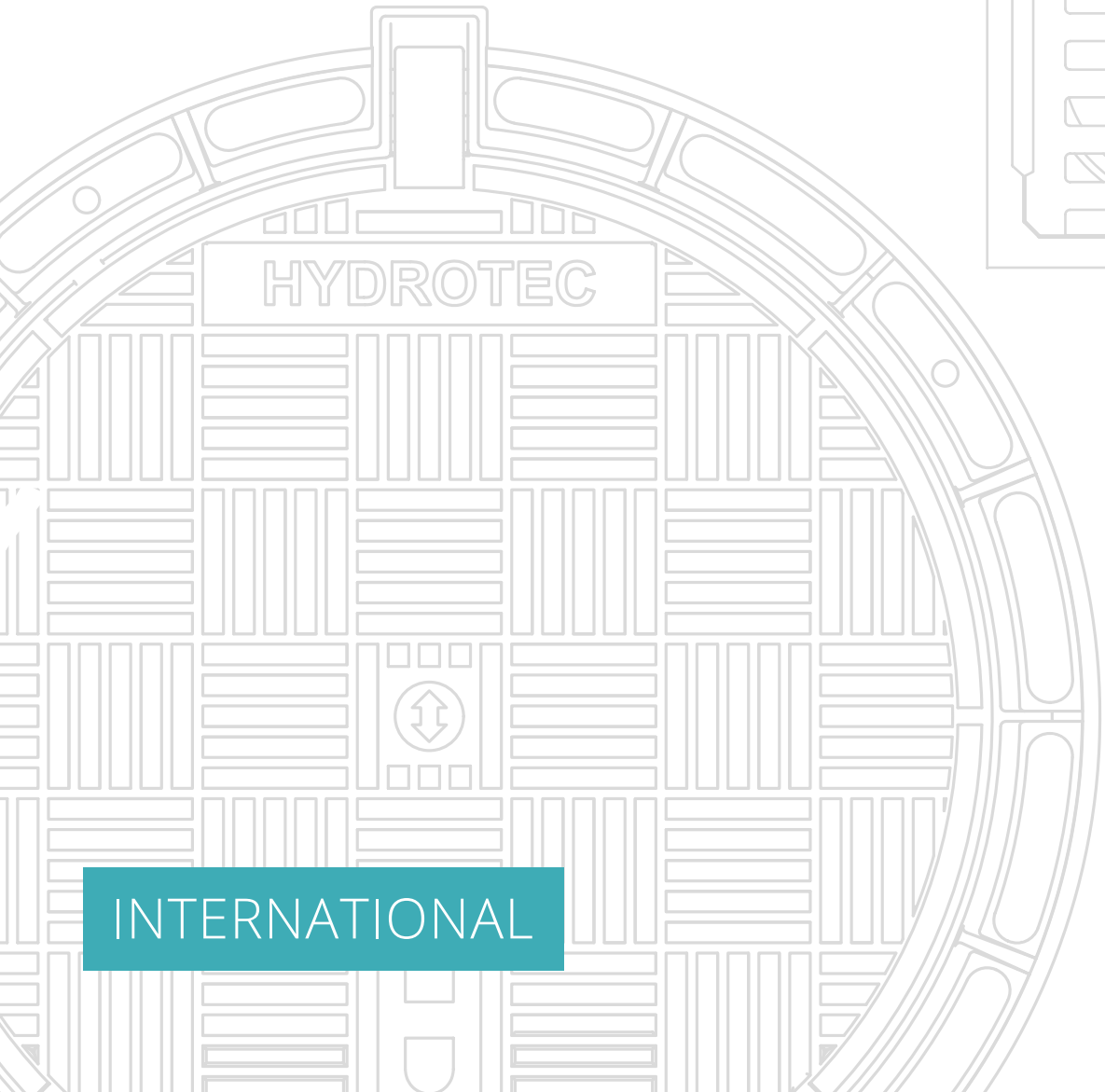
HYDROTEC

MANHOLE COVERS & GULLY TOPS



INTERNATIONAL

01/2019

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ABOUT HYDROTEC

From little to large.

On reflection, we consider this company to be a success story.

When starting out nearly 50 years ago not even the company's founder, Gisbert Brinkschulte, could have envisioned that his sole ownership company would grow to be such a strong global player namely HYDROTEC Technologies AG. The company has grown with a comprehensive network of business partners and is taking all necessary steps to continue growing in the future. HYDROTEC products are sold in many different countries and seek to establish ourselves as one of the leading players in each market. To achieve this we adhere to our principles: High quality products at fair market prices.

We like to answer your questions before you ask them.

With our commitment to continually improve our technology and broaden our range of quality products HYDROTEC is expanding its core business which is manufacturing and selling drainage castings / systems. Self-leveling manhole covers, drainage channels, surface boxes, or street furniture are just a few examples of our product portfolio, which is sold all over the world.

It is not just a question of business, but of people who understand our business.

Our staff at HYDROTEC strive to find the best possible solution for our customers every day. We have a simple recipe for giving you the information you need: Responsibility. Employees who identify themselves with their jobs are motivated and put 100% into their jobs. This helps us and above all our customers.

Single-source supplier.

Business means change. We understand each change primarily as an opportunity. This is why we don't just monitor the market status quo. Instead we think about tomorrow's market needs. New ideas on the one hand and our enormous import and export experience on the other: this symbiosis holds enormous potential for the successful future development of HYDROTEC.

THE PRODUCTION

THE PRODUCTION

New products and strategies will be intensified developed in the future with our partner foundry ERKON. Apart from the standard products are more and more multi-purpose products required. This applies not only to the German market but to all of Europe. The technically demanding production will be taken over by the ERKON foundry, making for HYDROTEC a valuable contribution to future development.

ERKON is based on a 35,000 m² site in the industrial area of Konya. For the growth-orientated company the connection to a global player like HYDROTEC is forward-looking.
With the participation in the ERKON foundry HYDROTEC wins a partner with whom the targets of market and procurement expansion can be successfully implemented.

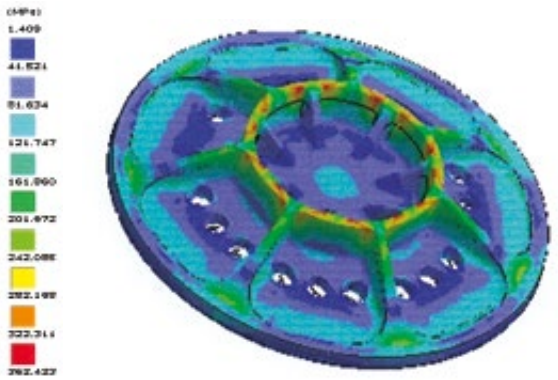
- TS-ISO-EN 1400 / TS-ISO-EN 9000
- 6t/h capacity INDUCTOTHERM dual truck system furnaces
- Moulding line
  - HWS EFA SD 5,5
    1100 x 950 x 300 + 300 mm
  - HWS HSP 4D
    1250 x 1000 x 300 + 300 mm

CERTIFIED QUALITY

SAFETY FIRST ...

Once learnt, never forgotten. As specialists with many years of experience in drainage technology, we place much emphasis on product development. This is where high-tech produces the perfect component. Each and every product is put through rigorous quality checks. Product innovation are tested using a 3D simulation program, „FEM“, with respect
to structural behaviour under load. The results of a simulation give us insights into the durability of a component and thus allow us to optimize development.

Cover subjected to a stress of 400 kN with torsion curve



Certified Quality

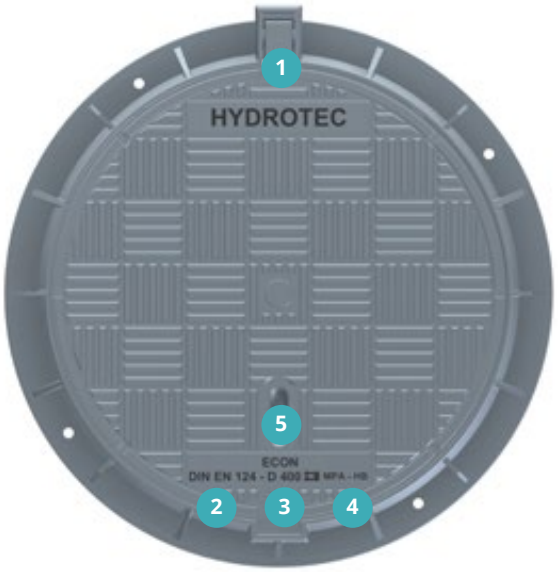
Our products are tested for compliance with international standards and monitored by internationally accredited test laboratories.

Quality Management

Compliance with EN 124 is assured by material test institutes accredited for testing throughout Europe (test lab accredited to ISO 17025 standard).

EN 124 labeling (item 9 EN 124)

1 - Manufacturer ID
2 - EN 124 designates the European Standard
3 - Load class (e.g. D400)
4 - Mark of third party certification body
5 - Product name (optional)



Amtliche Materialprüfanstalt Bremen
(Official Testing Institute)

INSTALLATION SECTION
EN 124

Class A 15
Test load 15 kN
Walkways, cycling paths, green areas

Class B 125
Test load 125 kN
Walkways, pedestrian zones, car parking areas

Class C 250
Test load 250 kN
Kerb areas, emergency lanes, car parking areas

Class D 400
Test load 400 kN
Road surfaces, pedestrian streets

Class E 600
Test load 600 kN
Industry, military, high wheel loads

Class F 900
Test load 900 kN
Airport surfaces, docks, very high wheel loads

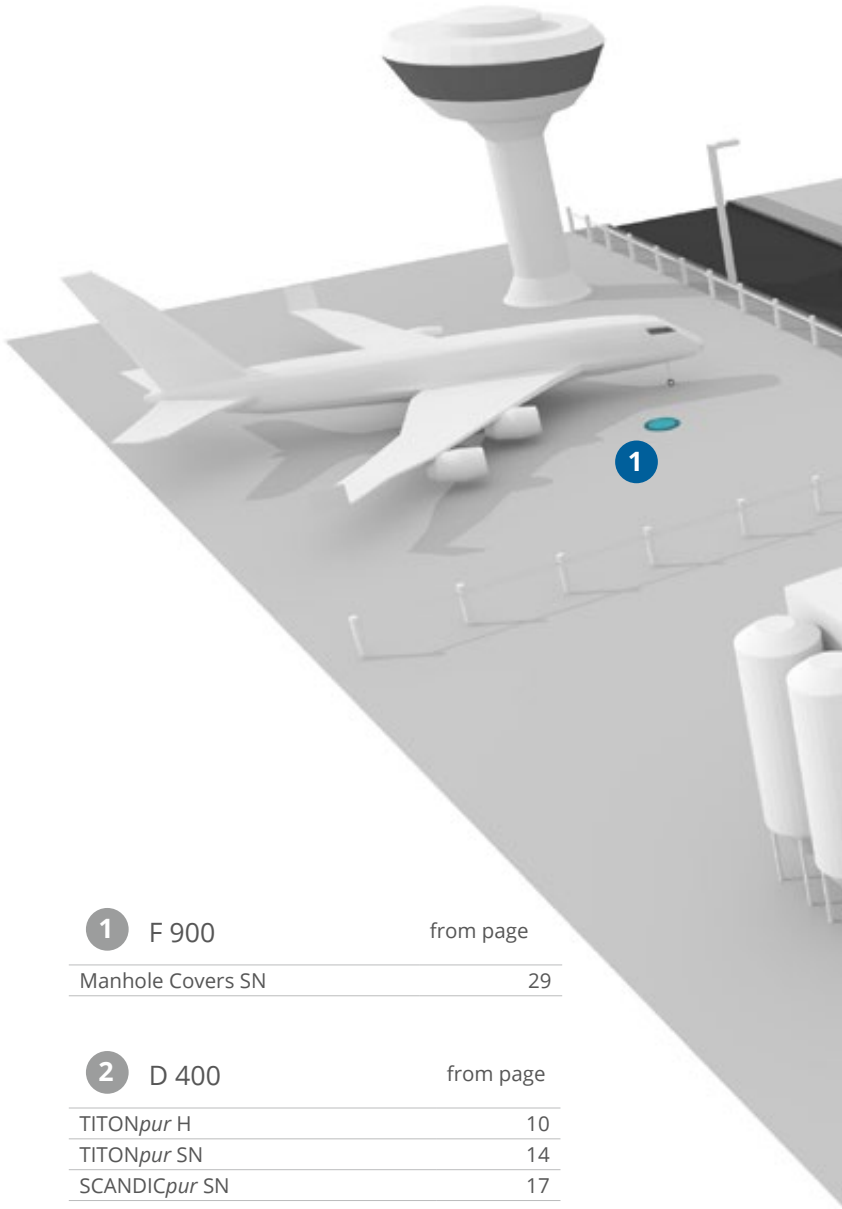
HYDROTEC recommends a differenation by the following fields of application:

LT – Low Traffic
Areas mainly with car traffic and a low volume of heavy goods traffic, e.g. traffic calmed side roads

MT – Medium Traffic
Areas with a normal volume of car and goods traffic, e.g. country roads and industrial roads ...

HT – High Traffic
Areas with a high volume of traffic such as e.g. highways and bypasses ...

IT – Intensive Traffic
Areas with intensive traffic load, e.g. curves, crossroads, junctions ...



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SCANDIC*pur* SN	17
ECON	18
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Square manhole covers	52
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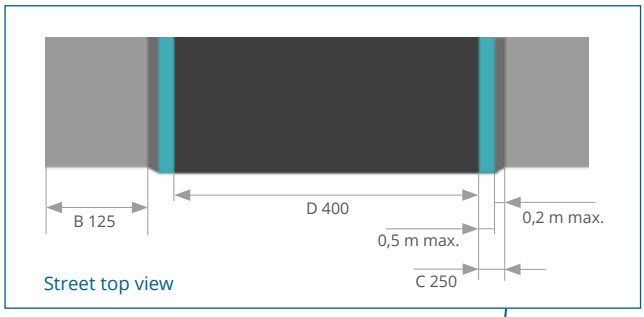
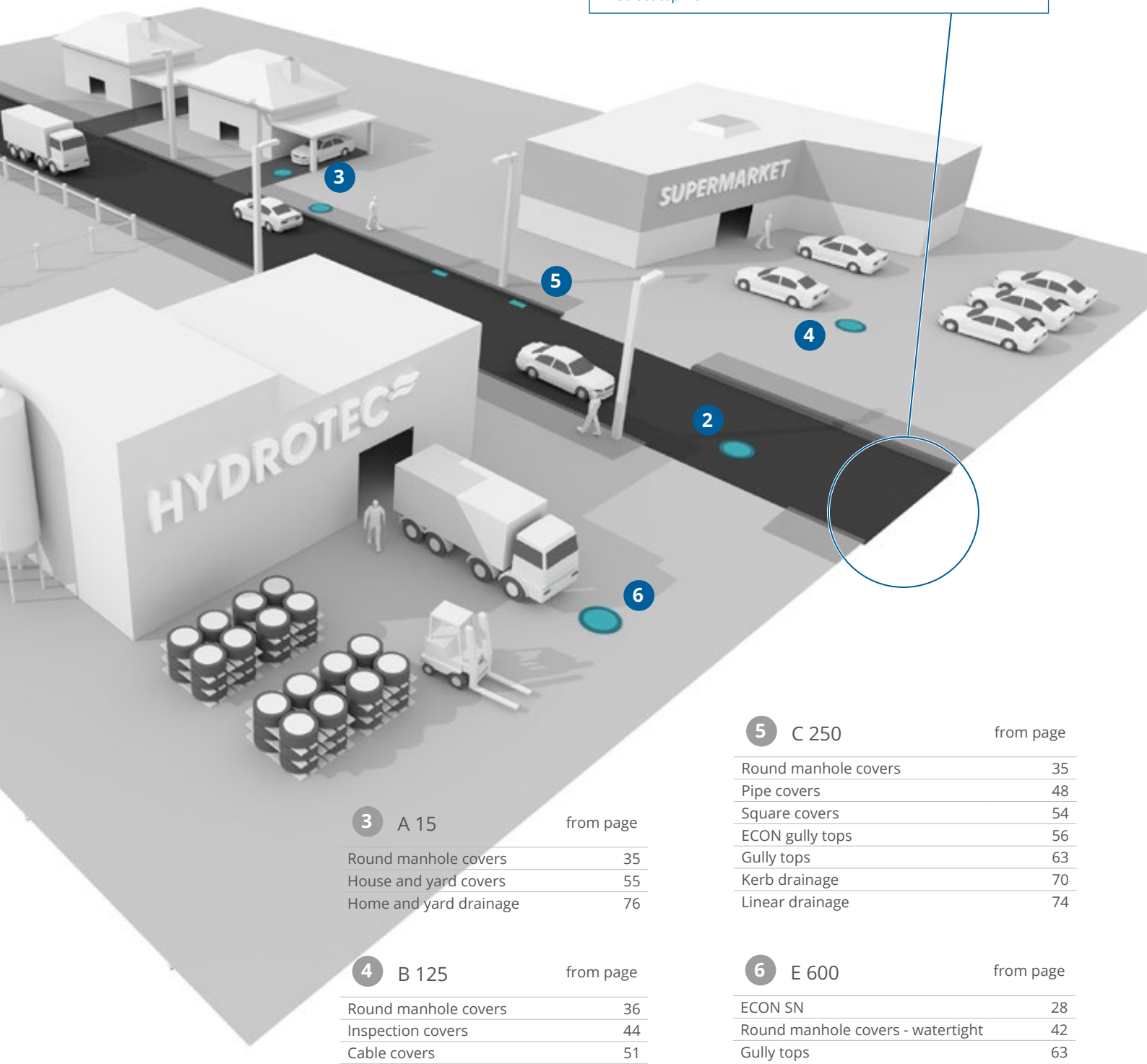
EN 124 defines various test loads for individual load classes. For example, the load class D 400 corresponds to a test force of 400kN. However, it is not entirely possible to evaluate the traffic safety of a cover simply by performing a vertical pressure test. Traffic safety requirements often differ considerably, especially in the D 400 load class. For example, the dynamic and static traffic safety requirements for traffic-calmed service roads differ greatly from those of highways and bypasses. This classification is simply a recommendation. The choice of cover depends on the specific local conditions and is the planner's responsibility. In doubt, you should choose the next higher class.



Street top view



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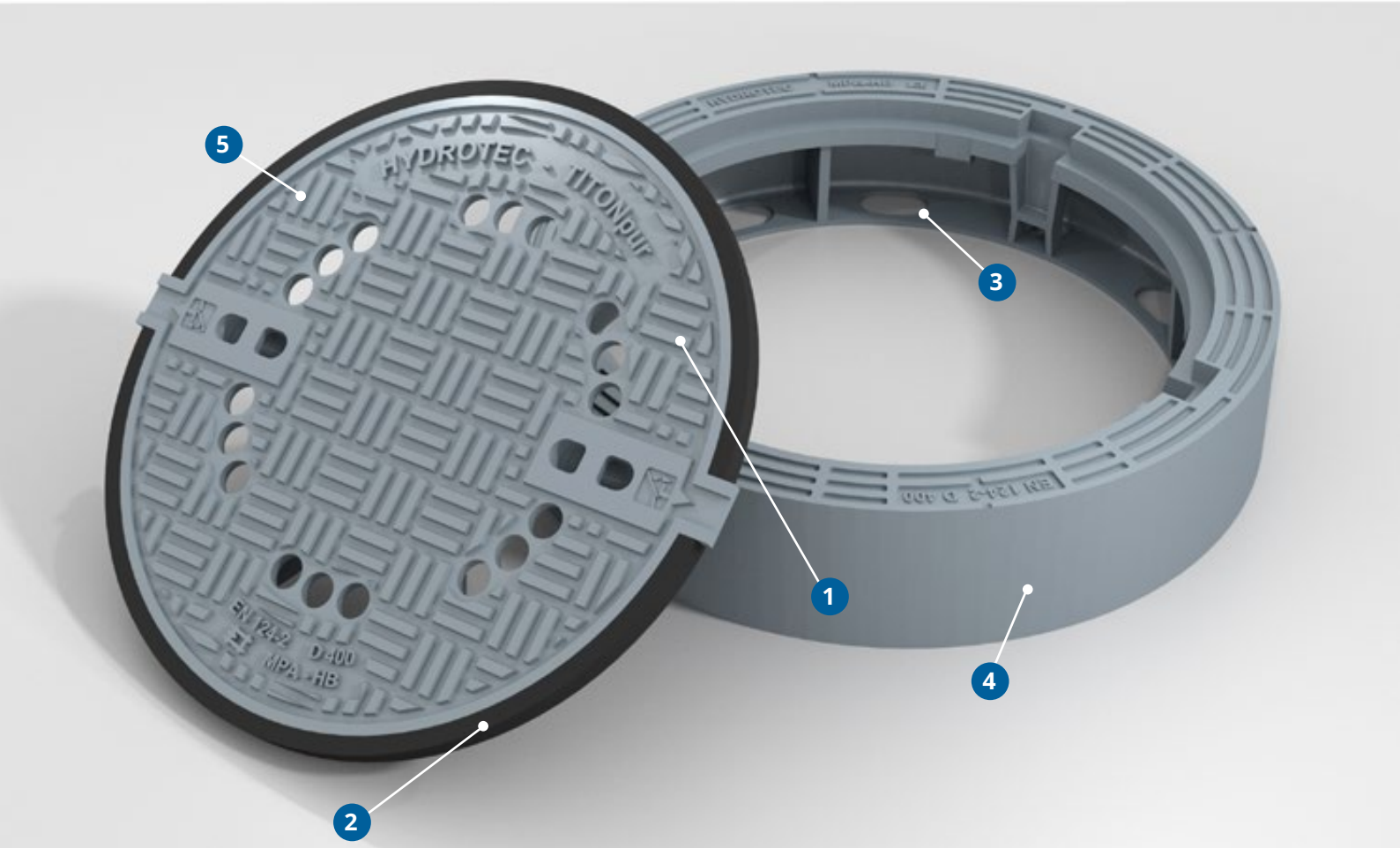
TITON*pur* H
Product benefits



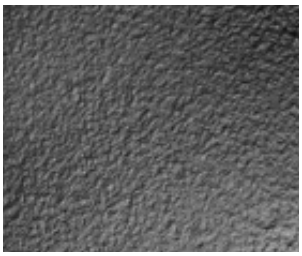
RATTLE FREE!

TITON*pur* H
Product benefits

CLASS
D 400

Test load 400 kN
to DIN EN 124

Ideal for road surfaces, pedestrian streets and parking areas.



Made of ductile cast iron

Ductile cast iron (ductile iron with nodular graphite) is robust, can withstand high static loads and has high corrosion resistance.

1

2 point spring locking

The 2 point spring locking ensures that the cover is securely positioned even under heavy loads and offers protection against theft and vandalism.

2

HYDRO*pur*®-insert

Manhole covers have a coated HYDRO*pur*®-insert. This polyurethane coating is connected to the manhole cover by a special process, whereby two components merge to form an innovative product.

2

Rattle free

In the case of slow expansion to the original condition of the HYDRO*pur*®-insert after loading, the manhole cover is secured against the rapid cracking of the cover.

3

Mortar pockets

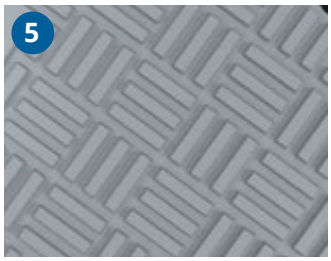
Strong bolting between frame and shaft by the use of mortar pockets.

4

Liftable frame
and support flange

The smooth outer surface allows the frame to be easily lifted. The wide support flange ensures maximum stability.

5



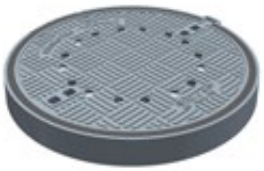
Design

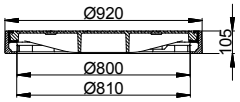
Criss-Cross Design minimizes traffic roll-over noise and improves anti-slip.

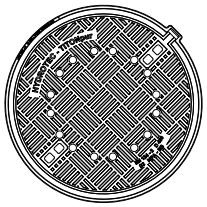
TITON*pur* H
Class D 400, Ductile Cast Iron (GJS), DIN EN 124

TITON*pur* H 800

Type	Art. no.	Over base	Height	kg	Pallet
	8149**4813**	920	105	128	4
Ventholes*	8149**4812**	920	105	128	4







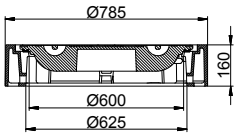
81494812

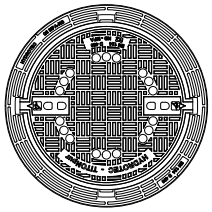
* frame with support for dirt catcher

TITON*pur* H
Class D 400, Ductile Cast Iron (GJS), DIN EN 124

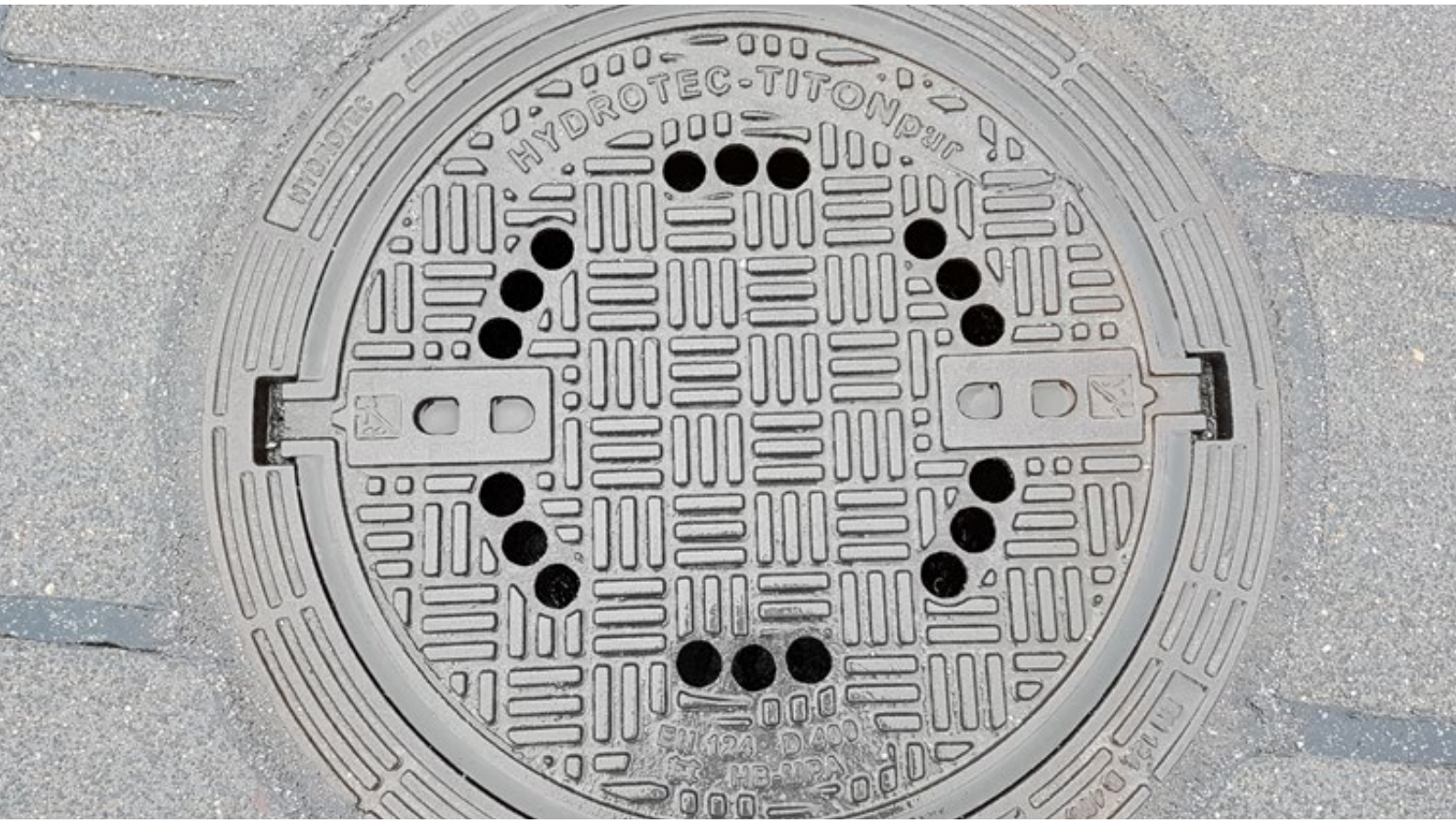
TITON*pur* H 600

Type	Art. no.	Over base	Height	kg	Pallet
	8149**4433**	785	160	101	8
Ventholes*	8149**4432**	785	160	101	8



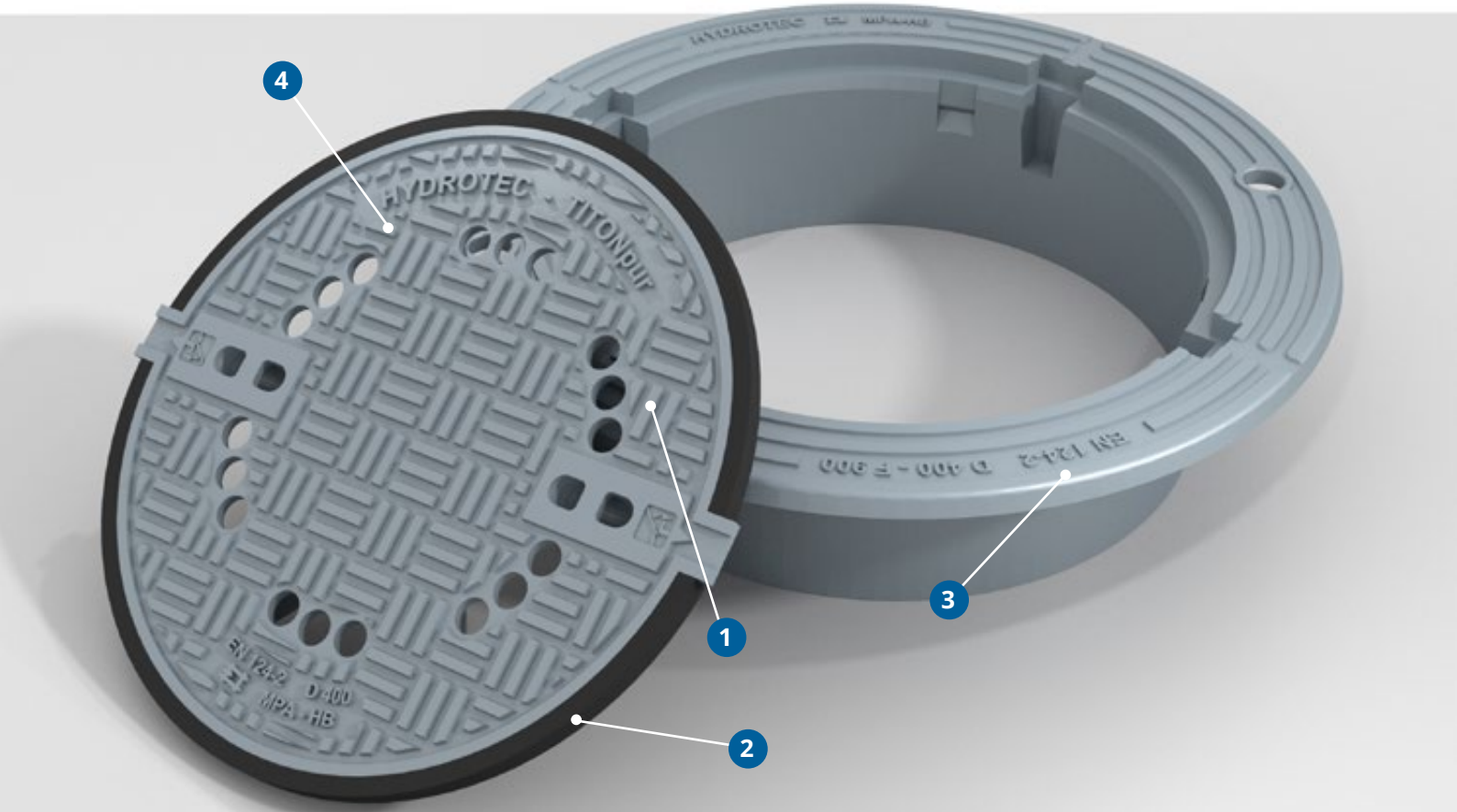


81494432



* frame with support for dirt catcher

TITON*pur* SN
Product benefits



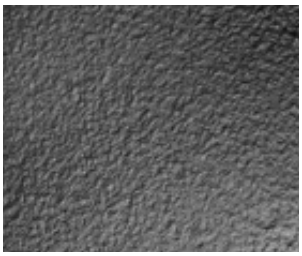
RATTLE FREE!

TITON*pur* SN
Product benefits

CLASS
D 400

Test load 400 kN
to DIN EN 124

Ideal for road surfaces, pedestrian streets and parking areas.



Made of ductile cast iron

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1

2 point spring locking

The 2 point spring locking ensures that the cover is securely positioned even under heavy loads and offers protection against theft and vandalism.

2

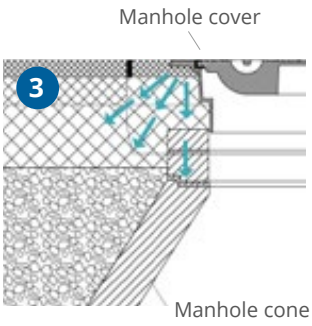
HYDRO*pur*®-insert

Manhole covers have a coated HYDRO*pur*®-insert. This polyurethane coating is connected to the manhole cover by a special process, whereby two components merge to form an innovative product.

2

Rattle free

In the case of slow expansion to the original condition of the HYDRO*pur*®-insert after loading, the manhole cover is secured against the rapid cracking of the cover.



Optimum load transfer

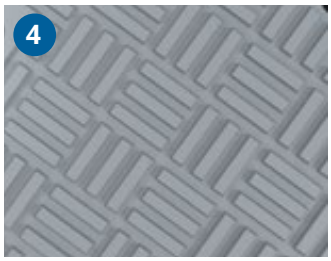
The self-levelling frame transfers the traffic load into the road layers, which reduces the load on the shaft.

3

Roll-in frame

The frame is rolled into the bituminous pavement layer and supported by it.

4

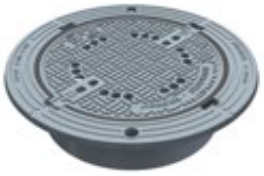


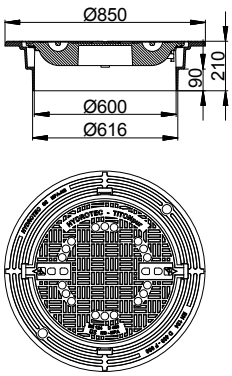
Design

Criss-Cross Design minimizes traffic roll-over noise and improves anti-slip.

TITON*pur* SN
Class D 400, Ductile Cast Iron (GJS), DIN EN 124

TITON*pur* SN 600						ROLL-IN FRAME!
Type	Art. no.	Over base	Height	kg	Pallet	
	8149**4423**	850	210	92	5	
Ventholes*	8149**4422**	850	210	92	5	



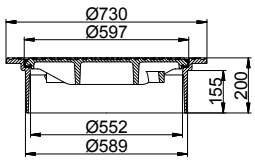


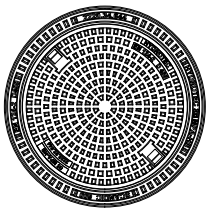
81494422

SCANDIC*pur* SN
Class D 400, Ductile Cast Iron (GJS), DIN EN 124

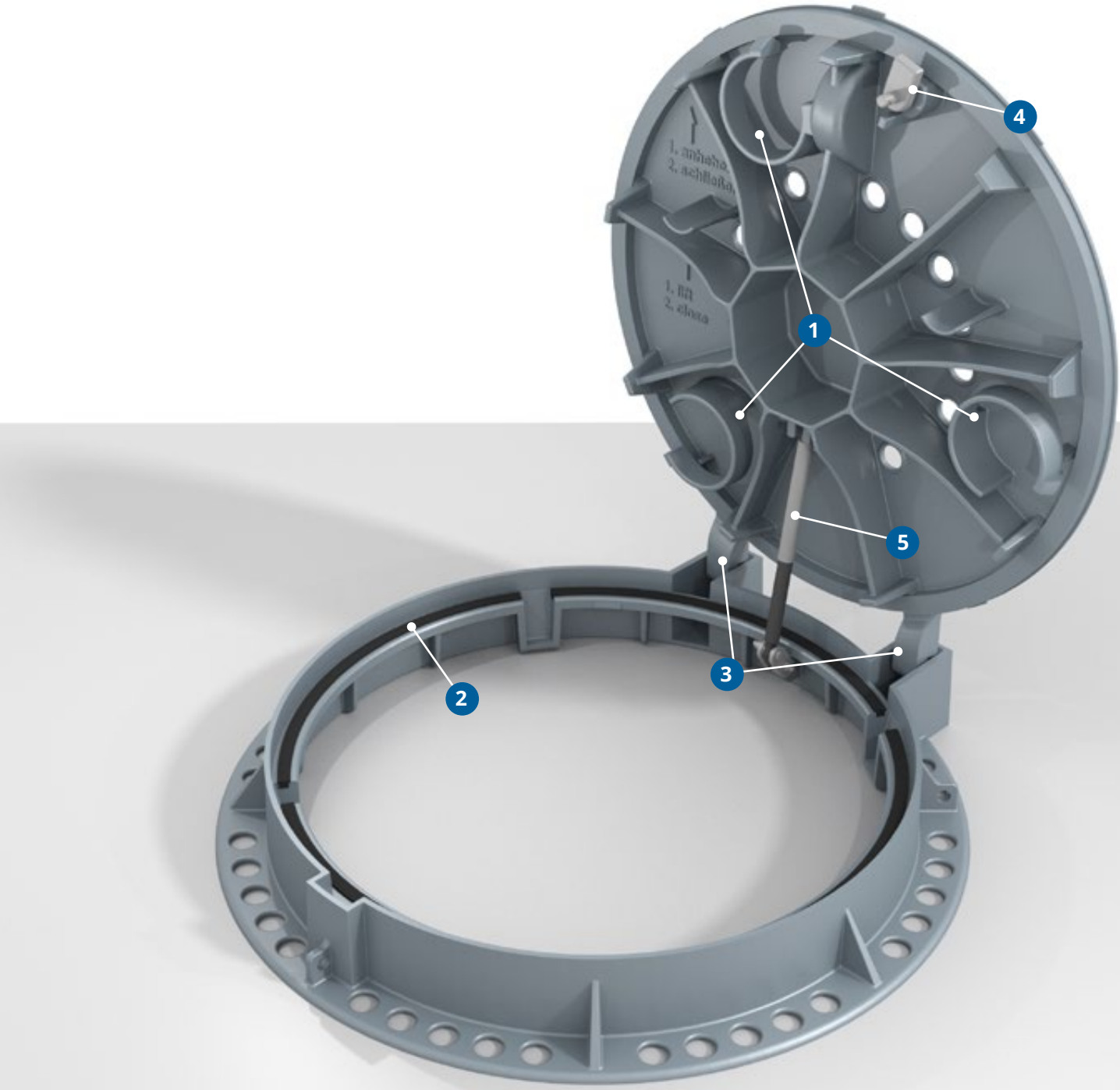
SCANDIC*pur* SN 600						FOR 600 DIA SHAFTS, ROLL-IN FRAME!
Type	Art. no.	Over base	Height	kg	Pallet	
2 point locking system, HYDRO*pur* insert						
	894635	730	200	85	10	

Cover lifter see page 81





ECON 800
Product benefits

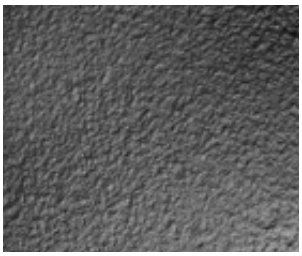


ECON 800
Product benefits

CLASS
D 400

Test load 400 kN
to DIN EN 124

Ideal for road surfaces, pedestrian streets and parking areas.



Made of ductile cast iron

Ductile cast iron (ductile iron with nodular graphite) is robust, can withstand high static loads and has high corrosion resistance.

3 point locking system

The 3 point locking ensures that the cover is securely positioned even under heavy loads and offers protection against theft and vandalism.

HYDRO*then* insert

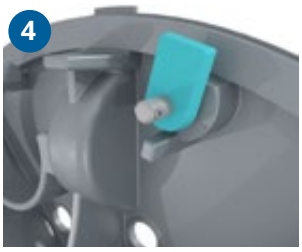
HYDRO*then* insert is made of polyethylene, which is extremely abrasion resistant and provides excellent damping.

Double hinge

Two hinges provide maximum safety during 90° locking against accidental closing of the cover, as well as in the 110° inspection position.

Clear opening 800 mm

With a clear opening of 800 mm, maintenance and rescue work are optimally possible.



Optional: Turnbuckle

With the turnbuckle, the ECON offers maximum protection against vandalism and unauthorised opening of the cover.

Optional:
Gas pressure spring

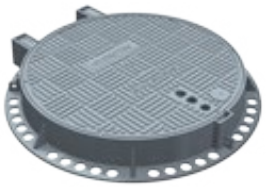
The gas pressure spring facilitates the opening of the cover.

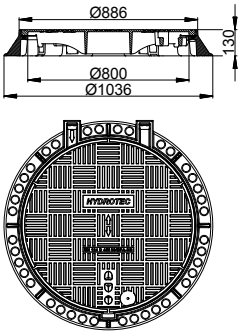
ECON 800 / 600

Class E 600 - D 400, Ductile Cast Iron (GJS), DIN EN 124

ECON 800

Type	Art. no.	Over base	Height	kg	Pallet
D 400, double hinge, 3 point-locking system, HYDRO*pren* insert					
	894**520**	1036	130	129	5
Gas pressure spring	8945**2001**	1036	130	130	5
Turnbuckle	8945**204**	1036	130	130	5
Turnbuckle, gas pressure spring	8945**2041**	1036	130	131	5
Ventholes	894**510**	1036	130	129	5
Ventholes, gas pressure spring	8945**1001**	1036	130	129	5
Ventholes, turnbuckle	8945**104**	1036	130	131	5
Ventholes, turnbuckle, gas pressure spring	8945**1041**	1036	130	131	5

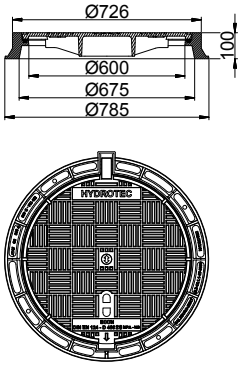




894520

ECON 600

Type	Art. no.	Over base	Height	kg	Pallet
E 600, hinge, 3 point-locking system, HYDRO*pren* insert					
	8957**084**	785	100	82	9
D 400, hinge, 3 point-locking system, HYDRO*pren* insert					
	894**708**	785	100	70	9
	894**707**	850	100	73	9
	894**108**	850x850	100	82	9
Ventholes*	894**718**	785	100	70	9
Inlet grating*	894**728**	785	100	72	9



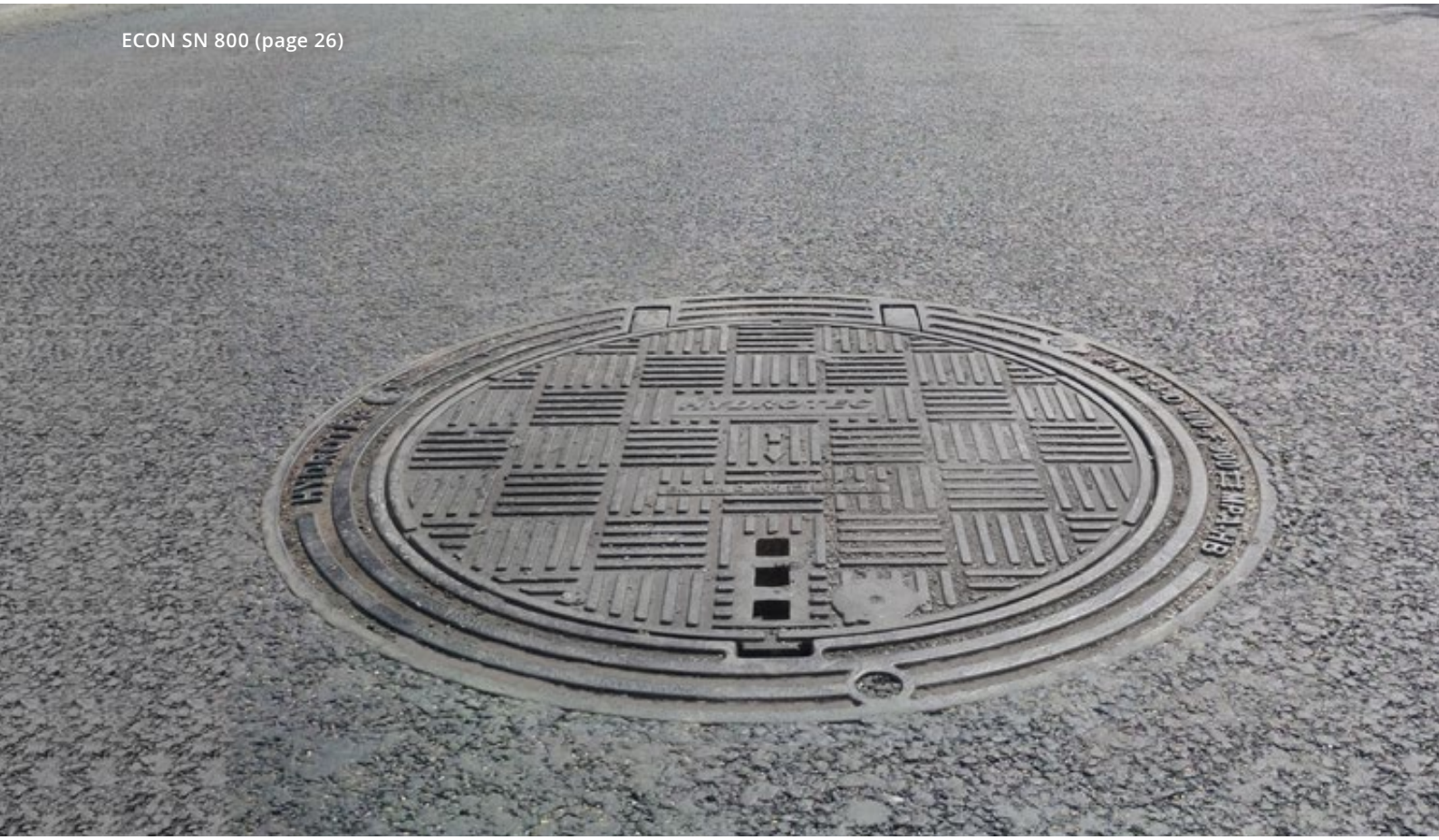
894708

Dirt catcher see page 78 and opening bar page 81

ECON

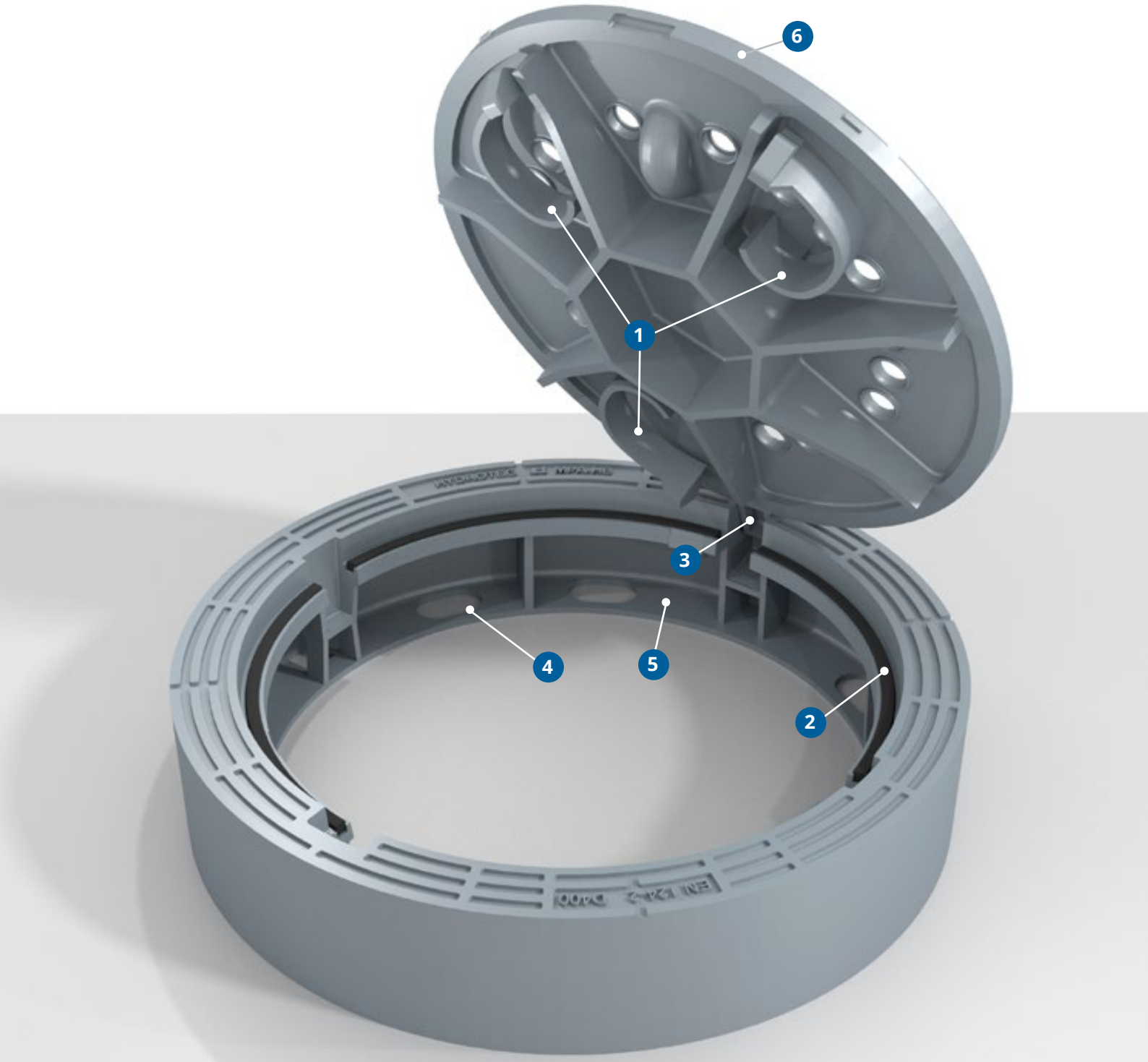
ECON Gully Top (page 56)

ECON H 600 (page 22)



ECON SN 800 (page 26)

ECON H 600
Product benefits

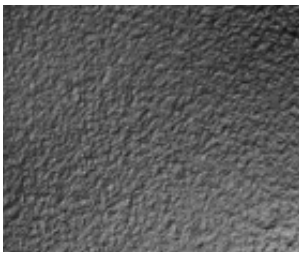


ECON H 600
Product benefits

CLASS
D 400

Test load 400 kN
to DIN EN 124

Ideal for road surfaces, pedestrian streets and parking areas.

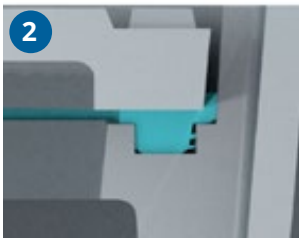


Made of ductile cast iron

Ductile cast iron (ductile iron with nodular graphite) is robust, can withstand high static loads and has high corrosion resistance.

3 point locking system

The 3 point locking ensures that the cover is securely positioned even under heavy loads and offers protection against theft and vandalism.



HYDRO*pren* L-insert

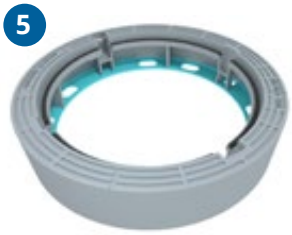
The replaceable HYDRO*pren* L-insert consists of polychloroprene according to DIN 53505. The insert guarantees high abrasion resistance and longevity. L-shape hinders vertical and horizontal contact to iron.

Hinge

The hinge provides maximum safety during 90° locking against accidental closing of the cover, as well as in the 110° inspection position.

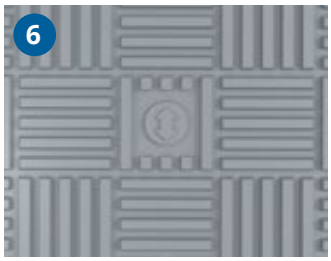
Mortar pockets

Strong bolting between frame and shaft by the use of mortar pockets.



Liftable frame and support flange

The smooth outer surface allows the frame to be easily lifted. The wide support flange ensures maximum stability.



Design

Criss-Cross Design minimizes traffic roll-over noise and improves anti-slip.

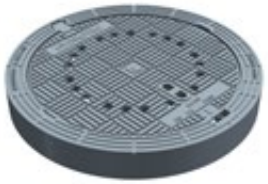
ECON H 600

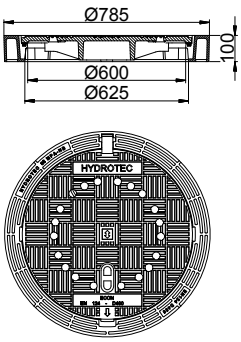
Class D 400, Ductile Cast Iron (GJS), DIN EN 124

ECON H 600 - ROUND

LIFTABLE FRAME!

Type	Art. no.	Over base	Height	kg	Pallet
	8141**401**	785	**100**	87	10
Ventholes*	8141**411**	785	100	87	10
Inlet grating*	8141**45**	785	100	97	10
	8141**501**	785	**160**	102	6
Ventholes*	8141**511**	785	160	102	6
Inlet grating*	8141**55**	785	160	109	6





8141411

ECON SN 800 (see page 26)

*frame with support for dirt catcher Dirt catcher see page 78 and opening bar page 81

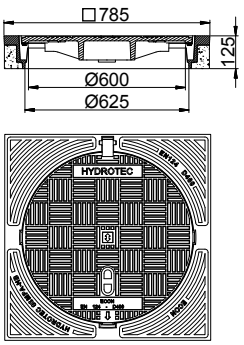
ECON H 600

Class D 400, Ductile Cast Iron (GJS), DIN EN 124

ECON H 600 - SQUARE

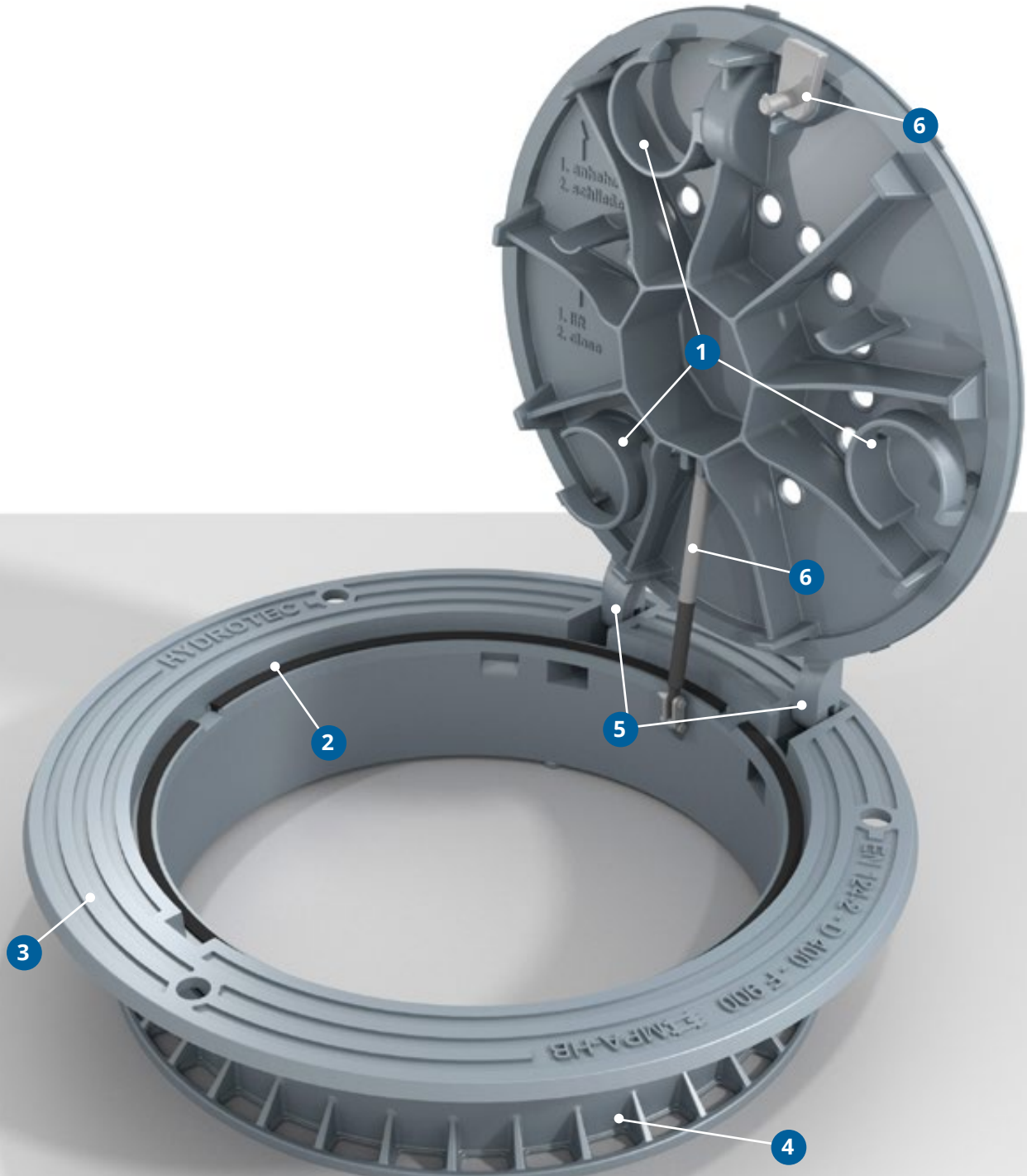
LIFTABLE FRAME!

Type	Art. no.	Over base	Height	kg	Pallet
Concrete / iron frame*	8142**11**	785x785	125	168	6
Ventholes, concrete / iron frame*	8142**01**	785x785	125	168	6



814211

ECON SN 800
Product benefits

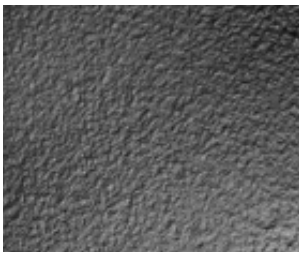


ECON SN 800
Product benefits

CLASS
D 400

Test load 400 kN
to DIN EN 124

Ideal for road surfaces, pedestrian streets and parking areas.

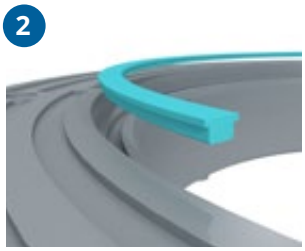


Made of ductile cast iron

Ductile cast iron (ductile iron with nodular graphite) is robust, can withstand high static loads and has high corrosion resistance.

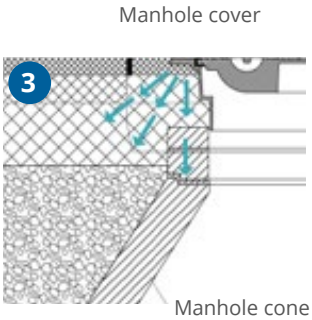
3 point locking system

The 3 point locking ensures that the cover is securely positioned even under heavy loads and offers protection against theft and vandalism.



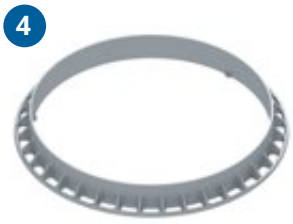
HYDRO*then* insert

The replaceable HYDRO*pren* insert consists of polychloroprene according to DIN 53505. The insert guarantees high abrasion resistance and longevity.



Optimum load transfer

The self-levelling frame transfers the traffic load into the road layers, which reduces the load on the shaft.



Adapter ring

The adapter ring compensates for the clear width of the manhole cover and the manhole. A better guidance of the installation auxiliary frame is thereby ensured.

Double hinge

Two hinges provide maximum safety during 90° locking against accidental closing of the cover, as well as in the 110° inspection position.

Clear opening 800 mm

With a clear opening of 800 mm, maintenance and rescue work are optimally possible.

6 **Option:** Gas pressure spring facilitates the opening of the cover.
Turnbuckle maximum protection against vandalism and unauthorised opening of the cover.

ECON SN 800 / 600

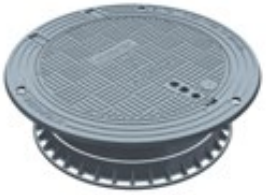
Class E 600 - D 400, Ductile Cast Iron (GJS), DIN EN 124

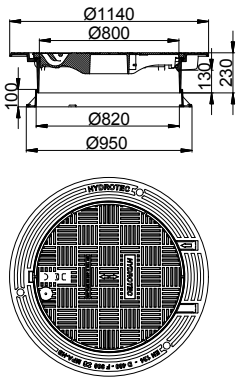
ECON SN 800

LT

ROLL-IN FRAME!

Type	Art. no.	Over base	Height	kg	Pallet
D 400, Option: Gas pressure spring and turn buckle					
Incl. adapter ring	894513	1140	230	183	5
Ventholes* incl. adapter ring	894512	1140	230	183	5





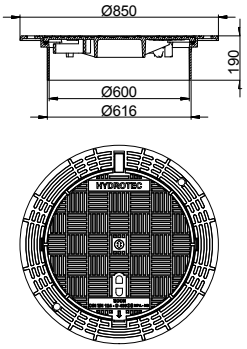
894513

ECON SN 600

MT HT

ROLL-IN FRAME!

Type	Art. no.	Over base	Height	kg	Pallet
E 600					
	815123	850	**190**	108	5
D 400					
	814123	850	190	91	5
Ventholes*	814122	850	190	91	5
Inlet grating*	814124	850	190	95	5
	8141231	850	**275**	100	3/4
Ventholes*	8141221	850	275	100	3/4
Inlet grating*	8141232	850	275	109	3/4



814123

* frame with support for dirt catcher see page 78

Accessories on page 81

FLOATING, SELF-LEVELLING MANHOLE COVERS

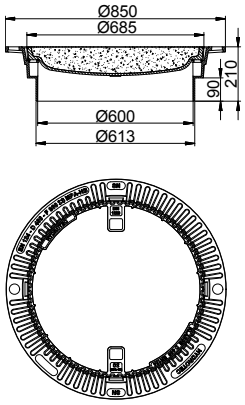
Class F 900 / D 400, Cast Iron, DIN EN 124

SN 600

ROLL-IN FRAME!

Type	Art. no.	Over base	Height	kg	Pallet
F 900, HYDRO*pren* insert, fits inside standard shafts to DIN 4034 with clear opening 625 mm					
Concrete/iron cover	816511	850	210	145	5
Concrete/iron cover, Ventholes	816501	850	210	145	5
D 400, HYDRO*pren* insert, fits inside standard shafts to DIN 4034 with clear opening 625 mm					
Concrete/iron cover	814511	850	210	144	5
Concrete/iron cover, Ventholes	814501	850	210	144	5
Iron cover	814435	850	210	139	5
Iron cover, Ventholes	814415	850	210	139	5
Inlet grating	814455	850	210	139	5

also available with HYDRO*pren* DUO insert



814511

FLOATING, SELF-LEVELLING MANHOLE COVERS
Class D 400, Ductile Cast Iron (GJS), DIN EN 124

SCANDIC SN 600

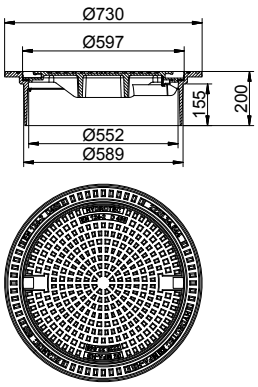
MT ROLL-IN FRAME!

2 point locking system, HYDRO*pren* insert

Type	Art. no.	Over base	Height	kg	Pallet
	8946**3510**	730	200	85	5
Inlet grating, waterway 800 cm²	8946**3500**	730	200	86	5

Fits manholes and pipes with clear diameter of 600 mm!
Cover lifter see page 81

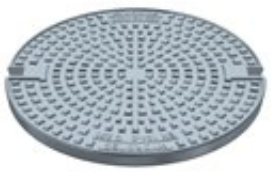
SCANDIC*pur* SN 600 see page 17



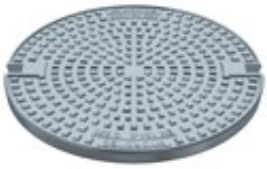
89463510

SCANDIC 600 - COVER AND FRAME COMBINATIONS

Class D 400 PUR



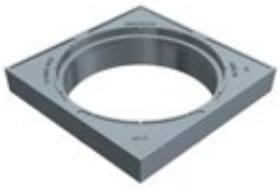
Class D 400



Class C 250

Class D 400

H = 200/275 mm



H = 170 mm

H = 100 mm

H = 160 mm

FLOATING, SELF-LEVELLING MANHOLE COVERS

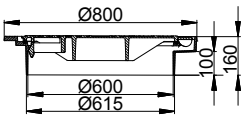
Class D 400, Ductile Cast Iron (GJS), DIN EN 124

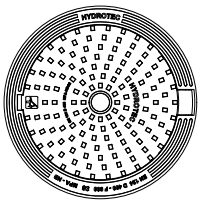
EURO SN 600

ROLL-IN FRAME!

Type	Art. no.	Over base	Height	kg	Pallet
3 point locking system, HYDRO*then* insert, safety hinge					
	8946642	800	160	64	6
Ventholes*	8946643	800	160	63,5	6

option: Anti-Theft-Protection

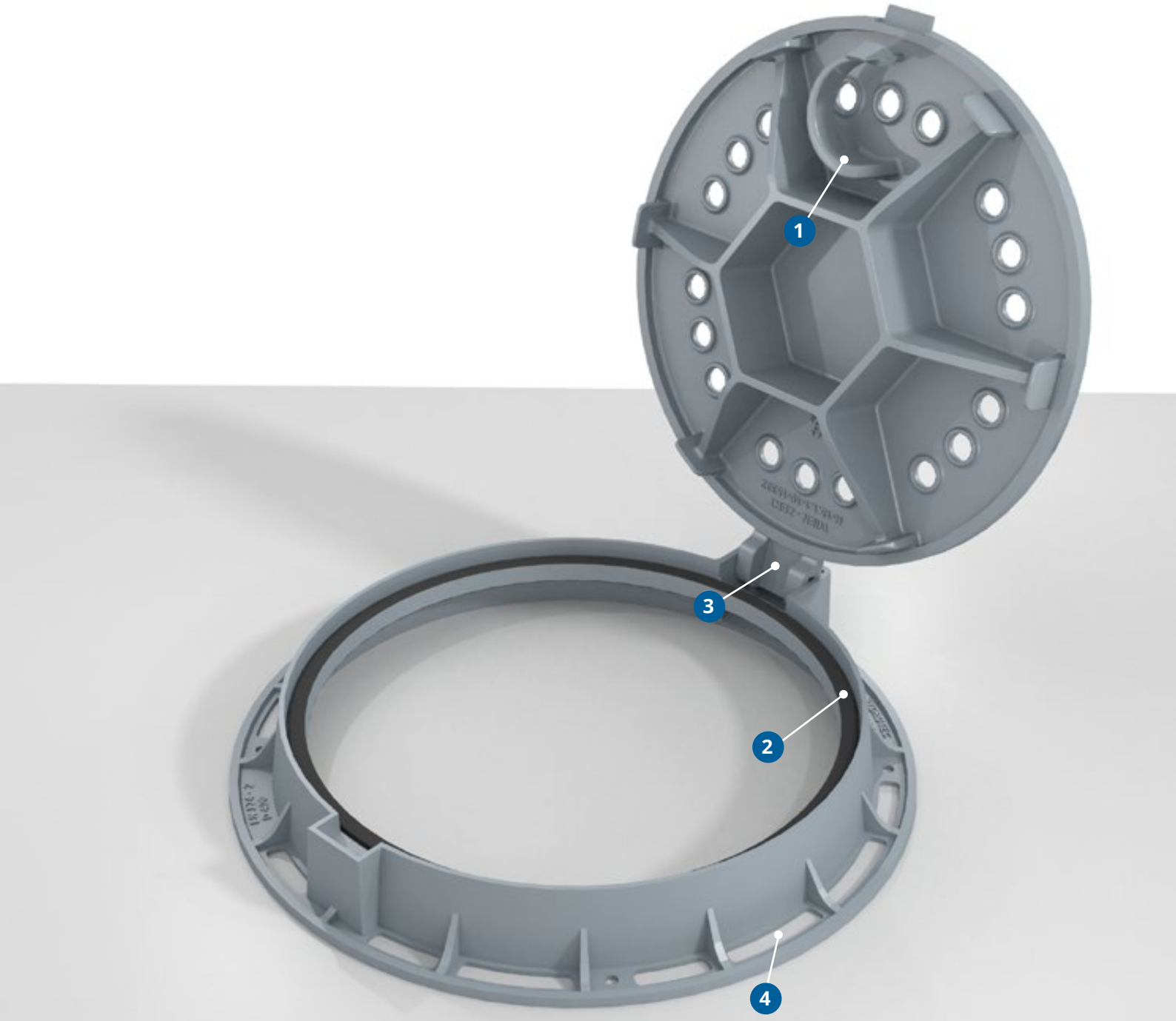




8946642

* frame with support for dirt catcher

RICON 600
Product benefits

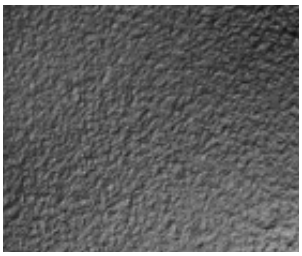


RICON 600
Product benefits

CLASS
D 400

Test load 400 kN
to DIN EN 124

Ideal for road surfaces, pedestrian streets and parking areas.



Made of ductile cast iron

Ductile cast iron (ductile iron with nodular graphite) is robust, can withstand high static loads and has high corrosion resistance.

Locking system

The locking ensures that the cover is securely positioned even under heavy loads and offers protection against theft and vandalism.

HYDRO*pren* insert

The replaceable HYDRO*pren* insert (U-shape) consists of polychloroprene according to DIN 53505. The insert guarantees high abrasion resistance and longevity. U-shape hinders vertical and horizontal contact to iron.

Hinge

The hinge provides maximum safety during 90° locking against accidental closing of the cover, as well as in the 120° inspection position.

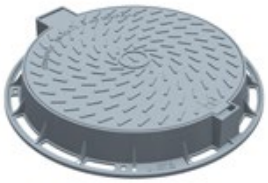
Mortar pockets

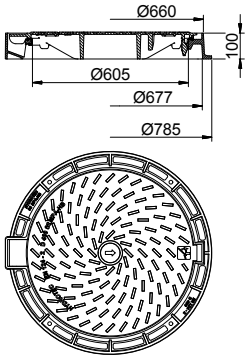
Strong bolting between frame and shaft by the use of mortar pockets.

ROUND MANHOLE COVERS
Class D 400, Ductile Cast Iron (GJS), DIN EN 124

RICON 600

Type	Art. no.	Over base	Height	kg	Pallet
Locking system, safety hinge, HYDRO*pren* insert					
	894**686**	785	100	55	10
	8946**862**	850	100	56	10
Ventholes*	8946**861**	785	100	55	10
Inlet grating*	8946**860**	785	100	55	10
Inlet grating*	8946**863**	850	100	56	10

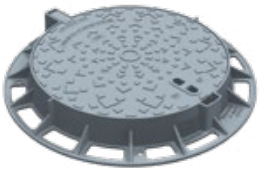


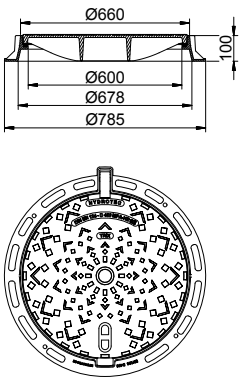


894686

TRIX 600

Type	Art. no.	Over base	Height	kg	Pallet
3 point locking system, safety hinge, HYDRO*pren* insert					
	8940**041**	785	100	60	10
	8940**04**	850	100	61	10
Square frame	8941**04**	850x850	100	75	10
Ventholes*	8940**14**	785	100	60	10
Inlet grating*	8940**047**	785	100	61	10





8940041

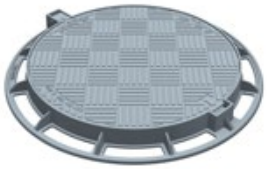
* frame with support for dirt catcher type “Austria” page 78

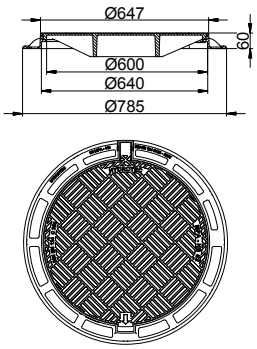
ROUND MANHOLE COVERS

Class C 250 - A 15, Ductile Cast Iron (GJS), DIN EN 124

EURO 600

Type	Art. no.	Over base	Height	kg	Pallet
C 250, criss-cross design					
hinge, locking system	8935**93**	785	60	42	12
hinge, locking, insert	8935**931**	785	60	42	12
Inlet grating, waterway 1,090 cm²*	8930**63**	785	60	43	12
B 125, criss-cross design					
hinge, locking system	8925**93**	785	60	39	16
	8920**62**	785	60	37	17
A 15, criss-cross design					
50 kN	8910**62**	785	60	34	16





893593

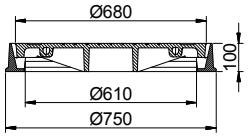
* frame with support for dirt catcher

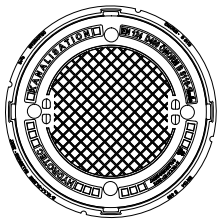
ROUND MANHOLE COVERS

Class D 400 - B 125, Grey Cast Iron (GJL), EN 124

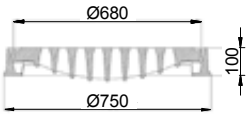
CAST IRON 610

Type	Art. no.	Over base	Height	kg	Pallet
D 400					
	894**750**	750	**100**	104	10
HYDRO*pren* insert	894**751**	750	100	104	10
Ventholes	894**740**	750	100	104	10
Ventholes, HYDRO*pren* insert	894**741**	750	100	104	10
Inlet grating, waterway 967 cm², HYDRO*pren* insert	8947**571**	750	100	104	10
	8947**550**	785	**140**	128	8
HYDRO*pren* insert	8947**551**	785	140	128	8
Ventholes	8947**440**	785	140	128	8
Ventholes, HYDRO*pren* insert	8947**441**	785	140	128	8
C 250					
	893**750**	725	**70**	63	10
Ventholes	893**740**	725	70	62	10
Inlet grating, waterway 927 cm²	893**757**	725	70	62	10
B 125					
	892**750**	725	**70**	56	10
Ventholes	892**740**	725	70	61	10
Inlet grating, waterway 885 cm²	892**757**	725	70	61	10





894750



8947571

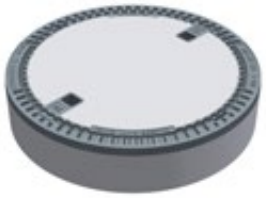
all frames with support for dirt catcher

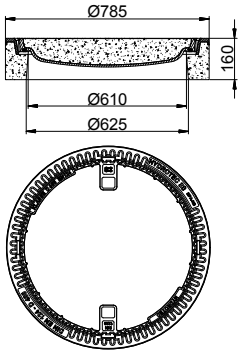
ROUND MANHOLE COVERS

Class D 400 - B 125, Grey Cast Iron (GJL), EN 124

CAST IRON 610 WITH CONCRETE

Type	Art. no.	Over base	Height	kg	Pallet
D 400					
ECO frame	814010	785	**160**	173	8
ECO frame, HYDRO*pren* insert	814011	785	160	173	8
ECO frame, Ventholes „DESIGN“ HYDRO*pren* insert	8947**0121**	785	160	173	8
With sand trap	804099	785	160	177	8
Square frame, HYDRO*pren* insert	804111	785x785	160	246	5
C 250					
	893710	750	**125**	100	12
Ventholes	893711	750	125	95	12
B 125					
	802010	750	**125**	110	12
Ventholes	802000	750	125	95	12
With sand trap	802009	750	125	110	12
Square frame	802110	750x750	125	134	6
Square frame, Ventholes	802100	750x750	125	128	6





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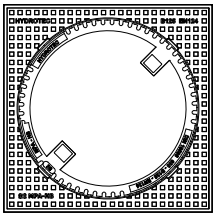

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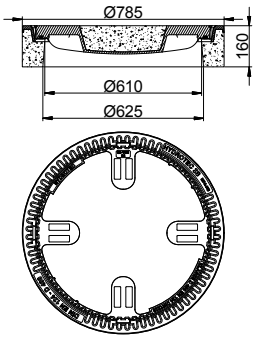


89470121

Also available in load class E 900

all frames with support for dirt catcher

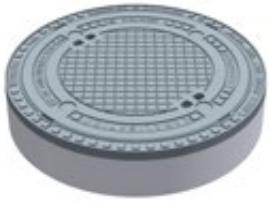
ROUND MANHOLE COVERS

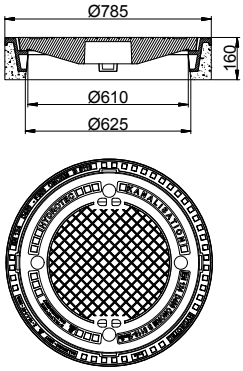
Class D 400 - B 125, Grey Cast Iron (GJL), EN 124

CAST IRON WITH CONCRETE 625

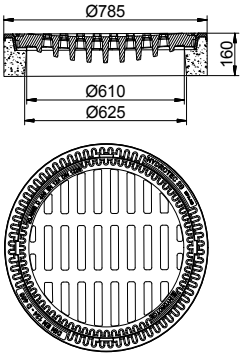
Type	Art. no.	Over base	Height	kg	Pallet
D 400					
	894**730**	785	**160**	165	8
HYDRO*pren* insert	894**731**	785	160	165	8
Ventholes	894**720**	785	160	165	8
Ventholes, HYDRO*pren* insert	894**721**	785	160	165	8
Inlet grating, concave waterway 967 cm²	8140**55**	785	160	165	8
Inlet grating, flat waterway 1020 cm²	8040**58**	785	160	169	8
C 250					
	893**730**	750	**125**	100	12
Ventholes	893**720**	750	125	100	12
Inlet grating, conave waterway 927 cm²	8130**50**	785	**160**	136	8
B 125					
	892**730**	750	**125**	100	12
Ventholes	892**720**	750	125	100	12
Inlet grating, concave waterway 910 cm²	8020**50**	750	125	80	12

also available in load class F 900





894730



814055

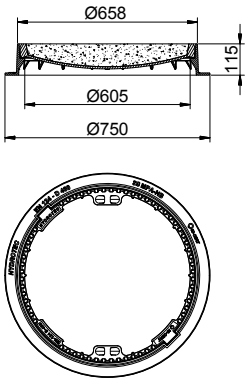
all frames with support for dirt catcher

ROUND MANHOLE COVERS

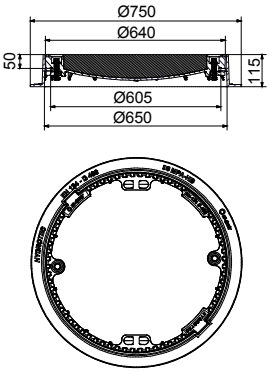
Class D 400 - B 125, Grey Cast Iron (GJL), EN 124

CAST IRON WITH CONCRETE 600

Type	Art. no.	Over base	Height	kg	Pallet
D 400					
HYDRO*then* insert	8948**5401**	750	**115**	96	10
Fastened by 2 bolts, HYDRO*then* insert	8948**5421**	750	115	93	10
Ventholes	8948**40**	750	**100**	130	8
Ventholes, HYDRO*pren* insert	8948**41**	750	100	130	8
C 250					
	8938**50**	725	**70**	65	16
Ventholes	8938**40**	725	70	65	16
B 125					
	8928**50**	725	**70**	63	16
Ventholes	8928**40**	725	70	63	16



89485401



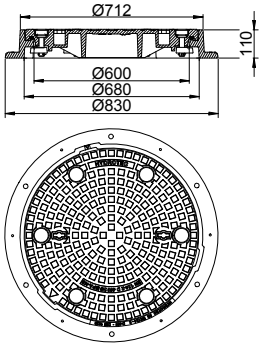
89485421

ROUND MANHOLE COVERS
Class D 400 - B 125, Grey Cast Iron (GJL), DIN EN 124

PRESSURE-TIGHT

Type	Art. no.	Over base	Height	kg	Pallet
D 400, 6 point screw system, HYDRO*pren* insert, pressure-tight to 2 bar, cast iron flange frame, cast iron / concrete cover					
Cast iron cover	804085	830	**110**	140	5
Cast/iron concrete cover	804084	830	**110**	162	5
B 125					
	802084	750	**125**	75	6

Multipurpose operating key see page 81



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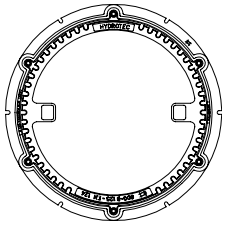
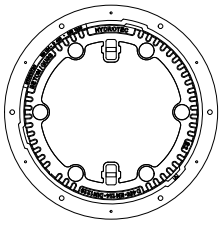


802084

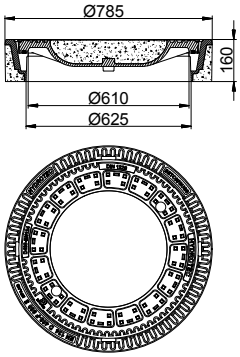


804084

RECESSED COVERS

Type	Art. no.	Over base	Height	kg	Pallet
D 400, Cover for a selection of surfaces, filling height 80 mm, HYDRO*pren* insert					
Iron/concrete frame	804019	785	160	153	8
Iron/concrete frame, Ventholes	804009	785	160	152	8
Iron frame	804079	785	160	140	8
Iron frame, Ventholes	804069	785	160	140	8
Square iron/ concrete frame	804119	785x785	160	210	5
Square iron/concrete frame, ventilation	804109	785x785	160	210	5

all frames with support for dirt catcher



804019

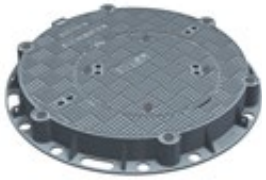
ROUND MANHOLE COVERS - WATERTIGHT

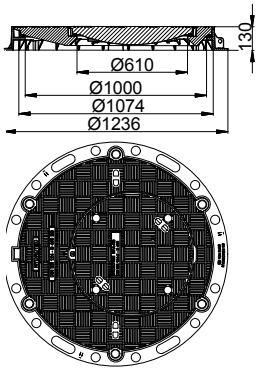
Class D 400, Ductile Cast Iron (GJS), DIN EN 124

1000 / 600 — WATERTIGHT!

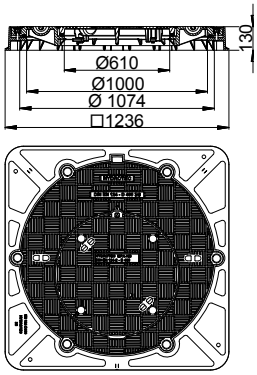
Type	Art. no.	Over base	Height	kg	Pallet
For e.g. pumping or well shafts, optimized inspection through cover in cover system					
Round frame	894570	1236	130	237	5
Square frame	8945701	1236x1236	130	264	5

Cover I (1000), 6 stainless steel bolts, HYDRO*pren* insert
Cover II (600), 4 stainless steel bolts, HYDRO*pren* insert





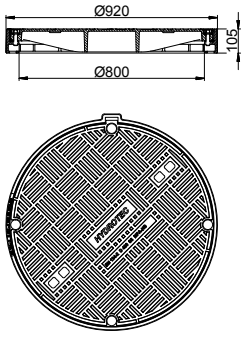
894570



8945701

800 — WATERTIGHT!

Type	Art. no.	Over base	Height	kg	Pallet
4 point locking system, watertight, HYDRO*pren* insert					
	804834	920	105	128	4
Ventholes	804824	920	105	128	4



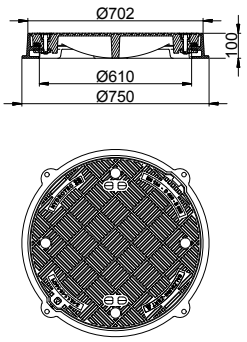
804834

ROUND MANHOLE COVERS - WATERTIGHT

Class E 600 / D 400, Ductile Cast Iron (GJS), DIN EN 124

HYDRO*proof* 600 — WATERTIGHT!

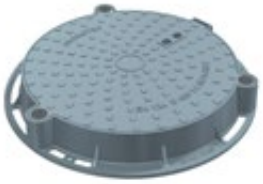
Type	Art. no.	Over base	Height	kg	Pallet
E 600, HYDRO*pren* insert, 4 point locking system, pressure-tight to 0,5 bar					
	895**53**	750	**100**	90	10

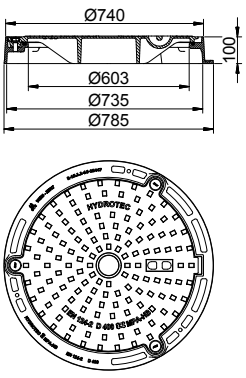


895753

HYDRO*tight* 600 — WATERTIGHT!

Type	Art. no.	Over base	Height	kg	Pallet
D 400, HYDRO*pren* insert, 3 point locking system, lifting pocket, holes in frame for fixing with shaft					
	894**75**	785	100	55	10





ROUND MANHOLE COVERS - WATERTIGHT

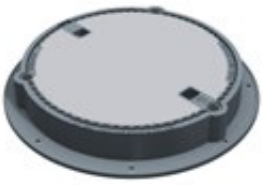
Class D 400 / B 125, Grey Cast Iron (GJL), DIN EN 124

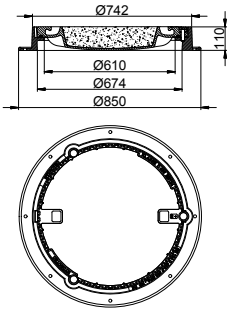
WATERTIGHT 625

WATERTIGHT!

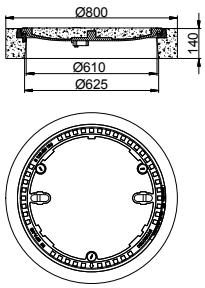
Type	Art. no.	Over base	Height	kg	Pallet
D 400, 3 point screw system, HYDRO*pren* insert					
cast flange frame / cast iron/concrete cover	804033	850	110	170	5
cast iron/concrete	804053	785	160	186	8
B 125					
cast iron/concrete	802034	800	140	140	10

Multipurpose operating key see page 81

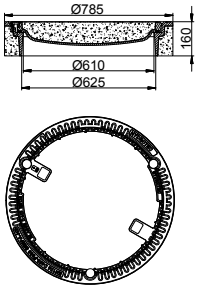




804033



802034



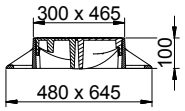
804053

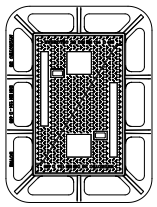
INSPECTION COVERS

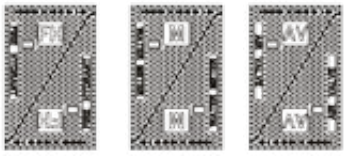
Class D 400 / B 125, Ductile Cast Iron (GJS), DIN EN 124

BOYNE

Type	Art. no.	Over base	Height	kg	Pallet
D 400, Triangular covers with 3 point suspension					
	894202	645x480	100	38	32

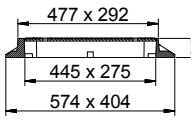


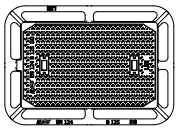


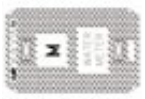


LEE 445 X 275

Type	Art. no.	Over base	Height	kg	Pallet
B 125, cover with open keyholes					
	892202	574x275	65	21	40



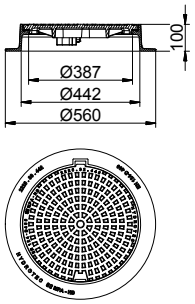




INSPECTION COVERS
Class D 400, Ductile Cast Iron (GJS), DIN EN 124

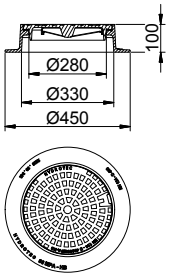
400 / 425

Type	Art. no.	Over base	Height	kg	Pallet
2 point locking system, with damping insert					
	894400	560	100	40	36



280 / 300

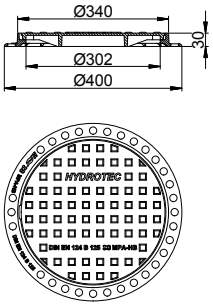
Type	Art. no.	Over base	Height	kg	Pallet
with damping insert					
	894300	450	100	26	54



INSPECTION COVERS
Class B 125, Ductile Cast Iron (GJS), DIN EN 124

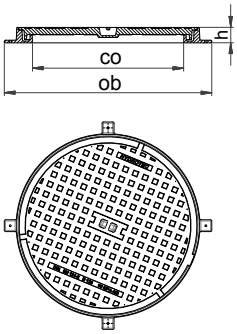
300

Type	Art. no.	Over base	Height	kg	Pallet
	892592	400	30	10	



PAVER

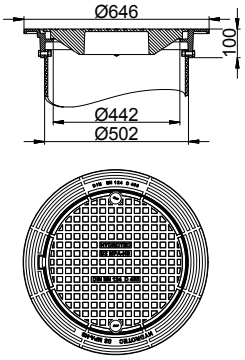
Type	Art. no.	Over base	Height	kg	Pallet
Opening hole, anti-slip design, single seal frame, fastening holes					
co 800	892668	900	52	75	16
co 600	892662	780/720	52	47	
co 510	892661	700/620	52	35	
co 280	892667	440/380	32	12	
co 160	892665	200	32	4	



PIPE COVERS
Class D 400, Ductile Cast Iron (GJS), DIN EN 124

PIPE COVER 500

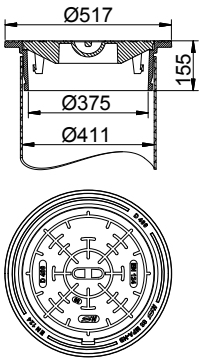
Type	Art. no.	Over base	Height	kg	Pallet
Fastened by 2 stainless steel bolts, for internal housing of DN 500 pipe, 4x through bore hole (Ø 11,5 mm) for M10 screws					
	894553	646	100	40	10
Inlet grating	894533	646	100	40	10



894553

PIPE COVER 425

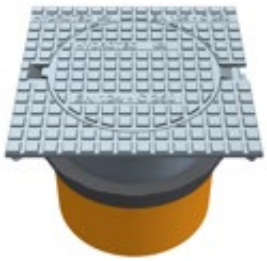
Type	Art. no.	Over base	Height	kg	Pallet
3 point locking mechanism with vertical spring arm for external housing of DN 425 pipe. Pipe retained by means of “CLICK SYSTEM”					
	894556	517	155	36	24

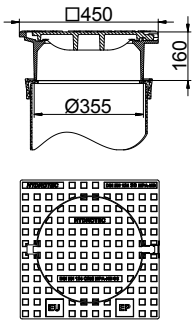


PIPE COVERS
Class D 400 / C 250, Cast Iron, DIN EN 124

PIPE COVER 400

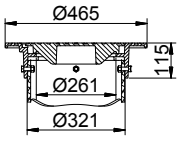
Type	Art. no.	Over base	Height	kg	Pallet
C 250, hinge, lift-out position for cover in 180° position = theft protection in fitted position in fitted position, with rubber sleeve for holding DN 400 pipe	8936**850**	450x450	160	38	



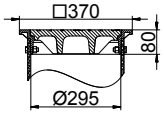


PIPE COVER 315

Type	Art. no.	Over base	Height	kg	Pallet
D 400, fastened by 2 stainless steel bolts, for internal housing of DN 315 pipe, 4x through bore hole (Ø 11,5 mm) for M10 screws					
	894536	465	115	23	48
With inlet grating	8945**363**	465	115	23	48
D 400, fastened by 2 stainless steel bolts, for outside housing of DN 315 pipe, 4x through bore hole (Ø 11 mm)					
Square cover	894**623**	370x370	80	25	60



894536

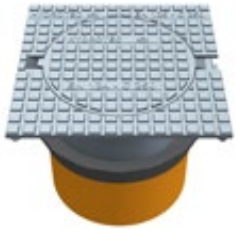


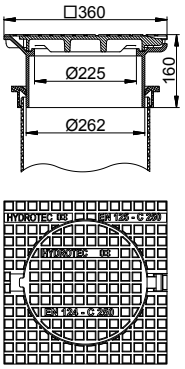
894623

PIPE COVERS
Class C 250, Cast Iron, DIN EN 124

PIPE COVER 300

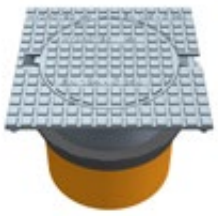
Type	Art. no.	Over base	Height	kg	Pallet
Hinge, lift-out position for cover in 180° position = theft protection in fitted position, with rubber sleeve for holding DN 300 pipe	893**05**	360x360	160	19	24

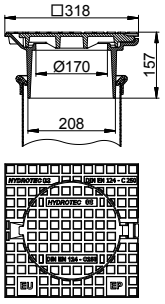




PIPE COVER 250

Type	Art. no.	Over base	Height	kg	Pallet
Hinge, lift-out position for cover in 180° position = theft protection in fitted position, with rubber sleeve for holding DN 250 pipe	893**06**	318x318	157	16	72



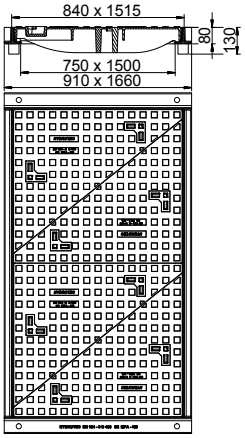


SQUARE / RECTANGULAR MANHOLE COVERS

Class D 400, Ductile Cast Iron (GJS), DIN EN 124

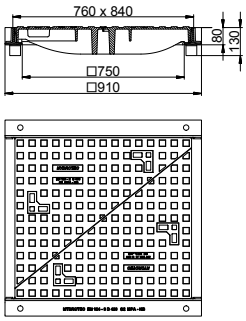
TELECOM HT2C - 750 X 1500

Type	Art. no.	Over base	Height	kg	Pallet
Lifting pockets for easy handling, steel frame					
	894**82**	1660x910	130	236	



TELECOM HT1C - 750 X 750

Type	Art. no.	Over base	Height	kg	Pallet
Lifting pockets for easy handling, steel frame					
	894**81**	910x910	130	127	

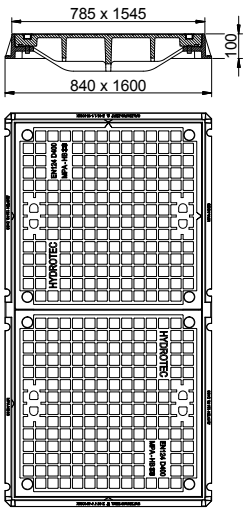


SQUARE / RECTANGULAR MANHOLE COVERS

Class D 400 / B 125, Grey Cast Iron (GJL), DIN EN 124

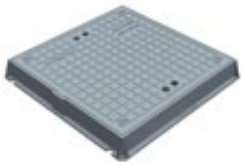
CABLE COVER 700 X 1400

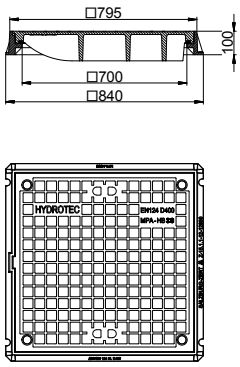
Type	Art. no.	Over base	Height	kg	Pallet
HYDRO*pren* insert, option: coupled by means 8 stainless steel bolts, watertight, 2 covers					
D 400	8946**082**	1600x840	100	355	
B 125	8926**082**	1600x840	100	270	



CABLE COVER 700 X 700

Type	Art. no.	Over base	Height	kg	Pallet
HYDRO*pren* insert, option: coupled by means of 4 stainless steel bolts, watertight, 1 cover					
D 400	8946**081**	840x840	100	181	
B 125	8926**081**	840x840	100	140	





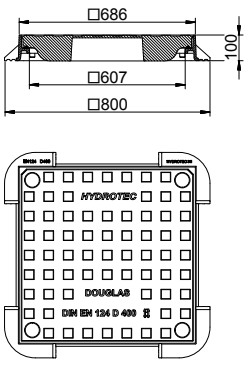
SQUARE MANHOLE COVERS

Class D 400, Ductile Cast Iron (GJS), DIN EN 124

DOUGLAS 600 X 600

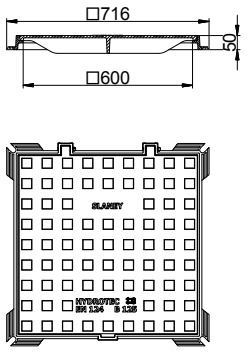
WATERTIGHT!

Type	Art. no.	Over base	Height	kg	Pallet
D 400, coupled by means of 4 stainless steel bolts, watertight, insert, cover lifted out by means of screw openings					
	894**39**	800x800	100	90	10



SLANEY 600 X 600

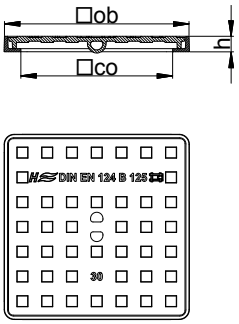
Type	Art. no.	Over base	Height	kg	Pallet
B 125, locking with spring bar prevents unauthorized opening of the cover, hinge, theft protection = cover firmly attached to frame					
	892**87**	716x716	50	40	14



SQUARE COVERS
Class B 125, Ductile Cast Iron (GJS), DIN EN 124

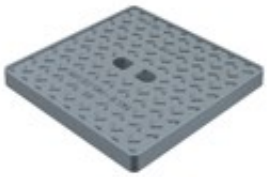
PAVER*plus*

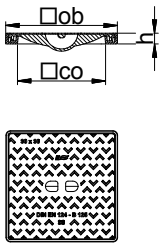
Type	Art. no.	Over base	Height	kg	Pallet
Flat seal					
co 245x245	892220	300x300	25	7	180
co 400x400	892440	500x500	38	18	40
co 500x500	892550	600x600	38	26	20
co 600x600	892660	700x700	38	35	16



PAVER

Type	Art. no.	Over base	Height	kg	Pallet
B 125, single seal					
co 233x233	892130	300x300	30	8	168
co 280x280	892135	350x350	30	10	40
co 330x330	892140	400x400	30	13	40
co 400x400	892150	500x500	48	24	40
co 500x500	892160	600x600	49	32	20
co 600x600	892170	700x700	50	48	10
co 700x700	892180	800x800	55	76	10

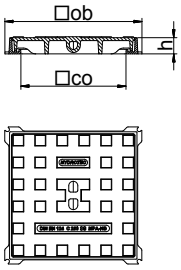




SQUARE COVERS
Class C 250 / B 125, Ductile Cast Iron (GJS), DIN EN 124

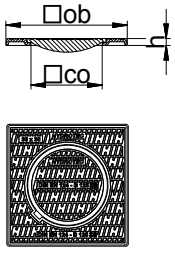
PAVER

Type	Art. no.	Over base	Height	kg	Pallet
C 250, single seal					
co 325x325	893641	425x425	50	24,5	
co 420x420	893642	505x505	50	32,5	
co 490x490	893645	620x620	50	48	
co 600 x 600	893170	700x700	65	48	



PAVER

Type	Art. no.	Over base	Height	kg	Pallet
B 125, flat seal					
co 175	892030	300x300	18	6	40
co 250	892040	400x400	18	11	40
co 350	892050	500x500	30	19	40
co 425	892060	600x600	30	25	20
co 500	892070	700x700	35	35	15
co 610	892080	800x800	40	53	15
co 700	892090	900x900	50	68	15
co 800	892100	1000x1000	70	96	14

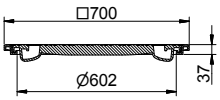


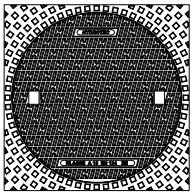
HOUSE AND YARD COVERS
Class A 15, Cast Iron, DIN EN 124

MANHOLE COVER 600

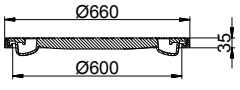
Type	Art. no.	Over base	Height	kg	Pallet
	800**050**	719/660	**35**	28	20
Test load 50 kN	801**050**	719/660	35	28	20
50 kN, square frame	800**150**	700x700	**37**	42	20

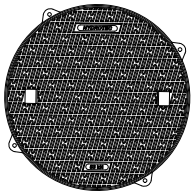
optional with state coat of arms





800150

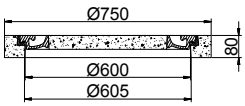


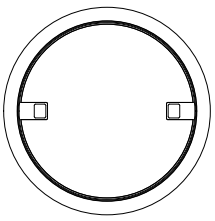


800050

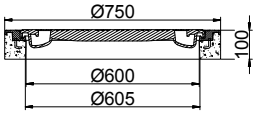
MANHOLE COVER 600

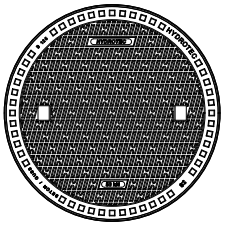
Type	Art. no.	Over base	Height	kg	Pallet
Test load 50 kN					
Cast iron/concrete	801**010**	750	**80**	75	16
Cast iron/concrete	801**030**	750	**100**	64,5	16
Cast iron/concrete with compass rose	800**047**	750	100	77	12





801010





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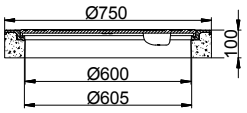
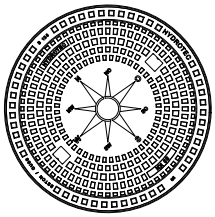
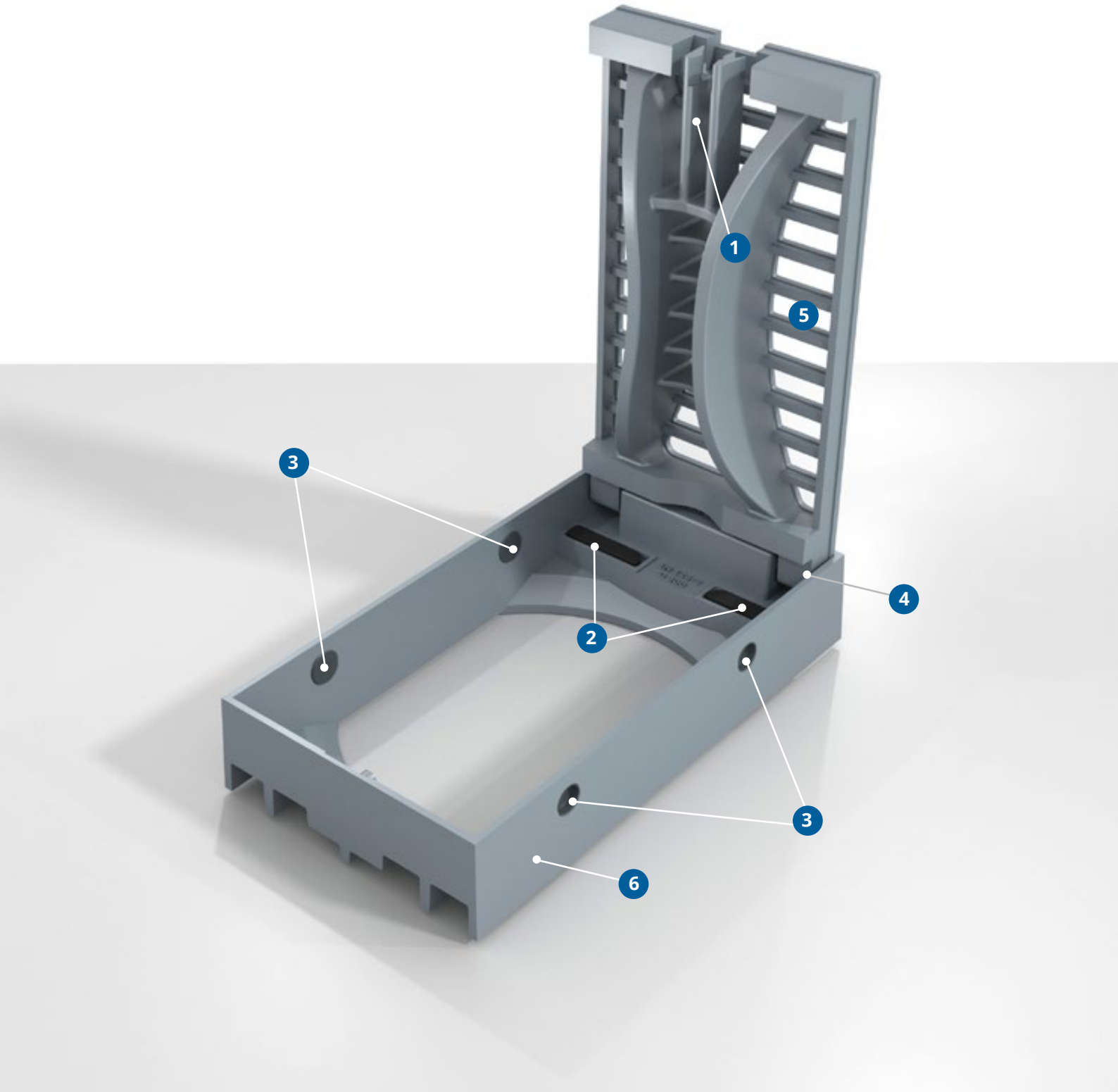




800047

ECON GULLY TOPS
Product benefits



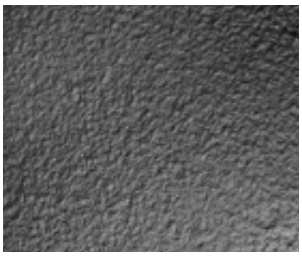
ECON GULLY TOPS
Product benefits

CLASS
C 250
D 400

Testload 250 kN / 400 kN to DIN EN 124

250 kN: Ideal for kerbstone areas, emergency lanes, car parking areas.

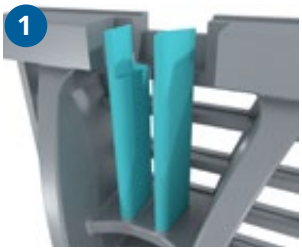
400 kN: Ideal for road surfaces, pedestrian streets and parking areas.



Made of ductile cast iron

Ductile cast iron (ductile iron with nodular graphite) is robust, can withstand high static loads and has high corrosion resistance.

1



Spring locking system

The ECON gully tops are equipped with a centred spring locking system. This is located below the grate and functions as a safety lock.

2

HYDRO*pren* insert

The replaceable HYDRO*pren* insert consists of polychloroprene according to DIN 53505. The insert guarantees high abrasion resistance and longevity.

3

Closable drainage holes

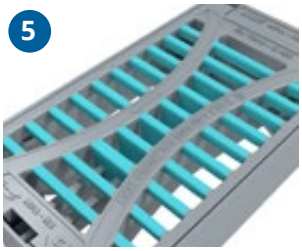
Four openings in the frame provide for an optional construction times drainage. The openings can be closed with the supplied plastic plugs if necessary or at the end of the operation.

4

Hinge

The design of the hinge enables 90° locking and 110° locking (inspection position) of the grate. At 90°, the grate can be completely removed if required.

5



Pedestrian friendly

With a slot width of 25 mm, the ECON gully tops are perfect for pedestrian streets.

6

Liftable frame

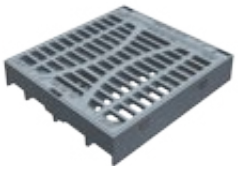
The smooth outer surface allows the frame to be easily lifted.

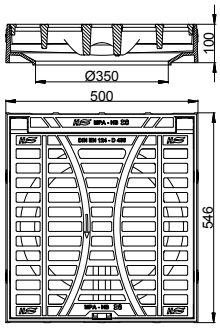
ECON GULLY TOPS

Class D 400 - C 250, Ductile Cast Iron (GJS), DIN EN 124

ECON 500 X 500

Type	Art. no.	Over base	Inlet area cm^2	Height	kg
D 400					
Flat	9349**51**	500x546	950	**100**	57
Concave	9349**812**	500x546	950	**125**	63
Concave	9349**811**	500x546	950	**160**	67
C 250					
Flat	9339**51**	500x546	950	**100**	55
Concave	9339**812**	500x546	950	**125**	61
Concave	9339**811**	500x546	950	**160**	67





934951

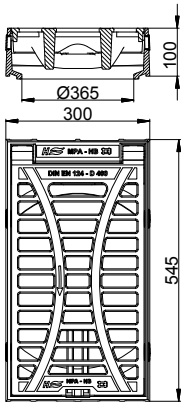
All frames for support for dirt bucket to DIN 4052 standard on page 78

ECON GULLY TOPS

Class D 400 - C 250, Ductile Cast Iron (GJS), DIN EN 124

ECON 300 X 500

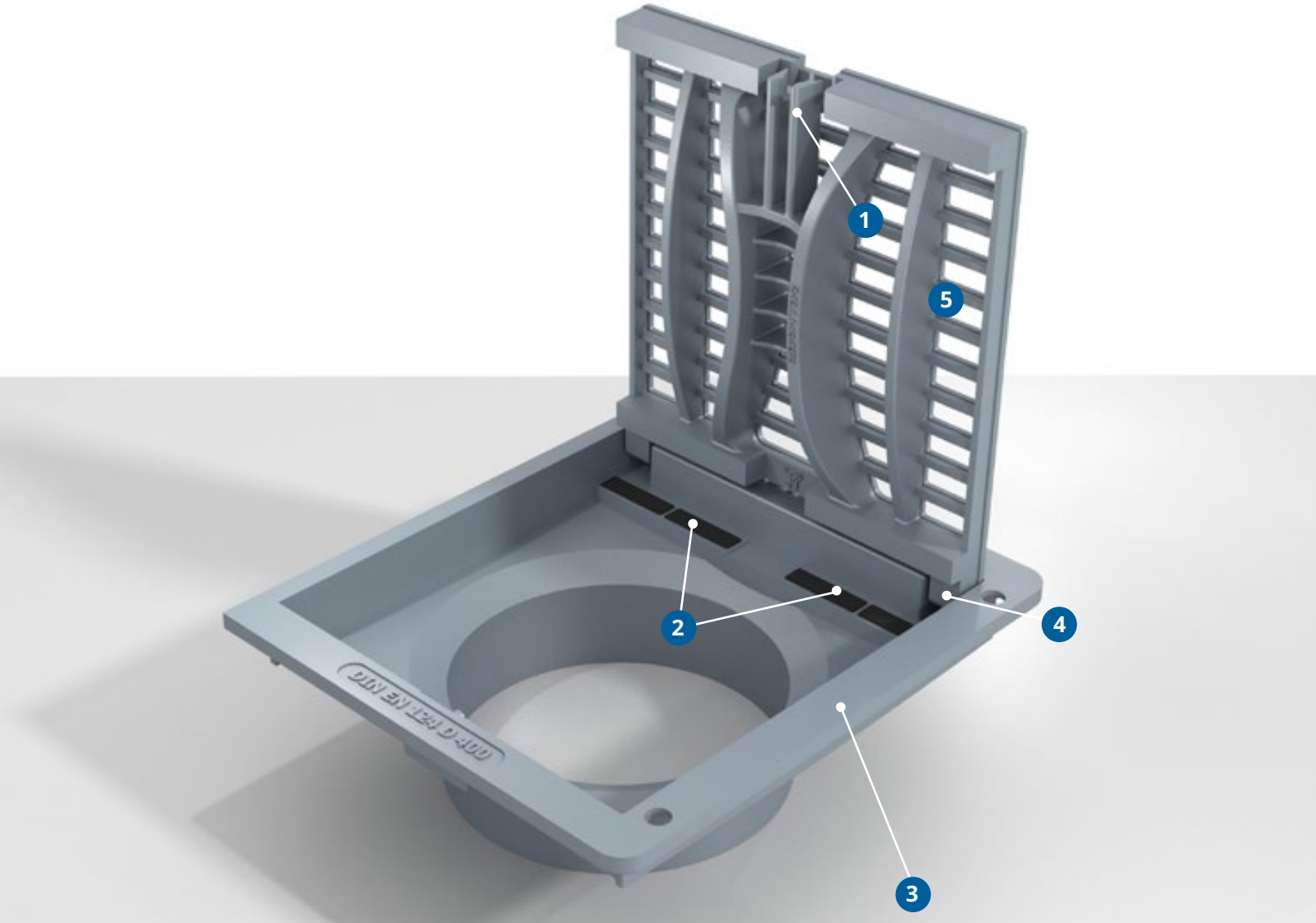
Type	Art. no.	Over base	Inlet area cm^2	Height	kg
D 400					
Flat	9349**41**	545x300	500	100	39
Concave	9349**71**	545x300	500	100	38
C 250					
Flat	9339**21**	545x300	500	100	37
Concave	9339**71**	545x300	500	100	36



934941

All frames for support for dirt bucket to DIN standard on page 79

ECON SN GULLY TOP
Product benefits

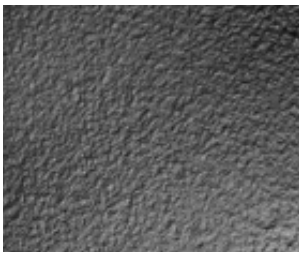


ECON SN GULLY TOP
Product benefits

CLASS
D 400

Testload 400 kN to DIN EN 124

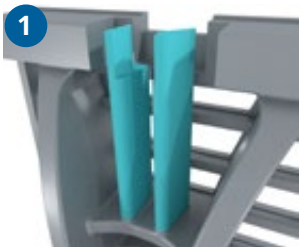
Ideal for road surfaces, pedestrian streets, parking areas and perfekt for manholes to DIN 4052 and support rings (10a).



Made of ductile cast iron

Ductile cast iron (ductile iron with nodular graphite) is robust, can withstand high static loads and has high corrosion resistance.

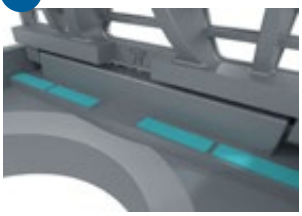
1



Spring locking system

The ECON gully tops are equipped with a centred spring locking system. This is located below the grate and functions as a safety lock.

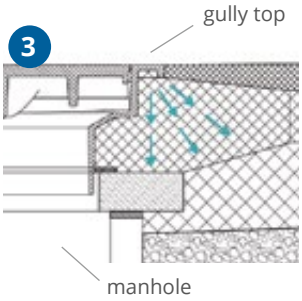
2



HYDRO*pren* insert

The replaceable HYDRO*pren* insert consists of polychloroprene according to DIN 53505. The insert guarantees high abrasion resistance and longevity.

3



Optimum load transfer

The self-levelling frame transfers the traffic load into the road layers, which reduces the load on the shaft.

3

Roll-in frame

The frame is rolled into the bituminous pavement layer and supported by it.

4

Hinge

The design of the hinge enables 90° locking and 110° locking (inspection position) of the grate. At 90°, the grate can be completely removed if required.

5

Pedestrian friendly

With a slot width of 25 mm, the ECON gully tops are perfect for pedestrian streets.

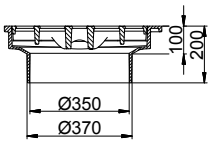
ECON SN GULLY TOP

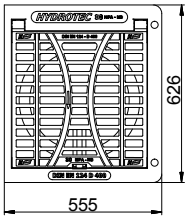
Class D 400, Ductile Cast Iron (GJS), DIN EN 124

ECON SN 500 X 500

ROLL-IN FRAME!

Type	Art. no.	Over base	Inlet area cm²	Height	kg
D 400					
Flat, self-levelling frame	9349**52**	626x555	950	200	67



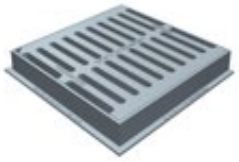


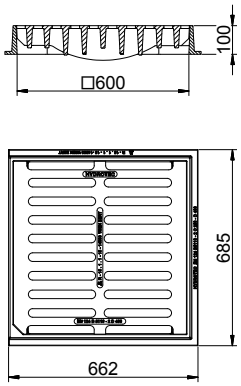
Support for dirt bucket to DIN standard on page 78

GULLY TOPS
Class E 600 - C 250, Cast Iron, DIN EN 124

ÖNORM 600 X 600

Type	Art. no.	Over base	Inlet area cm²	Height	kg
D 400, 3-sided flange, SW 30, GJL					
Flat	994**83**	685x662	1380	100	126
Concave	994**85**	685x662	1380	100	135
C 250					
Flat	993**83**	685x662	1380	100	123
Concave	993**85**	685x662	1380	100	135

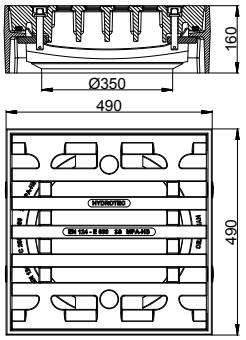




994283

EURO-ERTIMA 500 X 500

Type	Art. no.	Over base	Inlet area cm²	Height	kg
E 600, locking system, HYDRO*pren* insert, liftable frame, SW 36 mm, GJS					
Flat*	9159**471**	490x490	900	160	78

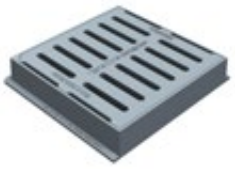


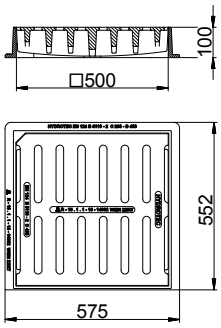
*Support for dirt bucket to DIN standard on page 78

GULLY TOPS
Class D 400 / C 250, Grey Cast Iron (GJL), DIN EN 124

ÖNORM 500 X 500

Type	Art. no.	Over base	Inlet area cm²	Height	kg
D 400, 3-sided flange, SW 30, GJL					
Flat	994**82**	552x575	880	100	87
Concave	994**84**	562x585	880	100	100
C 250					
Flat	993**82**	552x575	880	100	72
Concave	993**84**	562x585	880	100	100

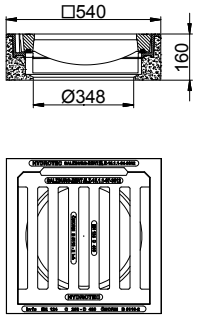




994282

ÖNORM 450 X 450

Type	Art. no.	Over base	Inlet area cm²	Height	kg
D 400, concrete/ iron frame, HYDRO*then* insert, GJL					
Flat*	994**750**	540x540	900	160	96
Concave*	994**760**	540x540	980	160	95
C 250, concrete/ iron frame, HYDRO*then* insert					
Flat*	993**750**	540x540	900	160	95
Concave*	993**760**	540x540	980	160	95



994750

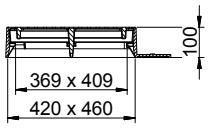
Support for dirt bucket to DIN standard on page 78

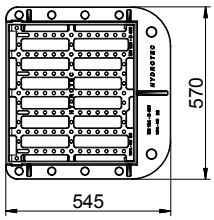
GULLY TOPS

Class D 400 / C 250, Ductile Cast Iron (GJS), DIN EN 124

DUNA 460 X 420

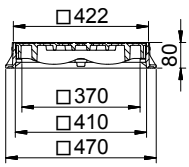
Type	Art. no.	Over base	Inlet area cm²	Height	kg
D 400, 3-sided flange, 2 point frictionally locking, 3-sided frame					
	994265	570x545	1020	100	34

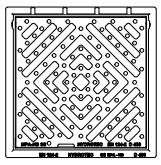




DUNA 400 X 400

Type	Art. no.	Over base	Inlet area cm²	Height	kg
D 400, 3-sided flange, 2 point frictionally locking, 3-sided frame					
	994304	470x470	650	80	26





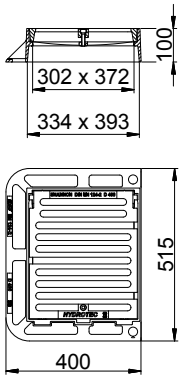
*Support for dirt bucket to DIN standard on page 78

GULLY TOPS

Class D 400 / C 250, Ductile Cast Iron (GJS), DIN EN 124

SHANNON / LAGAN 393 X 334

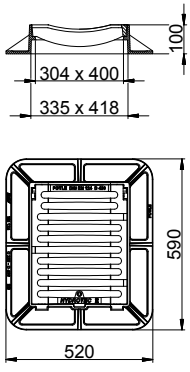
Type	Art. no.	Over base	Inlet area cm²	Height	kg
Hinge and locking system, Wave design grating, 3 sided frame, SW 20 mm					
D 400, Shannon	994**02**	515x400	674	100	28
C 250, Lagan	993**02**	515x400	674	75	23



994202

FOYLE 335 X 418

Type	Art. no.	Over base	Inlet area cm²	Height	kg
D 400, hinge and locking system, Wave design grating, closed flange frame, Concave, SW 23 mm					
D 400	994**01**	520x590	833	100	28
C 250	993**89**	520x590	833	75	25



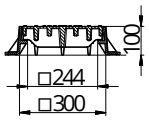
994201

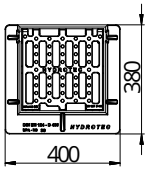
GULLY TOPS

Class D 400 / C 250, Ductile Cast Iron (GJS), DIN EN 124

DUNA 300 X 300

Type	Art. no.	Over base	Inlet area cm²	Height	kg
D 400, 3-sided flange, 2 point frictionally locking					
	994**77**	400x380	550	100	20



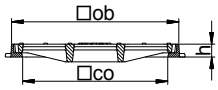


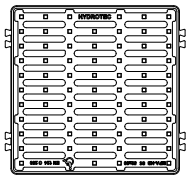
GULLY TOPS

Class C 250, Ductile Cast Iron (GJS), EN 124

SQUARE FLAT/CONCAVE

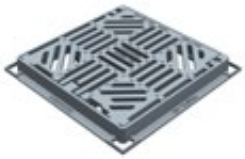
Type	Art. no.	Over base	Clear opening	Inlet area cm²	Height	kg	Pallet
Flat							
300x300, SW 20 mm	993031	354x354	250x250	350	40	14	40
400x400, SW 20 mm	993041	464x464	350x350	630	40	23	20
500x500, SW 20 mm	993051	564x564	450x450	1060	40	35	20
600x600, SW 20 mm	993061	664x664	550x550	1490	40	52	20
700x700, SW 30 mm	993070	764x764	650x650	2030	40	73	10
Concave							
300x300, SW 20 mm	993131	354x354	250x250	350	40	14	72
400x400, SW 20 mm	993141	464x464	350x350	630	40	24	20
500x500, SW 20 mm	993151	564x564	450x450	1060	40	36	20
600x600, SW 20 mm	993161	664x664	550x550	1490	40	56	20
700x700, SW 30 mm	993170	764x764	650x650	2030	40	73	10

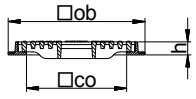


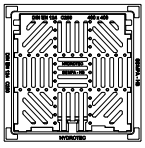


SQUARE FLAT/CONCAVE

Type	Art. no.	Over base	Clear opening	Inlet area cm²	Height	kg	Pallet
Flat, hinge and locking system, safety slots							
SW 12 mm	993264	410x410	300x300	220	50	21	30
SW 18 mm	993266	510x510	400x400	780	63	31	32
SW 18 mm	993267	620x620	500x500	1550	73	43	24
SW 16 mm	993268	720x720	600x600	2060	83	60	10
Concave, hinge and locking system, safety slots							
SW 12 mm	993265	410x410	300x300	220	63	23	30
SW 18 mm	993269	510x510	400x400	920	70	31	32
SW 18 mm	993270	620x620	500x500	1480	83	43	24
SW 16 mm	993271	720x720	600x600	2070	93	62	10

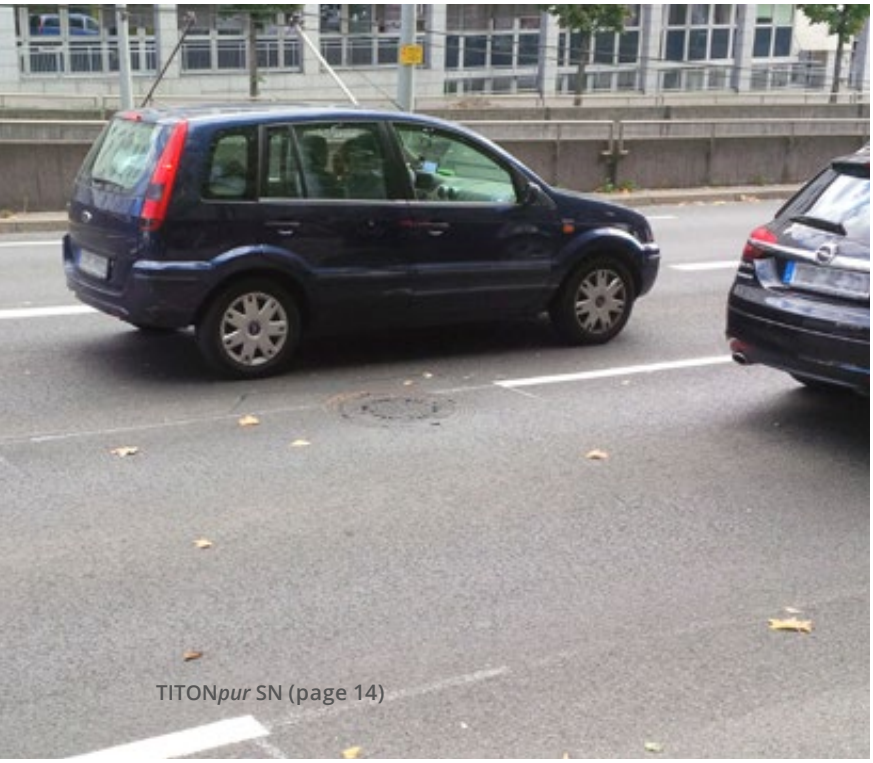






MANHOLE COVERS AND GULLY TOPS

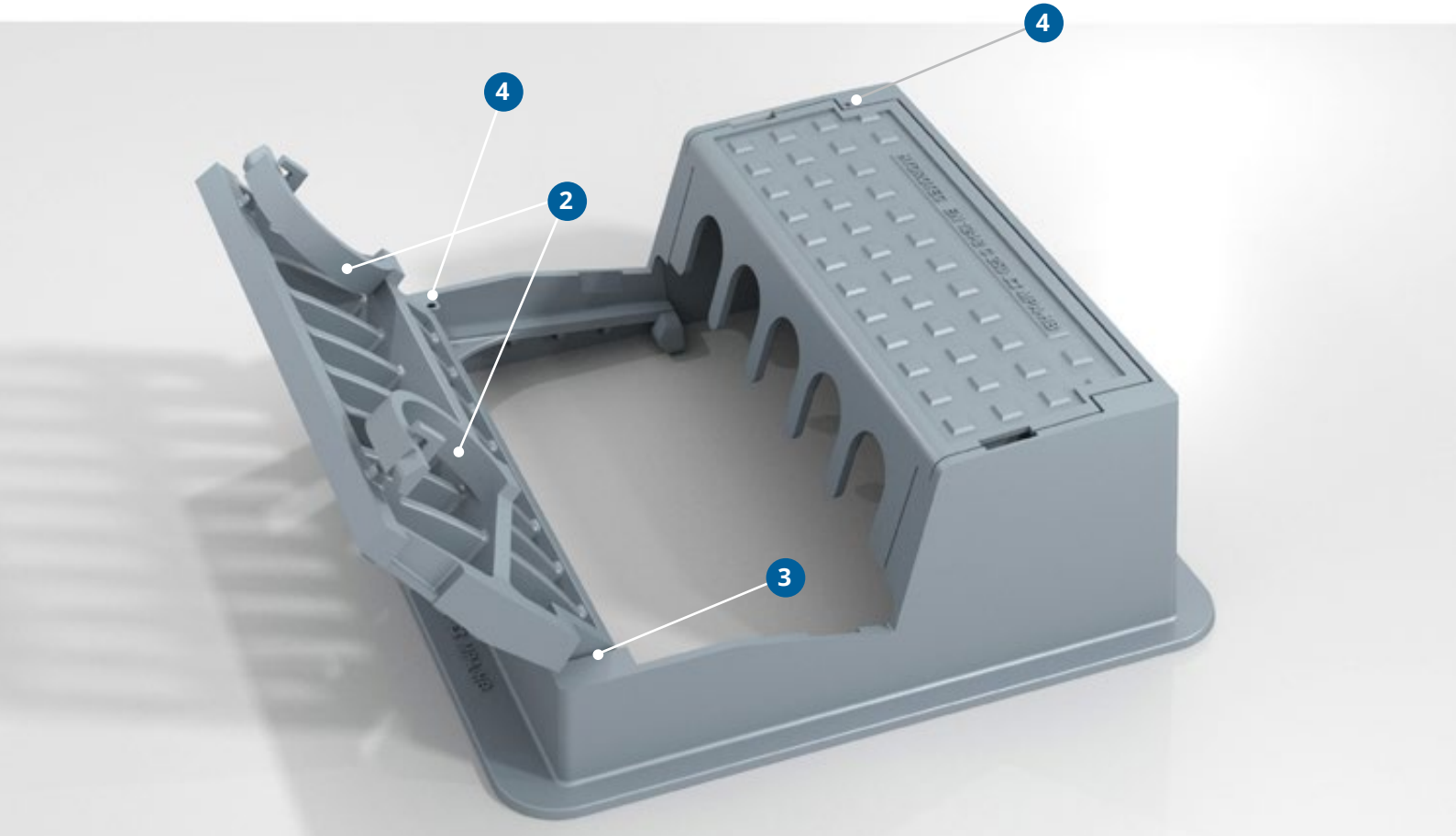
ECON SN 800 (page 26)



TITON*pur* SN (page 14)

ECON Gully top (page 56)

HYDRO*kerb* S 500
Product benefits

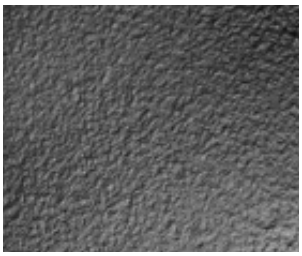


HYDRO*kerb* S 500
Product benefits

CLASS
C 250

Test load 250 kN
to DIN EN 124

Perfect for kerb areas.



Made of ductile cast iron

Ductile cast iron (ductile iron with nodular graphite) is robust, can withstand high static loads and has high corrosion resistance.

Kerb and drainage in one system

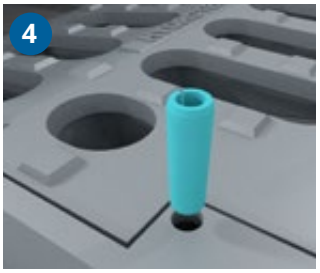
The integration of the HYDRO*kerb* in kerb areas enables a high hydraulic drainage (inlet area approx. 850 cm²) and a minimisation of splash water.

2-point locking system

HYDRO*kerb* has a 2-point locking system. This is located below the grate, relieved of traffic, and functions as a safety interlock.

Hinge

The design of the hinge allows inspection opening of up to approx. 120°. The grate can be completely removed as required.



Protection against vandalism and theft

As an option, an additional anti-theft device can be fitted in the frame and grille by means of a safety pin (function can also be implemented later or after installation).

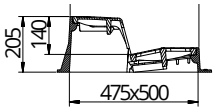
KERB DRAINAGE

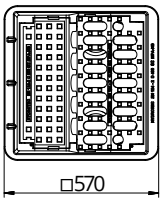
Class C 250, Ductile Cast Iron (GJS), EN 124

HYDRO*kerb* S 500

Type	Art. no.	Over base	Inlet area cm^2	Height	kg
Form T, 2-point locking system, 120° position of inspection					
	993303	570x570	850	205	52

option: Anti-Theft-Protection

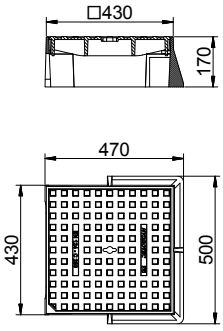




KERB DRAINAGE
Class C 250, Ductile Cast Iron (GJS), EN 124

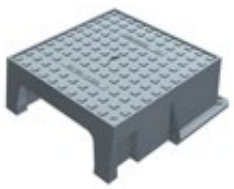
KERB DRAINAGE 450 X 450

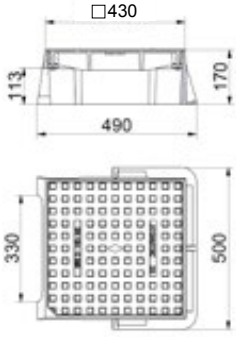
Type	Art. no.	Over base	Inlet area cm²	Height	kg
Form T, 3-sided flange, lifting pocket					
	9934**501**	500x470	270	170	50



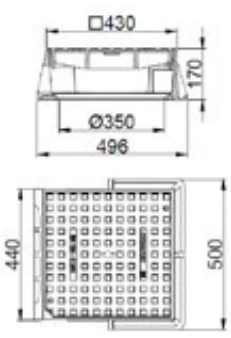
KERB DRAINAGE 450 X 450

Type	Art. no.	Over base	Inlet area cm²	Height	kg
Form A, 3-sided flange, lifting pocket					
Locked, with grating*	9934**50**	500x496	240	170	58
	9934**502**	500x490	300	170	48





9934502



993450

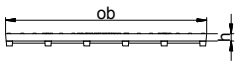
*Support for dirt bucket to DIN standard on page 78

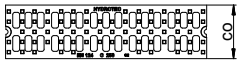
LINEAR DRAINAGE

Class C 250, Ductile Cast Iron (GJS), EN 124

LINE 750

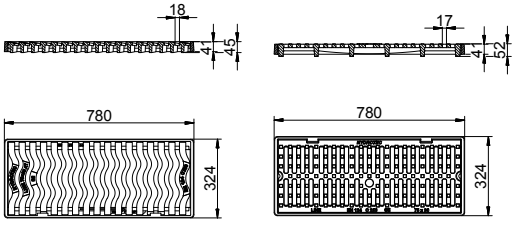
Type	Art. no.	Over base	Clear opening	Inlet area cm²	Height	kg	Pallet
Inlet grating for linear drainage							
Line 200x750	993200	750	200	430	27	20	20
Line 250x750	993250	750	250	620	27	22	20
Line 300x750	993300	750	300	860	27	27	20
Line 400x750	993400	750	400	1120	27	38	20
Line 500x750	993500	750	500	1560	27	44	20
Frame 750	990109	750				4,5	200
Locking device	990112						





LINE 750 X 300

Type	Art. no.	Over base	Inlet area cm²	Height	kg
C 250					
750x300, SW 17	993310	780x324	740	41	36
750x300 AT, SW 18	993311	780x324	910	41	31



993311 993310

HOME AND YARD DRAINAGE

Class D 400 - B 125, Cast Iron (GJL), EN 124

GULLY BOX 300 X 300

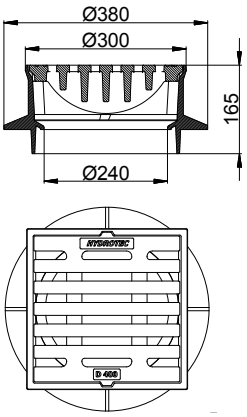
Type	Art. no.	Height	kg	Pallet
Incl. Mud bucket, vertical outlet with sleeve for pipe connection DN 100/DN 150				
D 400, DN 100, flat	9042**9090**	365	63,8	12
D 400, DN 150, flat	9042**9080**	365	62,8	12
B 125, DN 100, flat	9022**9090**	365	60,8	12
B 125, DN 150, flat	9022**9080**	365	59,8	12
B 125, DN 100, concave	9022**7090**	376	61,0	12
B 125, DN 150, concave	9022**7080**	376	60,0	12

90227090

90229090

SALZACH 300 X 300

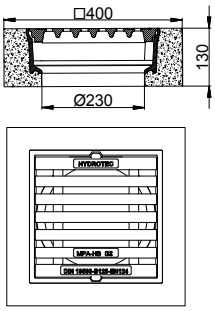
Type	Art. no.	Over base	Inlet area cm²	Height	kg
Flat gully top for standard DIN shaft, Displacement safeguard on manhole, particularly well suited for paving, SW 16 mm					
D 400	9042**612**	380	220	165	22
B 125	9022**612**	380	220	165	18



HOME AND YARD DRAINAGE
Class B 125 - A 15, Cast Iron (GJL), EN 124

YARD GULLY TOP 400 X 400

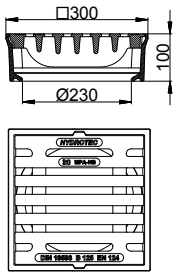
Type	Art. no.	Over base	Inlet area cm²	Height	kg
SW 16 mm, DIN 19593, flat					
B 125	902291	400x400	220	130	50
A 15	901150	400x400	220	80	33



902291

YARD GULLY TOP 300 X 300

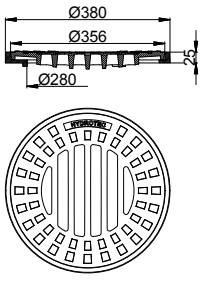
Type	Art. no.	Over base	Inlet area cm²	Height	kg
SW 16 mm, DIN 19593					
B 125, Flat	902290	300x300	220	100	20
B 125, Concave	902270	300x300	220	100	20
A 15, Flat	901250	300x300	220	60	12



902290

YARD GULLY TOP 300

Type	Art. no.	Over base	Inlet area cm²	Height	kg
A 15, Concave, Test load 50 kN	900090	380	215	25	11



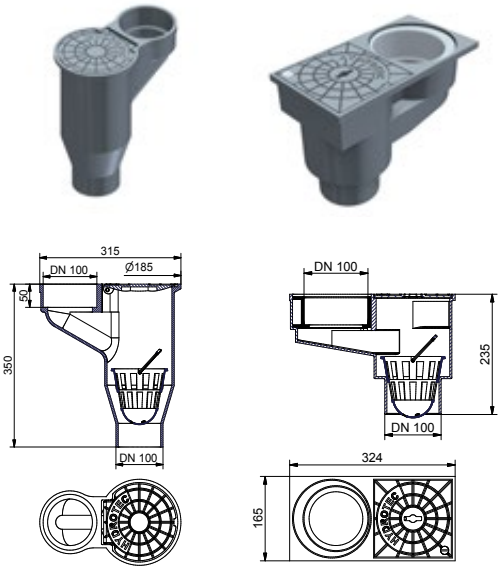
Mud bucket to DIN 1236 on page 79

ROOF DRAINAGE
Cast Iron

ROOF DRAINAGE DN 100

Type	Art. no.	Over base	Height	kg
DN 100 long version	990100**09**	315/185	**350**	9,5
DN 100 short version with movable excentric ring	990100**109**	324/165	**235**	9

Option: Basket on page 80

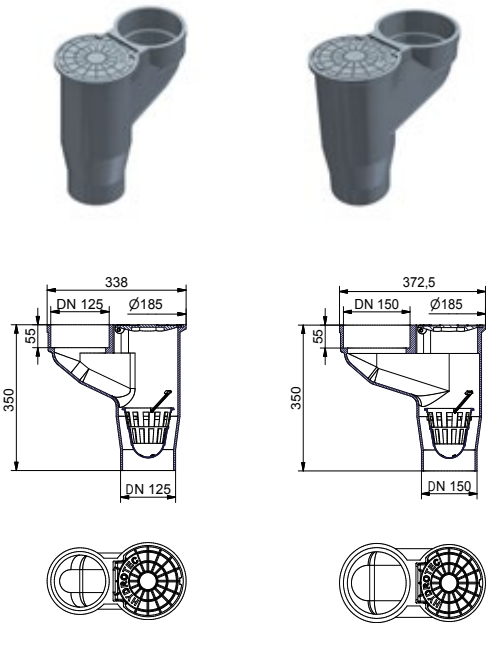


990100 9901001

ROOF DRAINAGE DN 125 / 150

Type	Art. no.	Over base	Height	kg
DN 125	9901**25**	338/185	350	11
DN 150	9901**50**	373/185	350	14

Option: Basket on page 80



990125 990150

DIRT CATCHERS / MUD BUCKETS
Galvanised steel or PE-HD

DIRT CATCHERS DIN 1221 FOR MANHOLE COVERS 600

Type	Art. no.	Material	kg	Pallet
DIN 1221, heavy duty type, cross bar	501000	galv. steel	7,2	36
Similar DIN 1221, cross bar	501100	galv. steel	5	36
Similar DIN 1221, traverse bar	501001	galv. steel	4,7	48
Similar DIN 1221, H=220 mm, cross bar, type “Austria”	501200	galv. steel	5	36
Similar DIN 1221, cross bar	521025	PE-HD	2,9	36
Similar DIN 1221, H=220 mm, cross bar, type “Austria”	521043	PE-HD	2,9	36

MUD BUCKET DIN 4052 FOR SQUARE GULLY TOPS 500 X 500

Type	Art. no.	Material	Height	kg	Pallet
DIN 4052-B1	501007	galv. steel	**250**	6,5	60
Similar DIN 4052-B1	501008	galv. steel	**250**	5,5	60
Similar DIN 4052-A3	501050	galv. steel	**445**	5	45
DIN 4052-A4	501003	galv. steel	**600**	8,5	27
Similar DIN 4052-A4	501004	galv. steel	**600**	6	36
Similar DIN 4052-B1	521028	PE-HD	**265**	2	60
Similar DIN 4052-A4	521027	PE-HD	**600**	3,5	45

DIRT CATCHERS / MUD BUCKETS
Galvanised steel or PE-HD

MUD BUCKET DIN 4052 FOR LONGITUDINAL GULLY TOPS 300 X 500

Type	Art. no.	Material	Height	kg	Pallet
DIN 4052-D1	501013	galv. steel	**325**	5,1	52
Similar DIN 4052-D1	501014	galv. steel	**325**	4,6	52
DIN 4052-C3	501009	galv. steel	**575**	7	40
Similar DIN 4052-C3	501010	galv. steel	**575**	6	40
Similar DIN 4052-D1	521030	PE-HD	**325**	1,5	52

MUD BUCKET DIN 1236 FOR YARD TOPS

Type	Art. no.	Material	Height	kg	Pallet
Similar DIN 1236-K	501016	galv. steel	**250**	2,5	100
Similar DIN 1236-L	501018	galv. steel	**420**	3,5	60
Similar DIN 1236-KK	521032	PE-HD	**250**	0,7	120
Similar DIN 1236-KL	521031	PE-HD	**420**	1	120

DIRT CATCHERS / MUD BUCKETS
PE-HD

BASKET FOR ROOF DRAINAGE

Type	Art. no.	Material	Height	kg	Pallet
Basket for roof drainage DN 100 / 125 / 150	521132	PE-HD	120	0,6	-

ACCESSORIES

Type	Art. no.	Material
"Universal" opening bar Opening aid for ductile manhole covers e.g. ECON, TRIX, SAFETY	989511	galv. steel
Multipurpose operating key Spider for covers and gully tops for square headed bolts M16 and M20, lift-out hook and slotted screwdriver	989503	galv. steel
Manhole step DIN 19555 Form B For setting, drill holes of 25 mm, depth 70 mm	989404	Poly / Steel
SCANDIC - Cover lifter For ergonomic opening and moving the cover, with wheels	999633	
ECON SN		
Installation frame Height = 190 mm	814197	
Concrete adapter ring Height = 80 mm, inner diameter = 633 mm	814192	
ECON SN Gully Top		
Installation frame, steel	93495298	
Asphalt stop ring, steel	08902232	

989511

989503

989404

999633

814197

814192

93495298

08902232

GENERAL AND TECHNICAL INFORMATION

1. Materials

We mainly use ductile cast iron or grey cast iron for manhole covers and gully tops. Grey cast iron combined with concrete is an optimum combination of materials:

- Grey cast iron and concrete have very similar material characteristics with respect to heat expansion and ductility.
- Neither material is affected by breaking elongation.
- Bending strength is improved by using concrete in the pressure area and cast iron in the traction area. This gives the user a high level of dimensional stability and long service life.

Grey cast iron

Cast iron with lamellar graphite (GG) to DIN EN 1561, EN-GJL 100 to 300. This tried and trusted material, which has been used for centuries, is still one of today's most commonly produced cast iron types. Its well-known benefits, such as more or less unlimited molding potential, pronounced stability,
and excellent vibration damping make it a very attractive option compared to more expensive, premium types such as ductile graphite iron, annealed cast iron, cast steel, cast
aluminum and wrought parts.

Ductile cast iron

Cast iron with nodular graphite (GGG) to DIN EN 1563, EN-GJS 400-15 to 500-7. This more recent cast iron type has far higher rigidity and expansion values than grey cast
iron. However, its molding and working potential is similar to that of grey cast iron. Ductile cast iron's elasticity is far more pronounced than that of grey cast iron. Thanks to its excellent rigidity, it is suitable for parts that are subject to stress, including safety parts in the automotive industry and engine building, as well as for lightweight, thin-wall constructions.

Natural finish cast iron

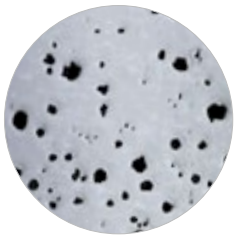
Surface oxidation of cast iron (graphite / perlite formation) makes it resilient against materials that appear in traffic areas, such as de-icing salts. Scientists have demonstrated that additional surface protection is unnecessary. So don't worry about the „rusty" surface. This is just residual iron dust from the manufacturing process which has no negative impact on the quality or function.

Dampening inserts

Inserts are suited between cover and frame and are wearing parts. We use different durable and high abrasion-proof inserts. HYDRO*pren* insert is made of Polychlorprene according to DIN 19585. HYDRO*then* insert is based on a special abrasion proof and durable Polyethylene. HYDRO*pur* insert is made of Polyurethane which is cast around the cover and combines cover and insert inseparably – rattling is impossible.

Cast iron with lamellar graphite
Tensile strength 100-300 N/mm²
Breaking strain <1%

Cast iron with nodular graphite
Tensile strength 500-1100 N/mm2
Breaking strain 2-15%



2. Terms / Variants

Manhole covers
Manhole covers are the visible element of a manhole to the road and provide a safe cover for underground shafts.

Secured manhole covers
Owner / operators who need to prevent unauthorized opening of manhole covers should choose secured covers. We offer avariety of types for various requirements such as protection against theft and vandalism.

- Safety screw-lock. The covers and frames of our manhole covers with safety screw-locks are non-positively and positively locked.
- Locking by means of turnbuckle. The covers and frames of our manhole covers are secured with screw locks. Turnbuckles prevent unauthorized opening of covers as well as negative effect from water or air build-up.
- Locking by means of 3 point lock (e.g. ECON or TRIX system) 3 point locking system prevents unauthorized opening of the cover. When closed, the cover automatically locks by means of three retainers clicking into place.

Distortion protection
Distortion (Anti-Twist) protectors locating pins built into the cover with corresponding receptacles in the frame. This means the

GENERAL AND TECHNICAL INFORMATION

cover has a defined position in the frame thus preserving the contact surface quality for a considerable time.

Water tight

Surface water tight covers prevent surface water entering the manhole. Surface water tightness refers to the cover and frame. Careful installation on site and validation after completion will help ensure a tight seal between the cover and the shaft. Our guarantee only covers the tightness of the cover / frame seal.

Pressure tight

Pressure tight manhole covers provide a seal against backwater pressure. They are available for various pressure levels of 0.1 to 2.0 bar and in various types. It is important to ensure secure locking and a backwater tight seal between the shaft and the cover, this can be achieved by use of proper installation methods.

Gas tight

The definition „gas tight“ in the context of manhole covers refers to normal sewer and fecal gases. For all other gases,
please contact us to check the resilience of the deployed seal.

Drainage during construction work

These gully tops have lateral openings that allow surface water to enter drainage works before the road surface has been laid.

Liftable

„Liftable“ refers to manhole covers with a smooth, vertical cast iron frame. The advantage of this frame is that it can be lifted to street level, if e.g. a new surface course is laid, using hydraulic lifting equipment. A full mounting is required for the cast iron frame after this: it is important to fill the gap between the shaft and the frame without leaving any gaps. The only frames suitable for this method are full cast iron frames which are additionally tested and approved by us for this purpose (e.g. ECON H).

Sand trap

A catcher comprises of ring-shaped recess in the frame‘s contact surface which the lid interlocks with by means of a counterring. The channel in the cover is sealed by sand and water providing an effective seal against smells.

INSTALLATION INSTRUCTIONS

Installation, operation and maintenance instructions

Location and load class ...

The procedure for installing manhole covers and gully tops depends on the installation location, the corresponding traffic loads, and the planned surface layer. Installation locations are assigned to classes A15 through F900 in EN 124. The manhole structure must be suitable for the traffic load. The planner is responsible for choosing the correct load class.

A 15 B 125 C 250 D 400 E 600 F 900

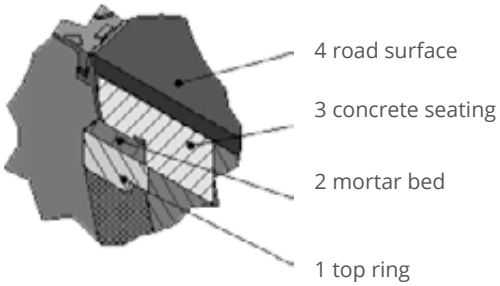
Before Installation ...

- All parts must be checked to ensure perfect working order. Never install damaged parts!
- Use suitable lifting gear for loading and offloading, and for transporting parts on site.
- Use appropriate tools for lifting out and/or inserting covers to avoid damage
- Before inserting the cover, always clean the bearing surfaces and – if it exists – check the seal for cleanliness and correct seating, and ensure that the closing device is in perfect working order and serviceable.
- Before installation clean and wet the underside of the frame.
- The civil engineering contractor is responsible for the correct installation of manhole covers!
- Observe all technical regulations.
- The planner is responsible for choosing a suitable installation method, mortar quality and the manhole cover position with respect to driving direction.
-

Installation ...

- The frame must always be in full contact with the mortar bed and capable of bearing. If the substructure is not executed correctly, subsequent traffic load will cause loosening, premature wear, rattling, or even destruction of the cover.
- Prepare the mortar bed (min. MG III, DIN 1053), install the frame with full contact and align at the correct height.
- When installing thin-walled frames which are not torsion-free make sure the cover is fitted when installing the frame.
- For ECON H frames watch out for mortar penetrating the holes in the frame bearing surface.
- When adjusting the cover height by more than 40mm the use of concrete retaining rings, spacer segments, or non-shrink, quick setting grout with plastic additive is recommended.
- In case of subsequent height adjustments always execute a new mortar bed throughout.
- Clean the cover and frame contact surfaces.
- Fit the cover and check for noise-free seating.

1 Clean and dampen the contact surfaces
2 Set the frame fully in a 20-40 mm mortar bed
3 Encase the frame in concrete (min. C20 / 25) and compact
4 Lay road surface (30-40 mm)



Attention!

In case of subsequent height adjustments always execute a new mortar bed throughout. Clean the contact surfaces of the frame and cover before fitting and thoroughly clean the hinge recess.

Mortar specification:

Crushing strength min. 10 N / mm² / Mortar group III to DIN 1053. We recommend quick-setting mortar and the use of formwork. Do not subject the cover to load until the mortar has set (see manufacturer's instructions).

INSTALLATION INSTRUCTIONS
Handling and maintenance

Manhole covers with spring locking and hinges e.g. ECON / TRIX ...

The covers are opened by means of a lift-out bar which is inserted into the recess between the frame and the cover, and unlocked by lifting force.
The manhole cover is secured against accidental closing at 90°. The cover is removable in 90° position. To close the cover lift the cover slightly in 90° position and allow it drop. Check all seals and inserts for damage before closing and replace if needed. Check hinges for soiling and clean if needed, before closing the cover.

Pressure-tight – and watertight manhole covers ...

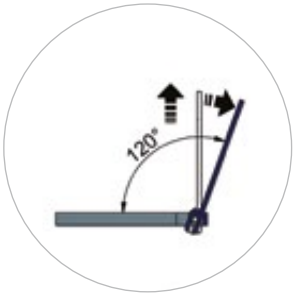
Covers secured by screw locks should be inspected once a year. Should you need to open the manhole covers, follow these steps:

- Clean the bearing surfaces
- Clean the drill holes in the cover
- Check the insert for damage and replace if needed
- After cleaning apply, protective spray to the insert (silicon)
- Insert the cover. Make sure that it is fully seated and flush (screw connection) in the frame.
- Before inserting the screws, check the self-locking DUBO washers for damage and replace if needed.
- Tighten screws cross-wise (wheel nut principle) and evenly using a torque wrench at a tightening torque of 120 – 150 Nm (turn-buckle max. 80 Nm.)
- We recommend additionally securing the screws with screw locking fluid.

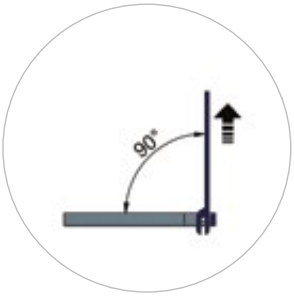
Self-levelling manhole covers e.g. ECON SN / SCANDIC SN ...

Please observe our separate installation instructions for floating, self-levelling manhole covers.

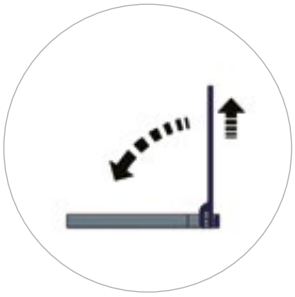
Unlock Cover



Inspection Cover



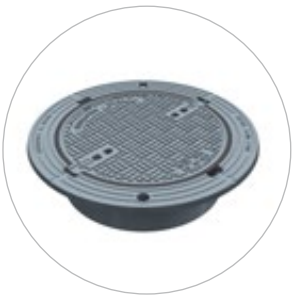
Remove Cover



Close

Manhole Cover -
spring locking and hinges

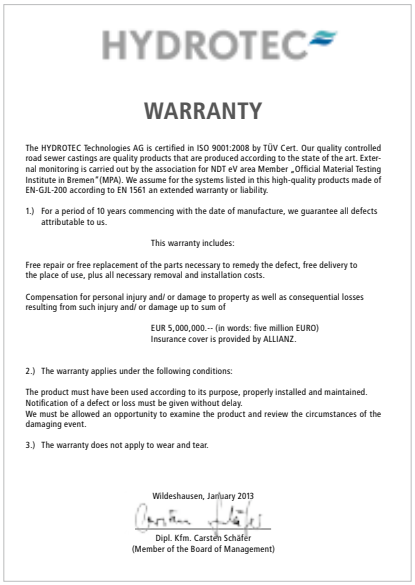
Manhole Cover - pressure-tight and watertight



Manhole Cover -
self-levelling (SN)

GUARANTEED QUALITY

We issue a warranty certificate to guarantee premium product quality and offer an extended warranty with liability coverage of up to 5 million Euros for our EN-GJL covers.



HYDROTEC

WARRANTY

The HYDROTEC Technologies AG is certified in ISO 9001:2008 by TÜV Cert. Our quality controlled road sewer castings are quality products that are produced according to the state of the art. External monitoring is carried out by the association for NDT eV area Member „Official Material Testing Institute in Bremen"(MPA). We assume for the systems listed in this high-quality products made of EN-GJL-200 according to EN 1561 an extended warranty or liability.

1.) For a period of 10 years commencing with the date of manufacture, we guarantee all defects attributable to us.

This warranty includes:

Free repair or free replacement of the parts necessary to remedy the defect, free delivery to the place of use, plus all necessary removal and installation costs.

Compensation for personal injury and/ or damage to property as well as consequential losses resulting from such injury and/ or damage up to sum of

EUR 5,000,000.-- (in words: five million EURO)
Insurance cover is provided by ALLIANZ.

2.) The warranty applies under the following conditions:

The product must have been used according to its purpose, properly installed and maintained.
Notification of a defect or loss must be given without delay.
We must be allowed an opportunity to examine the product and review the circumstances of the damaging event.

3.) The warranty does not apply to wear and tear.

Wildeshausen, January 2013

Dipl. Kfm. Carsten Schäfer
(Member of the Board of Management)

Certificaat

NL GSD*

kiwa

Hydrotec Technologies AG

ÖSTERREICHISCHE NORMUNGSINSTITUT

ZERTIFIKAT

Rahmen für Abdeckungen von Schächten in Verkehrsflächen
Modell ECON-Plus

mit den Bestimmungen der ÖNORMEN EN 124 und B 5110.

ÖN CERT

ZERTIFIKAT

DAP Deutsches Akkreditierungssystem Prüfwesen GmbH

Deutschen AkkreditierungsRat

Accreditation

General notes

Illustrations, dimensions and weights are provided without committment. We reserve the right to modify the design and production methods to reflect the current state of art in technology. All previous catalogues become invalid on publication of this catalogue. All details concerning standards and kite marks were correct when this catalogue went to press.

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