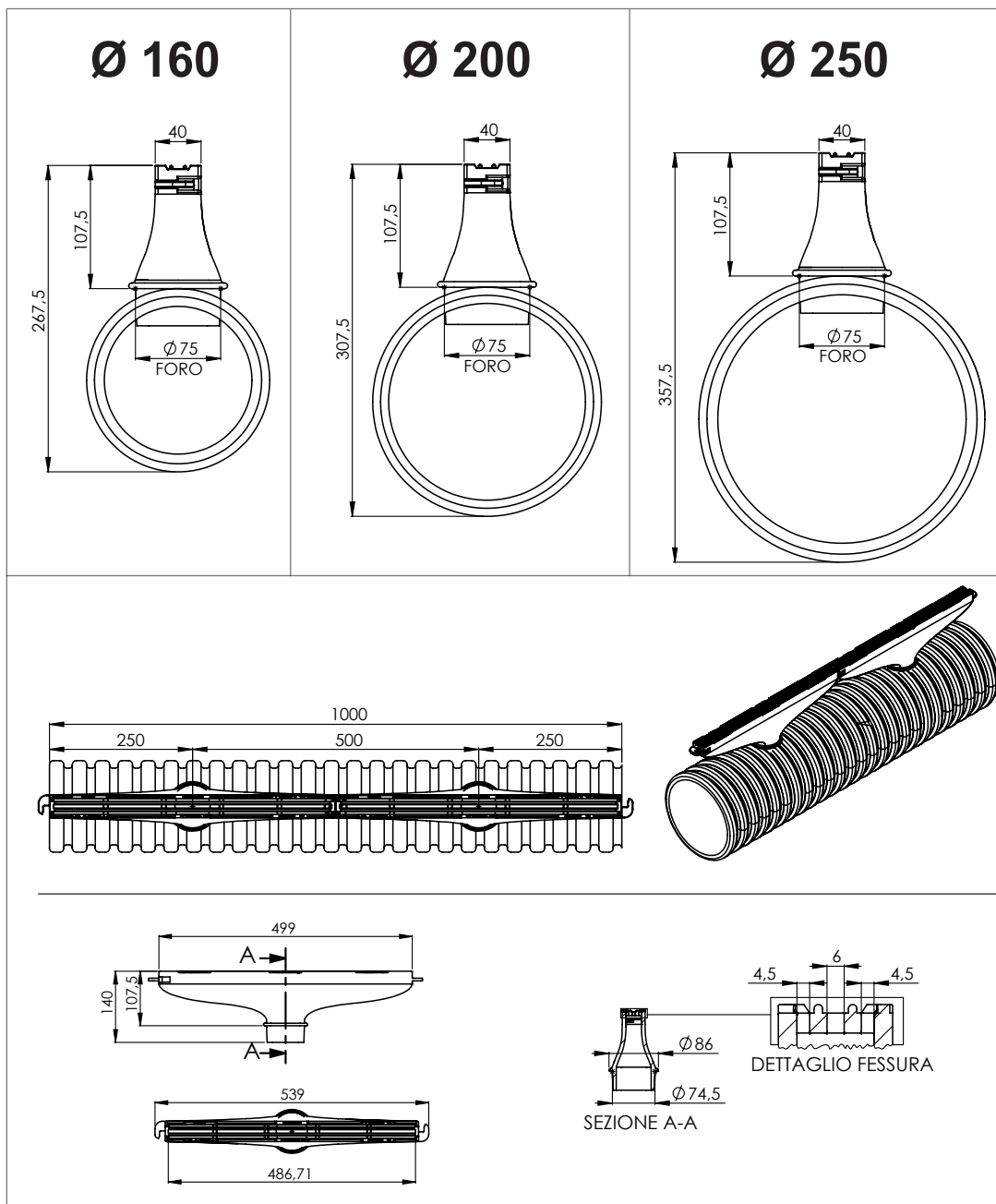
why

UTube

- 1  **Connection pipe capacity entirely exploitable thanks to the absence of a drain hole.**
- 2  **Direct attachment to the sewer system thorough the connection pipe.**
- 3  **One grating for every field of application.**
- 4  **Reduced grating width: the necessary draining capacity in only 4cm.**
- 5  **Nice visual impact.**



- 6  **Class of load F900 according to the norm UNI EN 1433.**
- 7  **The slots perpendicular to the flow prevent the escape of liquids.**
- 8  **Possibility of flow change by connecting pipes with different diameters along the line.**
- 9  **Possibility of choosing different flow rate with the same grating.**



Dimensions and characteristics	UTube Ø160	UTube Ø200	UTube Ø250
System	Captation cone // Corrugated pipe		
Lenght (mm)	1000		
Total width (mm)	Ø 160	Ø 200	Ø 250
Grating width (mm)	40	40	40
Height (mm)	267,5	307,5	357,5
Material	Ductile iron GJS 500/7 (EN 1563) // PE-HD		
Weight (Kg)	11,2	11,7	13,2
Flow rate l/s (80% filling, minimum slope 0,1%)	14,3	24,3	37,3
Surface finishing	Epoxy Paint // PE-HD		
Class of load (UNI EN 1433)	F900 (UNI EN 1433)		
Cone outlet into the pipe (mm)	2x Ø 75		

Axhell Drain Srl reserves the right to vary the above mentioned technical features without notice.
The dimensions and weights are subject to the standard tolerance of production.
The products have to be installed according to Axhell's specifications and Standard in force.

application field

Rest areas subject to heavy vehicles transit
Goods handling areas with use of forklifts
Squares with prestigious flooring
Ports and airports

specification

Supply and installation of rainwater and surface run-off water capturing and drainage system of UTube Axhell consisting of 2 elements:

1 - Corrugated pipe for sewer coextruded with double wall smooth inside and corrugated outside black color in polyethylene high density, for underground piping not in pressure with hooking through coupling in PEAD and preinstalled connection for lip gaskets in EPDM. The pipe will have holes diameter 75mm every 500mm to connect the cone. The pipe must be 1m long and outside diameter from 160mm to 250mm. The pipe diameter will be calculated based on the water flow rate which can't exceed the 70% of its capacity.

2 - Cone suitable to capturing and draining of water from the surface and incoming the above described corrugated pipe; made of ductile iron GJS 500/7 following standard EN1563-2004; male-female locking system between cones. The cone must be made in one only piece where the above part will have three longitudinal slots creating a suitable draining grating. The body of the cone will have conical shape which ends, on the bottom, with a circular opening 35mm high and diameter 65mm for direct connection to the corrugated pipe below described in point 1. The cone dimensions are: length 500mm, total height 140mm, height after connection to the pipe 105mm, top width 40mm. The surface exposed to the traffic will show a grating, class F900 following standard EN1433-2008 and will be provided with all the markings following standard EN1433-2008 and marking CE.



installation

1



Realize the excavation according to the dimensions required in the project. The dimension will be on the diameter of the required pipe.

We recommend consulting the European standard UNI EN 1610 which points out the minimum values of the excavation trench.

2



Lay the EPS supports on the bottom of the excavation site suitably compacted and leveled.



Position the corrugated pipe.

Control that the concrete laying bed on the bottom of the excavation respects the norm UNI EN 1433 based on the required class of load. If a thicker laying bed than the EPS support is required, place a concrete laying bed on the bottom of the excavation or him the EPS support.

3



Insert the cones connecting one to the other with the special male-female interlocking system through a rotating move on the horizontal axis and make sure they are aligned.



4



Cover the cones and the pipe with concrete with resistance class according to the class of load requested.

- Make sure to prevent the material from falling into the cone.
- It is advisable to support this casting using one or two Ø12 electrically welded meshes, 10x10 mesh in case of heavy and fast traffic or with heavy classes of load.

The abutment operation must be carried out in consecutive layers in order to avoid the floating of the pipe.

5



Complete the installation with the requested paving.

installation with mesh

1



After having carried out the excavation as per Phase 1 and 2, insert a suitably bent "U" shaped welded mesh panel resting the part open on the bottom of the excavation.

2



Insert the cones connecting one to the other with the special male-female interlocking system through a rotating move on the horizontal axis and make sure they are aligned.

3



Proceed with the Pose Phase 4.

4



Level out the cones.
Be careful to leave enough space without flanking, when a final covering (tiles, blockpaving, etc...) is necessary.

5



Complete the installation with the requested paving.



note

- a) The depth of the final surface must exceed the grating edge of about 3mm.
- b) In case of concrete paving, in order to absorb the horizontal expansion forces it is advisable to provide expansion joints in both directions.
- c) It is recommended to use concrete with Class of Consistency S4 (EN 206-1) and stone aggregates with maximum diameter of 8mm.



In case of very intense and frequent stresses, support the concrete casting around the UTube cone with an electrically welded mesh and / or steel rods.

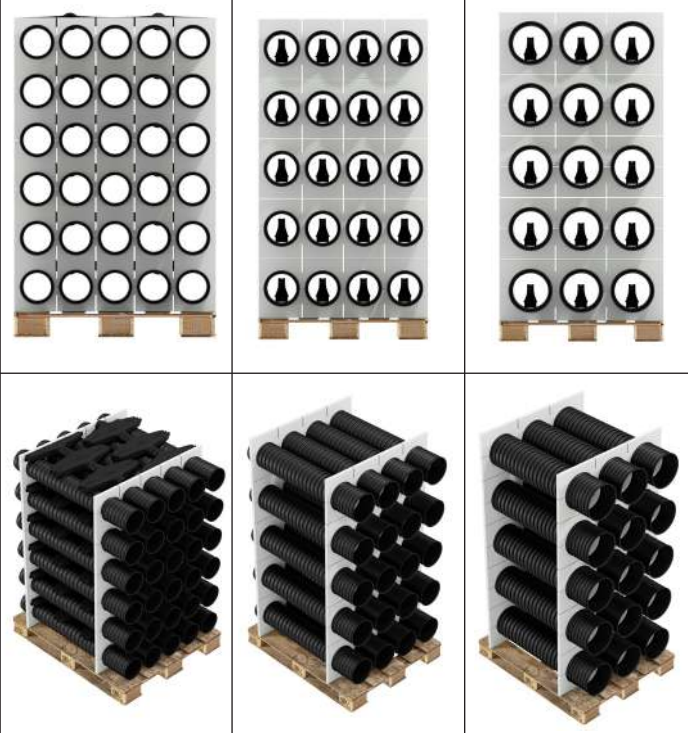
SUMMARY TABLE				
Load class (UNI EN 1433)		D 400	E 600	F 900
Applicable load (UNI EN 1433)	KN	400	600	900
Minimum height H of concrete laying bed	mm	200	200	250
Minimum thickness S of concrete fl anking	mm	200	200	250
Concrete compression strenght class (EN 206-1)		C 25/30	C 30/37	C 35/45
Class of concrete compression resistance (EN 206-1)		C 30/37 XF4	C 34/45 XF4	C 40/50 XF4
<i>In case of concrete exposed to freeze / thaw cycles</i>				

The installation instructions and the relative example drawings are provided as an indication and do not take into account any specific characteristics of the place of installation, the particularities of the ground, the morphology and the position of any slopes. For particular installation methods, the indications must be provided by the technician in charge.

packaging

Packaging	UTube Ø160	UTube Ø200	UTube Ø250
Item	1 linear meter UTube (1 linear meter pipe + 2 cones + 1 coupling assembled)		
Code	500001	500002	500003
Linear meters per pallet	30	20	15
Pallet dimensions	100x120xH140	100x120xH140	100x120xH140

Packaging MIX	UTube
Linear meters per pallet	24
Pallet dimensions	100x120xH140
	
	





axhell.com

AXHELL