## UTube Technical data sheet



| Dimensions and characteristics | UTube $\varnothing 175$ | UTube $\varnothing 260$ | UTube $\varnothing 345$ |
| :---: | :---: | :---: | :---: |
| System | Captation cone // Corrugated pipe |  |  |
| Length (mm) | 1000 |  |  |
| Total Width (mm) | $\varnothing 175$ | $\varnothing 260$ | $\varnothing 345$ |
| 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 | 12.38 | 14.1 |
| Pipe Capacity ( $\mathrm{dm}^{3}$ ) | 14,3 | 24,3 | 37,3 |
| Surface finishing | Epoxy Paint // PE-HD |  |  |
| Class of Load (UNI EN 1433) | F900 (UNI EN 1433) |  |  |
| Outlets | $2 \mathrm{x} \varnothing 75$ |  |  |

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.

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## UTube Technical data sheet



| Dimensions and characteristics | UTube $\varnothing 435$ | UTube $\varnothing 500$ | UTube $\varnothing 660$ |
| :---: | :---: | :---: | :---: |
| System | Captation cone // Corrugated pipe |  |  |
| Length (mm) | 1000 |  |  |
| Total Width (mm) | $\varnothing 435$ | $\varnothing 500$ | $\varnothing 660$ |
| Grating Width (mm) | 40 | 40 | 40 |
| Height (mm) | 542.5 | 607.5 | 767.5 |
| Material | Ductile iron GJS 500/7 (EN 1563) // PE-HD |  |  |
| Weight (Kg) | 16.8 | 18.2 | 28.0 |
| Pipe Capacity ( $\mathrm{dm}^{3}$ ) | 47.02 | 54.05 | 71.35 |
| Surface finishing | Epoxy Paint // PE-HD |  |  |
| Class of Load (UNI EN 1433) | F900 (UNI EN 1433) |  |  |
| Outlets | $2 \mathrm{x} \varnothing 75$ |  |  |

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## 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 75 mm with inside 500 mm . The pipe must be 1 m long or multiple up to max 3 meters and outside diameter from 175 mm to 660 mm ; 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 mouthpiece 35 mm high and diameter 65 mm for direct connection to the corrugated pipe below described in point 1.
The cone dimensions are: length 500 mm , total height 140 mm , height after connection to the pipe 105 mm , top width 40 mm . 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.
The grating dimensions must be: Length 498 mm , width 40 mm .

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## Installation:

## Step 1



Realize the excavation according to the dimensions required in the project
The dimension will be on the diameter o the required pipe.
We recommend consulting the European standard UNI EN 1610 which points out the minimum values of the excavation trench.

Step 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 shim the EPS support.

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## Step 3



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

## Step 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 $\varnothing 12$ electrically welded meshes, $10 \times 10$ mesh in case of heavy and fast traffic, that is, with heavy classes of load.
The abutment operation must be carried out in consecutive layers in order to avoid the floating of the pipe.

Step 5


Complete the installation with the requested paving.

## Notes

a) The depth of the final surface must exceed the grating edge of about 3 mm .
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 8 mm .

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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.

| TABELLA RIEPILOGATIVA |  |  |  |  |
| :--- | :--- | :--- | :--- | ---: |
| Load class (EN 1433) |  | D 400 | E 600 | F 900 |
| Applicable load (EN 1433) | kN | 400 | 600 | 900 |
| Minimum height H of concrete laying bed | mm | 200 | 200 | 250 |
| Minimum thickness S of the concrete fl anking | mm | 200 | 200 | 250 |
| Concrete compression strength class (EN 206-1) |  | C 25/30 | C 30/37 | C 35/45 |
| Class of concrete compression resistence (EN 206-1) <br> in case of concrete exposed to freeze / thaw cycles. |  | C 30/37 XF4 | C34/45 XF4 | C 40/50 XF4 |

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.

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