

TAURUS CHANNEL 260



INDEX

1. Code Registry
2. Description
3. Use
4. Laying tips
5. Calculation of flow rates according to Chezy's formula
6. Technical specification

1. CODE REGISTRY

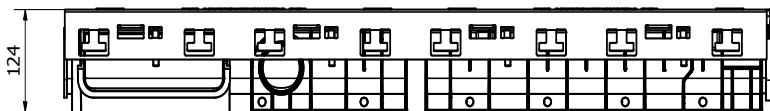
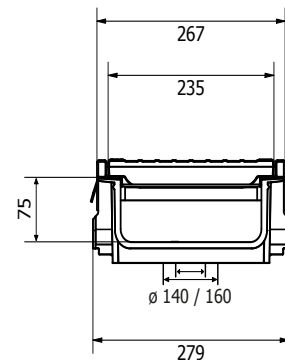
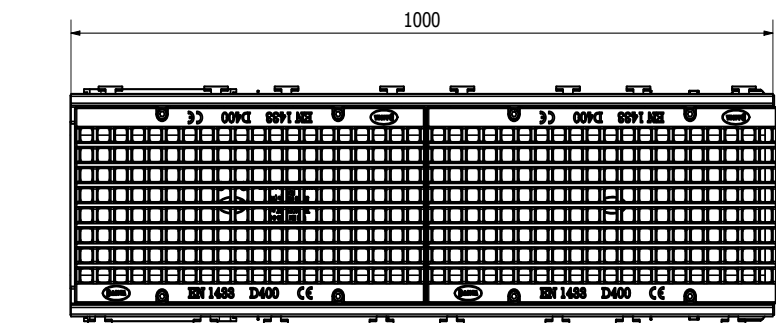
Code	Description	Dimensions (mm)	Weight	Colour	Pkg. / Pallet
POZ92-2607PC	Taurus 260/75 with pre-assembled Grating - C250*	260 x 75 x 1.000	20,40 kg/pc.	Black	1 pc. / 36 pcs
POZ92-2615PC	Taurus 260/150 with pre-assembled Grating - C250*	260 x 150 x 1.000	20,80 kg/pc.	Black	1 pc. / 20 pcs
POZ92-2607PD	Taurus 260/75 with pre-assembled Grating - D400	260 x 75 x 1.000	27,00 kg/pc.	Black	1 pc. / 36 pcs
POZ92-2615PD	Taurus 260/150 with pre-assembled Grating - D400	260 x 150 x 1.000	27,40 kg/pc.	Black	1 pc. / 20 pcs
POZ92-2607PE	Taurus 260/75 with pre-assembled Grating - E600*	260 x 75 x 1.000	37,60 kg/pc.	Black	1 pc. / 36 pcs
POZ92-2615PE	Taurus 260/150 with pre-assembled Grating - E600*	260 x 150 x 1.000	38,00 kg/pc.	Black	1 pc. / 20 pcs

MATERIAL

Made of PE-HD (high-density polyethylene). The accessories are made of galvanized steel, the grating are made in cast iron.

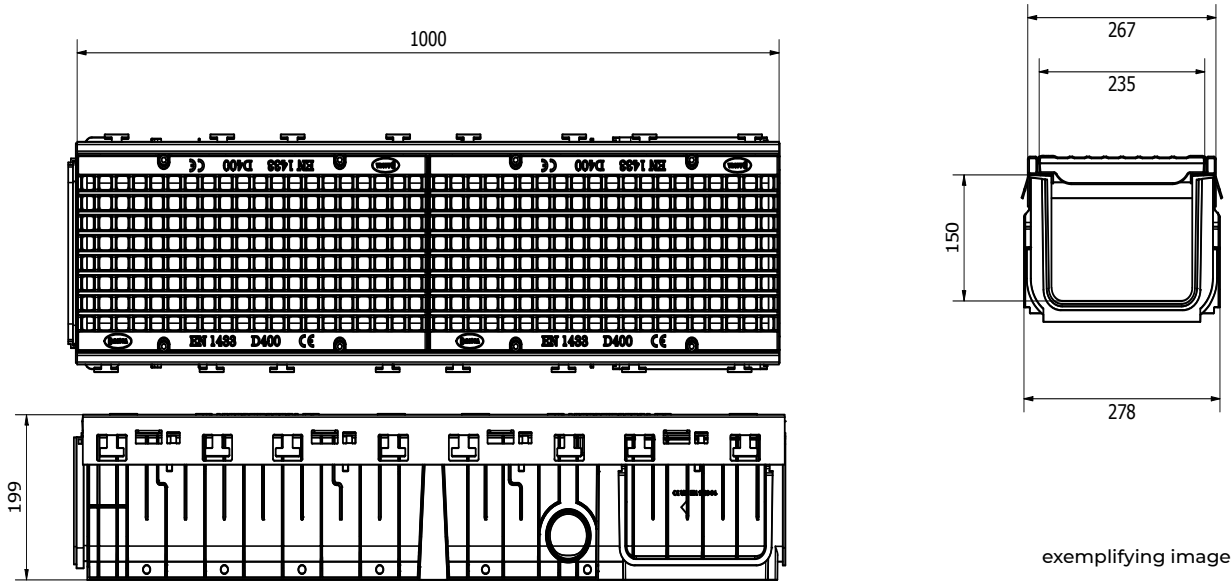
CERTIFICATION

The item is engraved in accordance to EU regulation UNI 1433.



exemplifying image

TAURUS CHANNEL 260



2. DESCRIPTION

Channel for collection of meteoric waters.

The material has an excellent resistance to chemicals and organic agents and it is "self-cleaning". This channel is shock resistant, unbreakable and can guarantee high performances even in presence of thermal shock (from -40° C to 100° C).

It is available only in black colour, equipped with edge rails, cast iron graings (with the desired load class) and 8 anchor brackets.

Lateral outlet diameters are \varnothing 50/63 mm, bottom outlet is \varnothing 140/160 mm.

Each model is sold already equipped with reinforced profile, blocking system and 8 anchor brackets.

3. USE

Used for the collection and drainage of rainwater and for the discharge of liquids for industrial use.

It can be combined with a wide range of gratings in order to be used in pedestrian areas, driveways, roads, highways, ports and airports.

4. LAYING TIPS

A. Design of excavation

The depth of the excavation depends on the type and dimension of the chosen channel, plus the height of the layer of concrete on the bottom.

At this stage we must also take into consideration the eventual passage of outlet pipes vertical and/or horizontal, and the presence of any catch basin for the collection of waste.

The channel must be laid down starting from the lowest point or discharge.

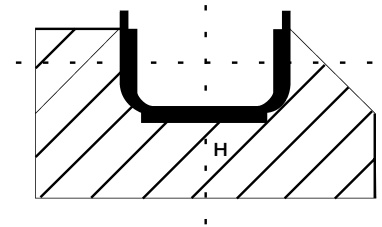
B. Concrete Base

A concrete layer must be laid down on the laying surface, keeping in consideration any slope for water drainage.

The concrete that will be used for the base and the shoulders of the channel must have S4 fluidity properties, to enable the filling of all the cavities on the outside of the channel. For this reason it must be used aggregates of stones with a maximum diameter of 15 mm must be used.

Please note that Dakota channels are not self-supporting, but they become it after the proper positioning and cast of the concrete.

Classification	A15	B125	C250	D400	E600	F900
Minimum Concrete Height H	100 mm	100 mm	150 mm	200 mm	200 mm	250 mm
Minimum Concrete Thickness S	100 mm	100 mm	150 mm	200 mm	200 mm	250 mm
Minimum Compression Resistance R_{ck}	25 N/mm ²	30 N/mm ²	30 N/mm ²	30 N/mm ²	35 N/mm ²	37 N/mm ²



C. Installing the channel

Always install Dakota channels starting from the point of water discharge (downstream), by connecting the output to the sewerage system or, if present, to the oil separator for the treatment of the first rain. The terminal plug must be inserted on the edge of the channel, and the channels must be installed from downstream to upstream, using the joints on the channels' edges. Than the upstream channel will be cut to achieve the desired length. Arrange then discharges required, install the anchoring profiles on the cast iron profile (when needed), and fill the shoulder of the channel with concrete up to the maximum level.

During this phase is extremely important to install the grating before the concrete botill, to avoid potential damages due to the pressure exerted by the concrete. Always protect the gratings with a film to avoid any cleaning after the concrete has been cast. For the best water-tightness, it's also possible to utilize a bitumen-based sealant (SHELL TIXOPHALTE, for instance) during the connection one channel on others.

D. Final Coating

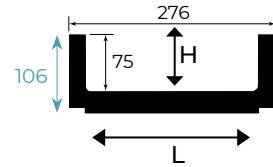
When laying down the final coating, make sure that the final pavement is between 3 and 5 mm above the upper edge of the channel or the upper surface of the grating.

Remove then the protective film and fix the gratings to the channel.

TAURUS CHANNEL 260

5. CALCULATION OF FLOW RATES ACCORDING THE CHEZY'S FORMULA

Ω = Channel water passage section = $H \cdot L$
 $\Pi_{\text{theoretical}}$ = Max. theoretical wetted perimeter = $L + 2H$
 Π_{measured} = Max. measured wetted perimeter
 R_i = Hydraulic radius = $\Omega / \Pi_{\text{measured}}$
 i_f = Channel slope
 X = Friction coefficient
 V = Water speed
 $V = X \cdot \sqrt{R_i \cdot i_f}$
 C = Bazin's empirical roughness coefficient
 $X = 87 / (1 + (C / \sqrt{R_i}))$
 Q = Flow rate = $V \cdot \Omega$



CHANNEL	WATER PASSAGE						Friction coefficient	Roughness Coef.	Slope %		
	H mm	L mm	Ω mm	$\Pi_{\text{theoretical}}$ mm	Π_{measured} mm	R_i			1,00 %	2,00 %	3,00 %
	Flow rate Litres/second										
130x75	75	105	7875	255	240	33	63,35	0,06	9,47	13,39	16,40
200x40	40	165	6600	245	210	31	65,00	0,06	6,86	9,70	11,88
200x75	75	165	12375	315	300	41	67,16	0,06	16,13	22,81	27,93
200x150	150	165	24750	465	455	54	69,20	0,06	38,38	54,28	66,47
260x75	75	200	15000	350	320	47	68,18	0,06	21,47	30,37	37,20
260x150	150	200	30000	500	485	62	70,09	0,06	52,23	73,87	90,47

6. TECHNICAL SPECIFICATION

Specification	Description	Unity	Price
Dak.D.POZ92.26xxPx	Supply and installation of drainage channel named Taurus, made of PE-HD with sti ening external ribbing and coupling system between channels with joint male/female that allows the assembly between one channel and the consecutive one with the gratings assembled on the channel. The channel must have two preset side outlet points and the predisposition on the bottom for a possible outlet. The channel surface will have to be perfectly smooth and with low roughness coefficient to allow the maximum water flowing, the channel will also have to be watertight and without connection points with the external. There must be 3 connections point on the internal face of the channel in order to guarantee the gratings blocking. The channel is supplied with a steel reinforcement profile and spheroidal cast iron grating assembled.		
Dak.D.POZ92.2607PC	Dimensions 260 x 75 - water passage (77 x 210) - Cast Iron Grating C250.....	pc.	-
Dak.D.POZ92.2615PC	Dimensions 260 x 150 - water passage (150 x 210) - Cast Iron Grating C250.....	pc.	-
Dak.D.POZ92.2607PD	Dimensions 260 x 75 - water passage (77 x 210) - Cast Iron Grating D400.....	pc.	-
Dak.D.POZ92.2615PD	Dimensions 260 x 150 - water passage (150 x 210) - Cast Iron Grating D400.....	pc.	-
Dak.D.POZ92.2607PE	Dimensions 260 x 75 - water passage (77 x 210) - Cast Iron Grating E600.....	pc.	-
Dak.D.POZ92.2615PE	Dimensions 260 x 150 - water passage (150 x 210) - Cast Iron Grating E600.....	pc.	-