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# INTRODUCTION

Linear and point drains are a perfect solution to collect and drain rain water from pedestrian and vehicular traffic pavements.

Drains can be divided into two types according to the material the draining channel is made of: concrete drains, polymer concrete drains or plastic drains. Additionally, in terms of design, the drains can be monoliths (single piece) or channels with a cover – grate.

We recommend the following products of our portfolio:

- wide selection of linear drains in classes ranging from A15 to F900
- point drains such as: catch basins and downspout catch basins,
- gratings, drive-on lawn grid to harden and stabilize the ground.

Drains are used in residential housing areas, cycle lanes, footpaths, gardens, terraces, areas adjacent to building or garage entrances, parking lots, industrial plant yards, shop floors or filling stations.

Linear and point drains are manufactured according to the following standards: PN-EN 1433:2002/A1:2005, PN-EN124:2000, AT/2014-02-3066, AT/2015-02-3165

**WARRANTY – 24 months**



# LOAD CLASS DEFINITION

Drains are classified according to their use

According to Polish Norm PNEN 1433 there exist assembly groups of drains

## GROUP 1-MIN CLASS A15 A15

Static load 15 kN/cm<sup>2</sup> (1,5t)

The areas may only be used by pedestrians and cyclists



## GROUP 2-MIN CLASS B125 B125

Static load 125kN/cm<sup>2</sup> (12,5t)

Pedestrian pavements, pedestrian zones and other similar areas, car parks or car bays



## GROUP 3-MIN CLASS C250 C250

Static load 250kN/cm<sup>2</sup>(25t)

Kerb areas, roadside surface free of traffic and similar, service stations for passenger cars



## GROUP 4-MIN CLASS D400 D400

Static load 400kN/cm<sup>2</sup>(40t)

Road pavements (including pedestrians), roadsides and parks for all kinds of road vehicles



## GROUP 5-MIN CLASS E600 E600

Static load 600kN/cm<sup>2</sup>(60t)

Areas being subject to big loads due to vehicular traffic



## GROUP 6-MIN CLASS F900 F900

Static load 900kN/cm<sup>2</sup>(90t)

Areas being subject to particularly big loads due to vehicular traffic e.g. aeroplane runways, military bases



The choice of a particular load class depends on the place of its assembly

The designer is responsible for the choice of the correct load class

In doubt the choice of a higher class is suggested



# CONCRETE DRAINS

## MAIN CHARACTERISTICS OF CONCRETE LINEAR DRAINS:

- drains made of high-class concrete class C35/45
- drains reinforced with a reinforcing construction and polypropylene fiber
- lids bearing areas reinforced with a steel or galvanized strip, anti-corrosion paint
- screwed down lid (anti-theft)
- smooth surface provides fast flow of water
- correct installations ensures high resistance to load
- load class available from A15 to E600

## ADDITIONAL ACCESSORIES:

- consolidated system drains
- full end drains
- drain end with place for a stub-pipe

## USE:

pedestrian and cyclist paths, housing areas, gardens, terraces, building entrances, garage entrances, car parks for cars and lorries, plant squares, production halls, petrol stations, airports.

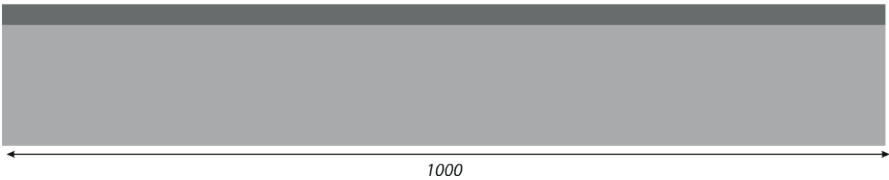
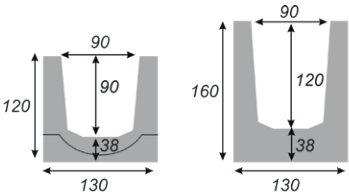


# CONCRETE LINEAR DRAINS 130

Concrete drains

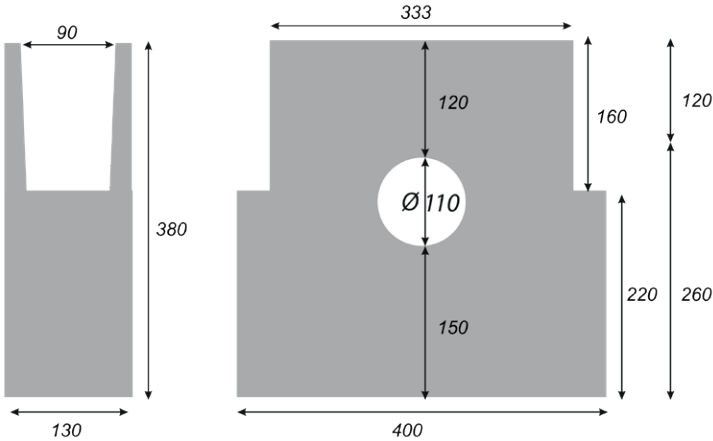


## TECHNICAL SECTIONS OF LINEAR DRAIN





LENGTH MM	WIDTH MM	HEIGHT MM
1000	130	120
1000	130	160

## TECHNICAL SECTIONS OF DRAINS



LENGTH MM	WIDTH MM	HEIGHT MM
333	130	380




## TROUGH

CLASS	COVER TYPE	HEIGHT IN MM	CODE	WEIGHT IN KG	AMOUNT ON THE PALLET	PRICE
<b>A15</b>	GALVANISED IRON 	120	7001	23	30	
		160	0004	27	24	
<b>A15</b>	STAINLESS STEEL 	120	0009	23	30	
		160	0290	28	24	
<b>B125</b>	CAST IRON 	120	7026	29	30	
		160	0028	33	24	

Concrete drains

Polymer concrete drains

## DRAINS

CLASS	COVER TYPE	HEIGHT IN MM	CODE	WEIGHT IN KG	PRICE
<b>A15</b>	GALVANISED IRON 	MINI 120	0046	7	
		120	0047	24	
		160	0048	22	
<b>A15</b>	STAINLESS STEEL 	120	0250	24	
		160	0654	22	
<b>B125</b>	CAST IRON 	120	0051	28	
		160	0052	26	

Plastic drains

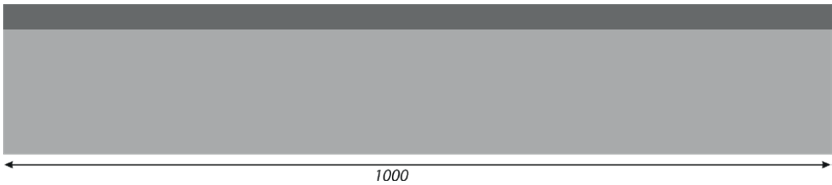
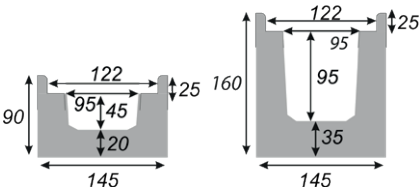
Other

CONCRETE LINEAR DRAINS 145

Concrete drains

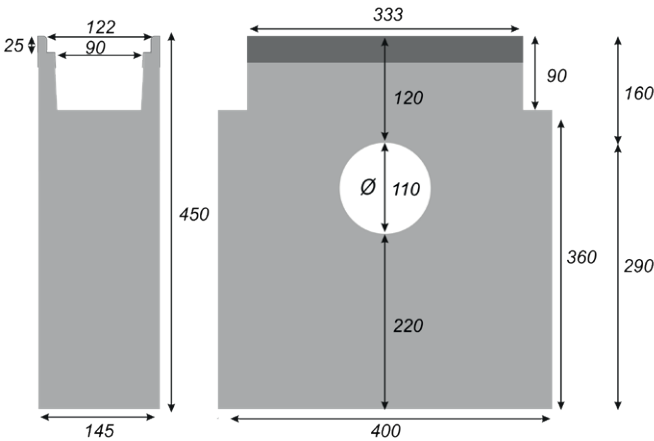


TECHNICAL SECTIONS OF LINEAR DRAIN



LENGTH MM	WIDTH MM	HEIGHT MM
1000	145	90
1000	145	160
1000	145	220

TECHNICAL SECTIONS OF DRAINS



LENGTH MM	WIDTH MM	HEIGHT MM
333	145	450

10.



# TROUGH

CLASS	COVER TYPE	HEIGHT IN MM	CODE	WEIGHT IN KG	AMOUNT ON THE PALLET	PRICE
<b>A15</b>	GALVANISED IRON 	90	0236	14,5	30	
		160	0018	31	20	
<b>A15</b>	PLASTIC 	90	0329	16,5	30	
		160	0234	30,5	20	
<b>A15</b>	GALVANISED IRON - STAR 	90	1194	15,5	30	
		160	1196	32	20	
<b>B125</b>	PLASTIC 	90	0333	17,5	30	
		160	0273	31,5	20	
<b>B125</b>	CAST IRON 	90	0254	21,5	30	
		160	0188	35,5	20	
<b>C250</b>	CAST IRON 	90	0238	24	30	
		160	0030	38	20	
<b>C250</b>	GALVANISED IRON - STAR 	90	1202	19	30	
		160	1204	35,5	20	
<b>A15</b> <b>C250</b>	PLASTIC SLOTTED - LOW 	90	0196	15	20	
		160	0197	31,5	20	
<b>A15</b> <b>C250</b>	PLASTIC SLOTTED - HIGH 	90	1198	15,5	20	
		160	1200	32	20	

Concrete drains

Polymer concrete drains

Plastic drains

Other

DRAINS

CLASS	COVER TYPE	HEIGHT IN MM	CODE	WEIGHT IN KG	PRICE
A15	<div>GALVANISED IRON</div> 	90	0671	35	
		160	0068	34	
A15	<div>PLASTIC</div> 	90	0672	35	
		160	0235	34	
A15	<div>GALVANISED IRON - STAR</div> 	90	1195	32,5	
		160	1197	31,5	
B125	<div>PLASTIC</div> 	90	0677	35	
		160	0655	34	
B125	<div>CAST IRON</div> 	90	0676	37	
		160	0259	36	
C250	<div>CAST IRON</div> 	90	0342	38	
		160	0053	37	
C250	<div>GALVANISED IRON - STAR</div> 	90	1203	33,5	
		160	1205	32,5	
A15 C250	<div>PLASTIC SLOTTED - LOW</div> 	90	0688	35	
		160	0636	34	
A15 C250	<div>PLASTIC SLOTTED - HIGH</div> 	90	1199	32	
		160	1201	31	

Concrete drains

Polymer concrete drains

Plastic drains

Other





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# CONCRETE LINEAR DRAINS 150

Concrete drains



B125

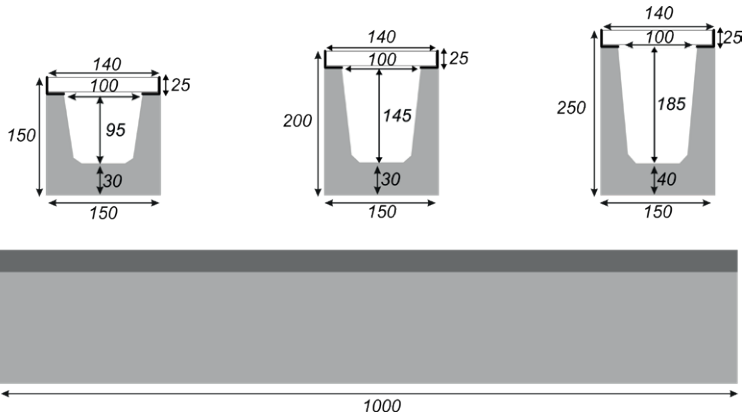
CONCRETE TROUGH  
WITH A CAST IRON COVER CLASS B125  
1000x150x150



B125

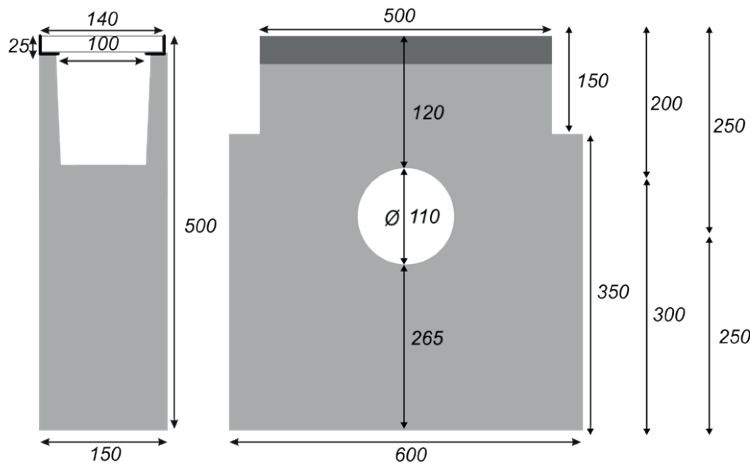
CONCRETE DRAIN  
WITH A CAST IRON COVER CLASS B125  
500x150x500

## TECHNICAL SECTIONS OF LINEAR DRAIN



LENGTH MM	WIDTH MM	HEIGHT MM
1000	150	150
1000	150	200
1000	150	250

## TECHNICAL SECTIONS OF DRAIN



LENGTH MM	WIDTH MM	HEIGHT MM
500	150	500

Polymer concrete drains

Plastic drains

Other

TROUGH

CLASS	COVER TYPE	HEIGHT IN MM	CODE	WEIGHT IN KG	AMOUNT ON THE PALLET	PRICE
B125	<div>CAST IRON</div> 	150	0222	34	20	
		200	0223	43	15	
		250	0224	50,5	15	
D400	<div>CAST IRON</div> 	150	0225	35	20	
		200	0226	44	15	
		250	0227	51,5	15	

Concrete drains

DRAINS

CLASS	COVER TYPE	HEIGHT IN MM	CODE	WEIGHT IN KG	PRICE
B125	<div>CAST IRON</div> 	150	0488	58	
		200	0559	57	
		250	0605	56	
D400	<div>CAST IRON</div> 	150	0266	59	
		200	0284	58	
		250	0287	57	

Polymer concrete drains

Plastic drains

Other

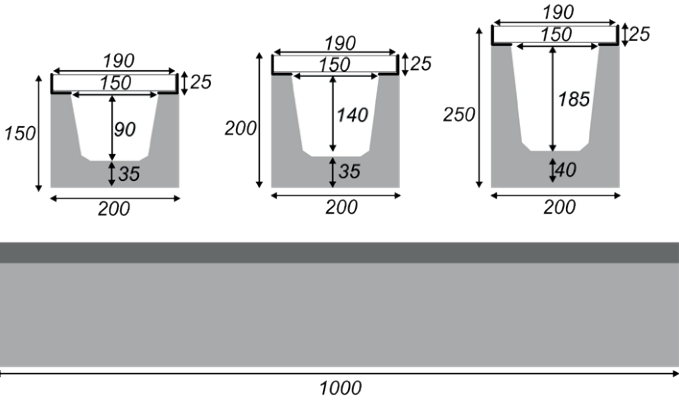
CONCRETE LINEAR DRAINS 200

Concrete drains



Polymer concrete drains

TECHNICAL SECTIONS OF LINEAR DRAIN

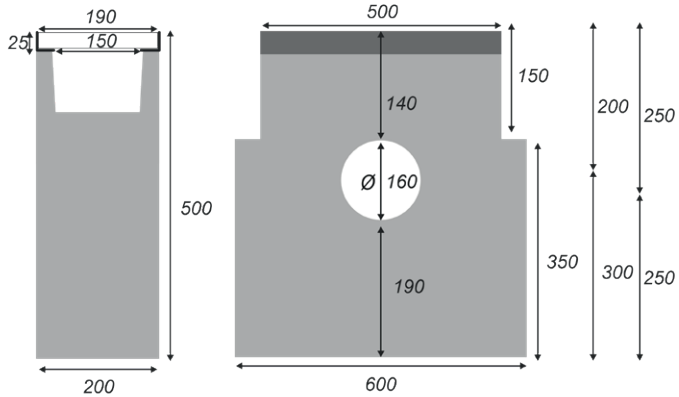


Plastic drains

LENGTH MM	WIDTH MM	HEIGHT MM
1000	200	150
1000	200	200
1000	200	250

Other



TECHNICAL SECTIONS OF DRAIN



LENGTH MM	WIDTH MM	HEIGHT MM
500	200	500





TROUGH

CLASS	COVER TYPE	HEIGHT IN MM	CODE	WEIGHT IN KG	AMOUNT ON THE PALLET	PRICE
<b>B125</b>	CAST IRON 	150	0228	42	16	
		200	0229	50,5	12	
		250	0230	63,5	12	
<b>D400</b>	CAST IRON 	150	0231	45	16	
		200	0232	53,5	12	
		250	0233	66,5	12	

Concrete drains

DRAINS

CLASS	COVER TYPE	HEIGHT IN MM	CODE	WEIGHT IN KG	PRICE
<b>B125</b>	CAST IRON 	150	0305	78	
		200	0128	73,5	
		250	0272	69	
<b>D400</b>	CAST IRON 	150	0310	79,5	
		200	0265	75	
		250	0278	70,5	

Polymer concrete drains

Plastic drains

Other

# CONCRETE DOWNWARD TROUGH 200

Concrete drains



D400

CONCRETE TROUGH  
WITH A CAST IRON COVER CLASS B125  
1000x200x250

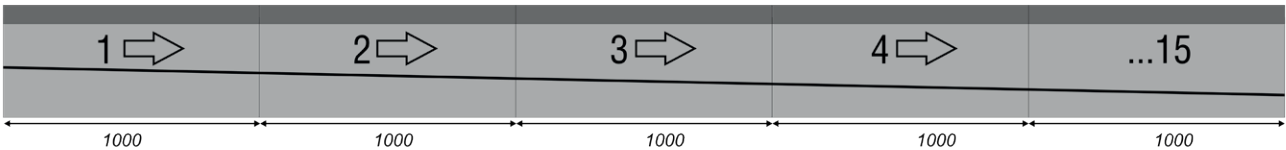
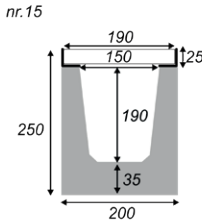
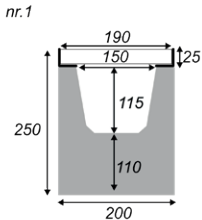


D400

CONCRETE DRAIN  
WITH A CAST IRON COVER CLASS B125  
500x200x500

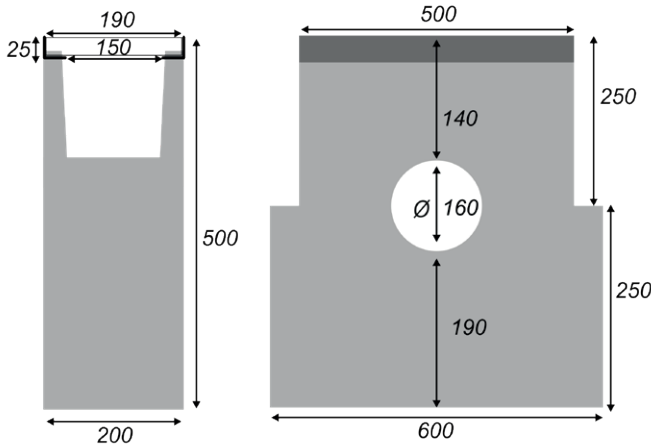
- 15 downward elements
- 0,5% fall per each trough

## TECHNICAL SECTIONS OF LINEAR DRAIN



LENGTH MM	WIDTH MM	HEIGHT MM
1000	200	250

## TECHNICAL SECTIONS OF DRAIN





LENGTH MM	WIDTH MM	HEIGHT MM
500	200	500

Polymer concrete drains

Plastic drains

Other

TROUGH

CLASS	COVER TYPE	HEIGHT IN MM	CODE	WEIGHT IN KG	AMOUNT ON THE PALLET	PRICE
<b>B125</b>	CAST IRON 	250	0461	80,5-59,5	12	
<b>D400</b>	CAST IRON 	250	0463	83,5-62,5	12	

Concrete drains

DRAINS

CLASS	COVER TYPE	HEIGHT IN MM	CODE	WEIGHT IN KG	PRICE
<b>B125</b>	CAST IRON 	250	0272	69	
<b>D400</b>	CAST IRON 	250	0278	70,5	

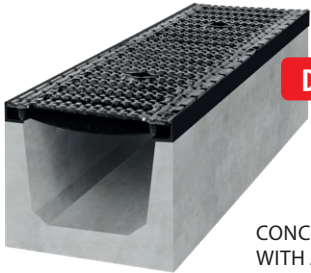
Polymer concrete drains

Plastic drains

Other

# CONCRETE LINEAR DRAINS 250

Concrete drains



D400

CONCRETE TROUGH  
WITH A CAST IRON COVER CLASS B125  
1000x250x200

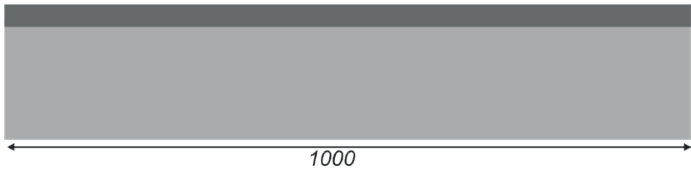
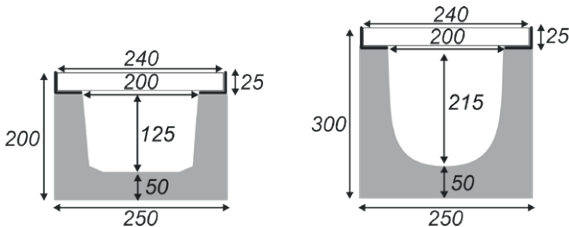


D400

CONCRETE DRAIN  
WITH A CAST IRON COVER CLASS B125  
500x250x700

Polymer concrete drains

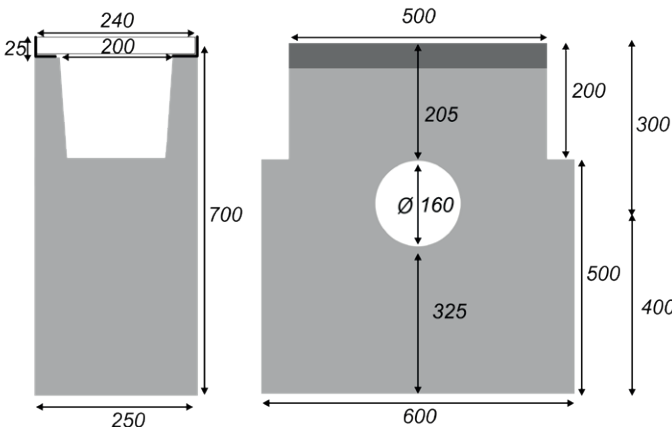
## TECHNICAL SECTIONS OF LINEAR DRAIN



LENGTH MM	WIDTH MM	HEIGHT MM
1000	250	200
1000	250	300



Plastic drains

## TECHNICAL SECTIONS OF DRAIN





LENGTH MM	WIDTH MM	HEIGHT MM
500	250	700

TROUGH

CLASS	COVER TYPE	HEIGHT IN MM	CODE	WEIGHT IN KG	AMOUNT ON THE PALLET	PRICE
D400		200	0040	66,5	9	
		300	0038	91,5	6	
E600		200	0044	75,5	9	
		300	0042	100,5	6	

Concrete drains

DRAINS

CLASS	COVER TYPE	HEIGHT IN MM	CODE	WEIGHT IN KG	PRICE
D400		200	0130	129	
		300	0057	119	
E600		200	0131	133	
		300	0058	123	

Polymer concrete drains

Plastic drains

Other



# CONCRETE LINEAR DRAINS VIBRO 210

Concrete drains



E600

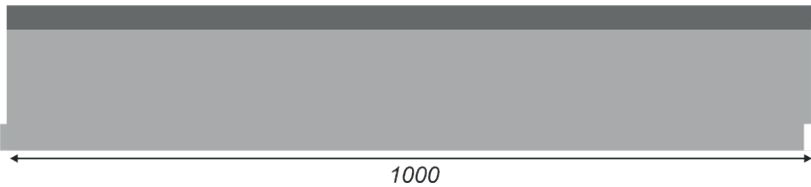
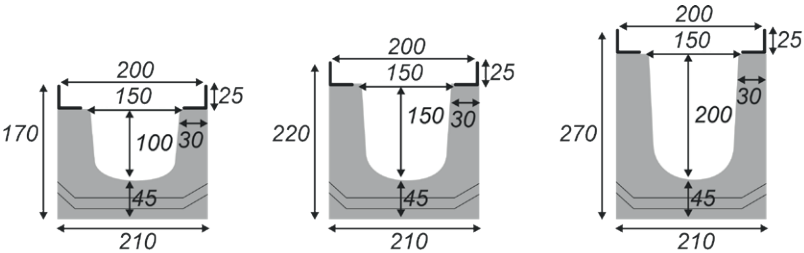
CONCRETE TROUGH VIBRO WITH A  
CAST IRON COVER CLASS E600  
1000x210x270 V150/200



E600

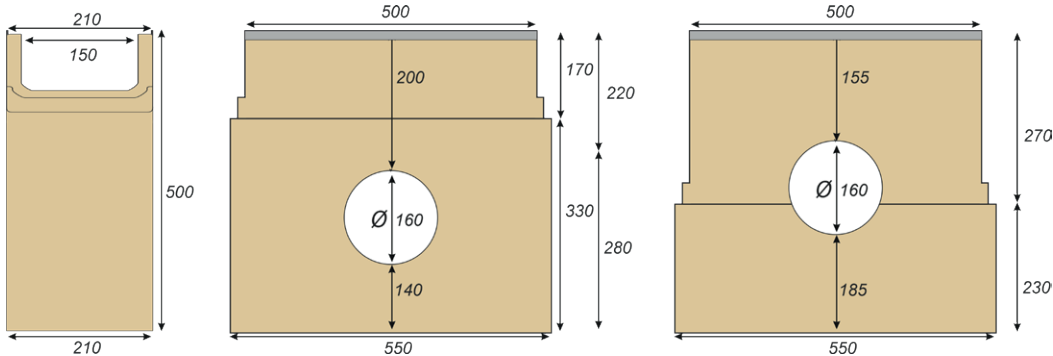
POLYMER CONCRETE DRAIN WITH  
A CAST IRON COVER CLASS E600  
500x210x500

## TECHNICAL SECTIONS OF LINEAR DRAIN



LENGTH MM	WIDTH MM	HEIGHT MM
1000	210	170
1000	210	220
1000	210	270

## TECHNICAL SECTIONS OF DRAIN





LENGTH MM	WIDTH MM	HEIGHT MM
500	210	500

Polymer concrete drains

Plastic drains

Other

TROUGH

CLASS	COVER TYPE	HEIGHT IN MM	CODE	WEIGHT IN KG	AMOUNT ON THE PALLET	PRICE
<b>B125</b>	CAST IRON 	170	1237	56	12	
		220	1238	67	9	
		270	1239	76	6	
<b>E600</b>	CAST IRON 	170	1142	59	12	
		220	1163	70	9	
		270	1158	79	6	

Concrete drains

DRAINS

CLASS	COVER TYPE	HEIGHT IN MM	CODE	WEIGHT IN KG	PRICE
<b>B125</b>	CAST IRON 	170	1234	53	
		220	1235	51,5	
		270	1236	62,5	
<b>E600</b>	CAST IRON 	170	1182	54,5	
		220	1169	53	
		270	1159	64	

Polymer concrete drains

Plastic drains

Other

# CONCRETE LINEAR DRAINS **VIBRO 260**

Concrete drains



E600

CONCRETE TROUGH VIBRO WITH A  
CAST IRON COVER CLASS E600  
1000x260x320 V200/250

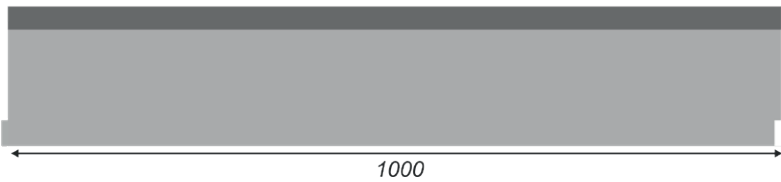
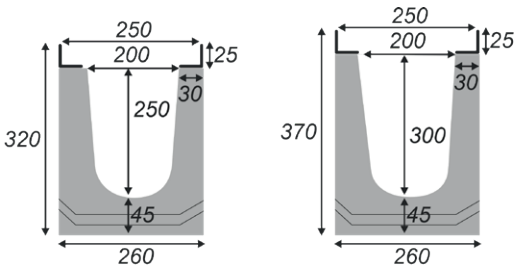


E600

POLYMER CONCRETE DRAIN WITH A  
CAST IRON COVER CLASS E600  
500x260x600

Polymer concrete drains

## TECHNICAL SECTIONS OF LINEAR DRAIN

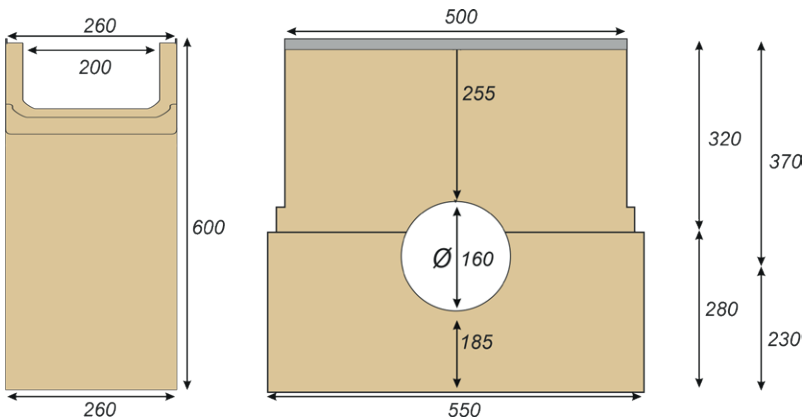


LENGTH MM	WIDTH MM	HEIGHT MM
1000	260	320
1000	260	370

Plastic drains

Other

## TECHNICAL SECTIONS OF DRAIN





LENGTH MM	WIDTH MM	HEIGHT MM
500	260	600

TROUGH

CLASS	COVER TYPE	HEIGHT IN MM	CODE	WEIGHT IN KG	AMOUNT ON THE PALLET	PRICE
<b>B125</b>	CAST IRON 	320	1226	102,5	6	
		370	1227	113	6	
<b>E600</b>	CAST IRON 	320	1145	105,5	6	
		370	1147	116	6	

Concrete drains

DRAINS

CLASS	COVER TYPE	HEIGHT IN MM	CODE	WEIGHT IN KG	PRICE
<b>B125</b>	CAST IRON 	320	1228	66,5	
		370	1229	68,5	
<b>E600</b>	CAST IRON 	320	1186	68	
		370	1187	70	

Polymer concrete drains

Plastic drains

Other

# CONCRETE LINEAR DRAINS **VIBRO 300**

Concrete drains



E600

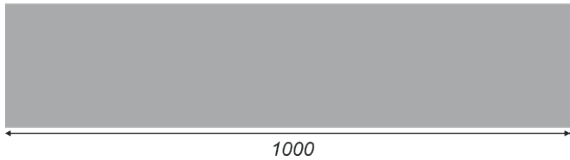
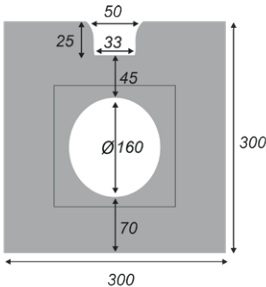
CONCRETE SLOTTED TROUGH CLASS E600  
1000x300x300



E600

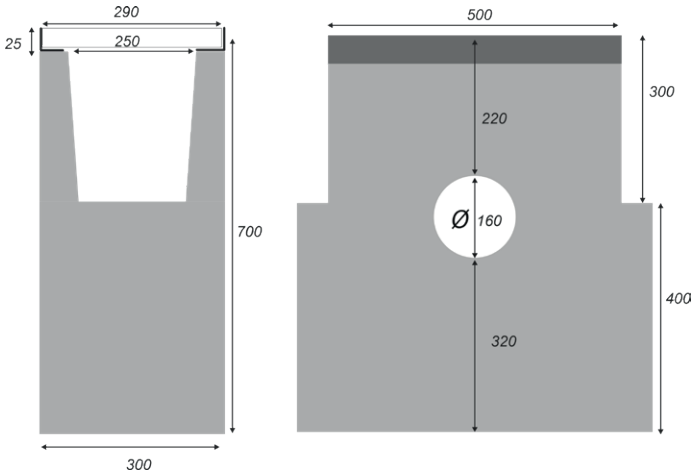
CONCRETE DRAIN WITH A CAST IRON COVER CLASS E600  
500x300x700

## TECHNICAL SECTIONS OF LINEAR DRAIN



LENGTH MM	WIDTH MM	HEIGHT MM
1000	300	300

## TECHNICAL SECTIONS OF DRAIN



LENGTH MM	WIDTH MM	HEIGHT MM
500	300	700


Polymer concrete drains

Plastic drains


Other



TROUGH

CLASS		HEIGHT IN MM	CODE	WEIGHT IN KG	AMOUNT ON THE PALLET	PRICE
E600		300	7727	152	4	

DRAINS

CLASS	COVER TYPE	HEIGHT IN MM	CODE	WEIGHT IN KG	PRICE
E600	CAST IRON 	300	0890	153	

Concrete drains

Polymer concrete drains

Plastic drains

Other

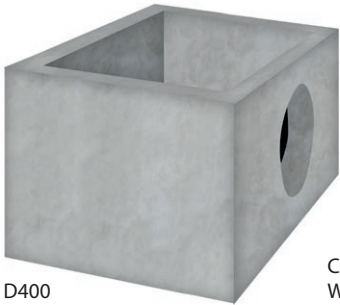
CONCRETE LINEAR DRAINS **LARGE DRAIN 300**

Concrete drains



D400

CONCRETE TROUGH  
WITH A CAST IRON COVER CLASS D400  
500x300x300



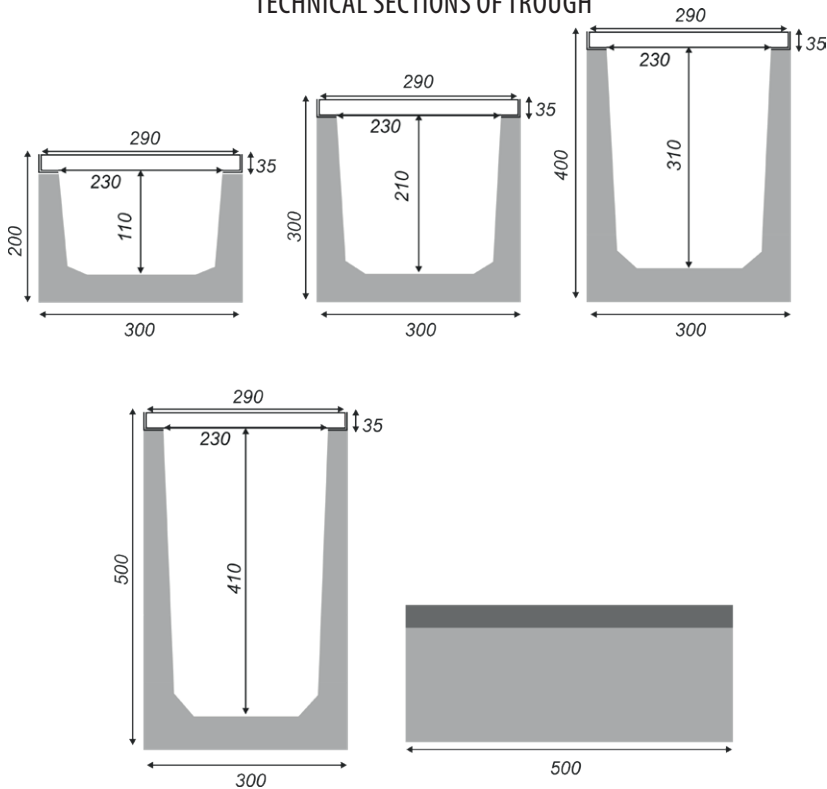
CONCRETE DRAIN  
WITHOUT COVER  
500x300x300

Polymer concrete drains

Plastic drains

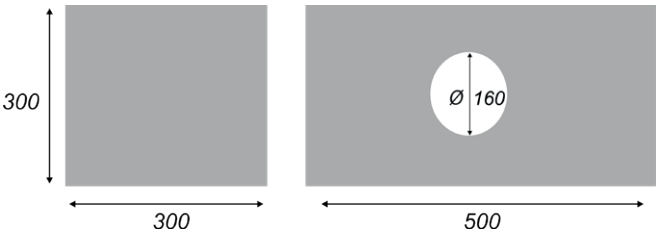
Other

TECHNICAL SECTIONS OF TROUGH




LENGTH MM	WIDTH MM	HEIGHT MM
500	300	200
500	300	300
500	300	400
500	300	500

TECHNICAL SECTIONS OF DRAIN



LENGTH MM	WIDTH MM	HEIGHT MM
500	300	300

TROUGH

CLASS	COVER TYPE	HEIGHT IN MM	CODE	WEIGHT IN KG	AMOUNT ON THE PALLET	PRICE
<div>D400</div>	CAST IRON 	200	0373	48	8	
		300	0374	60	8	
		400	0375	67,5	4	
		500	0376	78	4	

DRAINS

CLASS	COVER TYPE	HEIGHT IN MM	CODE	WEIGHT IN KG	PRICE
	WITHOUT COVER	300	0646	50,5	

Concrete drains

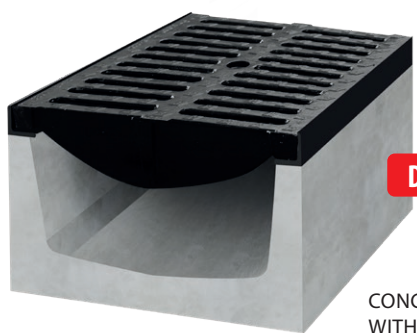
Polymer concrete drains

Plastic drains

Other

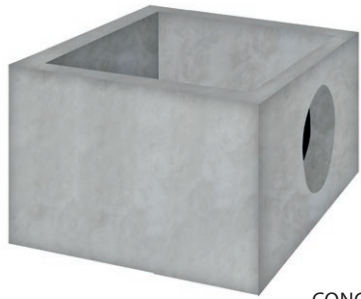
CONCRETE LINEAR DRAINS **LARGE DRAIN 400**

Concrete drains



D400

CONCRETE TROUGH  
WITH A CAST IRON COVER CLASS D400  
500x400x300



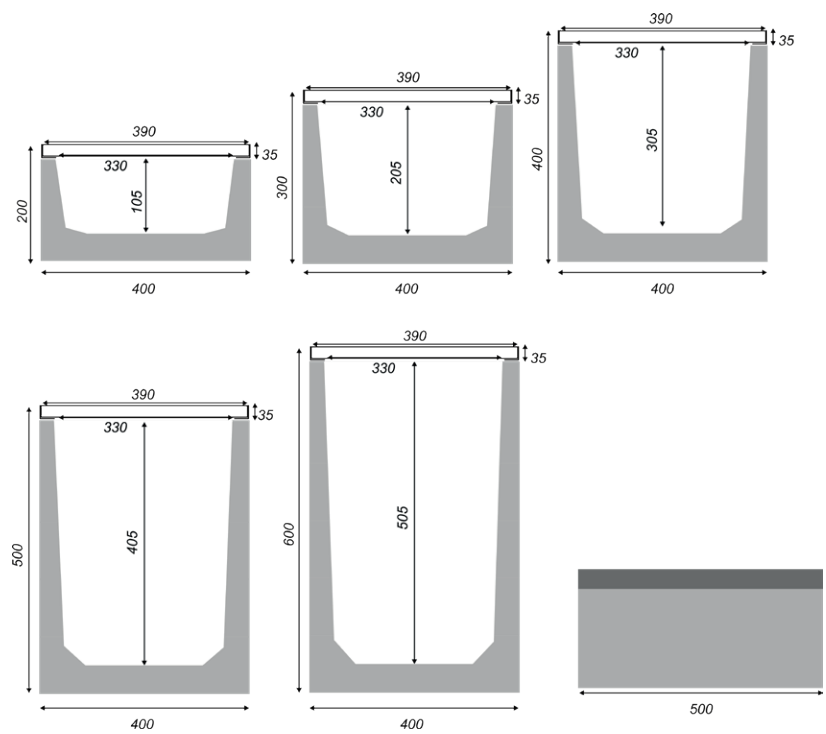
CONCRETE DRAIN  
WITHOUT COVER  
500x400x300

Polymer concrete drains

Plastic drains

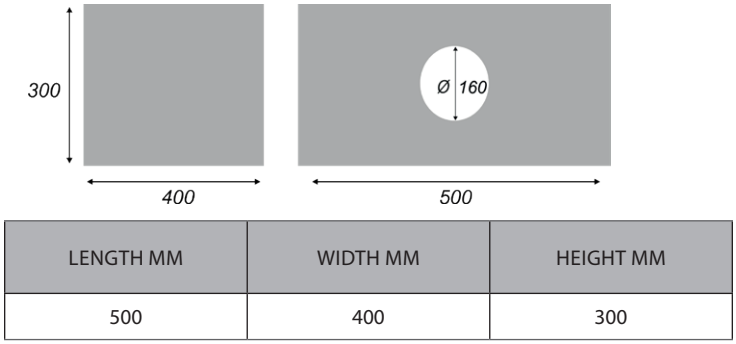
Other

TECHNICAL SECTIONS OF TROUGH




LENGTH MM	WIDTH MM	HEIGHT MM
500	400	200
500	400	300
500	400	400
500	400	500
500	400	600

TECHNICAL SECTIONS OF DRAIN



LENGTH MM	WIDTH MM	HEIGHT MM
500	400	300

TROUGH

CLASS	COVER TYPE	HEIGHT IN MM	CODE	WEIGHT IN KG	AMOUNT ON THE PALLET	PRICE
<div>D400</div>	<div>CAST IRON</div>	200	0383	65	8	
		300	0384	78	8	
		400	0385	91,5	4	
		500	0386	99	4	
		600	0387	113	4	

DRAINS

CLASS	COVER TYPE	HEIGHT IN MM	CODE	WEIGHT IN KG	PRICE
	WITHOUT COVER	300	0575	62,5	

Concrete drains

Polymer concrete drains

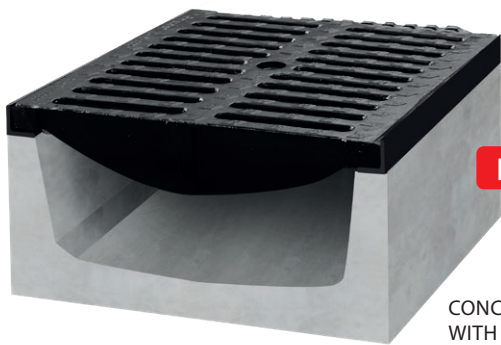
Plastic drains

Other



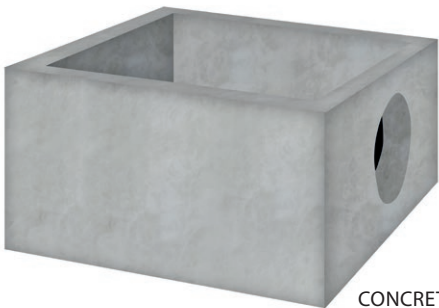
CONCRETE LINEAR DRAINS **LARGE DRAIN 500**

Concrete drains



D400

CONCRETE TROUGH  
WITH A CAST IRON COVER CLASS D400  
500x500x300



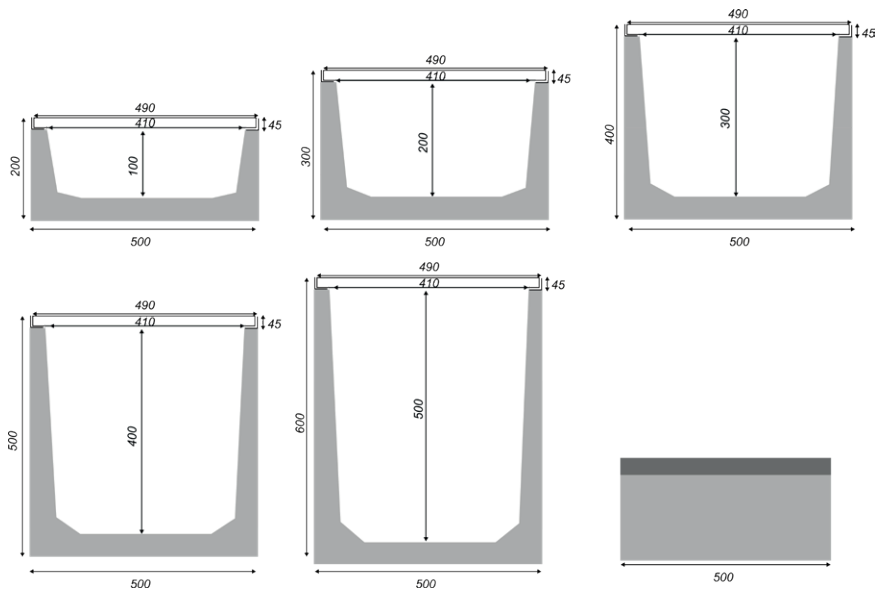
CONCRETE DRAIN  
WITHOUT COVER  
500x500x300

Polymer concrete drains

Plastic drains

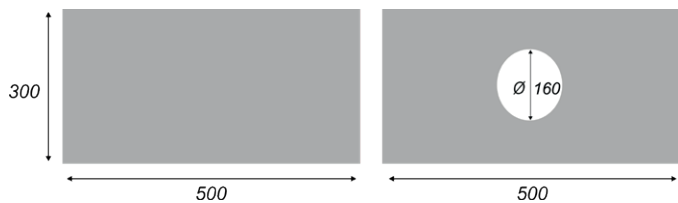
Other

TECHNICAL SECTIONS OF TROUGH




LENGTH MM	WIDTH MM	HEIGHT MM
500	500	200
500	500	300
500	500	400
500	500	500
500	500	600

TECHNICAL SECTIONS OF DRAIN



LENGTH MM	WIDTH MM	HEIGHT MM
500	500	300

TROUGH

CLASS	COVER TYPE	HEIGHT IN MM	CODE	WEIGHT IN KG	AMOUNT ON THE PALLET	PRICE
<div>D400</div>	CAST IRON 	200	0398	84	4	
		300	0399	96	4	
		400	0400	108,5	2	
		500	0401	123	2	
		600	0402	130,5	2	

DRAINS

CLASS	COVER TYPE	HEIGHT IN MM	CODE	WEIGHT IN KG	PRICE
	WITHOUT COVER	300	0652	70,5	

Concrete drains

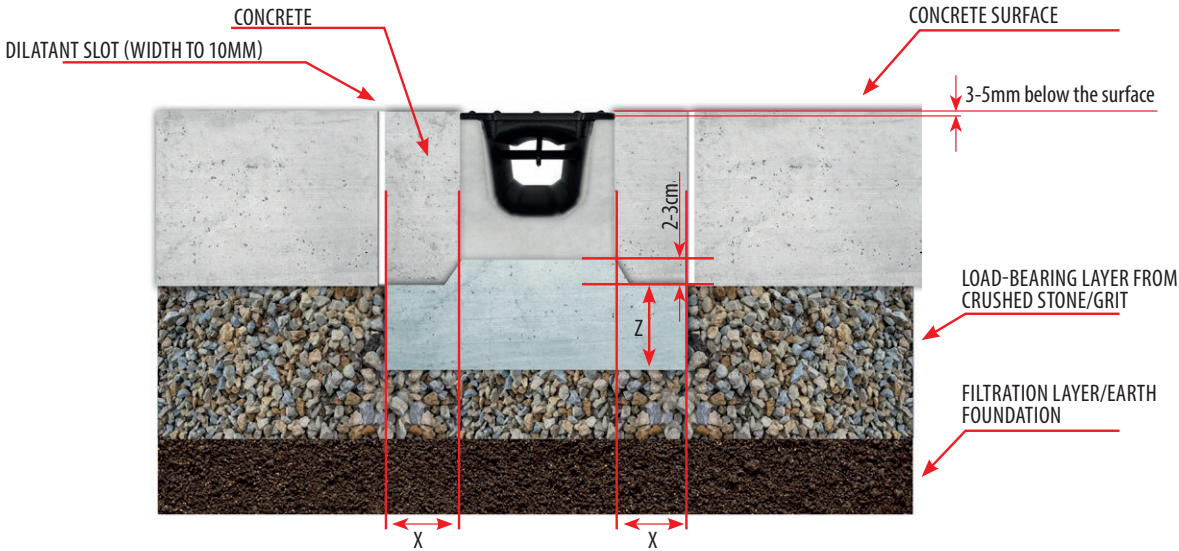
Polymer concrete drains

Plastic drains

Other

# CONCRETE TROUGH ASSEMBLY MANUAL

## CLASS A15-E600 IN CONCRETE



LOAD CLASS	A 15	B 125	C 250	D 400	E 600
Dimensions of the concrete berm X (MM)	100	150	150	200	200
Dimensions of the concrete berm Z (MM)	100	150	150	200	200
CONCRETE CLASS FOR THE BERM	C 35/45	C 35/45	C 35/45	C 35/45	C 35/45

### ASSEMBLY MANUAL

1. Prepare appropriate substrate in line with the design and according to the soil type.
2. Mark the future position of the draining system with pegs and nylon lines stretched from one peg to the other one
3. Prepare a trench with width and height increased to include the concrete casing. The channels should be laid 3-5 mm below the ground level so that no horizontal forces are transferred to the side walls.
4. Prepare concrete and pour it on the trench bottom.
5. Place the first drain in a trench on the earlier prepared concrete so as to form a concrete band the trough.
6. Next drain parts should be placed carefully as it is not possible to correct the position after the concrete has dried off. Use fast drying grout e.g. Ceresit CX5. Remove the mortar excess so that it does not obstruct water flow in the drain. If necessary the channels can be cut to length using a grinder with a concrete grinding disc. Once cut protect the covers using anticorrosive paint.
7. Checking the correctness of assembly means checking if the troughs are placed rectilinearly and checking tightness with the use of water.

### WARNING!

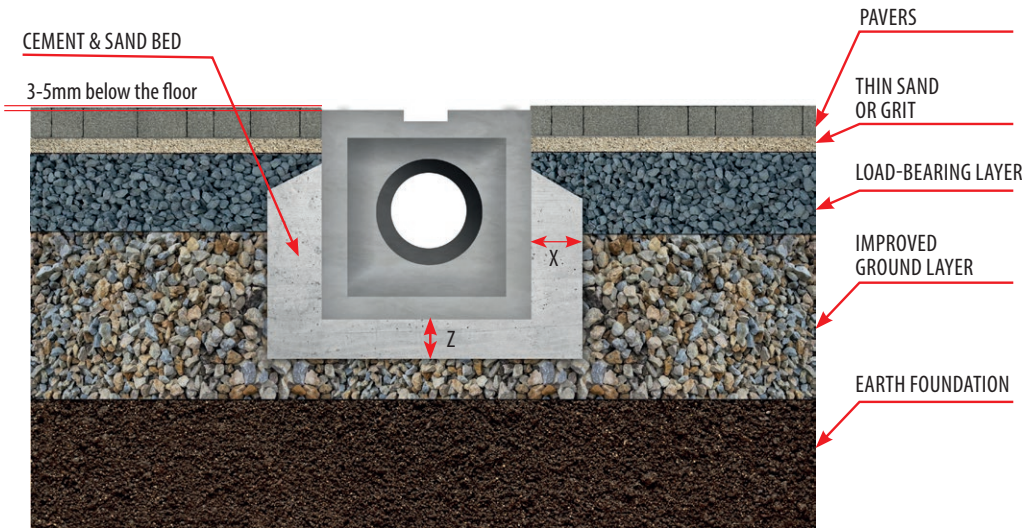
When grinding concrete floors remove the covers as they could be permanently damaged which is not covered by the warranty.  
Concrete linear drains are not resistant to soiling therefore relevant proofing and care are recommended. Unclogging by removing the deposits or snow / ice in winter time. Do not use saline solutions as they would accelerate corrosion of covers.

**The producer is in no way responsible for any damaged occurring due to incorrect assembly of drains**

## WAY OF CONNECTING CONCRETE TROUGHS



# CONCRETE SLOTTED TROUGH ASSEMBLY MANUAL CLASS A15-E600 IN PAVERS



LOAD CLASS	A 15	B 125	C 250	D 400	E600
Dimensions of cement & sand bed X (MM)	50	50	50	50	50
Dimensions of cement & sand bed Z (MM)	50	50	50	50	50

## ASSEMBLY MANUAL

1. Prepare appropriate substrate in line with the design and according to the soil type.
2. Mark the future position of the draining system with pegs and nylon lines stretched from one peg to the other one
3. Prepare a trench with width and height increased to include the concrete casing. The channels should be laid 3-5 mm below the ground level so that no horizontal forces are transferred to the side walls.
4. Prepare concrete and pour it on the trench bottom.
5. Place the first drain in a trench on the earlier prepared concrete so as to form a concrete band the trough.
6. Next drain parts should be placed carefully as it is not possible to correct the position after the concrete has dried off. Use fast drying grout e.g. Ceresit CX5. Place the grout on the front part of the drain and press with the next element. Remove the mortar excess so that it does not obstruct water flow in the drain. If necessary the channels can be cut to length using a grinder with a concrete grinding disc. Once cut protect the covers using anticorrosive paint.
7. Checking the correctness of assembly means checking if the troughs are placed rectilinearly and checking tightness with the use of water.

## WARNING!

When grinding concrete floors remove the covers as they could be permanently damaged which is not covered by the warranty.

Concrete linear drains are not resistant to soiling therefore relevant proofing and care are recommended. Unclogging by removing the deposits or snow / ice in winter time. Do not use saline solutions as they would accelerate corrosion of covers.

**The producer is in no way responsible for any damaged occurring due to incorrect assembly of drains**

## WAY OF CONNECTING CONCRETE SLOTTED TROUGHS



Concrete drains

Polymer concrete drains

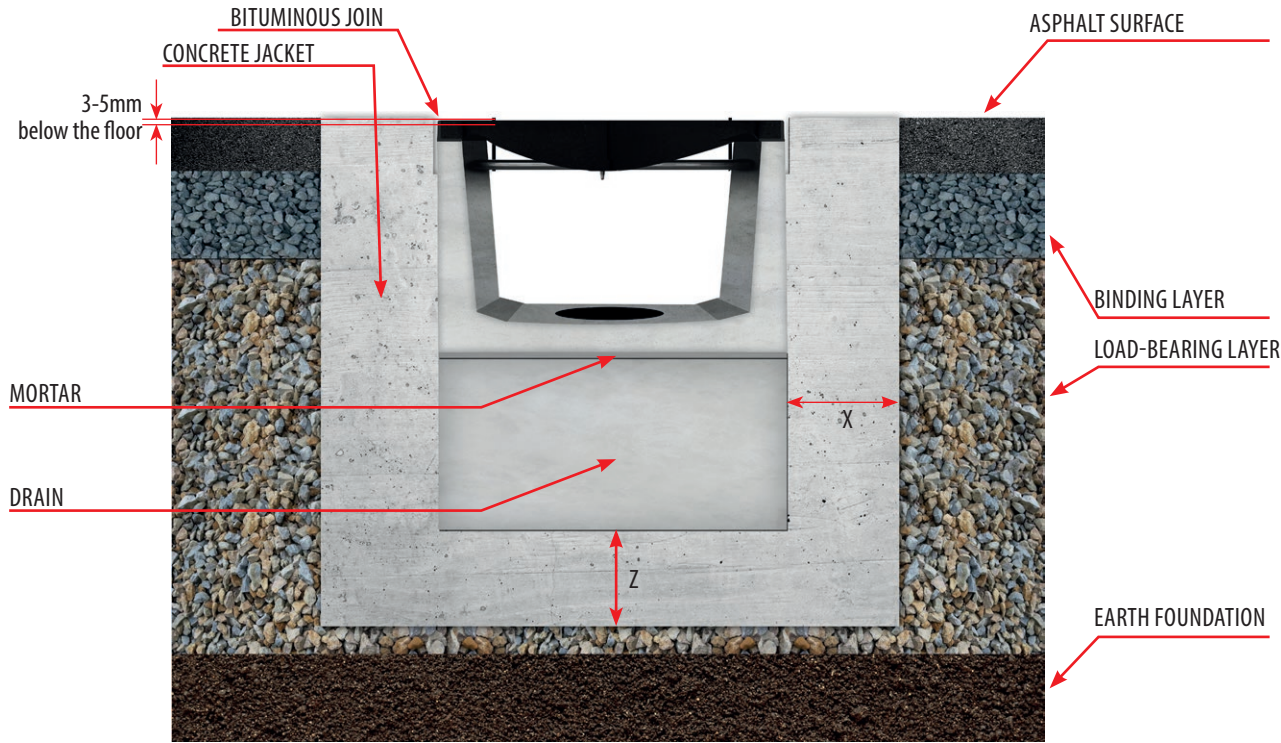
Plastic drains

Other



# ASSEMBLY MANUAL FOR THE LARGE DRAIN SYSTEM CLASS

## A15-D400 IN ASPHALT



LOAD CLASS	D400
Dimensions of the concrete berm X (MM)	200
Dimensions of the concrete berm Z (MM)	200
CONCRETE CLASS FOR THE BERM	C 35/45

### ASSEMBLY MANUAL

1. Prepare appropriate substrate in line with the design and according to the soil type.
2. Mark the future position of the draining system with pegs and nylon lines stretched from one peg to the other one
3. Prepare a trench with width and height increased to include the concrete casing. The channels should be laid 3-5 mm below the ground level so that no horizontal forces are transferred to the side walls.
4. Prepare concrete and pour it on the trench bottom.
5. Place the first drain in a trench on the earlier prepared concrete so as to form a concrete band the trough.
6. Next drain parts should be placed carefully as it is not possible to correct the position after the concrete has dried off. Use fast drying grout e.g. Ceresit CX5. Place the grout on the front part of the drain and press with the next element. Remove the mortar excess so that it does not obstruct water flow in the drain. If necessary the channels can be cut to length using a grinder with a concrete grinding disc. Once cut protect the covers using anticorrosive paint.
7. Checking the correctness of assembly means checking if the troughs are placed rectilinearly and checking tightness with the use of water.

### WARNING!

When grinding concrete floors remove the covers as they could be permanently damaged which is not covered by the warranty. Concrete linear drains are not resistant to soiling therefore relevant proofing and care are recommended. Unclogging by removing the deposits or snow / ice in winter time. Do not use saline solutions as they would accelerate corrosion of covers.

**The producer is in no way responsible for any damaged occurring due to incorrect assembly of drains**



DRAIN ACCESSORIES



full end drain



drain end with a  
stube - pipe



full end drain for slotted  
drain



full end drain for  
concrete darin  
vibro 210/260  
L



full end drain for  
concrete darin  
vibro 210/260  
P



drain end full with  
stube - pipe for  
concrete darin vibro  
210/260  
L

Ends are availalbe for all types of drains.  
Ends with a stube - pipe are available  $\Phi 110$  ,  $\Phi 160$ ,  $\Phi 200$  (depending on type drain).

Concrete drains

Polymer concrete drains

Plastic drains

Other



# POLYMER CONCRETE LINEAR DRAINS

## MAIN CHARACTERISTICS OF POLYMER CONCRETE LINEAR DRAINS:

- drains made of polymer concrete
- high mechanical durability
- frost resistant and non absorbent
- high chemical resistance
- smooth surface provides excellent
- hydraulic properties
- connecting drains using tongue and groove
- highly aesthetic
- durability classes from A15 to D400

## ADDITIONAL ACCESSORIES:

- consolidated system drains
- full end drains
- drain end with place for a stub-pipe

## USE:

pedestrian and cyclist paths, housing areas, gardens, terraces, building entrances, garage entrances, car parks for cars and lorries, plant squares, production halls, petrol stations.

POLYMER CONCRETE LINEAR DRAINS 125

Concrete drains

Polymer concrete drains

Plastic drains

Other



A15

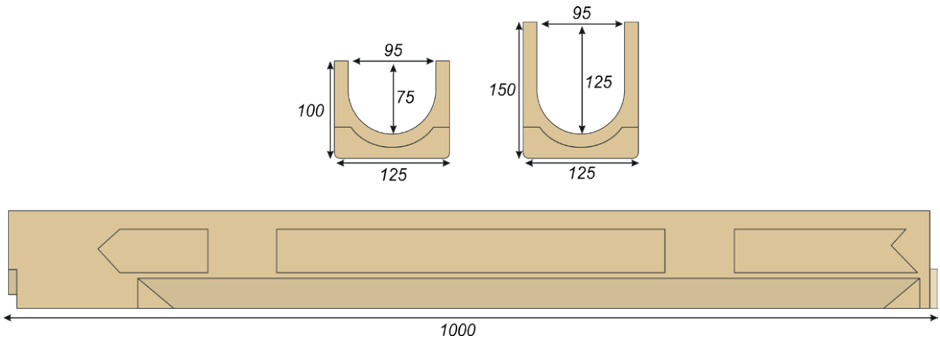
POLYMER CONCRETE TROUGH  
WITH A GALVANISED COVER CLASS A15  
1000x125x100



A15

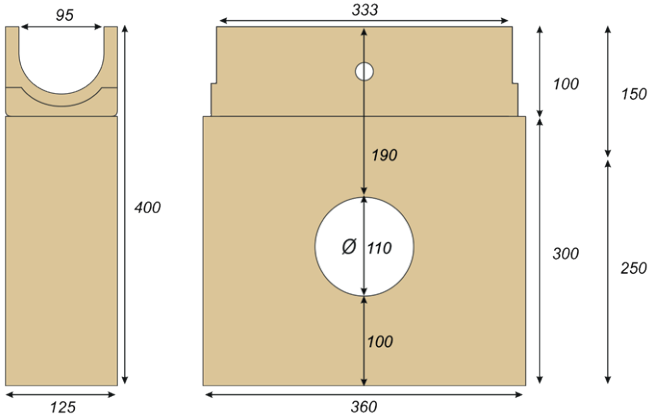
POLYMER CONCRETE DRAIN  
WITH A GALVANISED COVER CLASS A15  
360x125x400

TECHNICAL SECTIONS OF LINEAR DRAIN



LENGTH MM	WIDTH MM	HEIGHT MM
1000	125	100
1000	125	150

TECHNICAL SECTIONS OF DRAIN





LENGTH MM	WIDTH MM	HEIGHT MM
333	125	400

TROUGH

CLASS	COVER TYPE	HEIGHT IN MM	CODE	WEIGHT IN KG	AMOUNT ON THE PALLET	PRICE
<b>A15</b>	<div>GALVANISED IRON</div>	100	0255	9	42	
		150	0937	10	42	
<b>B125</b>	<div>CAST IRON</div>	100	0157	14,5	42	
		150	0939	15,5	42	

\*It is possible to buy a channel with a connector pipe (dia. 110 mm) in the bottom.

DRAINS

CLASS	COVER TYPE	HEIGHT IN MM	CODE	WEIGHT IN KG	PRICE
<b>A15</b>	<div>GALVANISED IRON</div>	100	0146	9,5	
		150	0940	9	
<b>B125</b>	<div>CAST IRON</div>	100	0165	11,5	
		150	0942	11	

Concrete drains

Polymer concrete drains

Plastic drains

Other

# POLYMER CONCRETE LINEAR DRAINS 130

Concrete drains

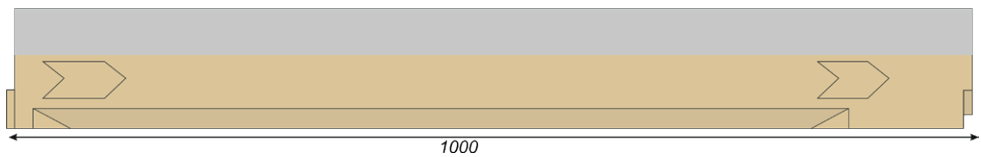
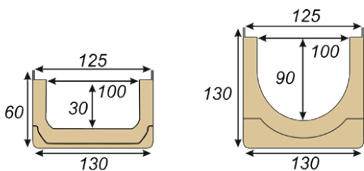
Polymer concrete drains

Plastic drains

Other

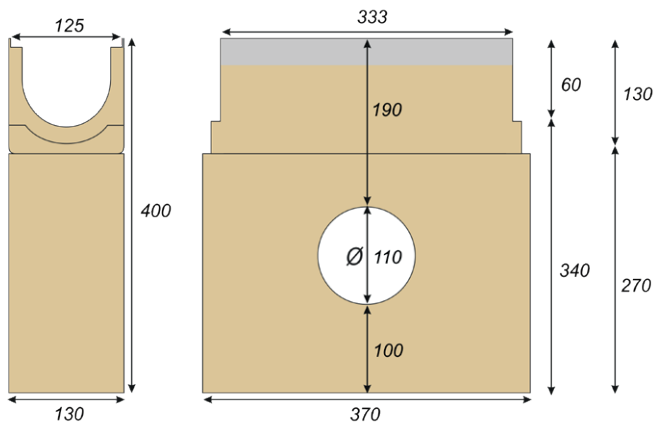


## TECHNICAL SECTIONS OF LINEAR DRAIN



LENGTH MM	WIDTH MM	HEIGHT MM
1000	130	60
1000	130	130

## TECHNICAL SECTIONS OF DRAIN



LENGTH MM	WIDTH MM	HEIGHT MM
333	130	400

## TROUGH

CLASS	COVER TYPE	HEIGHT IN MM	CODE	WEIGHT IN KG	AMOUNT ON THE PALLET	PRICE
<b>A15</b>	GALVANISED IRON 	60	0843	7	42	
		130	0155	12	30	
<b>A15</b>	PLASTIC 	60	0765	7	42	
		130	0156	12	30	
<b>A15</b>	GALVANISED IRON - STAR 	60	1217	7,5	42	
		130	1218	12,5	30	
<b>B125</b>	PLASTIC 	60	0765	9	42	
		130	0289	14	30	
<b>B125</b>	CAST IRON 	60	0764	14	42	
		130	0153	19	30	
<b>C250</b>	CAST IRON 	60	0763	15	42	
		130	0149	20	30	
<b>C250</b>	GALVANISED IRON - STAR 	60	1219	10,5	42	
		130	1220	15,5	30	
<b>A15</b> <b>C250</b>	PLASTIC SLOTTED - LOW 	60	0943	7	42	
		130	0288	12	30	
<b>A15</b> <b>C250</b>	PLASTIC SLOTTED - HIGH 	60	1221	7	42	
		130	1222	12	30	

Concrete drains

Polymer concrete drains

Plastic drains

Other

\*It is possible to buy a channel with a connector pipe  $\Phi$  110 mm in the bottom.



DRAINS

CLASS	COVER TYPE	HEIGHT IN MM	CODE	WEIGHT IN KG	PRICE
A15	GALVANISED IRON 	130	0186	14	
A15	PLASTIC 	130	0633	14	
A15	GALVANISED IRON - STAR 	130	1223	14,5	
B125	PLASTIC 	130	0634	14	
B125	CAST IRON 	130	0207	16	
C250	CAST IRON 	130	0169	16,5	
C250	GALVANISED IRON - STAR 	130	1224	15,5	
A15 C250	PLASTIC SLOTTED - LOW 	130	0635	14	
A15 C250	PLASTIC SLOTTED - HIGH 	130	1225	14	

Concrete drains

Polymer concrete drains

Plastic drains

Other



# POLYMER CONCRETE LINEAR DRAINS 200

Concrete drains

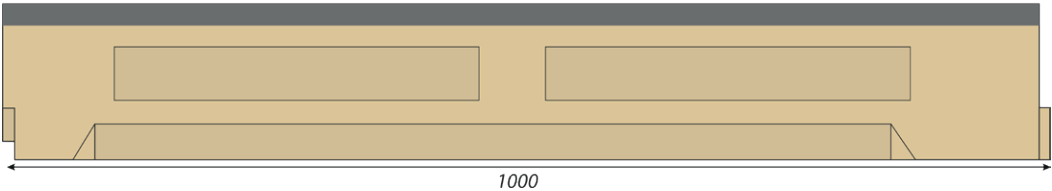
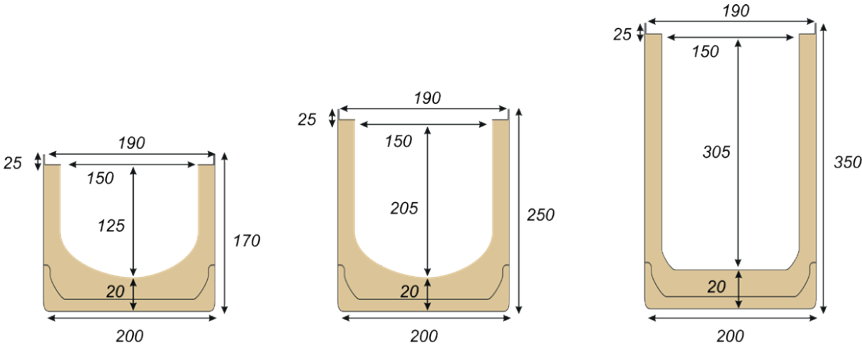


POLYMER CONCRETE TROUGH  
WITH A CAST IRON COVER CLASS B125  
1000x200x170



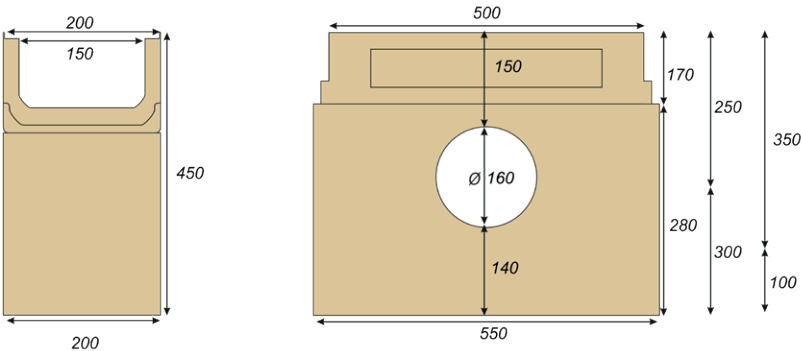
POLYMER CONCRETE DRAIN  
H 170 WITH A CAST IRON COVER  
CLASS B125  
500x200x450

## TECHNICAL SECTIONS OF LINEAR DRAIN



LENGTH MM	WIDTH MM	HEIGHT MM
1000	200	170
1000	200	250
1000	200	350

## TECHNICAL SECTIONS OF DRAIN





LENGTH MM	WIDTH MM	HEIGHT MM
500	200	450

Polymer concrete drains

Plastic drains



Other

TROUGH

CLASS	COVER TYPE	HEIGHT IN MM	CODE	WEIGHT IN KG	AMOUNT ON THE PALLET	PRICE
B125		170	0565	36,5	16	
		250	0792	43	8	
		350	0793	44,5	8	
D400		170	0492	43,5	16	
		250	0961	50	8	
		350	0759	51,5	8	

\*It is possible to buy a channel with a connector pipe  $\Phi$  110/160 mm in the bottom.

DRAINS

CLASS	COVER TYPE	HEIGHT IN MM	CODE	WEIGHT IN KG	PRICE
B125		170	0558	39,5	
		250	0963	36	
		350	0841	34,5	
D400		170	0556	41,5	
		250	0964	38	
		350	0842	36,5	

Concrete drains

Polymer concrete drains

Plastic drains

Other



POLYMER CONCRETE LINEAR DRAINS 250

Concrete drains



D400

POLYMER CONCRETE TROUGH  
WITH A CAST IRON COVER CLASS D400  
1000x250x160

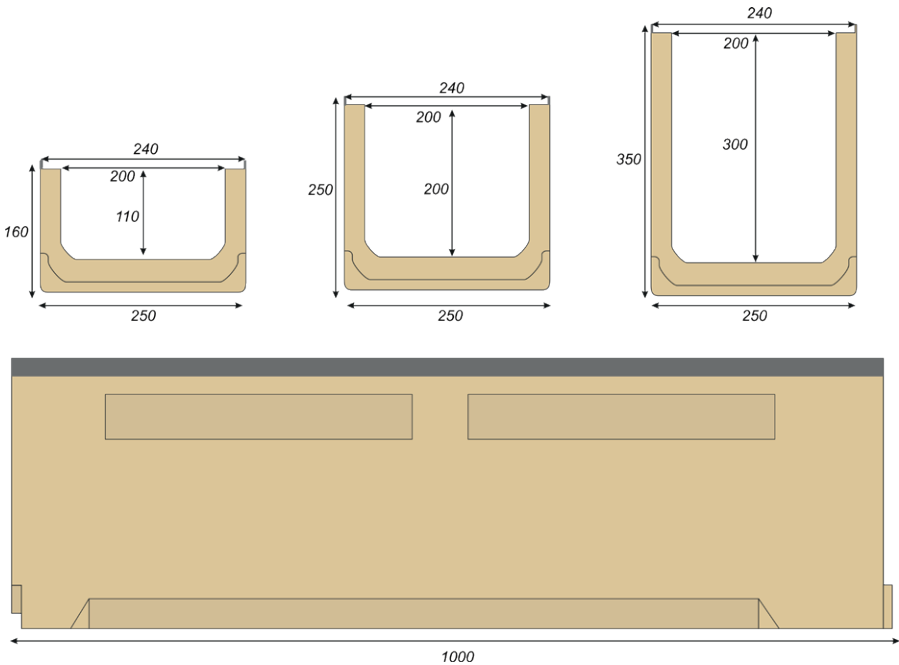


D400

POLYMER CONCRETE DRAIN  
H 170 WITH A CAST IRON COVER  
CLASS D400  
500x250x450

Polymer concrete drains

TECHNICAL SECTIONS OF LINEAR DRAIN

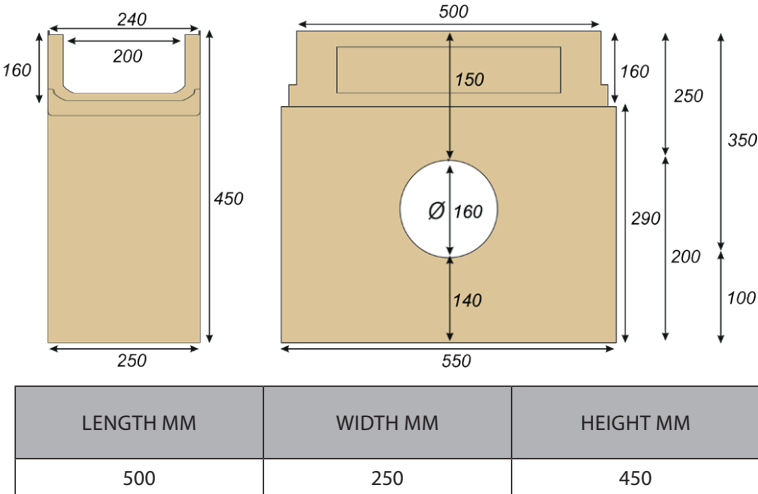


LENGTH MM	WIDTH MM	HEIGHT MM
1000	250	160
1000	250	250
1000	250	350

Plastic drains


Other

TECHNICAL SECTIONS OF DRAIN



LENGTH MM	WIDTH MM	HEIGHT MM
500	250	450


TROUGH

CLASS	COVER TYPE	HEIGHT IN MM	CODE	WEIGHT IN KG	AMOUNT ON THE PALLET	PRICE
<div>D400</div>	CAST IRON 	160	0151	50,5	12	
		250	0204	58,5	9	
		350	0164	76,5	6	

\*It is possible to buy a channel with a connector pipe  $\Phi$  110/160 mm in the bottom.

Concrete drains

DRAINS

CLASS	COVER TYPE	HEIGHT IN MM	CODE	WEIGHT IN KG	PRICE
<div>D400</div>	CAST IRON 	160	0152	46,5	
		250	0264	43	
		350	0520	42,5	

Polymer concrete drains

Plastic drains

Other

POLYMER CONCRETE LINEAR DRAINS 400

Concrete drains

Polymer concrete drains

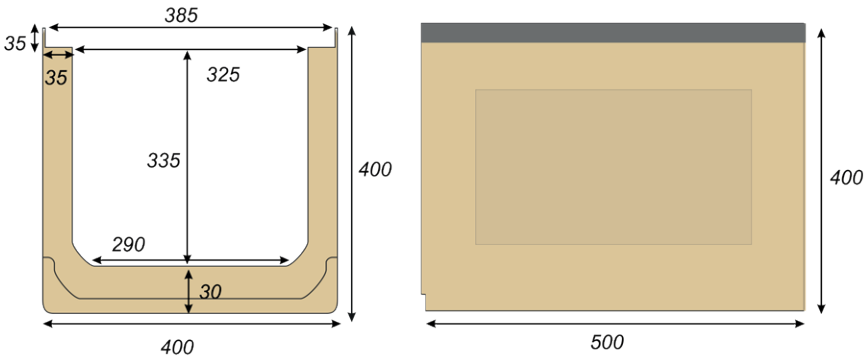
Plastic drains

Other




POLYMER CONCRETE TROUGH  
WITH A CAST IRON COVER CLASS D400  
500x400x400

TECHNICAL SECTIONS OF LINEAR DRAIN



LENGTH MM	WIDTH MM	HEIGHT MM
500	400	400

TROUGH

CLASS	COVER TYPE	CODE	WEIGHT IN KG	AMOUNT ON THE PALLET	PRICE
D400	CAST IRON 	0966	59,5	8	



POLYMER CONCRETE LINEAR DRAINS

MONOLITH 140



Concrete drains

Polymer concrete drains

TECHNICAL SECTIONS OF MONOLITH LINEAR DRAIN





LENGTH MM	WIDTH MM	HEIGHT MM
500	140	60

Plastic drains

Other

TROUGH

CLASS	TYPE	HEIGHT IN MM	CODE	WEIGHT IN KG	AMOUNT ON THE PALLET	PRICE
<div>A15</div> <div>F900</div>	<div>MONOLITH</div> <div></div>	60	0754	6,8	100	
<div>A15</div> <div>F900</div>	<div>MONOLITH WITH CONNECTOR STUB-PIPE Ø110</div> <div></div>	60	0755	7	separately	
<div>A15</div> <div>F900</div>	<div>MONOLITH WITH ANGULAR CONVECTOR</div> <div></div>	60	1016	6,5	separately	

# POLYMER CONCRETE DRAIN ACCESSORIES

Concrete drains



Full end drain  
L

Full end drain  
P

Drain end with a hole  
and gasket  
L

Drain end full with  
stube - pipe for  
L

Monolith end drain

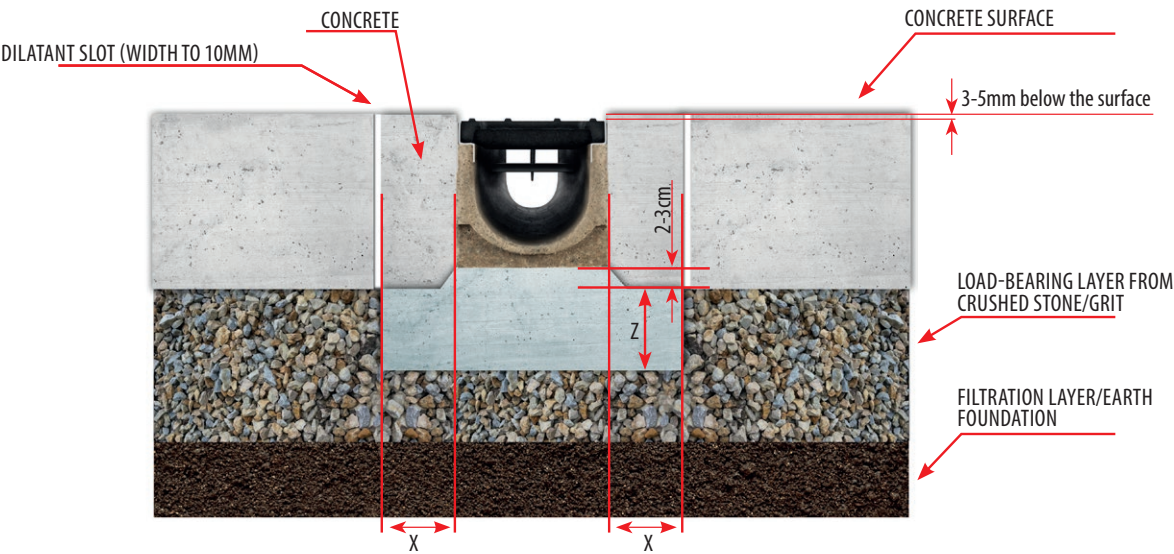
End available for all types of polymer concrete drains  
End with hole available  $\Phi 110$  ,  $\Phi 160$ ,  $\Phi 200$  (depending on type).

Polymer concrete drains

Plastic drains

Other

POLYMER CONCRETE TROUGHS ASSEMBLY MANUAL  
CLASS A15-D400 IN CONCRETE



LOAD CLASS	A 15	B 125	C 250	D 400
Dimensions of the concrete berm X (MM)	100	150	150	200
Dimensions of the concrete berm Z (MM)	100	150	150	200
CONCRETE CLASS FOR THE BERM	C 35/45	C 35/45	C 35/45	C 35/45

ASSEMBLY MANUAL

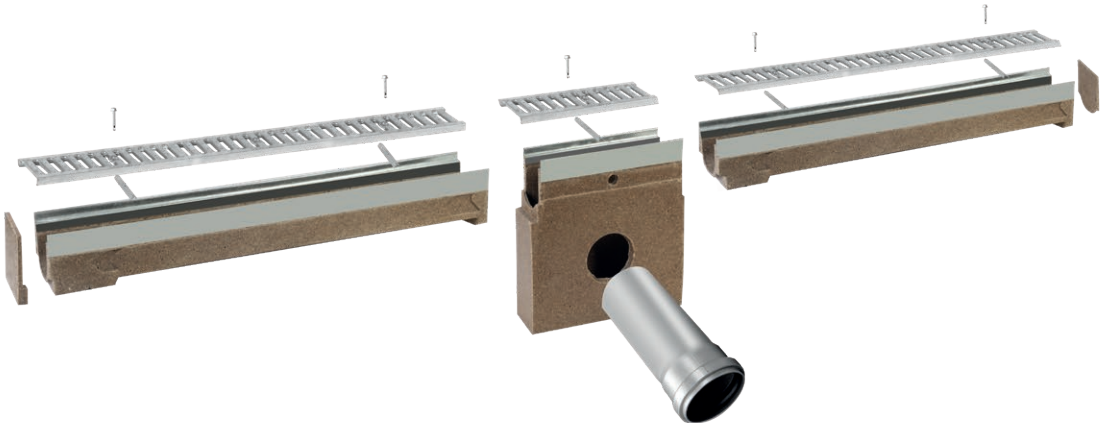
- 
1. Prepare appropriate substrate in line with the design and according to the soil type.
  2. Mark the future position of the draining system with pegs and nylon lines stretched from one peg to the other one
  3. Prepare a trench with width and height increased to include the concrete casing. The channels should be laid 3-5 mm below the ground level so that no horizontal forces are transferred to the side walls.
  4. Prepare concrete and pour it on the trench bottom.
  5. Place the first drain in a trench on the earlier prepared concrete so as to form a concrete band the trough.
  6. Next drain channel sections should be joined by tongue and groove connection. Use fast drying grout e.g. Ceresit CX5. Place the grout on the front part of the drain and press with the next element. Remove the mortar excess so that it does not obstruct water flow in the drain. Once cut protect the covers using anticorrosive paint.
  7. Checking the correctness of assembly means checking if the troughs are placed rectilinearly and checking tightness with the use of water.

WARNING!

When grinding concrete floors remove the covers as they could be permanently damaged which is not covered by the warranty. Unclogging by removing the deposits or snow / ice in winter time. Do not use saline solutions.

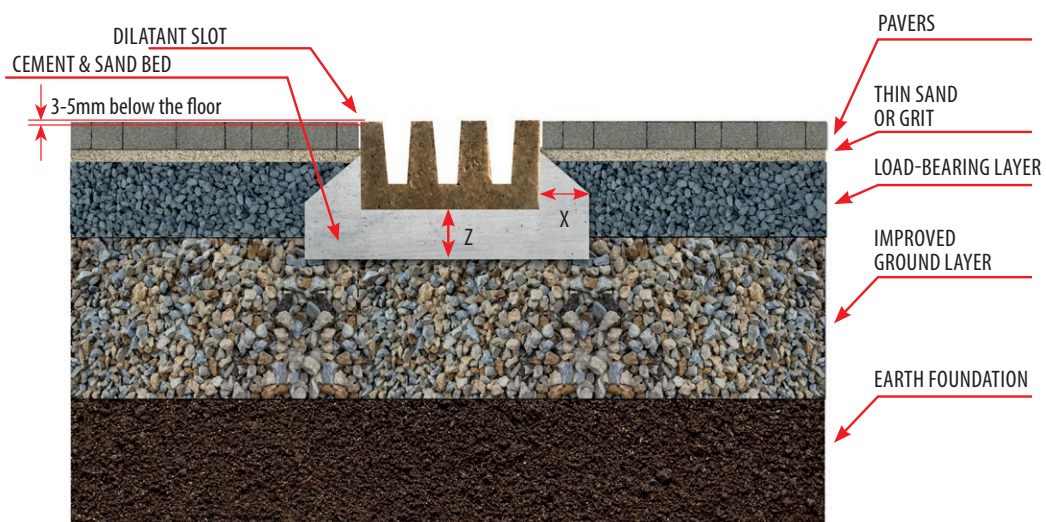
The producer is in no way responsible for any damaged occurring due to incorrect assembly of drains

WAY OF CONNECTING POLYMER CONCRETE TROUGHS



# POLYMER CONCRETE MONOLITH TROUGHS ASSEMBLY MANUAL

## CLASS A-15-F900 IN PAVERS



LOAD CLASS	A 15	B 125	C 250	D 400	E 600	F900
Dimensions of cement & sand bed X (MM)	50	50	50	50	50	50
Dimensions of cement & sand bed Z (MM)	50	50	50	50	50	50

### ASSEMBLY MANUAL

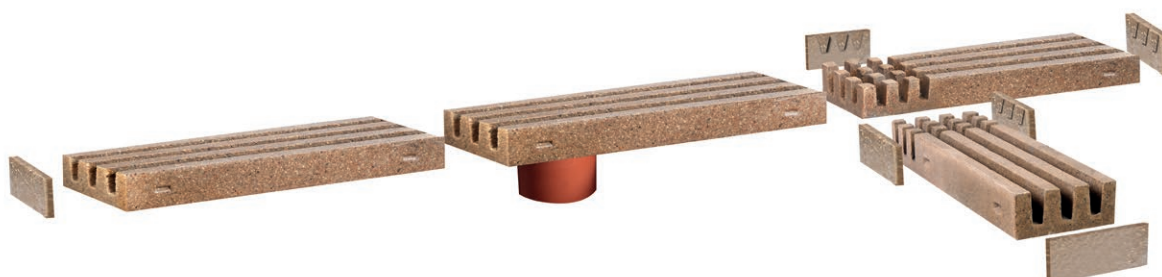
1. Prepare appropriate substrate in line with the design and according to the soil type.
2. Mark the future position of the draining system with pegs and nylon lines stretched from one peg to the other one.
3. Prepare a cement and sand bed with width and height increased to include the cement & sand bed. The channels should be laid 3-5 mm below the ground level so that no horizontal forces are transferred to the side walls.
4. Prepare cement & sand bed and cover the trench bottom with it.
5. Place the first drain in a trench.
6. Next drain parts should be placed carefully as it is not possible to correct the position after the concrete has dried off. use fast drying grout e.g. Ceresit CX5. Place the grout on the front part of the drain and press with the next element. Fill the remaining part of the trench with cement and sand mixture to provide stabilization for the drains. If necessary the channels can be cut to length using a grinder with a concrete grinding disc.
7. Checking the correctness of assembly means checking if the troughs are placed rectilinearly and checking tightness with the use of water.

### WARNING!

Unclogging by removing the deposits or snow / ice in winter time. Do not use saline solutions.

**The producer is in no way responsible for any damaged occurring due to incorrect assembly of drains**

## WAY OF CONNECTING MONOLITH CONCRETE TROUGHS







[www.bielbet.eu](http://www.bielbet.eu)



# Plastic linear drain

## MAIN CHARACTERISTICS OF PLASTIC LINEAR DRAINS:

- drains made of plastic (polypropylene)
- non-soaking
- smooth surface provides excellent
- hydraulic properties
- high chemical resistance
- highly aesthetic
- small weight makes transport and assembly of the drains easy
- connecting drains using tongue and groove
- lids screwed down
- correct assembly guarantees high load durability
- durability classes from A15 to C250

## ADDITIONAL ACCESSORIES:

- consolidated system drains
- full end drains
- drain end with place for a stub-pipe
- lower outlet
- s-bend

## USE:

pedestrian and cyclist paths, gardens, terraces, parks, entrances to the property



# PLASTIC LINEAR DRAIN 130

Concrete drains



PLASTIC TROUGH  
WITH A GALVANIZED PUSH  
IN COVER CLASS A15  
1000x130x105

PLASTIC TROUGH  
WITH A GALVANIZED  
COVER CLASS A15  
1000x130x105

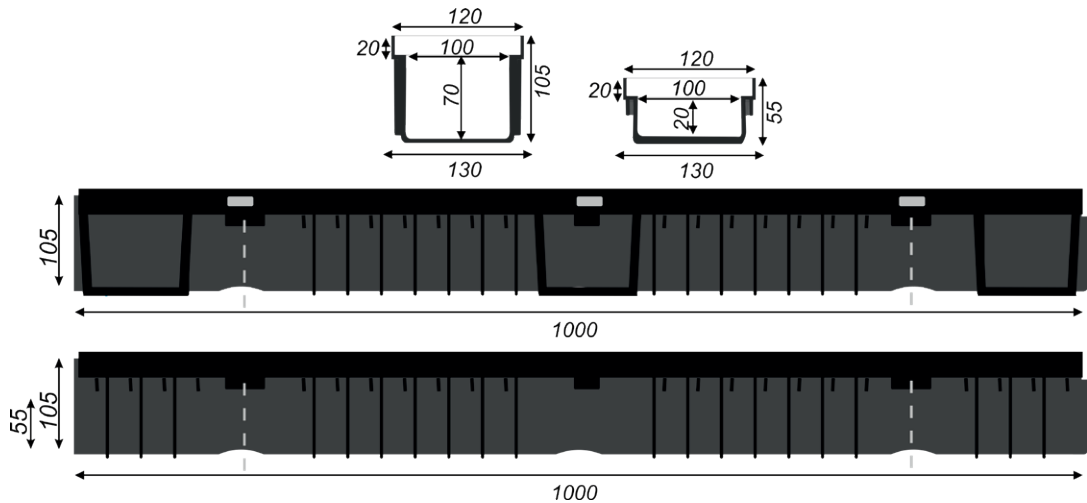
PLASTIC DRAIN  
WITH A GALAVANIZED  
COVER CLASS A15  
333x120x300

Polymer concrete drains

Plastic drains

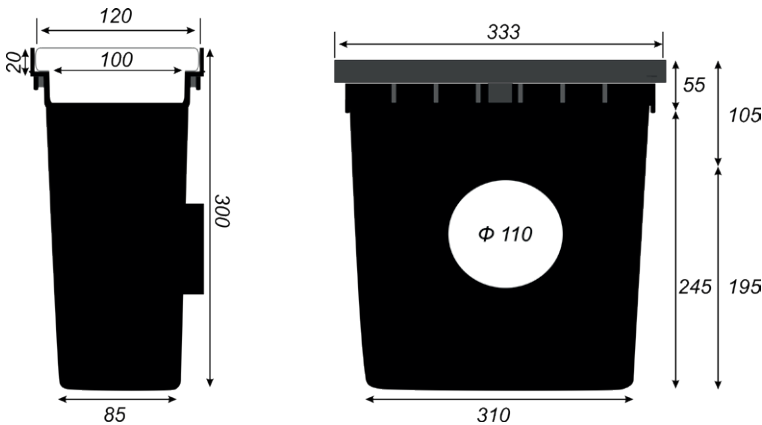
Other

## TECHNICAL SECTIONS OF LINEAR DRAIN



LENGTH MM	WIDTH MM	HEIGHT MM	ODPŁYW PIONOWY
1000	130	105	3 x Ø 110
1000	130	55	3 x Ø 110

## TECHNICAL SECTIONS OF DRAIN



LENGTH MM	WIDTH MM	HEIGHT MM
333	120	300

TROUGH

CLASS	COVER TYPE	HEIGHT IN MM	CODE	WEIGHT IN KG	AMOUNT ON THE PALLET	PRICE
<b>A15</b>	 GALVANISED IRON	105	0072	2,3	84	
		55	0076	2	120	
<b>A15</b>	 GALVANISED IRON - STAR	105	1062	2,4	84	
		55	1063	2,1	120	
<b>A15</b>	 STAINLESS STEEL	105	0085	2,3	84	
		55	0086	2	120	
<b>A15</b>	 PLASTIC	105	0073	1,8	84	
		55	0077	1,5	120	
<b>B125</b>	 PLASTIC	105	0213	2,7	84	
		55	0214	2,4	120	
<b>B125</b>	 CAST IRON	105	0074	8,6	48	
		55	0078	8,3	60	
<b>C250</b>	 CAST IRON	105	0075	10	48	
		55	0079	9,7	60	
<b>C250</b>	 GALVANISED IRON - STAR	105	1103	5,5	48	
		55	1193	5,2	60	
<b>A15</b> <b>C250</b>	 PLASTIC SLOTTED- LOW	105	0215	2	84	
		55	0216	1,65	120	
<b>A15</b> <b>C250</b>	 PLASTIC SLOTTED- HIGH	105	0429	2	84	
		55	0430	1,7	120	

Concrete drains

Polymer concrete drains

Plastic drains

Other

DRAINS

CLASS	COVER TYPE	HEIGHT	CODE	WAGA KG	PRICE
<b>A15</b>	GALVANISED IRON 	105	0132	1,3	
		55	0136	1,4	
<b>A15</b>	GALVANISED IRON - STAR 	105	0045	1,4	
		55	1085	1,5	
<b>A15</b>	STAINLESS STEEL 	105	0208	1,35	
		55	0237	1,45	
<b>A15</b>	PLASTIC 	105	0133	1,2	
		55	0137	1,3	
<b>B125</b>	PLASTIC 	105	0217	1,5	
		55	0218	1,6	
<b>B125</b>	CAST IRON 	105	0134	3,5	
		55	0138	3,6	
<b>C250</b>	CAST IRON 	105	0135	3,9	
		55	0139	4	
<b>C250</b>	GALVANISED IRON - STAR 	105	1230	2,4	
		55	1231	2,5	
<b>A15</b> <b>C250</b>	PLASTIC SLOTTED- LOW 	105	0304	1,5	
		55	0653	1,6	
<b>A15</b> <b>C250</b>	PLASTIC SLOTTED- HIGH 	105	1232	1,2	
		55	1233	1,3	



Concrete drains

Polymer concrete drains

Plastic drains

Other

TROUGH WITH PUSH-IN COVER

CLASS	COVER TYPE	HEIGHT IN MM	CODE	WEIGHT IN KG	AMOUNT ON THE PALLET	PRICE
A15		105	0957	2,2	84	
		55	1114	1,5	120	
A15		105	0958	2	84	
		55	1115	1,3	120	

Concrete drains

Polymer concrete drains

DRAIN ACCESSORIES



Full end drain  
h105,  
Code: 0110



Drain end h105 with place  
for a stub-pipe  $\Phi$  110 ,  
Code: 0117



Lower outlet  $\Phi$  110  
CODE: 0177



S-bend  
CODE: 0253



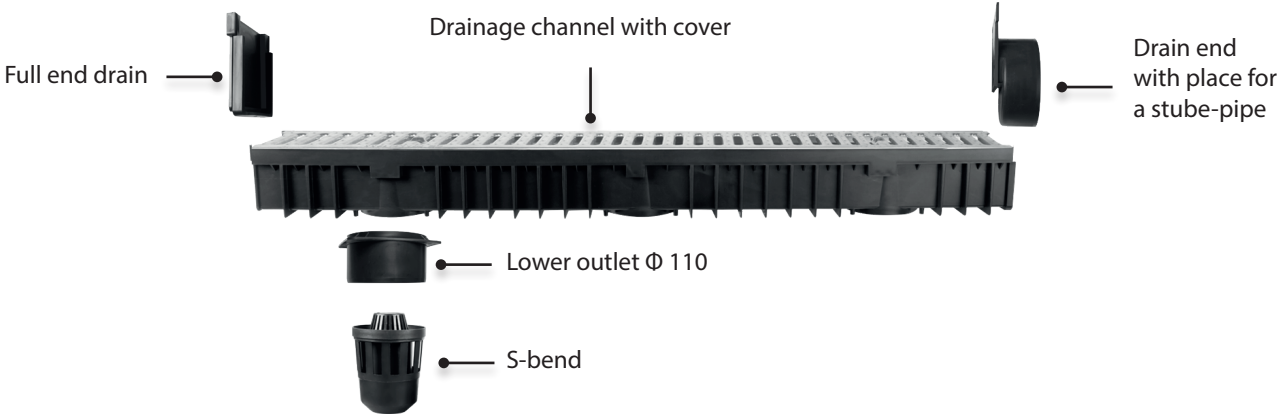
Lower outlet  
h 55  
CODE: 0187



Drain end h55 with place  
for a stub-pipe  $\Phi$  75  
CODE: 0296

Plastic drains

Other

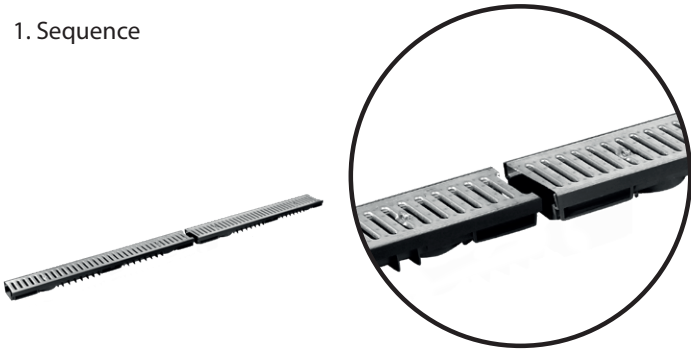


# WAY OF CONNECTING TROUGHS H55 AND H105

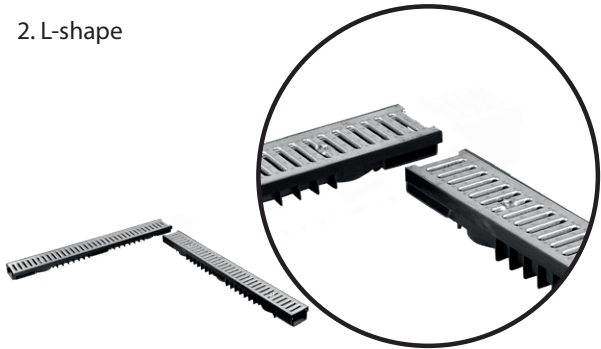
(no additional element)

Concrete drains

1. Sequence

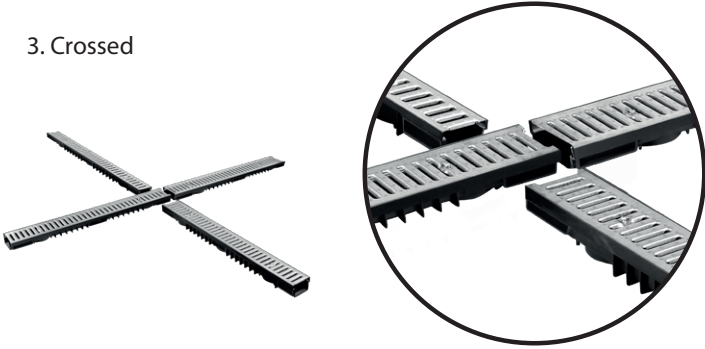


2. L-shape

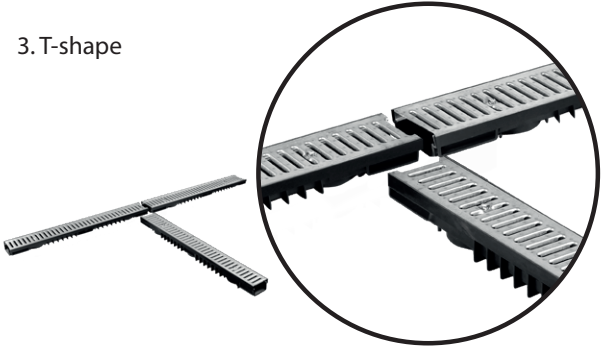


Polymer concrete drains

3. Crossed



3. T-shape



Plastic drains

Other

# PLASTIC TROUGH ASSEMBLY MANUAL

## CLASS A-15-C250 IN CONCRETE

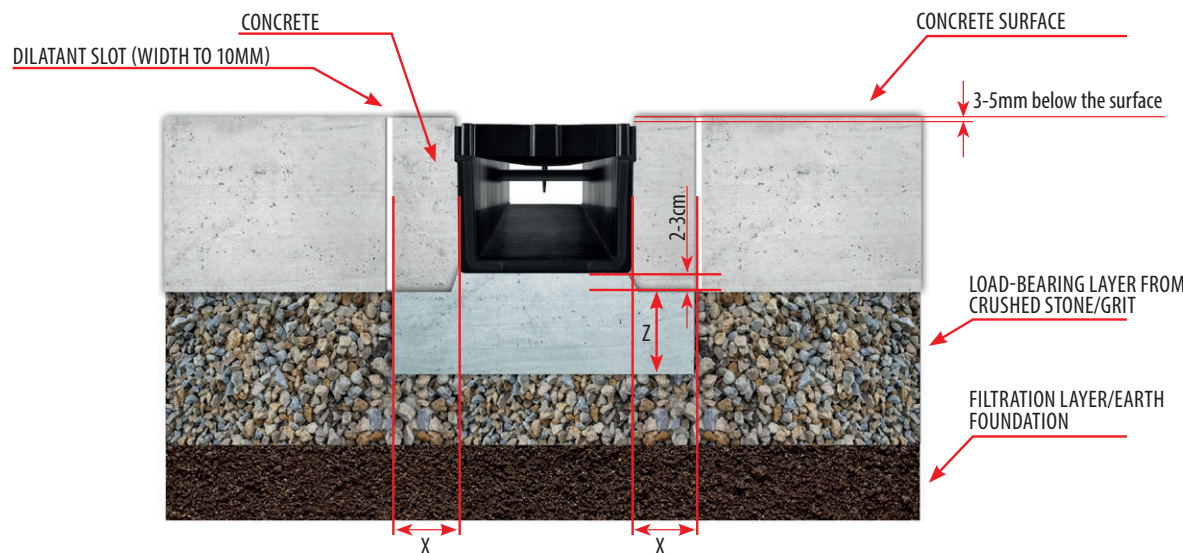
**ASSEMBLY MANUAL**

- 1. Prepare appropriate substrate in line with the design and according to the soil type.
- 2. Mark the future position of the draining system with pegs and nylon lines stretched from one peg to the other one.
- 3. Prepare a trench with width and height increased to include the cement & sand bed. The channels should be laid 3-5 mm below the ground level so that no horizontal forces are transferred to the side walls.
- 4. Prepare concrete and pour it on the trench bottom.
- 5. Place the first drain in a trench on the earlier prepared concrete so as to form a concrete band the trough.
- 6. Next drain channel sections should be joined by tongue and groove connection. Seal the joints with sanitary silicone. If necessary the channels can be cut to length using a grinder with a concrete grinding disc. Once cut protect the covers using anticorrosive paint.
- 7. Checking the correctness of assembly means checking if the troughs are placed rectilinearly and checking tightness with the use of water.

**WARNING!**

The cover must be screwed on.  
When grinding concrete floors remove the covers as they could be permanently damaged which is not covered by the warranty.  
Unclogging by removing the deposits or snow / ice in winter time. Do not use saline solutions as they would accelerate corrosion of covers.

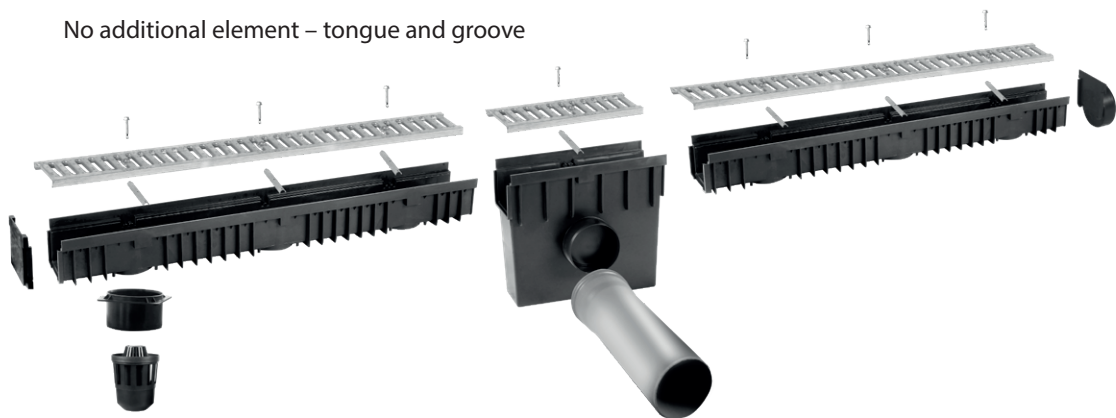
The producer is in no way responsible for any damaged occurring due to incorrect assembly of drains



LOAD CLASS	A 15	B 125	C 250
Dimensions of the concrete berm X (MM)	100	150	200
Dimensions of the concrete berm Z (MM)	100	150	200
CONCRETE CLASS FOR THE BERM	C 35/45	C 35/45	C 35/45

## WAY OF CONNECTING PLASTIC TROUGHS

No additional element – tongue and groove



Concrete drains

Polymer concrete drains

Plastic drains

Other



# PLASTIC SLOTTED TROUGH ASSEMBLY MANUAL CLASS

## B125-C250 IN PAVER

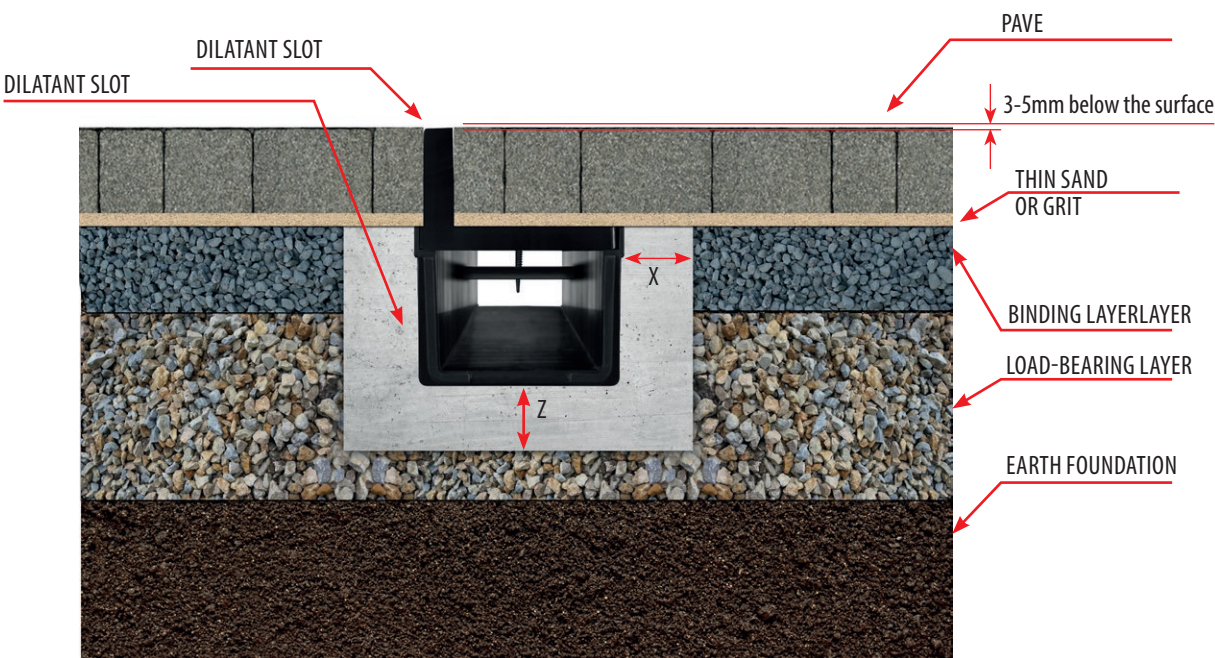
### ASSEMBLY MANUAL

1. Prepare appropriate substrate in line with the design and according to the soil type.
2. Mark the future position of the draining system with pegs and nylon lines stretched from one peg to the other one
3. Prepare a trench with width and height increased to include the concrete casing. The channels should be laid 3-5 mm below the ground level so that no horizontal forces are transferred to the side walls.
4. Prepare concrete and pour it on the trench bottom.
5. Place the first drain in a trench on the earlier prepared concrete so as to form a concrete band the trough.
6. Next drain channel sections should be joined by tongue and groove connection. Use fast drying grout e.g. Ceresit CX5. Place the grout on the front part of the drain and press with the next element. Remove the mortar excess so that it does not obstruct water flow in the drain. Once cut protect the covers using anticorrosive paint.
7. Checking the correctness of assembly means checking if the troughs are placed rectilinearly and checking tightness with the use of water.

### WARNING!

The cover must be screwed on.  
Unclogging by removing the deposits or snow / ice in winter time.

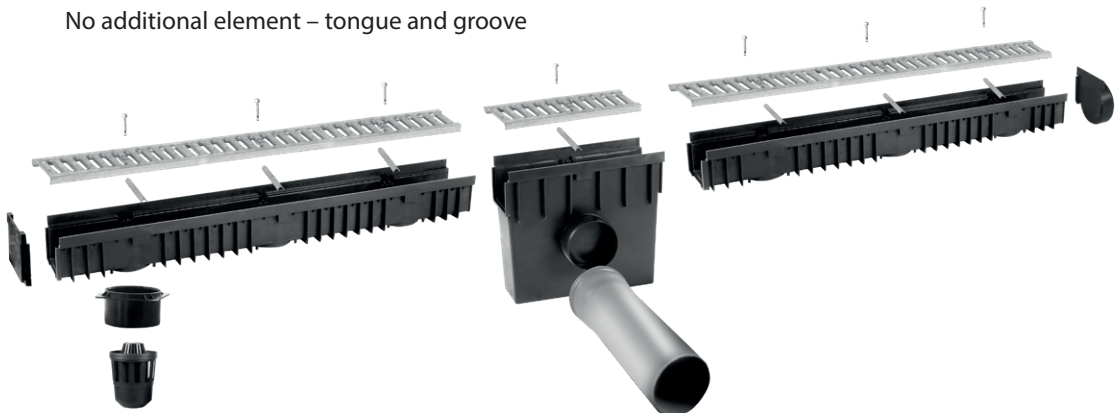
**The producer is in no way responsible for any damaged occurring due to incorrect assembly of drains**



LOAD CLASS	A 15	B 125	C 250
Dimensions of the concrete berm X (MM)	100	150	200
Dimensions of the concrete berm Z (MM)	100	150	200
CONCRETE CLASS FOR THE BERM	C 35/45	C 35/45	C 35/45

## WAY OF CONNECTING PLASTIC TROUGHS

No additional element – tongue and groove







[www.bielbet.eu](http://www.bielbet.eu)





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Concrete drains

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Polymer concrete drains

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Plastic drains

Other

OTHER

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# UNDER SPOUT DRAIN

Under spout drain it is used to drain rain water through spouts from the roof to the sewer system

## ADVANTAGES

- made of high quality material (polypropylene)
- protects the building against moist
- inspection function for the sewage system
- universal dimensions for spouts and sewage pipes
- aesthetic look
- easy assembly

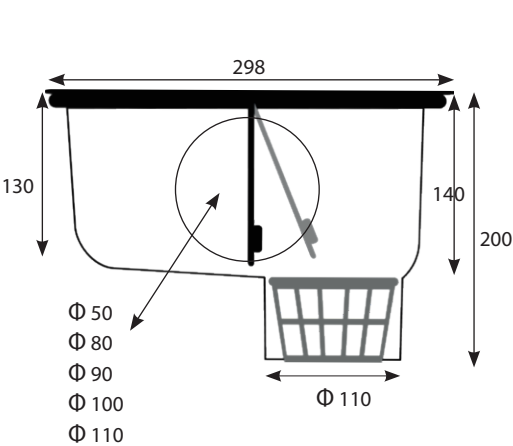


The drain cover is composed of the spout cover and full cover. The spout cover has pressed spots ready to prepare openings for spouts/pipes diameter Ø 50, Ø 80, Ø 90, Ø 100, Ø 110mm. Full cover enables inspecting and removal of dirt. The body of the under spout drain has a vertical outlet for sewage pipes diameter 110mm. Inside there is a basket preventing the dirt from entering the sewage system and an anti-odour lid.

On the sides of the body there are additional pressed spots for sewage pipes diameter Ø 50, Ø 90, Ø 100, Ø 110mm which may be cut out and side outlet may be connected. The set contains an additional lid – grate to collect surface water serving as the ground water drain.

CLASS	COLOR	CODE	WEIGHT IN KG	AMOUNT ON THE PALLET	PRICE
A15	BLACK	0201	0,56	200	
A15	GREY	0202	0,56	200	
A15	BROWN	0203	0,56	200	

LENGTH MM	WIDTH MM	HEIGHT MM
300	160	200



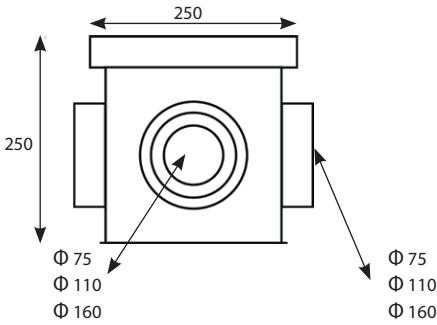
YARD DRAIN

Yard drain dedicated to spot collecting of water and removing water from hard surfaces.


ADVANTAGES:

- prevents forming puddles
- perfect for garden taps
- aesthetic look
- small weight – easy transport and assembly

The yard drain is equipped with rings on each side wall of the body of diameter 75,110,160 mm. The yard drain may be used as a single one or as a module in order to have a bigger depth depending on the needs. For this purpose there are bottom edges prepared for cutting if needed.



The yard drain is available in colours black and grey.

CLASS	COVER TYPE	COLOR	CODE	WEIGHT IN KG	AMOUNT ON THE PALLET	PRICE
A15	PLASTIC (ladder-type) 	BLACK	0209	1,60	84	
		GREY	0210	1,60	84	
B125	CAST IRON 	BLACK	0239	5,06	48	
A15	PLASTIC (full, serves as a cable box) 	BLACK	0306	1,62	84	
		GREY	0458	1,62	84	

LENGTH MM	WIDTH MM	HEIGHT MM
250	250	250

ACCESSORIES	COLOR	CODE	WEIGHT IN KG	PRICE
catch basin extension	black	0295	0,2	
odour eliminator	black	0298	0,1	
	grey	0299	0,1	

Concrete drains

Polymer concrete drains

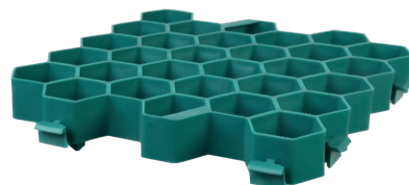
Plastic drains

Other

# LAWN-ROAD GRID

## BIELBET LAWN-ROAD GRID:

- it is a modern solution for surface hardening and stabilising
- enables expanding biologically active areas
- during rain the grid stabilizes the ground and protects vehicles against getting stuck in
- enables natural circulation of water
- construction of the grid provides excellent condition for grass vegetation
- improves the load capability of driveways and grass lawns
- small weight of the grid makes assembly and transport easy



## BIELBET LAWN-ROAD GRID

It is composed of chambers creating hexagonal structures. It has connectors used to assembly the elements into one smooth surface stable both horizontally and vertically. Made from polythene of high density, symbol HDPE, also received from the recycling process of plastic scrap. Available in dimensions 335x338x40mm is usually produced in colours black or green.

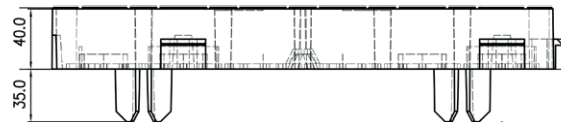
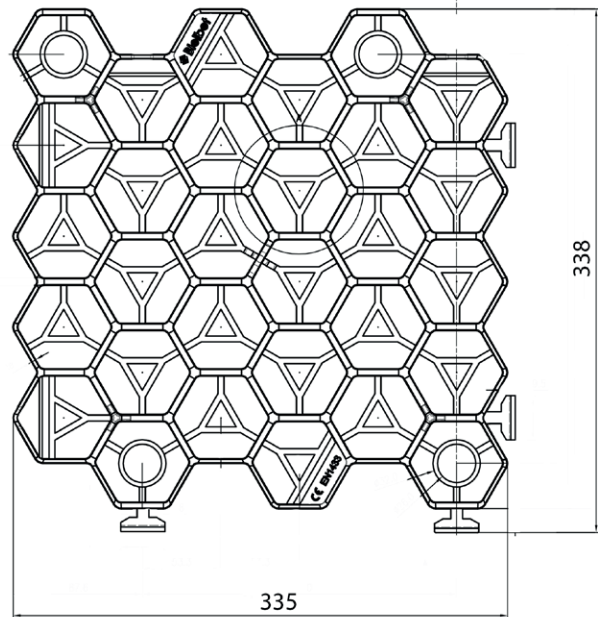
## USE:

### CATEGORY I

- Surface of lorry parks and bays
- Surface dedicated for traffic and roadsides :
  - roadsides,
  - housing estates driveways to houses, driveways to office buildings and production halls,
  - driveways and place manoeuvre along blocks of flats and production buildings.

### CATEGORY II

- Surface of pavements and car parks for vehicles – 2500kg:
    - pedestrian paths in parks (only with grass)
    - garage entrances,
    - caravan parking spots
    - car parks
  - Protection and hardening
    - covering the area around trees growing along pavementsl;
    - hardening of drains,
    - protects escarpments against erosion
- In case of car park spots for lorries and surface for manoeuvre the grid may be used in a system together with other concrete slab elements.



## TERMS OF USE :

Terms of use Bielbet Lawn-road grid may be used:

- with aggregate Category I
- with grass Category II

LENGTH MM	WIDTH MM	HEIGHT MM	KOLOR	CODE	PRICE
335	338	40	black	0443	
335	338	40	green	0444	

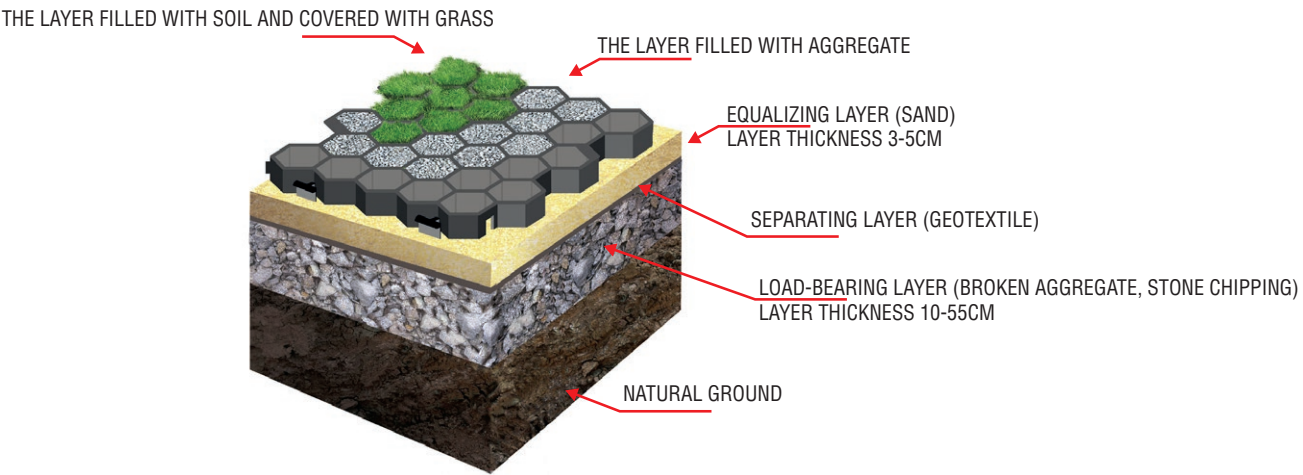


# LAWN-ROAD GRID ASSEMBLY MANUAL

1. Designate the planned area of Bielbet lawn-road grid construction using pegs and strings.
2. Remove soil for the desired dept-depending on intended use
3. Fill the trench with the supporting layer i.e. broken aggregate or stone chipping – smooth and compress well
4. Put geolyocell on the smooth and compressed supporting layer so that the sand layer is not rinsed away during water filtration and to protect against grass overgrowing ( especially in the case of using aggregate)
5. Put the equalizing layer – sand (3-5cm) – smooth and compressed
6. Put the grids on the prepared layer and connect together using connectors
7. After placing the lawn-road grids, fill the chambers with lawn soil consisting of grass seeds and fertilizer or aggregate.
8. The height of the soil filler or aggregate should be high enough to ensure that after the aggregate self-consolidates, the surface of the filling will be 5 mm below the upper edge of the Bielbet lawn-road grid
9. The surface with the lawn-road grid may be limited by a rim, moulding a set of pavers and so on.
10. When the grass start growing, the surface should not be used, to help the grass vegetation. Lawn vegetation rules should be applied to look after the grass

The foundation layer depends on the future use and soil natural conditions. In particular ground conditions the way of assembly will be chosen by the designer. On less pervious grounds (clay) the foundation should be increased by about 20cm. Correct preparation of the load-bearing layer and the equalizing layer ensures that the grids will not be damaged under car wheels and furrows will not be formed.

**The producer is in no way responsible for any damaged occurring due to incorrect assembly of Bielbet Lawn- road grid.**



USE	THICKNESS OF THE LOADBEARING LAYER	THICKNESS OF THE EQUALIZING LAYER
LAYER	10-15 cm	3-5 cm
THICKNESS OF THE	20-30 cm	3-5 cm
EQUALIZING LAYER	45-55 cm	3-5 cm
Lorries, public roads	45-55 cm	3-5 cm

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Concrete drains

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Polymer concrete drains

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Plastic drains

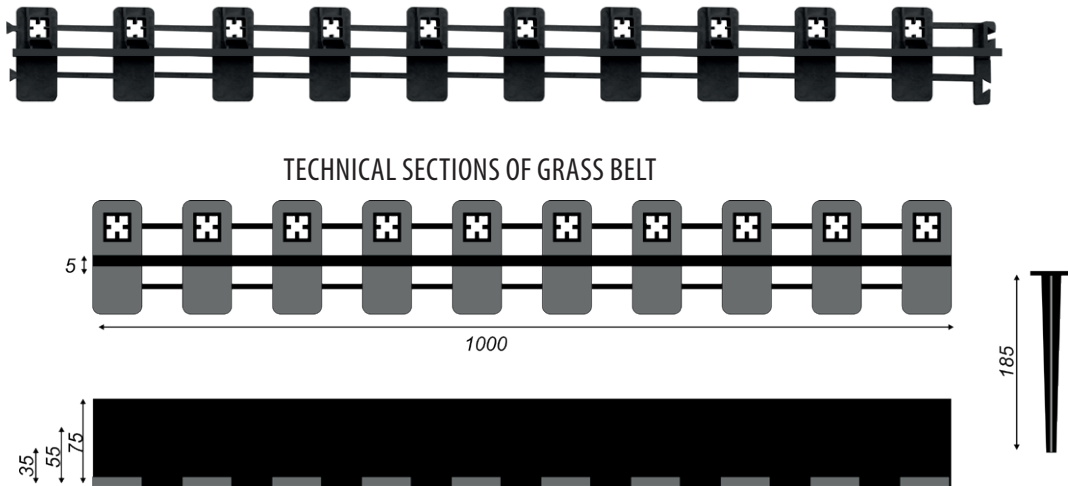
Other

# GRASS BELT

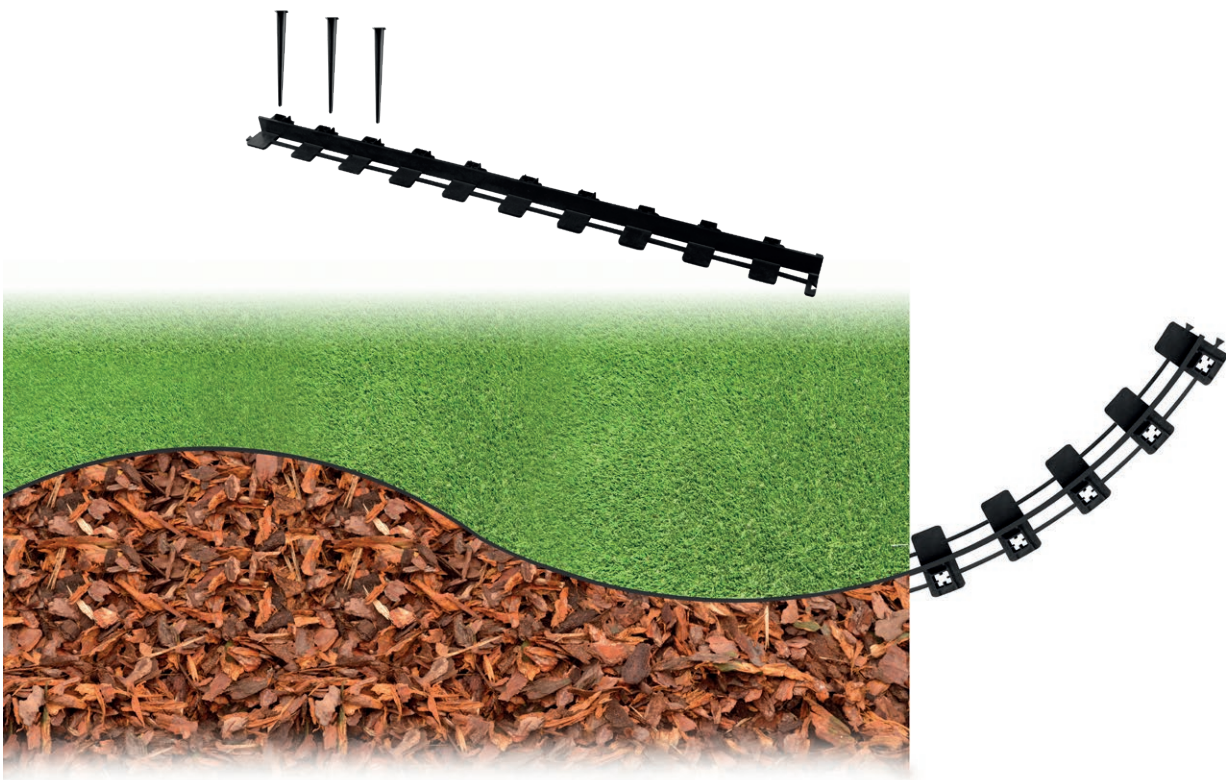
Bielbet grass belt are a part of garden and park architecture and they provide finish to concrete setts by separating gravel paths from lawns and stabilizing lanes and walkways. They offer flexibility allowing the creation of curves and circles. They are user-friendly for landscapers.

## ADVANTAGES:

- easy assembly (no dugouts)
- screwed down to the ground with assembly pins
- optically invisible after the assembly



The edge is assembled with the use of connectors, it is stabilised in the ground with assembly pins. Made from high-quality plastic (polypropylene) and are characterised by high quality, durability and resistance to atmospheric conditions.



LENGTH MM	HEIGHT MM	CODE	PRICE
1000	35	0481	
1000	55	0450	
1000	75	0493	

# DOORMAT

The doormat is dedicated to spot collecting and removing water from pedestrian surfaces, makes it easier to clean footwear mud, soil particles and sand. Resistance to road salt, chemicals that do not contain chlorine

The doormat is composed of the base of the doormat made of plastic and a selection of covers to choose from. The base of the doormat has outlets  $\varnothing 110, \varnothing 75, \varnothing 50$ .

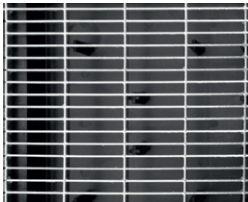
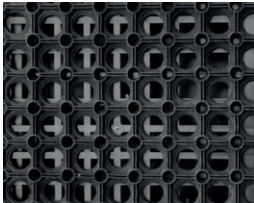


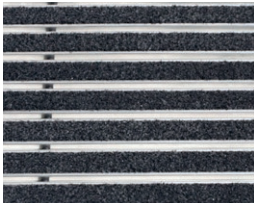


## ADVANTAGES:

- significantly reduces costs of keeping building entrance area clean.
- aesthetic look,
- made of abrasion resistant material
- easy assembly

## USE:

- outside construction in front of entrances to buildings
- dedicated to pedestrian traffic zones only

CLASS	TYPE	DIMENSIONS MM	CODE WITH COVER	WEIGHT WITH COVER	AMOUNT ON THE PALLET	PRICE
A15	<div>GALVANISED IRON</div> 	580x370x100	0120	5,16	60	
A15	<div>RUBBER-HONEYCOMB</div> 	580x370x100	0320	3,00	60	
A15	<div>ALIMINIUM-RUBBER</div> 	580x370x100	black 0441 grey 0767	4,44	60	
A15	<div>ALUMINIUM-BRUSH</div> 	580x370x100	black 0468 grey 0515	4,34	60	
A15	<div>ALUMINIUM-TEXTILE</div> 	580x370x100	anthracite 0521	4,44	60	

Concrete drains

Polymer concrete drains

Plastic drains

Other



The image is a composite. The left half shows a modern glass library building at night, with interior lights glowing through the glass facade. The building has a prominent corner and a curved section. The right half shows a wireframe model of the same building, highlighting its structural framework. The sky is a deep blue, and the foreground includes a paved area and some landscaping.

# **BIELBET LIBRARIES BIM**

[www.bielbet.eu](http://www.bielbet.eu)





[www.bielbet.eu](http://www.bielbet.eu)

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