

ROMOLD

When it comes
to chambers

ECONOMICAL SOLUTIONS WITH SYSTEM.
More efficient guaranteed.

SUPPLY-/DISCHARGE SYSTEMS | PLANT ENGINEERING
FILTER | ELECTRIC & TELECOMMUNICATIONS

READ-AND-CLICK

WHAT YOU NEED TO KNOW ABOUT THIS CATALOGUE

This catalog provides an overview of our product range and prices. In this catalog you will find detailed information about all the products and areas such as engineering, quality, etc. Our website also contains the latest news at ROMOLD.

READ-AND-CLICK

This catalog is designed according to the READ-AND-CLICK principle. On many of the catalog pages you will find this symbol, if we would like to make a specific recommendation for a topic on our internet page.



Click on www.romold.de and experience more in-depth and continuously updated information, technical details, Product names, sample specifications and much more.

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ROMOLD: WHEN IT COMES TO CHAMBERS!

As the European pioneer for industrial manufactured plastic chambers (over 1 mil. chamber parts sold), ROMOLD product development is informed by over 20 years of expertise.

With the reconfiguration of the product line in 2010, ROMOLD offers its customers a selection of plastic chambers for any application that is unique in its class world-wide.

In combination with the famous ROMOLD quality and the customer service with a medium-sized company, ROMOLD offers advantages as only a pioneer in plastic chambers can.



THE NEW PROGRAMM

ND 500 / ND 625
PE



welded connection socket connection

ND 800
I PE



welded connection socket connection

I PP



socket connection

ND 1000

I PE



welded connection

EFFICIENT AND ECONOMIC

for more details see page 24ff.



Largest PE-chamber parts warehouse in the world, guaranteed short delivery times.

ROMOLD – YOUR PARTNER FOR INNOVATIVE CHAMBER BUILDING

MAKE USE OF THE KNOW-HOW OF THE MARKET LEADER

IN-DEPTH EXPERTISE

When ROMOLD GmbH launched the first industrially produced plastic chambers onto the market in 1992, it was no less than a minor revolution – as the former technology was literally cemented into people's minds. However the benefits in practice are so great that this innovative product soon took off making ROMOLD the European market leader for plastic chambers today.

ROMOLD only concentrates on chambers and is the only supplier that has specialised exclusively in the plastic chamber segment. This has enabled us to develop a level of in-depth expertise that is second to none. Our products and services are innovative down to the last detail. Come and profit from our special future-oriented chamber solutions.

MATURE SYSTEM TECHNOLOGY

With the world's largest product range and the capability of producing even very small series of customised products, we are able to react to your wishes very flexibly. We have a portfolio of over 1,000 t products that are available at short notice and which cover 99% of all applications. Additional modifications can be made to adapt these standards to local circumstances, e.g. by means of welding in additional channels. ROMOLD manufactures to the highest quality standards; these are ensured by continual internal and external monitoring. And of course the company is also certified according to DIN ISO 9001 providing you with the security that you always get the best, however flexible our systems are.

QUALITY FROM THE PLANNING STAGE THROUGH TO INSTALLATION

We manage each and every project with commitment and dynamism from the consulting stage right through to installation. We can conduct seminars for planning offices or public authorities on site and/or in the headquarters.



● PLANT ENGINEERING



● FILTER



● ELECTRIC



WHEN IT COMES TO CHAMBERS – ROMOLD!

AN OVERVIEW OF ROMOLD SYSTEM CHAMBERS

SOLUTIONS FOR ALL AREAS OF CHAMBER CONSTRUCTION

- Plant engineering
- Filter
- Electric & Telecommunications
- Discharge systems
- Drainage systems

See page 67 for other available
ROMOLD catalogs.



● DISCHARGE SYSTEMS



● DRAINAGE SYSTEMS





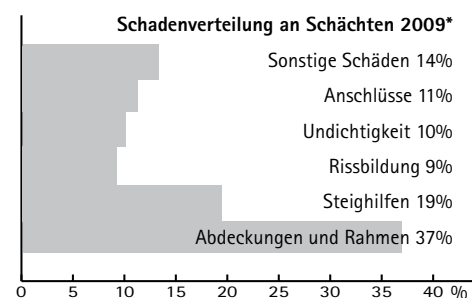
CAN YOU REALLY AFFORD TO BUILD CHEAPLY

INTELLIGENT INVESTMENT INSTEAD OF EXPENSIVE REPAIRS

Typically, plastic chambers are used where durability, simple handling, absolute tightness and corrosion resistance are imperative. Thanks to their long lifespan, ROMOLD chambers guarantee longer depreciation periods. The verified lower maintenance costs are also a relevant argument for operators. We are also happy to set up meetings with ROMOLD customers in your vicinity. Just talk to us about your building project, we'll be happy to advise you!

MORE VALUE THAT PAYS OFF IN THE END

The most cost-effective and intelligent type of chamber maintenance is prevention, i.e. avoiding Damage. According to a study by the German Institute for Underground Infrastructure (IKT) based on regional examinations, approximately 50% of all concrete chambers already start leaking after installation. In 2004, the repair expenditure for Germany was estimated to be 55 billion Euros. 30-50% of the German sewer networks require



repair work (Source: DWA survey 2004). The consequences are far-reaching: Interruptions to the infrastructure caused by additional construction work, penetrating groundwater places a burden on the sewage systems, leaking sewerage pollutes the groundwater and subsiding chamber covers pose a hazard. However there is an intelligent solution for all these problems: Chambers made of plastic by ROMOLD.



DURABILITY

With its lifespan of at least 100 years, the plastic chamber is far superior to traditional systems. ROMOLD products are simply indestructible, so that you do not need to worry about any transport Damage or Damage caused by root growth.

LOW WEIGHT

On average, plastic components only weigh around 5% of their concrete counterparts. This simplifies the whole process, i.e. the handling, transportation and installation, as no heavy lifting gear is required – an enormous benefit when working in tight spaces or on difficult terrain.

100% WATERTIGHT

ROMOLD products are absolutely watertight – all components are inspected with respect to the inner and outer pressure (0.5 bar). Therefore damage caused by leaks can be excluded (see page 8).

FLEXIBILITY

ROMOLD products react flexibly to any earth movements or subsidence. Therefore cracks are excluded (see page 8).

CORROSION RESISTANCE AND H₂S PROBLEM

ROMOLD chambers are particularly resistant to aggressive chemicals. Therefore corrosion caused by hydrogen sulphide (H₂S) can be excluded in ROMOLD products. This allows sensible durable alternative solutions.

These properties are now exploited in the cladding of concrete chambers. In the case of full-wall chambers by ROMOLD, these properties are standard.

COMPATIBILITY

ROMOLD products are compatible with all common pipe systems and the speed with which they can be installed is unbeatable: Move the chamber, connect the pipes, put the lid on, that's it!

THE OVERALL PERSPECTIVE

Prefabricated ROMOLD chambers are best alternatives to traditional chambers both from a quality and economic point of view – with clear advantages from an overall perspective. Durability, sturdiness, no additional investment during maintenance and the reduction of time, machine and personnel costs during transportation and installation make ROMOLD products the more economic and permanent solution. And everyone benefits from this because the citizens need to pay less charges and also profit from the new investments that are possible thanks to the savings made.



For latest information on this topic, visit www.romold.de, menu system, submenu technique

42 DAYS AND YOU KNOW THE SCORE

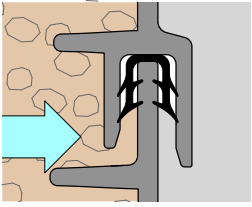
The quality inspection of the installation work (covering and compaction) is performed with little effort, about 42 Days after installation. If the components show no signs of deformation or maximum 50% of the 50-year value, it is justified to assume that the lifespan of the construction will be reached safely without impairment. In the meantime the principle has been recorded as criteria in the EN standard EN 13598-2.



For latest information on this topic, visit www.romold.de, menu system, submenu technique

ECONOMIC SEWER NETWORK PLANNING

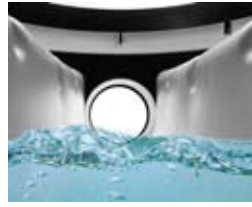
ROMOLD, in its capacity as an expert manufacturer of chambers, not only supplies approved manholes of the type ND 1000 but also ND 800, ND 625 or smaller. This affords you access to alternative solutions when planning the sewage network. Save costs by using different chamber diameters in your sewage network.



3-sided element seal
(Triple Safety Seal)



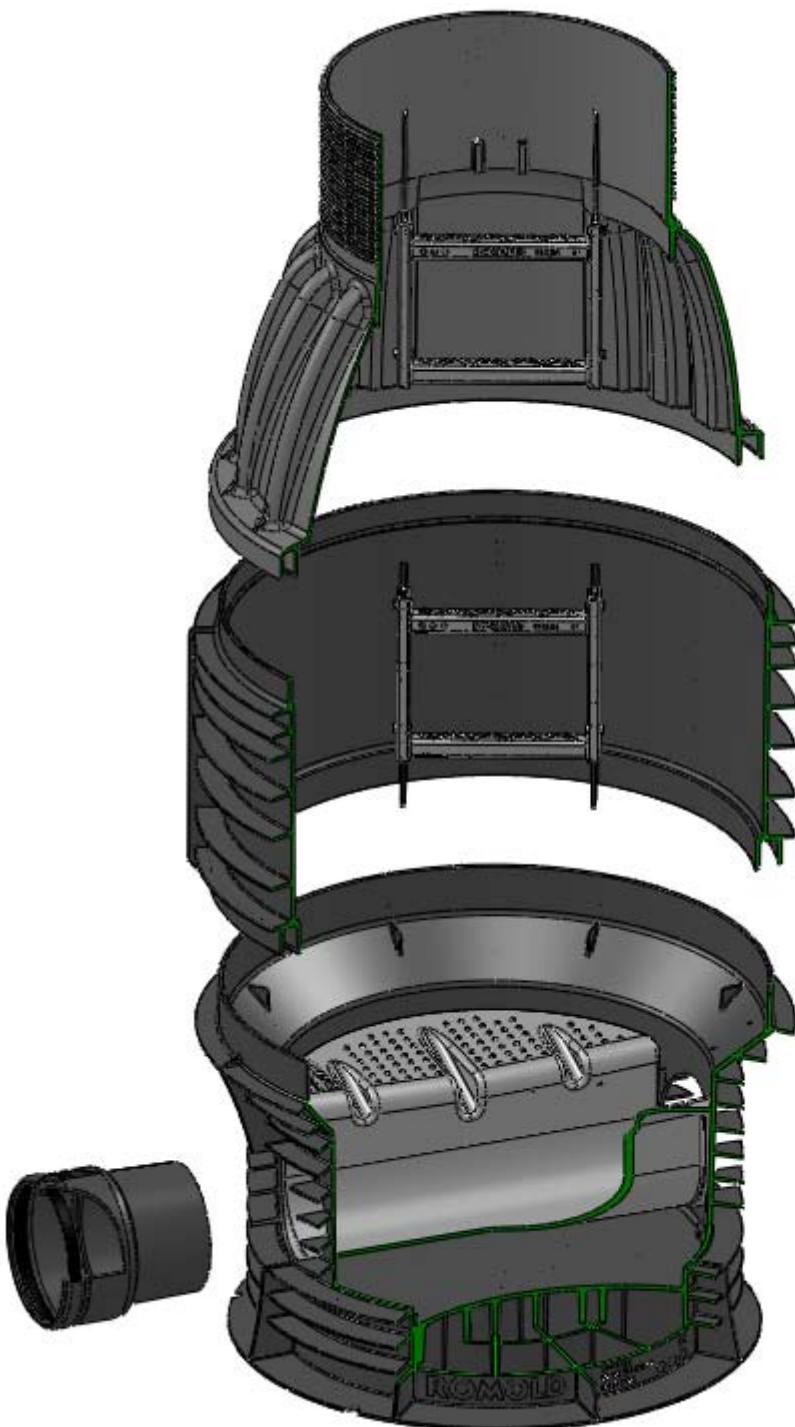
Seamless bends



100% DIN EN 13598-2

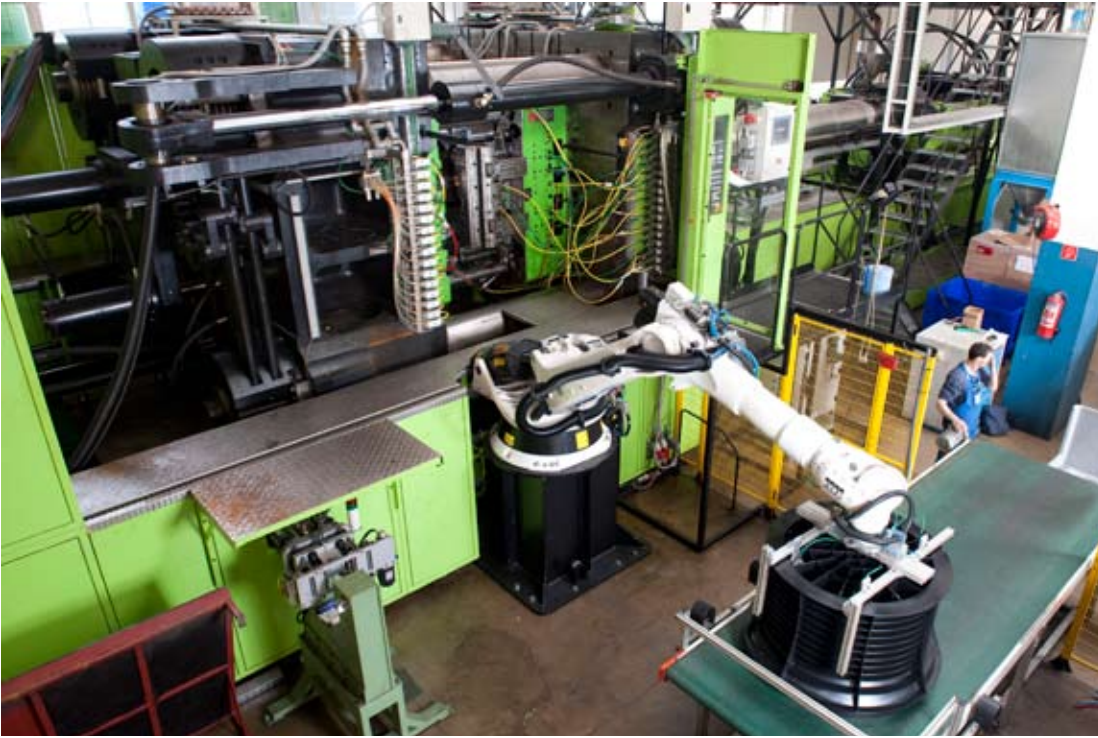
ROMOLD: YOU CAN TRUST THE ORIGINAL

QUALITY MEETS EXPERIENCE



- already over 1 million chamber components sold
- over 20 years of experience in developing plastic chambers
- chemical-resistant, also suitable for industrial wastewater
- certified buoyancy protection
- seamless bends ensure hydraulically optimized channels
- no segmentation
- all catalog products kept in stock for short delivery times





Production of ROMOLD injection moulding chambers

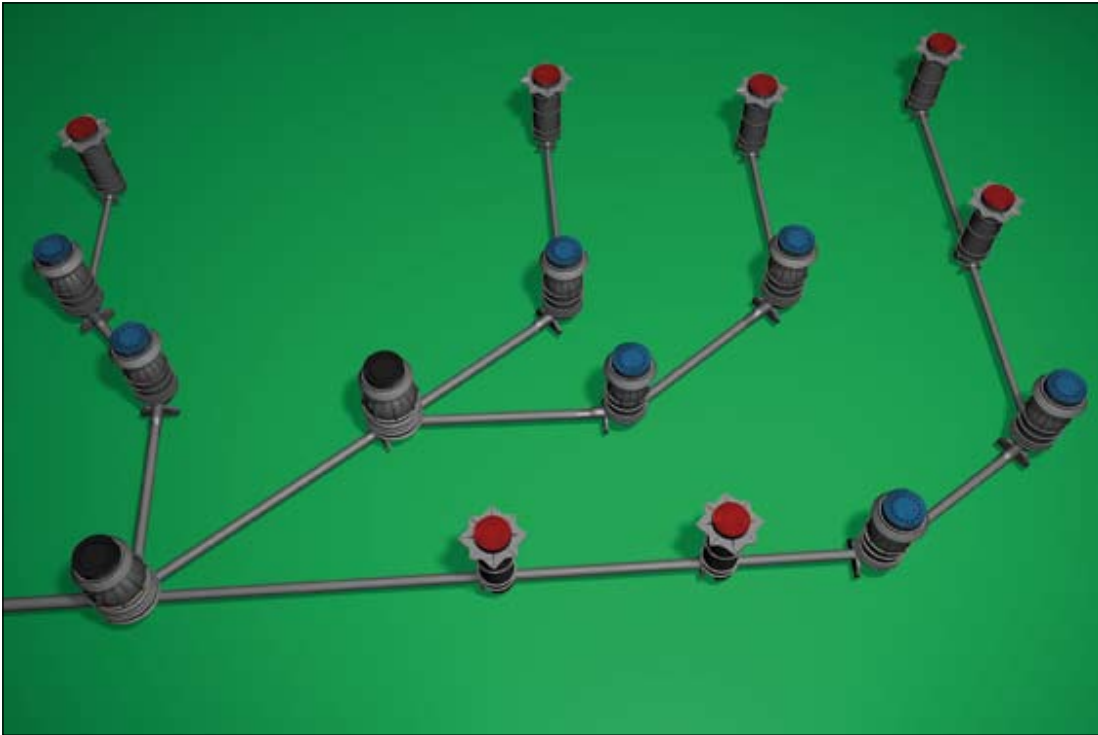
ROMOLD: ONE MANUFACTURER ALL POSSIBILITIES

2 MATERIALS (PP/PE) 2 PRODUCTION METHODS

ROMOLD is the only producer of plastic chambers that process not only two raw materials (PP and PE), but also uses two manufacturing processes. How do our customers benefit? This allows ROMOLD to guarantee that it can offer the optimal and most cost-efficient chamber for each project. Only industry-quality production ensures consistent quality. The right manufacturing process enables competitive pricing.

- PP chambers for plugged pipe systems
- PE chambers for welded pipe systems
- Injection moulding for large-scale production
- Rotational moulding for individual customer products

ROMOLD: When it comes to chambers



optimized sewage network,
the same functional capacity
and maintenance possi-
bilities as traditional sewage
networks

black: 2 x ND 1000
(access chamber)
blue: 7 x ND 800
(access chamber)
red: 7 x ND 625
(inspection chamber)

What means:

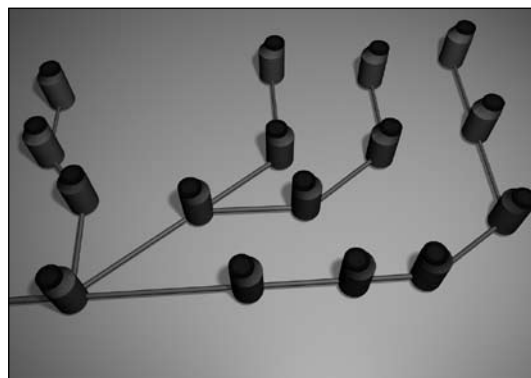
- minimal component weight
- high flexibility
- reduction in material costs
- DIN EN 476 compliant
- 100% tight
- less excavation
- less filling
- shorter construction time

ROMOLD: INVENTORS OF THE OPTIMIZED LAYING METHOD

MODERN PLANNING FOR INTELLIGENT SAVING

For almost 20 years ROMOLD has been focusing exclusively on chambers. In addition to such innovations as the exterior ribs, climbing step systems, load-decoupled cover variants, the triple safety seal technology, energy compensation chambers, etc., which have originated during this period, there have also been innovations in project cost optimization. This is most visible in comparisons between conventional methods of laying and those optimized with ROMOLD technology.

ROMOLD work sites are distinguished by the fact that the chamber size is tailored to meet requirements (see drawing above). It does not always have to be a ND 1000 manholes. For that reason ROMOLD recommends ND 625 chambers as an inspection opening and with sites where there is a directional change (H < 3m) ND 800 manholes (in accordance with DIN EN 476). At junctions of main sewers lines we recommend manholes with a diameter of ND 1000. With modern planning construction costs can be reduced. Our planning department is available to provide you with any support you need.



traditional sewage network
16 x ND 1000

What means:

- heavy equipment required
- higher excavation costs
- Risk of corrosion
- greater risk of leakage



Flexible socket 3,75° in all directions



light surface



Hydraulically optimized channels



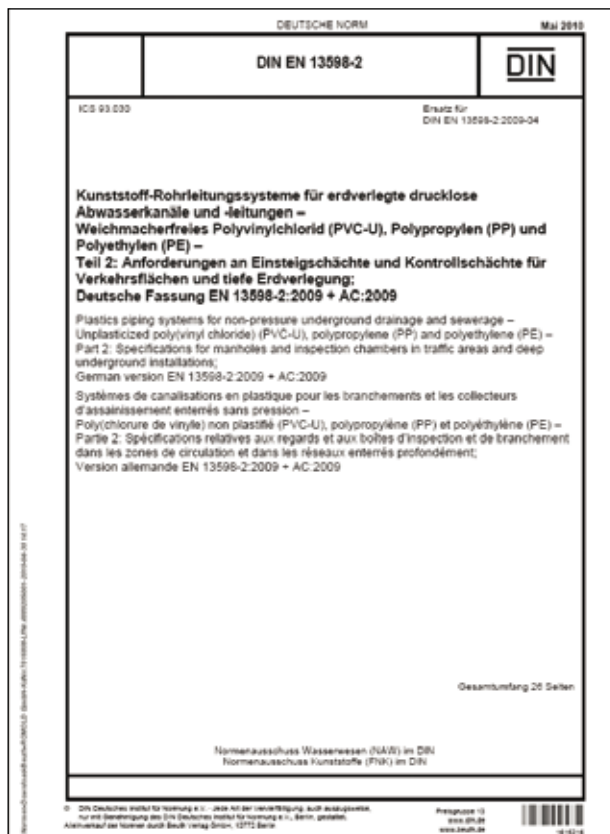
Edgeless outlet



Outer ribs for uplift retention

TECHNOLOGY THAT SATISFIES ALL STANDARDS

FIRST-RATE ROMOLD QUALITY

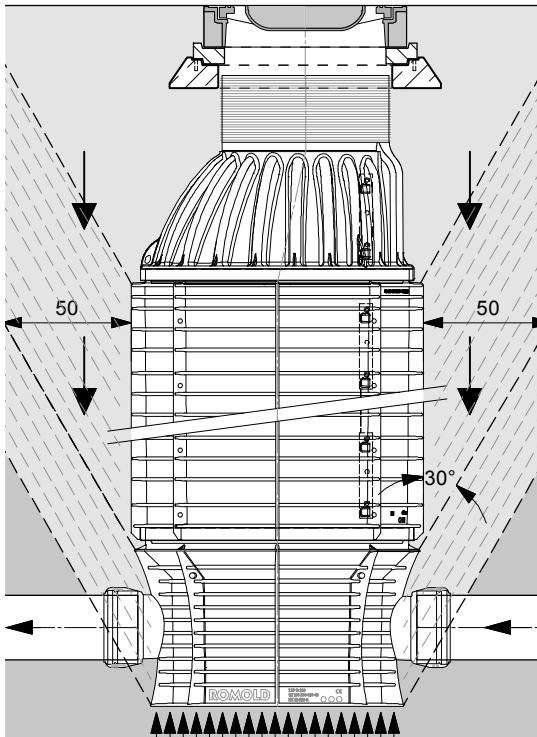


100% VIRGIN MATERIAL

Virgin material offers a constant level of quality, weldability and therefore absolute tightness. Definitive statements about the lifespan of products and welded connections can only be made by using well know and proved materials.

PRODUCT RANGE

Over 160 different prefabricated chamber bases are available as shelf products (from ND/OD 160 up to ND/OD 500). Connections from 90° to 270° are possible and are compatible to all pipe materials. In addition, individual configurations are also no problem.

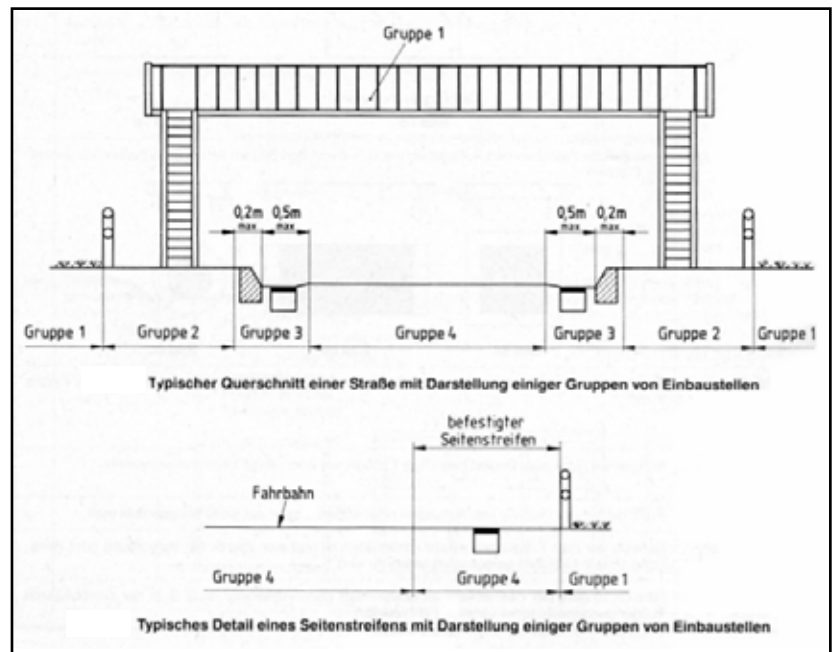


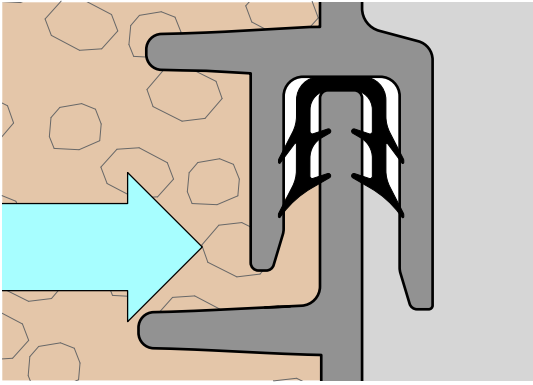
INSTALLED UPLIFT RETENTION

As standard, ROMOLD chambers have an uplift retention provided through outside ribs. These ribs interlock with the soil. No additional construction measures for uplift retention are required. The installation and assembly instructions must be observed. Only soil types according to **ATV-DVWK-A 127** (group 1 and group 2 acc. to Table 1) or according to **DIN 1055 Part 2** (non-binding earths acc. to Table 1) may be used for backfilling the chamber construction. The manhole construction needs to be backfilled and compacted according to **EN 1610** and acc. to **DWA-A 139**. According to static calculations, a ROMOLD manhole ND 1000 (height 5.0 m, groundwater upper edge of terrain) has a safety factor of 2.3 against buoyancy caused by existing groundwater.

PLACE OF INSTALLATION

ROMOLD chambers ranging from class A 15 / group 1 up to class D 400 / group 4, can be used for compliance with EN 124. EN 14802 certified and with a track record of over 15 years of use on the roadways of Europe.





3-sided element seal (Triple-Safety-Seal) for connecting the chamber elements

ELEMENT SEAL

EN 681-1 and EN 1277: Tightness against inner pressure (0.5 bar water) and outer pressure (-0.3 bar vacuum). The ROMOLD element seals (Triple-Safety-Seal), which meet the material requirements of EN 681-1 (EPDM material), are available for all chamber diameters. The ROMOLD element seals are 3-sided lip seals that can be assembled easily. The seal effect grows as the inner and outer pressure increases. The safety is doubled compared to one-sided sealing systems thanks to the labyrinth lip seals on both sides.

CHAMBER CONES

In accordance with EN 476, a minimum clear opening of ND 600 is required for accessible chamber systems. Accessible ROMOLD chambers have a ND 625 clear opening. See below for height adjustments and climbing steps.

HEIGHT ADJUSTMENT

In contrast to conservative construction designs, the height of ROMOLD plastic chambers is adjusted by shortening the upper part. On the outside, there are marking rings at a distance of 1 cm that allow an exact horizontal cut. The chamber and/or cone is shortened with a saw suitable for sawing wood, e.g. a hand saw or a jigsaw. ND 1000 and ND 800 manholes can be shortened up to 250 mm, ND 625 and ND 500 chambers up to 300 mm. All chambers are available in installation height graduations that correspond to the shorting dimension. This means that all installation heights can be achieved to the centimetre.



Markings on the chamber cone and chamber ring in 1 cm intervals for shortening



CLIMBING STEPS

EN 13101 and/or EN 14396: Corrosion-resistant climbing steps for accessible ROMOLD ND 800 and ND 1000 manholes are available ex-works.

The stability corresponds to the requirements of the standard. The distance between the climbing steps is 250 mm.

ATV-DVWK-A 157:

The lowest climbing rung must have a clearance to the berm of ≥ 250 mm and ≤ 500 mm.

The anti-slip resistance is increased thanks to the profiled surface. If necessary, the climbing steps can also be removed.

ACCESS AIDS

ROMOLD chambers can also be equipped with access aids. These can also be retrofitted in chambers that have already been installed.

CHAMBER RINGS

The installation heights for manhole rings ND 800 and ND 1000 is 50 cm and 100 cm, for ND 500 and ND 625 chambers 40 cm, 60 cm, 90 cm.



Covers:

Class A - Class D
EN 124

Cone:

eccentric ND 625
climbing steps acc. to EN 13101
and/or EN 14396

Element seal:

Triple-Safety-Seal
EN 681-1, EN 1277, EN 1610

Chamber ring:

in different heights
climbing steps acc. to EN 13101
and/or EN 14396

Element seal:

Triple-Safety-Seal
EN 681-1, EN 1277, EN 1610

Base:

industrially produced
bases in different configurations
EN 13598-2 and DIN EN 476

Pipe seals:

EN 681-1, EN 1277, EN 1610

The principle of the ROMOLD system chamber acc. to EN 13598-2 and EN 476



Welding by means of "Waste water electrofusion socket with PE-pipes that comply with DIN 8077 and DIN 8075.



PVC-KG-pipes according to EN 1401 and/or PP-pipes according to EN 1852 can be connected directly.



Pipes made from other materials (e.g. clay or corrugated pipes), are connected using standard adapters.



Pipe connection in the chamber wall, no problem with ROMOLD seals.

BERM

DIN V 4034-1 and/or ATV-DVWK A 157:

Gradient \leq 1:20

CHANNEL

DIN V 4034-1 and/or ATV-DVWK A 157:

Channel height 1/1 D (for channels up to ND 400)

SLOPE OF CHANNEL

The standard slope is at least 0,5 %

CONNECTION OF PIPEWORK AT INLET

Version PP: As standard, femal sockets for connection of a PVC-pipe according to EN 1401, a PP-pipe according to EN 1852, vertical and horizontal flexibility +/- 3,75 °.

Version PE ND 800 and ND 1000: As standard, PE spigots for connection via electrofusion sockets for PE pipes according to EN 12666/DIN 8074/75 or for connection via double socket for PVC pipes acc. to EN 1401 and PP pipes acc. to EN 1852.

Version PE ND 500 and ND 625: As standard, in female socket design for connection of a PVC-pipe according to EN 1401 and a PP-pipe according to EN 1852 with ROMOLD inlet seal according to DIN 4060 and EN 681-1., vertical and horizontal flexibility.

Connection options for all other pipe materials with commercial adapter.

CONNECTION OF PIPEWORK AT OUTLET

Version PP: As standard, femal socket for connection of a PVC-pipe according to EN 1401, a PP-pipe according to EN 1852, vertical and horizontal flexibility +/- 3,75 °.

Version PE ND 500, ND 625, ND 800 and ND

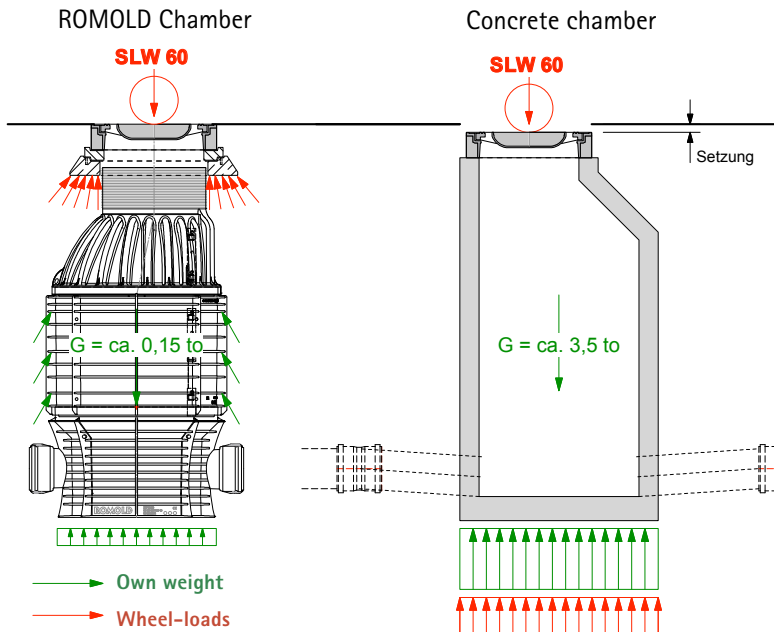
1000: As standard, PE spigots for connection via electrofusion socket for PE pipes acc. to EN 12666/ DIN 8074/75 or for connection via double socket for PVC pipes acc. to EN 14101 compliance and PP pipes acc. to EN 1852 compliance.



For latest information on this topic, visit www.romold.de, menu system, submenu technique

CHAMBER COVERS

EASY TO ASSEMBLE AND RESISTANT TO SETTLEMENTS




WHAT YOU NEED TO KNOW

ROMOLD chamber covers are specially designed for use with ROMOLD plastic chambers and guarantee the fastest possible assembly and a displacement-free position of the cover.


Class A 15 and B 125: Assembled directly onto the system chamber part using a ROMOLD frame (ND 500, ND 625 und ND 800).

Class D 400: Assembled using a ROMOLD cover with a supporting flange for chambers ND 500, ND 625 and ND 800 or at all diameters with a concrete support ring (BARD) indirectly into the road structure. All common self-level systems are also compatible with ROMOLD chambers. This means that damage to the cover and frame (see page 8) is excluded.

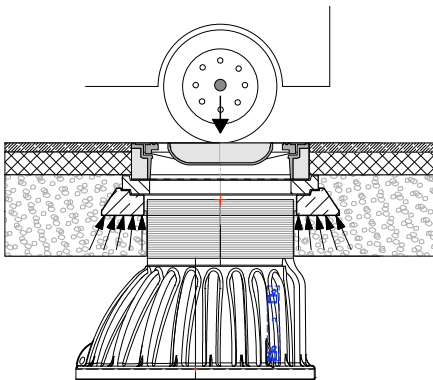
 For latest information on this topic, visit www.romold.de, menu products, submenu supply-/dischargesystems, chambers covers

PUBLIC TENDER TEXT EXAMPLE

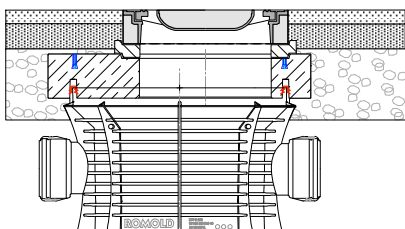
Chamber cover ND 500, cl. B with ventilation:
chamber cover cl.. B 125, ND 500, round, EN 124 compliant, with ventilation, lid cast iron, with mount for dirt bucket, with dirt bucket, for direct anti-slip assembly on PE shaft LW 500, construction height: 2 cm, ROMOLD system or equivalent.

 For the latest information on this topic, www.romold.de under Service

COMMERCIAL COVER WITH BARD-CLASS D



CLASS D COVER ND 800 / ND 1000 FOR MANHOLES ND 800/ND 1000



LG 50 D



PE accessible, smell-tight

LEB 50 GL



Class B 125, without ventilation

LEB 50 GVLS



Class B 125, with ventilation

LED 50 GD



Class D 400, without ventilation
watertight

LED 50 GVLS



Class D 400, with ventilation

ACCESSORIES FOR CHAMBER COVERS

Details	Weight kg	Article name
Elevation ring ND 625 (seal see element seal ES 63, pg. 38), Height 10 – 40 cm	11.5	E 63/40.10
Dirt trap for covers ND 500	1.2	SE 50
Dirt trap for access aid in connection with ROMOLD cover ND 625	6.0	SE 63 EH
Access aid, for cover LDD 63	4.5	EH 63 D-S
Connection kit for access aid	1.4	EH 63 D-H
Cover lifting equipment for ROMOLD Cover LDD 63 (2 required)	1.42	HS M16
Seal for ROMOLD cover LDD 63 GDR	0.06	DS 63 L

CHAMBER COVERS ND 500

Class	Height cm	Details	Weight kg	Article name
accessible	2	PE, direct assembly onto the chamber, without ventilation, smell-tight with EPDM-seal, can be filled with concrete to increase weight to approx. 50 kg	4.0	LG 50 D
B	2	Cast Iron, without ventilation, with locking mechanism, with ROMOLD frame, EN 124	35.0	LEB 50 GL
B	2	Cast Iron, with ventilation, with locking mechanism, with ROMOLD frame with gully trap holder, EN 124	35.0	LEB 50 GVLS
D	11	Cast Iron with ventilation, with ROMOLD frame with supporting flange, EN 124	80.0	LED 50 GVLS
D	11	Cast Iron, Resistant to pressureless surface or rain-water, with ROMOLD frame with supporting flange, EN 124	80.0	LED 50 GD
Dirt bucket made of PE for chamber covers with ventilation			1,20	SE 50

LGH 63 D



PE accessible, smell-tight, watertight

LGH 63 DD



PE accessible, smell-tight, watertight 0,5 bar

LEA 63 G



Class A 15 without ventilation

CHAMBER COVERS ND 625 AND ND 800

Class	Height cm	Details	Weight kg	Article name
accessible	3	PE, building site lid for temporarily covering the chamber opening, yellow	5.0	LGH 63 RAL1033
accessible	3	PE, with sealing and two integrated handles, resistant to pressureless surface or rain-water	6.5	LGH 63 D
accessible	3	PE, with sealing and two integrated handles, watertight up to 0.5 bar	7.0	LGH 63 DD
A	4	Cast Iron, without ventilation, with ROMOLD frame, EN 124	51.0	LEA 63 G
B	4	BEGU, without ventilation, with ROMOLD frame, EN 124	71.0	LDB 63 B
B	4	BEGU, with ventilation, with ROMOLD frame, EN 124	67.0	LDB 63 BV
B	4	BEGU, resistant to pressureless surface or rainwater, lockable, with ROMOLD frame, DIN 1229/EN 124	71.0	LDB 63 BDR
B	4	Cast Iron, without ventilation, with ROMOLD frame, ÖNORM* B 5110	67.0	LAB 63 G
D	13	BEGU, without ventilation, with ROMOLD frame with supporting flange, DIN 19584/EN 124 with rattle protection	189.0	LDD 63 BK
D	13	BEGU, with ventilation, with ROMOLD frame with supporting flange, DIN 19584/EN 124 with rattle protection	189.0	LDD 63 BVK
D	13	Cast Iron, resistant to pressureless surface or rainwater with four locks, with ROMOLD frame with supporting flange, DIN 19584/EN 124	200.0	LDD 63 GDR
D	30	Concrete support ring for commercial covers		BARD 66 VS
		Concrete support ring with radial seal for commercial covers		BARD 66 VSD

* ÖNORM = Austrian Standard

CHAMBER COVERS FOR CHAMBER I PP AND I PE

Class	Height cm	Details	Weight kg	Article name
accessible	3	PE, building site lid for temporarily covering the chamber opening, yellow	5.0	LGH 63 RAL1033
A - D	9	concrete support ring for commercial cover		BARD 67 VS
A - D	20	polymeric support ring for commercial cover		PARD 68 VS
		seal between cone and support ring (optional)	0,55	ES 63

COVER PLATES FOR COMMERCIAL COVERS ND 625 / ND 800

Class	Height cm	Details	Article name
D	21	Cover plate for manhole ND 800 with clear opening LW 625, with seal	BARD 80/63
		Concrete support Ring with radial seal for commercial cover ND 800	BARD 84 VSD
		Cover plate for manhole ND 1000 with clear opening LW 625, with seal	BAPD 100/63
		Cover plate for manhole ND 1000 with clear opening LW 800, with seal	BAPD 100/80

LDB 63 B



Class B 125 without ventilation

LDB 63 BV



Class B 125 with ventilation

LDB 63 BDR



Class B 125 lockable, watertight

LAB 63 G



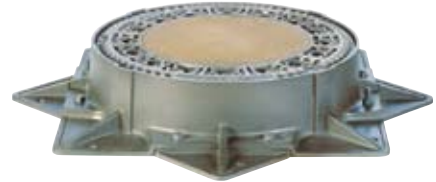
Class B 125 without ventilation according to ÖNORM B 5110

LDD 63 BK



Class D 400 without ventilation, with rattle protection

LDD 63 BVK



Class D 400 with ventilation, with rattle protection

LDD 63 GDR



Class D 400 lockable, watertight

**BARD 66 VS/
BARD 67VS**



Sample photo: Class D concrete support ring

**BARD 66 VSD/
BARD 84 VSD**



Sample photo: Class D concrete support ring with radial seal





EXPLANATION OF ARTICLE DESCRIPTIONS

ABBREVIATIONS AND WHAT THEY MEAN

PRODUCTION METHODS / MATERIAL

I	PE/PP
Injection Moulding	Material

CONE

U	E	100	63	/75	S
Cone	With eccentric access opening	Internal diameter in cm	Clear opening in cm	Height in cm	Equipped with climbing steps

RING

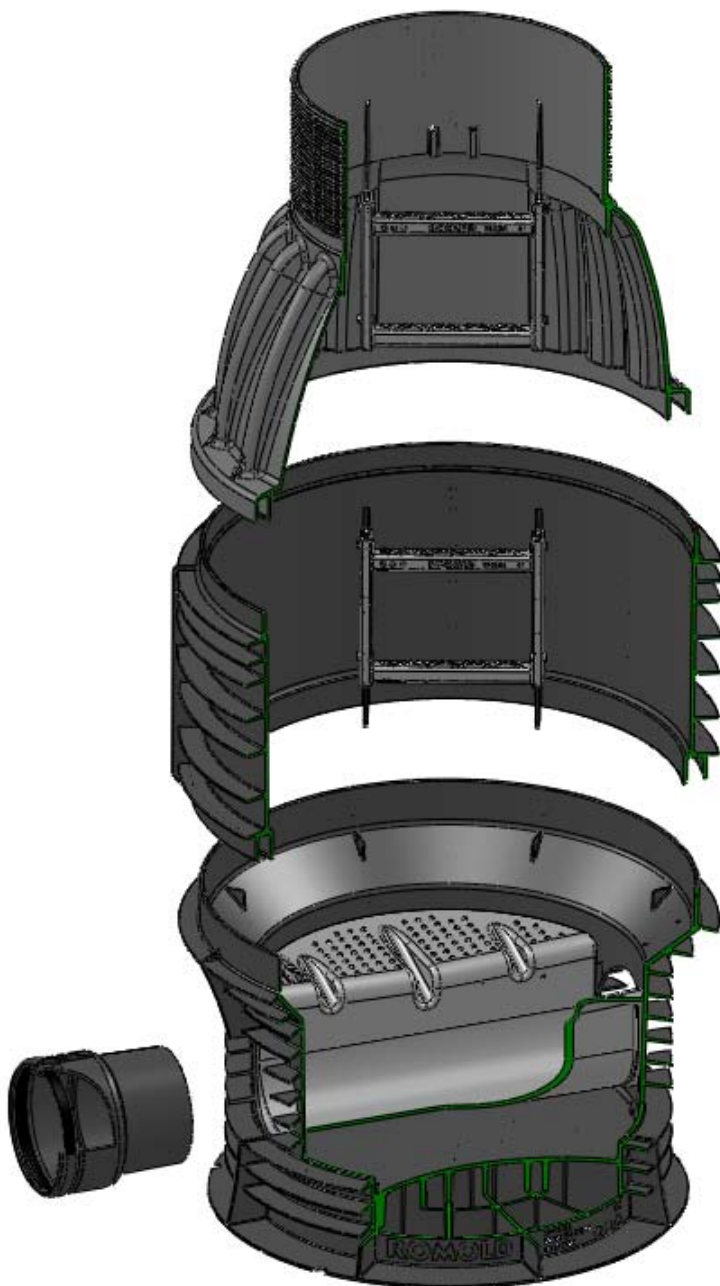
E	100	/50	S
Chamber ring	Internal diameter in cm	Height in cm	Equipped with climbing steps

BASE

2B (L)	100	25	20	/50
Base configuration (L = Version without bed drop)	Internal diameter in cm	Nominal size of channel	Optional reduction of the pipe nominal width (outlet)	Height in cm

INNOVATIONS FOR PUBLIC SEWER LINES

IN PP FOR ALL SOCKET ENDED PIPES AND
IN PE FOR ALL WELDED PIPE CONNECTIONS



- Optimised stability
- Height adjustment to the centimeter
- Injection moulding: Solid wall, 100% virgin material without foam content
- Newly developed steps, BG/GUV-compliant
- Improved rib spacing = more security against uplift retention
- Unique and well-proven triple-safety-seal
- Light grey, anti-slip berm
- Version I PP: Flexible sockets on in- and outlet +/- 7,5°
Version I PE: welded PE spigots



- Hydraulically optimised channel: improved flow characteristic
- Light-coloured inliner
- Flat base



Cone: Height 75 cm incl.
25 cm for height adjustment



Base incl. sockets for
smooth pipes



Elastomer Lip-Seal
„Triple-Safety-Seal“
up to 0.5 bar

Ring: Height 25 cm, 50 cm,
75 cm and 100 cm



MANHOLES ND 1000 PP

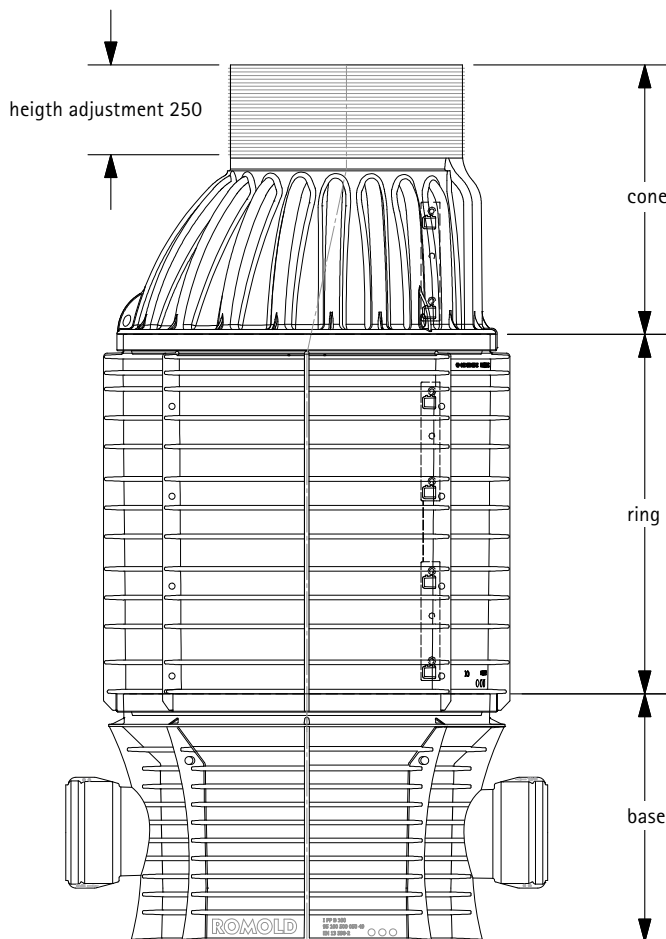
FOR ALL SOCKET ENDED PIPE SYSTEMS



INNOVATION MEETS
QUALITY



TECHNICAL SPECIFICATIONS:



PUBLIC TENDER TEXT EXAMPLE

PP-manhole ND 1000

PP-manhole ND 1000, access ND 625, with 1 inlet, straight channel

Pos. 1: manholes ND 1000, channel ND/OD 160 manholes ND 1000 made of Polypropylene (PP) according to EN 13598-2 and EN 476, 100% virgin material without recycling or foam content, secured against uplift retention up to a ground water level of 5,0 m, solid-walled chamber elements with vertical and horizontal reinforcement ribs on the outside, manhole rings and cones are equipped with integrated, corrosion-resistant steps in light grey, steps are made of glass fibre reinforced PP according to the national safety regulations, triple safety seal (three sided lip-seal / element seal) according to EN 681-1 and EN 1277, manhole base with a deformation-resistant and flat contact area; light-grey, easy-to-inspect channel with a standard gradient of 0,5%, straight manhole channel, inlet and outlet ND/OD 160 with a socket joint for the connection of plastic pipes with a plane outside layer, flexible in every direction, berm 1/1 D, better traction and anti-slip properties due to a profiled berm surface. Load-distribution ring made of reinforced concrete C50/60 with shifting prevention to take up a commercial cover with a clear opening of 625 mm, class D 400 according to EN 14802.



For latest information on this topic, visit www.romold.de, menu products, submenu supply-/dischargesystems, chambers ND 1000

MANHOLE CONE ND 1000



FOR CHAMBER
COVERS
SEE PAGE 18

Heigh cm	ND	Details	Article name
50-75	ND1000/ ND 625	Eccentric, with corrosion-resistant steps in light-grey	I PP UE 100.63/75 S

MANHOLE RING ND 1000



Height cm	ND	Details	Article name
100	ND 1000	With corrosion-resistant steps in light grey	I PP E 100/100 S
75			I PP E 100/75 S
50			I PP E 100/50 S
25			I PP E 100/25 S

MANHOLE BASE ND 1000



STRAIGHT CHANNEL

Channel ND/OD	Height cm	Channel	Details	Article name
160	50		Socket joint on in-and outlet for a flexible connection +/- 7,5° of smooth plastic pipes	I PP 1 B 100.15/50
200	50			I PP 1 B 100.20/50
250	50			I PP 1 B 100.25/50
315	50			I PP 1 B 100.30/50
400	50			I PP 1 B 100.40/50

MANHOLE BASE ND 1000




STRAIGHT CHANNEL WITH ADDITIONAL INLET

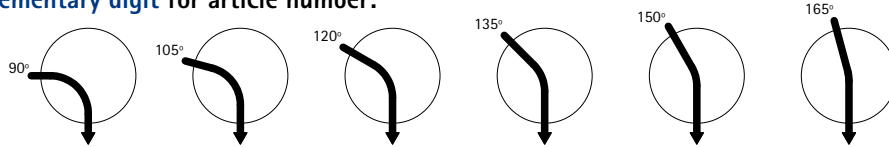
Channel ND/OD	Height cm	Channel	Details	Article name
160	50		Socket joint on in- and outlet for a flexible connection (+/- 7,5°) of smooth plastic pipes, without bed drop, inlets at 90°, 180° respectively 180°, 270°	I PP 2 BL 100.15/50-90°
200	50			I PP 2 BL 100.20/50-90°
250	50			I PP 2 BL 100.25/50-90°
315	50			I PP 2 BL 100.30/50-90°
160	50		Socket joint on in- and outlet for a flexible connection (+/- 7,5°) of smooth plastic pipes without a bed drop, inlets at 90° and 270°	I PP 2 BL 100.15/50-270°
200	50			I PP 2 BL 100.20/50-270°
250	50			I PP 2 BL 100.25/50-270°
315	50			I PP 2 BL 100.30/50-270°
200	50		Socket joint on in- and outlet for a flexible connection (+/- 7,5°) of smooth plastic pipes with a bed drop of 2 cm, inlets at 120° and 240° or at the inlets 90° and 270°	I PP 2 BT 100.20/50
250	50			I PP 2 BT 100.25/50
315	50			I PP 2 BT 100.30/50
200	50		Socket joint on in- and outlet for a flexible connection (+/- 7,5°) of smooth plastic pipes with a bed drop of 2 cm, inlets at 120° and 240° or at the inlets 90° and 270°	I PP 3 BL 100.20/50-60° or 90°
250	50			I PP 3 BL 100.25/50
315	50			I PP 3 BL 100.30/50-60° or 90°



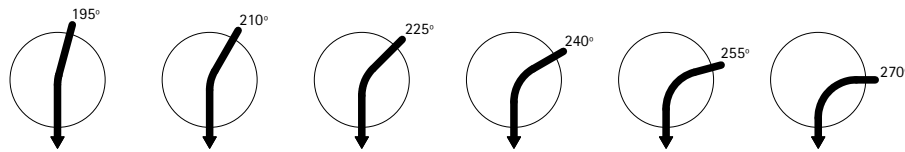
MANHOLE BASE ND 1000  **BENDED CHANNEL**

Channel ND/OD	Height cm	Channel	Details	Article name
160	50		Socket joint on in-and outlet for a flexible connection +/- 7,5° of smooth plastic pipes bended right or left, channel: industrial produced, seam-less and bended (not segmented)	I PP 1 BB 100.15/50-●
200	50			I PP 1 BB 100.20/50-●
250	50			I PP 1 BB 100.25/50-●
315	50			I PP 1 BB 100.30/50-●
400	50			I PP 1 BB 100.40/50-●

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ELEMENT SEAL



Details	Article name
Triple-Safety-Seal according to EN 681-1 and EN 1277. For connecting ND 1000 manhole components.	ES 100

ACCESSOIRES

Details	Article name
ROMOLD elastomer lip seal ND 150 / d = 160 mm, for the connection of smooth plastic pipes for drop structures, material: SBR	I SR 160
ROMOLD elastomer lip seal ND 200 / d = 200 mm, for the connection of smooth plastic pipes for drop surfaces, material: SBR	I SR 200
ROMOLD cup saw ND/OD 160 (188) mm, for inlet pipe seal ISR 160 / ND 150, incl. saw for adapter CSA2	I CS 160
ROMOLD cup saw ND/OD 200 (228) mm, for inlet pipe seal ISR 200 / ND 200, incl. saw for adapter CSA2	I CS 200

CUSTOMER-SPECIFIC REQUIREMENTS

Details
Additional inlets, spigots, etc.



Cone: Height 75 cm incl. height adjustment of 25 cm



Base, with PE spigot



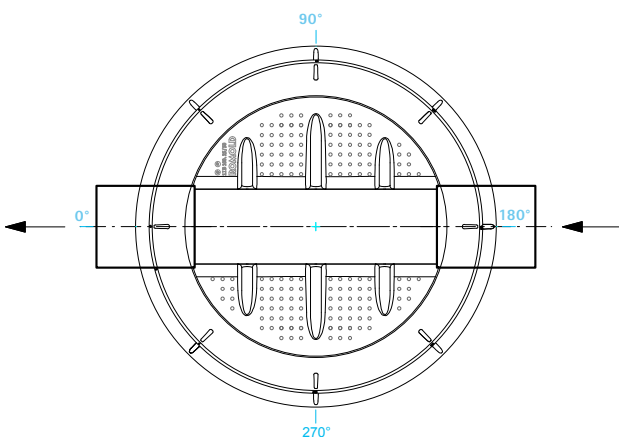
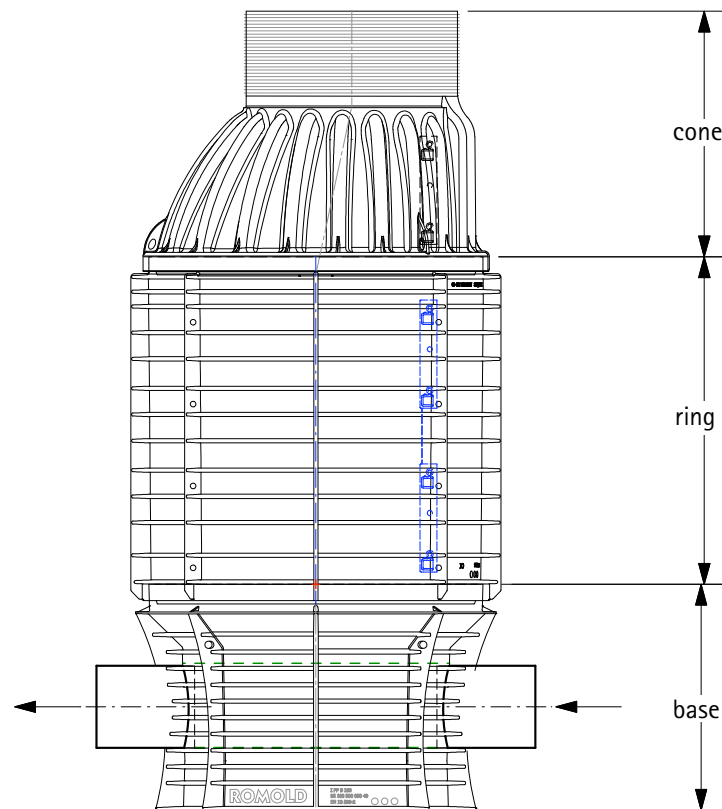
Ring: Height 25 cm, 50 cm, 75 cm and 100 cm



Elastomer lip seal, Triple-Safety -Seal, up to 0,5 bar

MANHOLES ND 1000

WELDED PIPE SYSTEMS



PUBLIC TENDER TEXT EXAMPLE

PE-manhole ND 1000

PE-manhole ND 1000, access ND 625, with 1 inlet: straight channel

Pos. 1: manhole ND 1000 – with PE inlet and outlet spigot up to Da 450mm, manhole ND 1000 according to DIN EN 13598-2 and DIN EN 476, 100% virgin material without recycling or foam content, secured against up-lift retention up to a ground water level of 5,0 m, solid-walled manhole elements with vertical and horizontal reinforcement ribs on the out-side, manhole rings and cones are equipped with integrated, corrosion resistant steps in light grey steps, according to the national safety regulations, triple safety seal (threesided lip-seal / element seal) according to EN 681-1 and EN 1277, manhole base with a deformation-resistant and flat contact area; light-grey, easy-to-inspect channel with a standard gradient of 0,5%, straight manhole channel, inlet and outlet, with a PE spigot for the connection of PE-pipes with electrofusion socket, berm 1/1 D, better traction and anti-slip properties due to a profiled berm surface. Load-distribution ring made of reinforced con-crete C50/60 with shifting prevention to take up a commercial cover with a clear opening of 625 mm, class D 400 according to EN 14802.



For latest information on this topic, visit www.romold.de, menu products, submenu supply-/dischargesystems, chambers ND 1000



**FOR CHAMBER
COVERS
SEE PAGE 18**

MANHOLE CONE ND 1000



Height cm	ND	Details	Article name
50-75	ND1000/ ND 625	Eccentric, with corrosion-resistant steps in light-grey	I PE UE 100.63/75 S

MANHOLE RING ND 1000



Height cm	ND	Details	Article name
100	ND 1000	with corrosion-resistant steps in light-grey	I PE E 100/100 S
75			I PE E 100/75 S
50			I PE E 100/50 S
25			I PE E 100/25 S

MANHOLE BASE ND 1000



STRAIGHT CHANNEL

Main channel	Height cm	Channel	Details	Article name
OD 160/180	50		PE spigot on in- and outlet for the connection of PE-pipes with electrofusion sockets	I PE 1 B 100.15/50
OD 200/225	50			I PE 1 B 100.20/50
OD 250/280	50			I PE 1 B 100.25/50
OD 315/355	50			I PE 1 B 100.30/50
OD 400/450	50			I PE 1 B 100.40/50

MANHOLE BOTTOM ND 1000



STRAIGHT CHANNEL WITH INLET

Main channel	Height cm	Additional inlets	Details	Article name
OD 160/180	50		PE spigot on in-and outlet for the connection of PE-pipes with electrofusion sockets, without bed drop, inlets 90°, 180° bzw. 180°, 270°	I PE 2 BL 100.15/50-90°
OD 200/225	50			I PE 2 BL 100.20/50-90°
OD 250/280	50			I PE 2 BL 100.25/50-90°
OD 315/355	50			I PE 2 BL 100.30/50-90°
OD 160/180	50		PE spigot on in-and outlet for the connection of PE-pipes with electrofusion sockets, without bed drop, inlets 90°, 180° bzw. 180°, 270°	I PE 2 BL 100.15/50-270°
OD 200/225	50			I PE 2 BL 100.20/50-270°
OD 250/280	50			I PE 2 BL 100.25/50-270°
OD 315/355	50			I PE 2 BL 100.30/50-270°
OD 200/225	50		PE spigot on in-and outlet for the connection of PE-pipes with electrofusion sockets, without bed drop, inlets 90°, 270°	I PE 2 BT 100.20/50-90°
OD 250/280	50			I PE 2 BT 100.25/50-90°
OD 315/355	50			I PE 2 BT 100.30/50-90°
OD 200/225	50		PE spigot on in-and outlet for the connection of PE-pipes with electrofusion sockets, 2 cm bed drop at the inlets 120° and 240° or at the inlets 90° and 270°	I PE 3 BL 100.20/50-60° or. 90°
OD 250/280	50			I PE 3 BL 100.25/50-60°
OD 315/355	50			I PE 3 BL 100.30/50-60° or. 90°



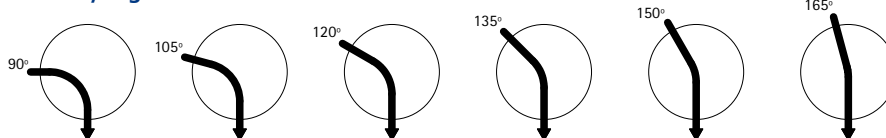
MANHOLE BASE ND 1000



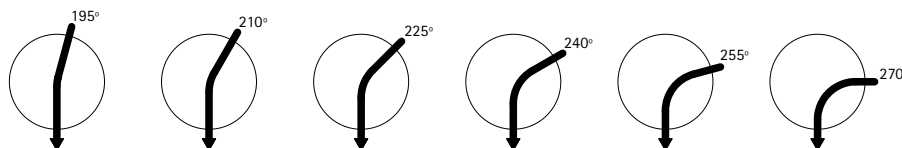
BENDED CHANNEL

Main channel	Height cm	Channel	Details	Article name
OD 160/180	50		PE spigot on in- and outlet for the connection of PE-pipes bended right or left channel: industrial produced, seamless and bended (not segmented)	I PE 1 BB 100.15/50-●
OD 200/225	50			I PE 1 BB 100.20/50-●
OD 250/280	50			I PE 1 BB 100.25/50-●
OD 315/355	50			I PE 1 BB 100.30/50-●
OD 400/450	50			I PE 1 BB 100.40/50-●

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ELEMENT SEAL




Details	Article name
Triple Safety Seal ND 1000 according to EN 681-1 and EN 1277. For connecting ND 1000 manhole components.	ES 100

ACCESSOIRES

Details	Article name
ROMOLD elastomer lip seal ND 150 / d = 160 mm, for the connection of smooth plastic pipes for drop structures, material: SBR	I SR 160
ROMOLD elastomer lip seal ND 200 / d = 200 mm, for the connection of smooth plastic pipes for drop surfaces, material: SBR	I SR 200
ROMOLD cup saw ND/OD 160 (188) mm, for inlet pipe seal ISR 160 / ND 150, incl. saw for adapter CSA2	I CS 160
ROMOLD cup saw ND/OD 200 (228) mm, for inlet pipe seal ISR 200 / ND 200, incl. saw for adapter CSA2	I CS 200


MANHOLE BASE ND 1000

STRAIGHT CHANNEL

Main channel	Height cm	Channel	Details	Weight kg	Article name
500	80		Inlet and outlet spigot, ND/OD 500	53,0	1 B 100.50/80 BIR


MANHOLE BASE ND 1000

BENDED CHANNEL

Main channel	Height cm	Channel	Details	Weight kg	Article name
500	80		In- and outlet spigot, ND/OD 500, bended to 54°, right or left, channel: industrial produced, seamless bended (not segmented) bottom, with tree-point support	53,6	1 BB 100.50/80-XXX° XXX corresponds to desired angle!

MANHOLE BASE ND 1000

WITHOUT CHANNEL

Height cm	Base design	Details	Weight kg	Article name
115		Flat bottom with climbing steps	72,5	F 100/115 SBS
165			95,5	F 100/165 SBS
115		Flat bottom with climbing steps incl. eccentric cone	62,0	FCE 100.63/115 SBS
140			75,5	FCE 100.63/140 SBS
165			88,5	FCE 100.63/165 SBS

ELEMENT SEAL



Details	Weight kg	Article name
Triple-Safety-Seal ND 1000 according to EN 681-1 and EN 1277. For connecting ND 1000 manhole components.	1,4	ES 100

CUSTOMER-SPECIFIC REQUIREMENTS

Details
Additional inlets, spigots, etc.

NEW!
OPTIONALLY
WITH SOCKETS



System chamber base



Chamber cones



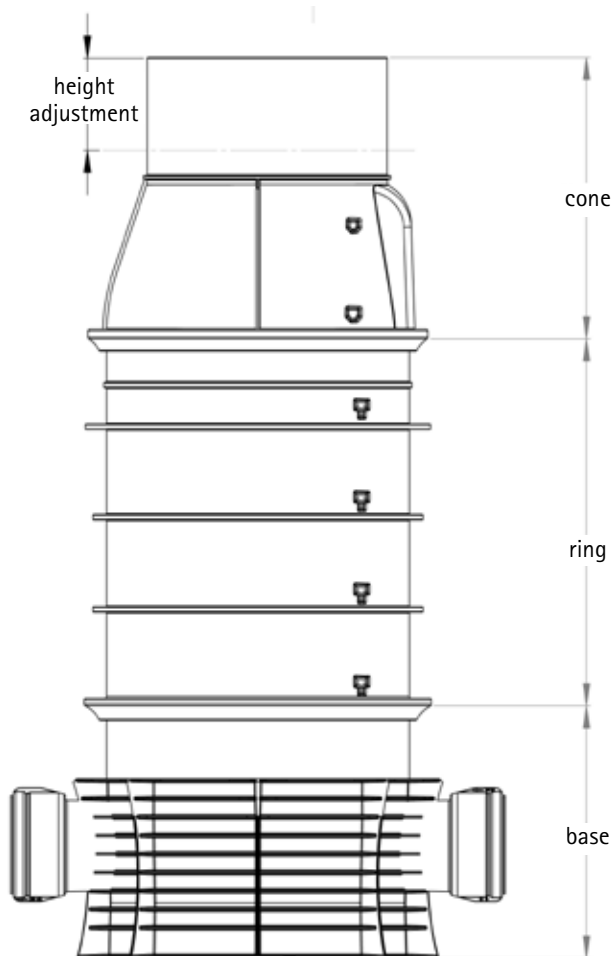
Chamber rings



Elastomer lip seal
„Triple-Safety-Seal“

MANHOLES ND 800

FOR SOCKET ENDED AND WELDED PIPES



PUBLIC TENDER TEXT EXAMPLE

manholes ND 800 with access ND 625,

1 inlet, angled: Access manholes ND 800 – with PE inlet and outlets made of polyethylene (PE) according to DIN EN 13598-2 and DIN EN 476, made with 100% virgin material without recycled parts, homogeneous and without foaming agents, anti-lift design, solid-walled finished parts with exterior ribs, manhole rings and eccentric cone with integrated, light-colored, corrosion-resistant climbing steps, in accordance with national safety regulations, triple safety seal (3-sided lip seal) in compliance with EN 681-1 and EN 1277 as element seal, manhole base with non-deforming, flat support surface, light-colored, inspection-friendly channel with standard inclination 0,5%, bends from 90° to 270° in increments of 15° as curved channel (not segmented), at specified angle welded PE spigot at inlet and outlet for connection of PE pipes with electrofusion sockets, berm height 1/1 D, light-colored, structured, anti-slip, berm surface.



Chamber-in-Chamber Reconstruction. During a chamber-in-chamber reconstruction a new ROMOLD chamber made of plastic material replaces the old one. Needless to say ROMOLD chambers have an easy-to-inspect channel in light grey. The clue is: you can keep the concrete chamber in the soil as an additional casing.

FOR CHAMBER COVERS
SEE PAGE 18

MANHOLE CONE ND 800

Height cm	ND	Details	Weight kg	Article name
50 – 75	ND 800/ ND 625	Eccentric, with climbing steps	23.0	UE 80.63/75 FIB S
75 – 100			30.0	UE 80.63/100 FIB S
100 – 125			37.5	UE 80.63/125 FIB S
125 – 150			43.0	UE 80.63/150 FIB S
30 – 40		Centric, without climbing steps	15.0	U 80.63/40
30 – 60			19.0	U 80.63/60

MANHOLE RING ND 800

Height cm	ND	Details	Weight kg	Article name
50	800	With climbing steps	20.0	E 80/50 FIB S
100			34.0	E 80/100 FIB S

MANHOLE BASE ND 800 FOR HOUSE-CONTROL-CHAMBER

STRAIGHT CHANNEL

Main channel	Height cm	Additional inlets	Details	Weight kg	Article name
160	60	-	straight inlet with elastomer lip seal for the connection of inlet pipe, bottom part with three-point support	24,5	1 B 80.15/60 BID
160	60	2 x 160	same as 1 B 2 additional inlets, ND/OD 160, 45° left and right, bed drop +5 cm	24,5	3 B 80.15/60 BID
160	60	4 x 160	same as 1 B 4 additional inlets, ND/OD 160, 45° and 90° left and right, bed drop +1/2 D	26,5	5 B 80.15/60 BID



MANHOLE BASE ND 800

STRAIGHT CHANNEL

Main channel	Height cm	Channel	Details	Article name
OD 160/180	50		Inlet and outlet designed as PE spigot for connection of PE pipe with electrofusion socket or smooth pipe using a double socket	I PE 1 B 80.15/50
OD 200/225	50			I PE 1 B 80.20/50
OD 250/280	50			I PE 1 B 80.25/50
OD 315/355	50			I PE 1 B 80.30/50

MANHOLE BOTTOM ND 800

STRAIGHT CHANNEL WITH ADDITIONAL INLETS

Main channel	Height cm	Channel	Details	Article name
OD 160/180	50		Inlets and outlet designed as PE spigot for connection of PE pipe with electrofusion socket or smooth pipe using a double socket, without bed drop, Inlets at 90°, 180° or 180°, 270°	I PE 2 BL 80.15/50-90°
OD 200/225	50			I PE 2 BL 80.20/50-90°
OD 250/280	50			I PE 2 BL 80.25/50-90°
OD 315/355	50			I PE 2 BL 80.30/50-90°
OD 160/180	50		Inlets and outlet designed as PE spigot for connection of PE pipe with electrofusion socket or smooth pipe using a double socket without bed drop, Inlets 90°, 270°	I PE 2 BL 80.15/50-270°
OD 200/225	50			I PE 2 BL 80.20/50-270°
OD 250/280	50			I PE 2 BL 80.25/50-270°
OD 315/355	50			I PE 2 BL 80.30/50-270°
OD 200/225	50		Inlets and outlet designed as PE spigot for connection of PE pipe with electrofusion socket or smooth pipe using a double socket without bed drop, Inlets 90°, 270°	I PE 2 BT 80.20/50
OD 250/280	50			I PE 2 BT 80.25/50
OD 315/355	50			I PE 2 BT 80.30/50
OD 200/225	50		Inlets and outlet designed as PE spigot for connection of PE pipe with electrofusion socket or smooth pipe using a double socket, 2cm bed drop at Inlets 120° and 240° or at the inlets 90° and 270°	I PE 3 BL 80.20/50-60° od. 90°
OD 250/280	50			I PE 3 BL 80.25/50
OD 315/355	50			I PE 3 BL 80.30/50-60° od. 90°

5 B



Channel straight with 4 additional inlets 45° and 90° right and left

F



Channel bottom without channel with sump

MANHOLE BASE ND 800

BENDED MAIN CHANNEL

Main channel	Height cm	Channel	Details	Article name
OD 160/180	50		Inlet and outlet designed as PE spigot for connection of PE pipe with electrofusion socket or smooth pipe using a double socket bended right or left channel: industrial produced, seamless and bended (not segmented)	I PE 1 BB 80.15/50 - ●
OD 200/225	50			I PE 1 BB 80.20/50-●
OD 250/280	50			I PE 1 BB 80.25/50-●
OD 315/355	50			I PE 1 BB 80.30/50-●

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MANHOLE BASE ND 800

WITHOUT CHANNEL

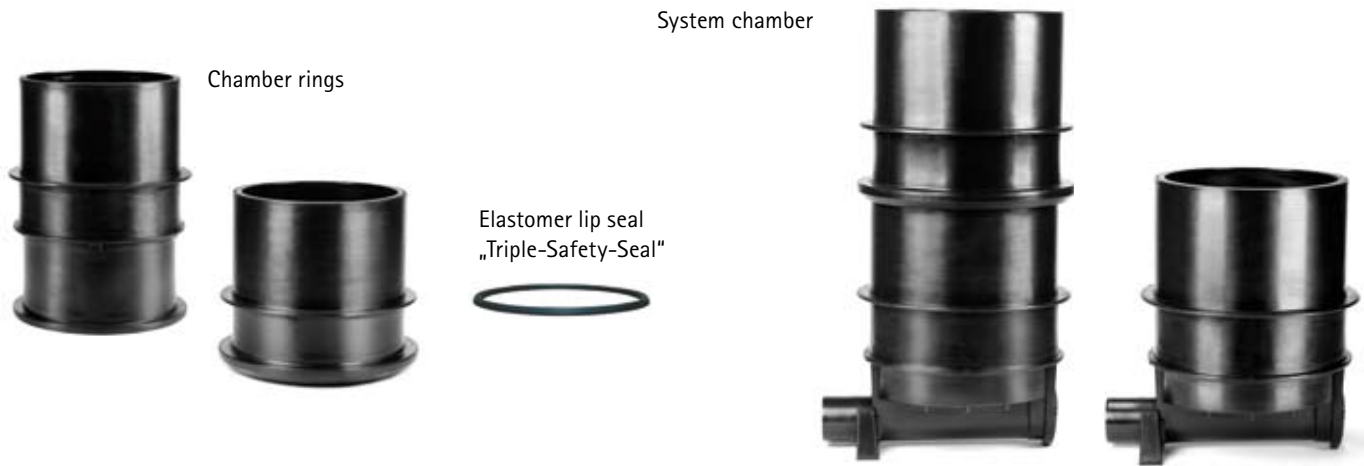
Height cm	Details	Weight kg	Article name
65	Flat bottom with climbing steps	34,0	F 80/65 FIB SBS
115	Flat bottom manhole with climbing steps (Combi-manhole)	41,5	FC 80.63/115 FIB SBS

ELEMENT SEAL

Details	Weight kg	Article name
Triple Safety Seal according to EN 681-1 and EN 1277. For connecting ND 800 manhole components.	1,10	ES 80

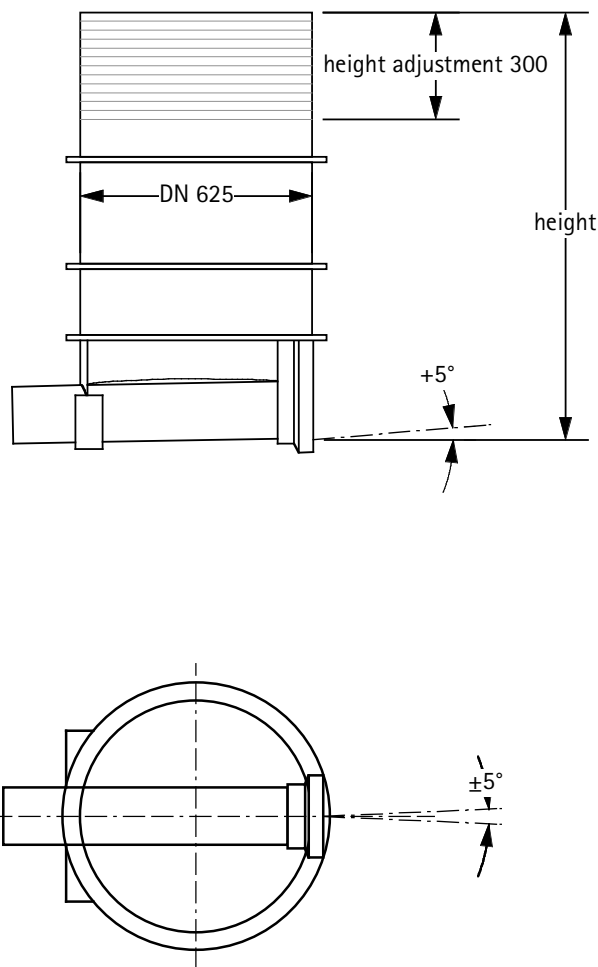
CUSTOMER-SPECIFIC REQUIREMENTS

Details
Additional inlets, spigots, etc.



CHAMBERS ND 625

WITH AND WITHOUT CHANNELS



PUBLIC TENDER TEXT EXAMPLE

PE-Chamber ND 625 – straight channel

ND/Da 160: PE-Chamber ND 625, 100% virgin material without recycling content (ultimate elongation respectively elongation at tear $\geq 200\%$), monolithic construction, straight channel, straight inlet ND/OD 160 with elastomer seal for a flexible connection of pipes according to EN 681-1 and EN 1277, berm 1/1 D, outlet spigot ND/OD 160, horizontal reinforcement rings to secure uplift retention, Triple-Safety-Seal according to EN 681-1 and EN 1277, valid „Allgemeine Bauaufsichtliche Zulassung“ issued by DIBT or another national certificate issued by a recognised institute and valid Certificate of Conformity. Type ROMOLD, or equal.



For latest information on this topic, visit www.romold.de, menu products, submenu supply-/dischargesystems, chambers ND 625

FOR CHAMBER
COVERS
SEE PAGE 18

CHAMBER RING ND 625

Height cm	ND	Details	Weight kg	Article name
10-40	625	without climbing steps	10,0	E 63/40.8
10-40			10,5	E 63/40.10
30-60			12,5	E 63/60.8
60-90			17,5	E 63/90.8

CHAMBER BASE ND 625

STRAIGHT CHANNEL

Main channel	Height cm	Additional inlets	Details	Weight kg	Article name
160	60 – 90	-	straight inlet with elastometer lip seal for connection of inlet pipe, bottom part with three-point support	18,0	1 B 63.15/90 BID
	90 – 120			24,5	1 B 63.15/120 BID
	120 – 150			31,0	1 B 63.15/150 BID
	150 – 180			37,5	1 B 63.15/180 BID
	180 – 210			44,0	1 B 63.15/210 BID
200/250	60 – 90	-	Inlet and outlet connection optional reduced, bottom part with three-point support	21,5	1 B 63.25.20/90 BI
	90 – 120			28,0	1 B 63.25.20/120 BI
315	60 – 90	-	bottom part with three-point support	21,0	1 B 63.30/90 BI
	90 – 120			28,0	1 B 63.30/120 BI
200/250	60 – 90	2 x 200/160	same as 1 B 2 additional inlets, ND /Da 200/160, 45° left and right, bed drop +1/2 D cm	22,5	3 B 63.25.20/90 BI
	90 – 120			29,0	3 B 63.25.20/120 BI
160	60 – 90	4 x 160	same as 1 B 4 additional inlets, ND /OD 160, 45° and 90° left and right, bed drop +1/2 D cm	20,5	5 B 63.15/90 BID
	90 – 120			25,5	5 B 63.15/120 BID
	120 – 150			31,5	5 B 63.15/150 BID
	150 – 180			38,5	5 B 63.15/180 BID
	180 – 210			46,0	5 B 63.15/210 BID
160/200	75	1 x 200	Inlet and outlet connection optional reduced, 1 additional inlet, ND /OD 200, 90° left or right, without bed drop, bottom part with integrated stand support	17,8	2 BL 63.20.15/75-90° BI
160/200	75	1 x 200	Inlet and outlet connection optional reduced, 2 additional inlets, ND /OD 200, 90° left and right, without bed drop, bottom part with integrated stand support	17,8	2 BL 63.20.15/75-270° BI
160/200	35 – 75	2 x 200	Inlet and outlet connection optional reduced, 2 additional inlets, ND /OD 200, 90° left and right, without bed drop, bottom part with integrated stand support	18,9	3 BL 63.20.15/75 BI

1 B

Channel straight

3 B

Channel straight with 2 additional inlets 45° right and left

5 B

Channel straight with 4 additional inlets 45° and 90° right and left

CHAMBER BASE ND 625**BENDED MAIN CHANNEL**

Main channel	Height cm	Additional inlets	Details	Weight kg	Article name
160/200	75	-	Inlet and outlet connection optional reduced, channel curved ND /OD 200, 30° right and left, integrated stand support, berm 2/3 D	17,0	1 BB 63.20.15/75-150° BI
160/200	75	-		17,0	1 BB 63.20.15/75-210° BI

CHAMBER BASE ND 625**WITHOUT CHANNEL**

Height cm	Details	Weight kg	Article name
60 – 90	Flat base, for installation of inspection fittings, valves etc.	19,0	F 63/90 BS
90 – 120		25,5	F 63/120 BS

ELEMENT SEAL

Details	Weight kg	Article name
An ES 63 element seal is required for connecting ND 625 chamber elements.	0,65	ES 63

ACCESSORIES

Additional inlets, pipe connections for welded pipelines and element welds by request.

F



Chamber bottom without channel

2 BL



Straight channel with 1 additional inlet, 90° right or left, without bed drop

3 B(L)



Straight channel with 2 additional inlets, 90° right and left, without bed drop

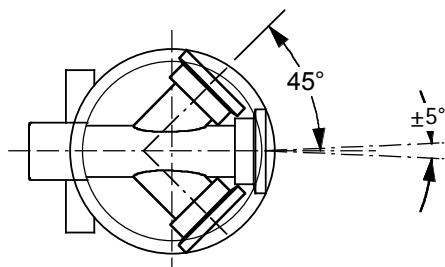
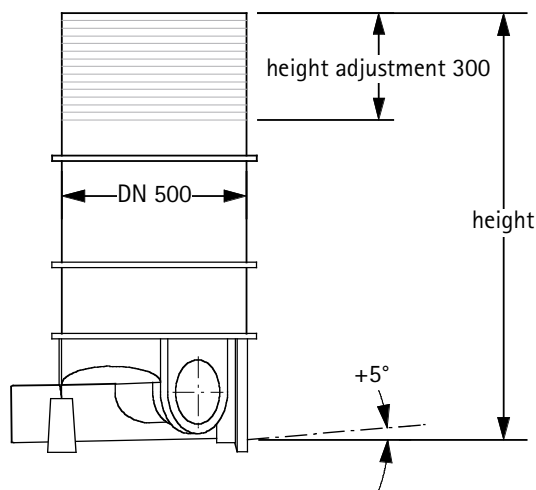


ROMOLD chambers ND 500 and ND 625



CHAMBERS ND 500

WITH AND WITHOUT CHANNELS



PUBLIC TENDER TEXT EXAMPLE

PE-Chamber ND 500 – straight channel

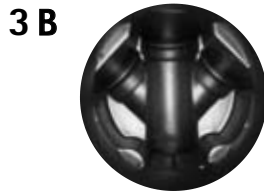
ND/Da 160: PE-Chamber ND 500, 100% virgin material without recycling content (ultimate elongation respectively elongation at tear $\geq 200\%$), monolithic construction, straight channel, straight inlet ND/OD 160 with elastomer seal for a flexible connection of pipes according to EN 681-1 and EN 1277, berm 1/1 D, outlet spigot ND/OD 160, horizontal reinforcement rings to secure uplift retention, Triple-Safety-Seal according to EN 681-1 and EN 1277, valid „Allgemeine Bauaufsichtliche Zulassung“ issued by DIBT or another national certificate issued by a recognised institute and valid Certificate of Conformity. Type ROMOLD, or equal.



For latest information on this topic, visit www.romold.de, menu products, submenu supply-/dischargesystems, chambers ND 500



Channel straight



Channel straight with 2 additional inlets 45° right and left



Chamber bottom without channel

CHAMBER COVERS
ON PAGE 18

CHAMBER RING ND 500

Height cm	ND mm	Details	Weight kg	Article name
10-40	500	without climbing steps	7.0	E 50/40
30-60			10.5	E 50/60
60-90			15.0	E 50/90

CHAMBER BASE ND 500

STRAIGHT CHANNEL

Main channel ND/Da	Height cm	Additional inlets ND/Da	Details	Weight kg	Article name
200/250	60 - 90	-	Inlet and outlet optional reduced, bottom part with three poin support	18.0	1 B 50.25.20/90 BID
	90 - 120			22.0	1 B 50.25.20/120 BID
160	60 - 90	2 x 160	straight inlet with elastomer lip seal for connection of inlet pipe, 2 additional inlets DN/OD 160, 45° left and right, bed drop 1/2 D cm	16.5	3 B 50.15/90 BID
	90 - 120			20.5	3 B 50.15/120 BID
	120 - 150			24.5	3 B 50.15/150 BID
	150 - 180			29.0	3 B 50.15/180 BID
	180 - 210			33.0	3 B 50.15/210 BID

CHAMBER BOTTOM ND 500

WITHOUT CHANNEL

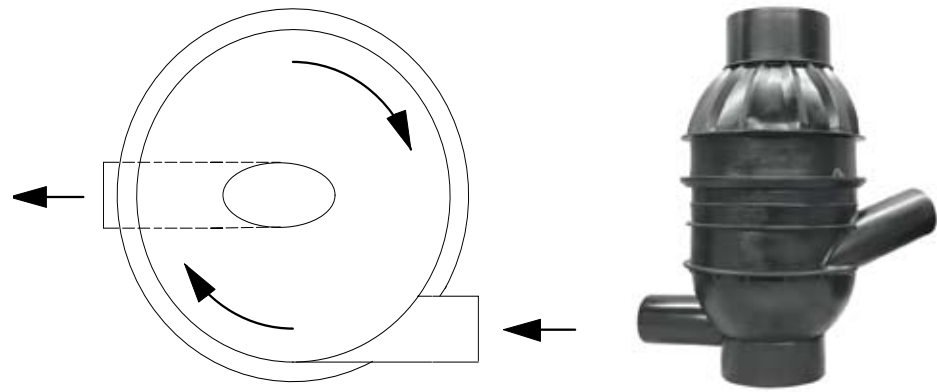
Height cm	Details	Weight kg	Article name
60-90	Flat base, for installation of inspection fittings, valves etc.	18.0	F 50/90 BS
90-120		22.0	F 50/120 BS

ELEMENT SEAL

Details	Weight kg	Article name
An ES 50 element seal is required for connecting ND 500 chamber elements.	0.45	ES 50

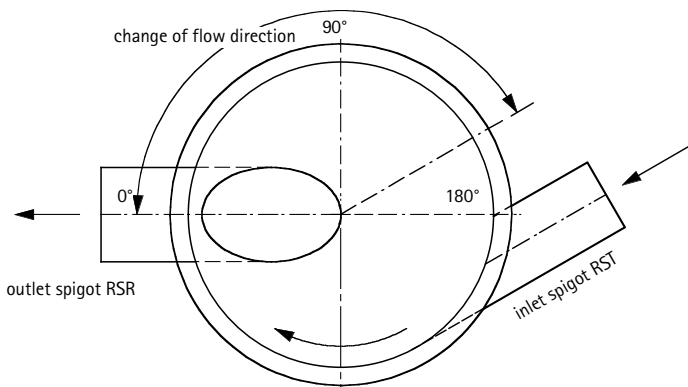
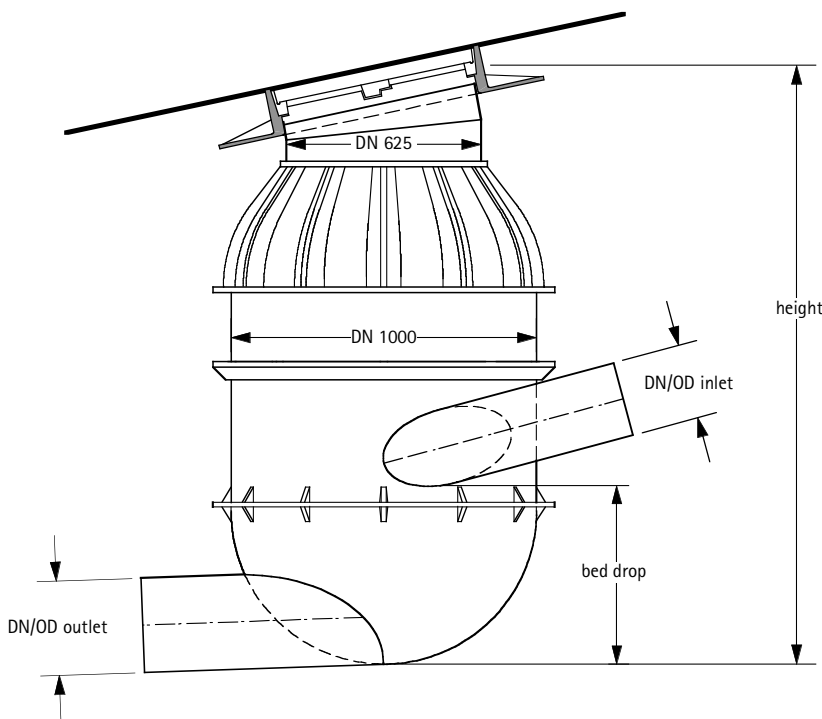
ACCESSORIES

Additional inlets, pipe connections for welded pipelines and element welds by request




ENERGY COMPENSATING CHAMBERS

SELF-CLEANING SPHERICAL BASES




WHAT YOU NEED TO KNOW ABOUT ENERGY COMPENSATING CHAMBERS

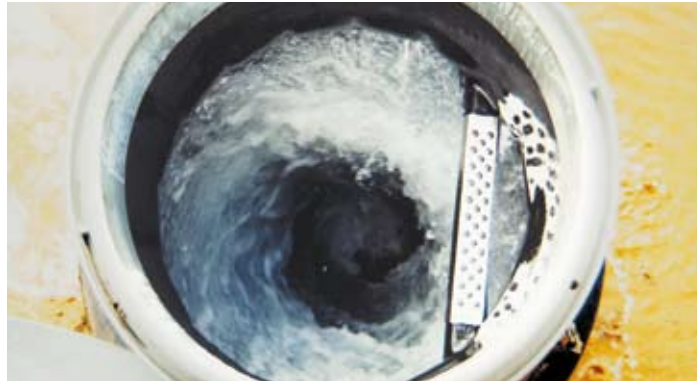
In strongly inclined areas (e.g. mountain drainage) the standard pipeline gradient results in very deep pipe trenches with short chamber intervals. The construction costs are usually uneconomical. Using pipelines that are installed parallel to the surface, mainly made of PE, is a better alternative. The high rates of flow occurring are reduced in energy compensating chambers that are placed about 100 to 200 meters apart. Applying above mentioned performance it is possible to apply shallow chambers and to downscale the diameters (also see pg. 43 for considerable reduction of number of chamber). Actuated by welded PE-pipework, this results in a flexible, leak-tight sewer pipe system.

 For latest information on this topic, visit www.romold.de, menu products, submenu supply-/dischargesystems, energy compensating chambers

PUBLIC TENDER TEXT EXAMPLE

PE-Energy compensating chamber ND 1000:

PE-Energy compensating chamber ND 1000, 100% virgin material without recycling content (ultimate elongation respectively elongation at tear $\geq 200\%$), round bottom chamber, tangential inlet on the chamber wall and centric outlet on 



FOR CHAMBER
COVERS
SEE PAGE 18

ROUND BOTTOM ND 625, ND 800, ND 1000


Height cm	ND mm	Details	Weight kg	Article name
90	625	Without channel, integrated outlet spigot ND/OD 200/160	17.5	RBS 63.20.15/90
90	625	Without channel, maximum pipe diameter ND 200	17.0	RB 63/90
65	800	Without channel, maximum pipe diameter ND 300	18.5	RB 80/65 BS neu
80			21.0	RB 80/80 BS neu
70	1000	Without channel, maximum pipe diameter ND 600	33.5	RB 100/70 BS neu
100			42.0	RB 100/100 BS neu

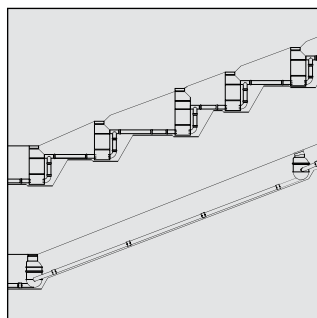
Further chamber assemblies with element seals, rings, and cones (see ND 1000 page 28 ff. ND 800 page 32 ff. and ND 625 page 36 ff).

ACCESSORIES

Details	Article name
Chamber opening with gradient (max. 25°) for adapting to area	US 63
Inliner from high molecular PE for ND 1000 (Consult ROMOLD about the necessity of using this plate).	PP 200/100/2 PE
Seal for ventilation line, adapter for other piping materials	see pg. 56
Tangential pipe connection at the inlet (RST) or outlet spigot (RSR) for energy compensating chamber available as option	
Additional inlets and element welds upon request.	

← the round bottom, cone ID 625 (without steps), horizontal reinforcement rings to secure uplift retention, Triple-Safety-Seal according to EN 681-1 and EN 1277, with valid technical approval „Allgemeine Bauaufsichtliche Zulassung“ issued by DIBT or another national certificate issued by a recognised institute and valid Certificate of Conformity. Type ROMOLD or equal.

 For latest information on this topic, visit www.romold.de, menu service



Saving potential thanks to use of ROMOLD energy compensating chambers.

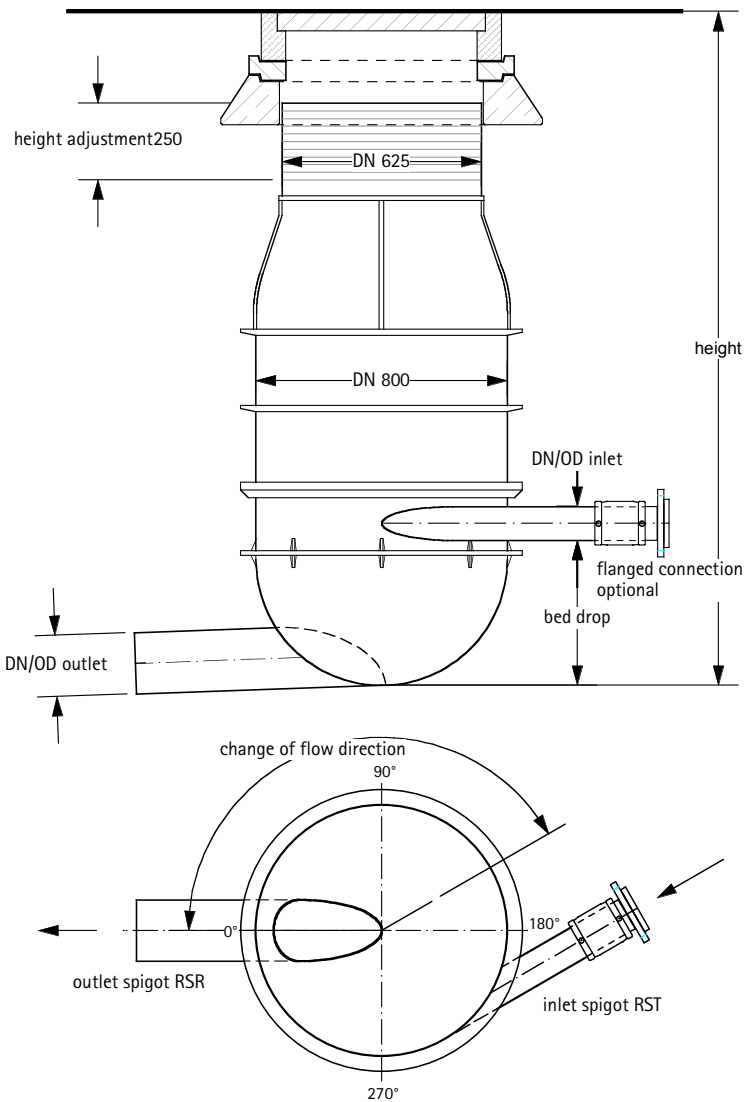


Round base for welding of PE-pipe connections as energy compensating or pressure line end chamber.



PRESSURE PIPE END CHAMBERS

NO STANDING WATER IN CHAMBER



WHAT YOU NEED TO KNOW

Pressure pipe end chambers are normally planned with a base with rising channel, so as to ensure less turbulence and reduce the H_2S corrosion of the concrete chambers. PE is absolutely chemically resistant to H_2S and thus allows for other solutions. The pressure pipe is connected tangentially and higher than the outlet at the chamber. A strong turbulence is effected by the changed positioning of the inlets and outlets and thus assisting the outgassing of H_2S in the pressure pipe end sump. A reduction of H_2S load and thus a decrease in the unpleasant odor and concrete corrosion further in the sewer line are the positive results. In addition to that, the swirling in the chamber results in enriching the waste water with oxygen. If necessary, the H_2S loaded waste air may be purified using ROMOLD *Activ*-filters (see pg. 57).



For latest information on this topic, visit www.romold.de, menu products, submenu supply-/dischargesystems, pressure pipe end chambers



Pressure pipe end chamber with tangential inlet and two outlets

RB



Round bottom, for welding of PE pipe connection, as pressure pipe end chamber

ROUND BOTTOM ND 625, ND 800, ND 1000

FOR CHAMBER COVERS
SEE PAGE 18

Height cm	ND mm	Details	Weight kg	Article name
90	625	Without channel, integrated outlet spigot ND 200/ND 150	17.5	RBS 63.20.15/90
90	625	Without channel, maximum pipe diameter ND 200	17.0	RB 63/90
65	800	Without channel, maximum pipe diameter ND 300	18.5	RB 80/65 BS neu
80			21.0	RB 80/80 BS neu
70	1000	Without channel, maximum pipe diameter ND 600	33.5	RB 100/70 BS neu
100			42.0	RB 100/100 BS neu

Further chamber assemblies with element seals, rings, and cones (see ND 1000 page 28 ff. ND 800 page 32 ff. and ND 625 page 36 ff).

ACCESSORIES

Details	Article name
Chamber opening with gradient (max. 25°) for adapting to area	US 63
Seal for ventilation line, adapter for other piping materials	look page 56
Tangential spigot at the inlet (RST) or outlet (RSR) for pressure pipe end chamber optional	
Additional inlets and element welds upon request.	

PUBLIC TENDER TEXT EXAMPLE

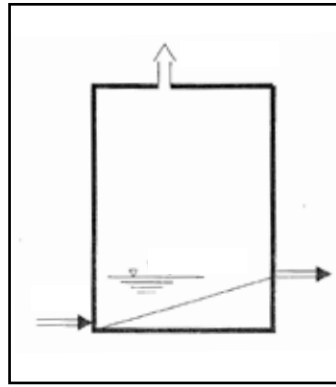
PE-Pressure pipe end chamber ND 625:

PE-Pressure pipe end chamber ND 625, 100% virgin material without recycling content (ultimate elongation respectively elongation at tear $\geq 200\%$), round bottom chamber, tangential inlet on the chamber wall and centric outlet on the round bottom, horizontal reinforcement rings to secure uplift retention, Triple-Safety-Seal according to EN 681-1 and EN 1277, valid

„Allgemeine Bauaufsichtliche Zulassung“ issued by DIBT or another national certificate issued by a recognised institute and valid Certificate of Conformity. Type ROMOLD, or equal.



For latest information on this topic, visit www.romold.de, menu service



Pressure Pipe End Chamber according to ATV-DVWK-A 157

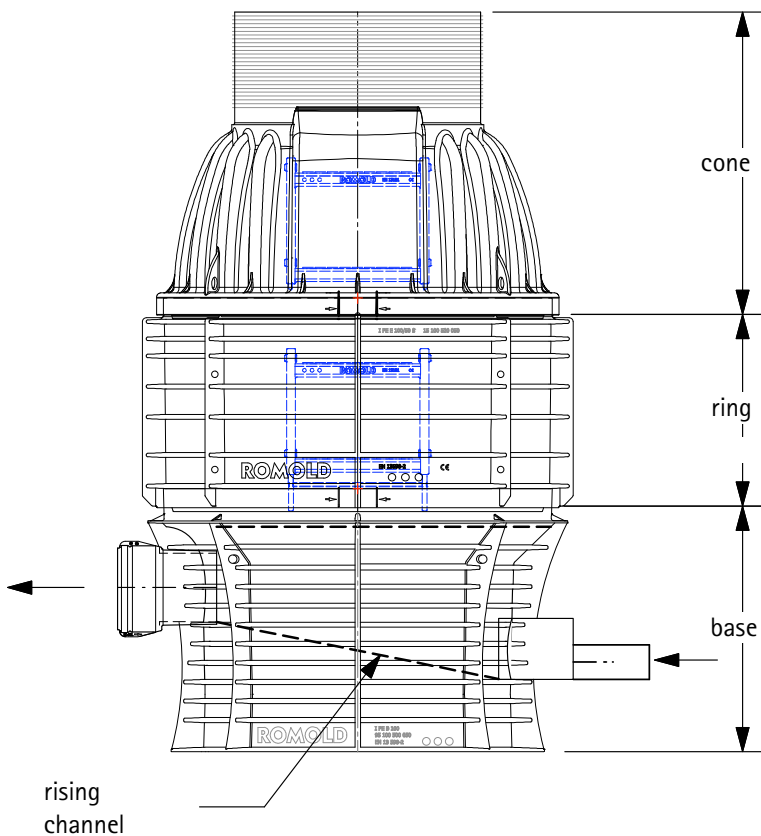
PRESSURE PIPE END CHAMBER TYPE ATV


RENOWNED DESIGN MEETS MODERN MATERIALS

PUBLIC TENDER EXAMPLE TEXT

Pressure pipe end chamber ND 1000 -

according to ATV A 157 made of polyethylene (PE) in accordance with DIN EN 13598-2 and DIN EN 476, made of 100% virgin material with no recycled parts, homogeneous, and without foaming agents, anti-lift design, solid-walled finished parts with exterior ribs, chamber rings and eccentric cone with integrated, light-colored, corrosion-resistant climbing steps, in accordance with national safety regulations, triple safety seal (3-sided lip seal) in compliance with EN 681-1 and EN 1277 as element seal, chamber bottom with non-deforming, flat support surface, light-colored, inspection-friendly rising channel, straight passage, welded inlet at specified angle, for the connection of PE pipes with electrofusion sockets, outlet designed as femal socket or spigot, berme height up to 1/1 D.



 For current information on this topic, see www.romold.de under Service, Product information under Products, Discharge systems, pressure pipe end chamber

CHAMBER BASE ND 1000

RISING, STRAIGHT MAIN CHANNEL

Height cm	Pressure pipe	Details	Article name
50	up to OD 160	welded inlet at specified angle, for the connection of PE pipes with electrofusion sockets, outlet designed as femal socket or spigot, berme height up to 1/1 D.	I PE 1B 100.25/50 DES

For additional chamber construction using element seals, rings and cones, see I PE ND 1000 page 28 ff

ROAD GULLY:
STANDaRD



ROAD GULLY:
LONGITUDINAL
DRAINAGE



ROAD GULLY:
WET SLUDGE TRAP

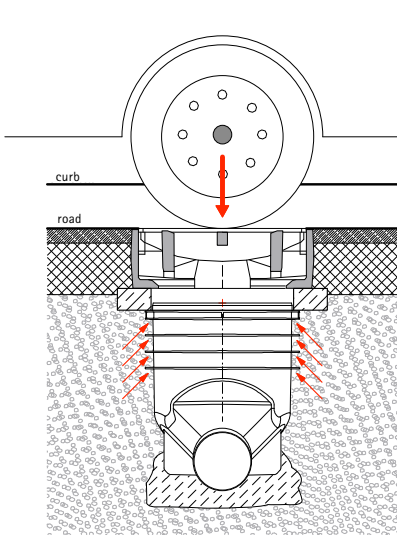


ROAD GULLY:
STENCH TRAP



ROAD GULLIES

SOLUTIONS FOR ALL APPLICATION AREAS



DETAILS WHICH MAKE THE DIFFERENCE

- Direct load-distribution into the base layer of road - no site concrete reinforcement required for surrounding the near surface components.
- Adjustable height
- all road gullies provide additional pipe connections at site.
- Fits to standard near surface components up to cl. D.

ROMOLD ROAD GULLIES: THE TOP ACHIEVERS* WITH THE DEALERS

MORE THAN 100.000 - TO DATE

WIDEST RANGE OF PRODUCTION - GRI, GR, GRT, GS

WIDEST RANGE OF CONNECTION - SOCKET ENDED PIPES & WELDED CONNECTIONS

ROMOLD ROAD GULLIES: THE FAVORITES* OF LOCAL COMMUNITIES

15 YEARS OF EXPERIENCE - WITH ROAD GULLIES

NO FROST DAMAGE - USING HYDROPHOBIC MATERIAL

NO LEAKS IN THE PIPE CONNECTION - USING SPIGOT-SOCKET CONNECTION

NO COMPONENT SINKAGE - USING THE VERY LATEST IN RIB TECHNOLOGY

LOW INSTALLATION COSTS - USING THE MONOLITHIC DESIGN

NO REPAIR COSTS - THANKS TO MORTAR FREE INSTALLATION AND LOAD DISTRIBUTION

ROMOLD ROAD GULLIES: A REAL HIT* AT THE BUILD SITE

NO CONCRET BACKFILLING OF RIPS - SAVES TIME AND MONEY

MINIMAL INSTALLATION TIME - REDUCED TO THE MAX

INNOVATION MEETS INDUSTRY STANDARD - SET UP BASED ON INDUSTRY STANDARD TO CL. D

INSPIRING DETAILS



All ROMOLD road gullies (GRI, GR, GS, GRT) are shortable.



All ROMOLD road gullies, GRI, GR, GS, GRT are individually drill-capable (sealed pipe connection, with ROMOLD seal typ IS is possible)



Suitable for all ROMOLD road gullies. Support ring made of plastic, break-proof and direct attachable, no mortar bed necessary

ROMOLD ROAD GULLIES: THE ORIGINAL AT THE BEST PRICE

IMPORTANT INFORMATION

ROMOLD road gullies are suitable for public roadways and industrial applications. Traditional support rings, grates, and dirt buckets can be used. Road gullies of type GS are equipped with stretch trap (siphon), incl. separator function and optionally with splitter for cleaning option. Connections are suitable for all common plastic pipes. Other materials can be connected using adapters. The monolithic gullies are suitable for welded system solutions. Do you require products in special shapes? Let us know.



For current information on this topic, see www.romold.de under Products, Discharge systems, Road gullies

TECHNICAL DATA:

Material: homogeneous virgin material Polyethylene (PE) or Polypropylene (PP)

- only one component (with GRT + cone 50/50 or 50/30)
- pipe line can be connected or welded
- no root ingrowth
- impact-proof, break-proof
- resistant to road salt and mineral oil / chemical-resistant
- SLW 60 (KI. D 400) resilient
- load transmission via interlocking connection with road structure
- compatible with concrete support ring 10a or 10b in accordance with DIN 4052
- use of standard grating and buckets
- lifecycle: >50 years
- delivery: ready for connection, exclusive gratings and support rings



3. Min.: bedding in lean concrete mix



5. Min.: height adjustment



7. Min.: backfilling and compacting



15. Min.: assembly of grating

Version PP: for socket ended pipes

Version PE: for socket- & welded connections



GRI 40.50.50.15/45 BI

GRI 40.50.30.15/45 BI



GR 40.50.30.15/45 BI
outlet straight or 45° or
90° right/left



GR 40.50.50.15/45 BI



GR 40.50.30.15/63 BI



GR 40.50.50.15/63 BI

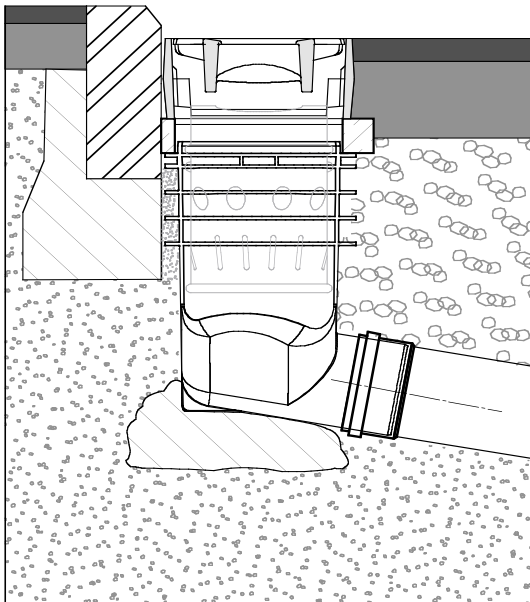
For high dirt buckets!!!

ROAD GULLIES STANDARD GRI AND GR TYPES

PUBLIC TENDER TEXT EXAMPLE

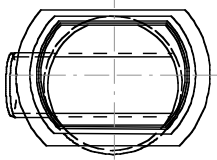
ROMOLD PP road gully ND 400, for grating 500x300 mm class C 250 or D 400 in accordance with DIN EN 124/DIN 1229, material PP, road gully made of 100% virgin material with no recycled parts or foaming agents. Outlet connection ND /OD 160 mm, inclination 10°, connection for PVC-KG pipes for DIN-compliance EN 1401 and PP pipes for DIN EN 1852 compliance, with integrated shift protection,

suitable for concrete support ring 10b for DIN 4052-3 compliance, suitable for attachment of dirt bucket form D1 for 4052-4DIN-compliance, with horizontal reinforcement rings for interlocking connection with the street structure (load transmission). Color: blue, Installation height: app. 45 cm (total height with grating: app. 65 cm), installation according to ROMOLD installation instructions.



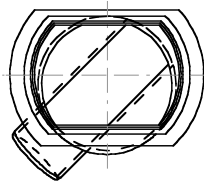
Even highways are no matter for the ROMOLD road gully.

Sidewalk



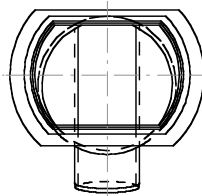
90° (90° R)

GR 40.50.30.15/45-90° BI



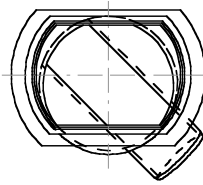
135° (45° R)

GR 40.50.30.15/45-135° BI



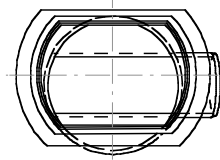
Standard

GR 40.50.30.15/45 BI



225° (45° L)

GR 40.50.30.15/45-225° BI



270° (90° L)

GR 40.50.30.15/45-270° BI



Road gully Typ GR 40.50.30

ROAD GULLY ND 400, ND 450

GRATING 500 x 500 mm bzw. 500 x 300 mm

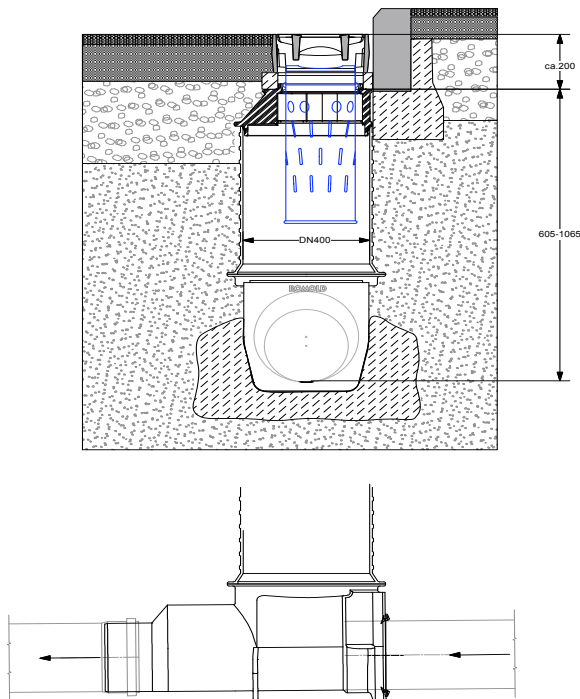
Height cm	Details	Weight kg	Article name
35 - 45	for welded systems and socket ended pipes, straight outlet, horizontal reinforcement rings, outlet connection ND /OD 160, Grating 500 x 500 mm or 500 x 300 mm	7,5	GR 40.50.30.15/45 BI GR 40.50.50.15/45 BI
53 - 63	for welded systems and socket ended pipes, straight outlet, horizontal reinforcement rings, outlet connection ND /OD 160 for high dirt bucket Grating 500 x 500 mm or 500 x 300 mm	8,6	GR 40.50.30.15/63 BI GR 40.50.50.15/63 BI
100 - 125	for welded systems and socket ended pipes, ND 450, outlet connection ND /OD 200 and 160	16,5	GR 45.20.15/125
35 - 45	for socket ended pipes material PP, straight outlet (cannot be welded to the pipe line), Grating 500 x 500 mm or 500 x 300 mm	3,6	GRI 40.50.XX.15/45 BI
35 - 45	for welded systems and socket ended pipes, with outlet 45° right, Grating 500 x 300	7,0	GR 40.50.30.15/45-135° BI
35 - 45	for welded systems and socket ended pipes, with outlet 45° left, Grating 500 x 300	7,0	GR 40.50.30.15/45-225° BI
35 - 45	for welded systems and socket ended pipes, with outlet 90° right, Grating 500 x 300	7,0	GR 40.50.30.15/45-90° BI
35 - 45	for welded systems and socket ended pipes, with outlet 90° left, Grating 500 x 300	7,0	GR 40.50.30.15/45-270° BI
ca. 16 - 24 *	Grating class C 250 or D 400, in connection with support ring 10 a or 0 b		commercial
	Dirt bucket form B1, hot-dipped, low design or A4 and A2, hot-dipped, high design or made with plastic		commercial
	Dirt bucket D1, low design or C2, C3 high design		commercial
ca. 6	Plastic support ring for road gully with grate 500 x 500 mm	13,0	PARD 50.50
ca. 6	Plastic support ring for road gully with grate 500 x 300 mm	4,1	PARD 50.30

* = Ask about our action list prices. These will vary based on order quantity.



A 9

ROAD GULLY FOR LONGITUDINAL DRAINAGE



PUBLIC TENDER TEXT EXAMPLE

ROMOLD PE road gully ND 450, for grating 300 x 500 mm class C 250 or class D 400 in accordance with DIN EN 124 / DIN 1229, material PE, made with 100% virgin material with no recycled parts or foaming agents. Resistant to aggressive wastewater, road salts and frost, consisting of bottom part (shorting dimension 460 mm) and turnable grating adapter. Bottom part with inlet option with 180° with 3-point support (self-standing), outlet connection ND /OD 315 or 250 mm, gradient app. 1%. Connection for PVC-KG pipes in accordance with DIN EN 1401, for PE pipes in accordance with DIN 8074/75 or DIN EN 12666 or PP pipes in accordance with DIN EN 1852, with horizontal ribs. Grating adapter with integrated shift protection, compatible with support ring 10b in accordance with DIN 4052-3 made of concrete or plastic, suitable for attachment of dirt bucket form D1 for DIN 4052-4-compliance. Color: black, Installation height: app. 160 cm (Overall installation height with standard grating: app. 180 cm).

ROAD GULLIE ND 450 FOR LONGITUDINAL DRAINAGE

GRATING 500 x 500 mm bzw. 500 x 300 mm

Height cm	Outlet	Details	Weight kg	Article name
60 - 105	ND/OD 315/250	Road gully ND 450 for longitudinal drainage, outlet ND /OD 315 and 250, 1° gradient, turnable Grating 500 x 500, optionally 500 x 300, with element seal, can be shortened	21,1	GRT 1B 45.50.XX.30.25/105
95 - 140			25,1	GRT 1B 45.50.XX.30.25/140
115 - 160			27,1	GRT 1B 45.50.XX.30.25/160
60 - 105	ND/OD 200/160	Road gully ND 450 for longitudinal drainage, 1° gradient, turnable Grating 500 x 500 optionally 500 x 300 with element seal, outlet ND/OD 200 and 160, 2 additional inlets ND/OD 200 and 160, can be shortened	21,6	GRT 3B 45.50.XX.20.15/105
95 - 140			25,6	GRT 3B 45.50.XX.20.15/140
115 - 160			27,6	GRT 3B 45.50.XX.20.15/160

* = Ask about our action list prices. These will vary based on order quantity.



easy handling



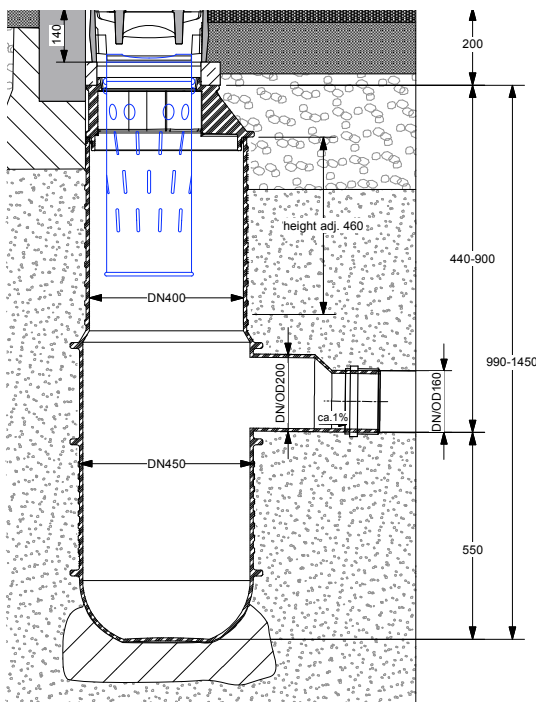
GRT 45.50.xx.15/105
height: 105 cm
sludge trap volume: 87 l

GRT 45.50.xx.20.15/145
height: 145 cm
sludge trap volume: 76 l

GRT 45.50.xx.20.15/200
height: 200 cm
sludge trap volume: 156 l

GRT E 40/55
Installation height 55 cm / Height adj. 45 cm
incl. seal

ROAD GULLY WITH WET SLUDGE TRAP



PUBLIC TENDER TEXT EXAMPLE

ROMOLD PE road gully ND 450, for grating 500 x 500 mm class C 250 or class D 400 in accordance with DIN EN 124 / DIN 1229, material PE, made with 100% virgin material with no recycled parts or foaming agents. Resistant to aggressive wastewater, road salts and frost, consisting of bottom part (shorting dimension 460 mm) and turnable grating adapter. Bottom part: Round bottom with flat support surface (self-standing), optimized form for cleaning with suction tube, outlet connection ND /OD 200 or 160 mm, gradient app. 1%, outlet app. 55 cm above ground, storage volume app. 76 liter. Connection for PVC-KG pipes in accordance with DIN EN 1401, for PP pipe in accordance with DIN EN 1852 or for PE pipes in accordance with DIN 8074/75 or DIN EN 12666, with horizontal ribs. Grating adapter with integrated shift protection suitable for concrete support ring 10a in accordance with DIN 4052-3, suitable for attachment of dirt bucket form B1 in accordance with DIN 4052-4. Color: black, installation height: app. 145 cm (total installation height with standard grating: app. 168 cm).

ROAD GULLY ND 450 WITH WET SLUDGE TRAP

AUFSATZ 500 x 500 mm bzw. 500 x 300 mm

Height cm	Outlet	Details	Weight kg	Article name
103 - 105	ND/OD 160	For welded systems and socket ended pipes, turnable Grating 500 x 500 mm or 500 x 300 mm, outlet connection tilted by 45°	16,5	GRT 45.50.XX.15/105
			16,5	GRT 45.50.XX.15/105
100 - 145	ND/OD 200/160	For welded systems and socket ended pipes, turnable Grating 500 x 500 mm or 500 x 300 mm, can be shortened	21,5	GRT 45.50.XX.20.15/145
			21,5	GRT 45.50.XX.20.15/145
155 - 200	ND/OD 200/160	For welded systems and socket ended pipes, turnable Grating 500 x 500 mm or 500 x 300 mm, can be shortened	29,0	GRT 45.50.XX.20.15/200
			29,0	GRT 45.50.XX.20.15/200

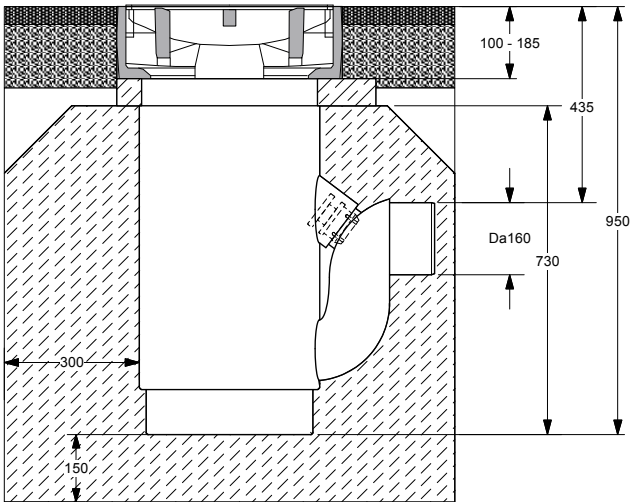
* = Ask about our action list prices. These will vary based on order quantity

WITH STENCH TRAP



Road gully type GS with stench trap in different versions (diameter and installation height). By request.

ROAD GULLY WITH STENCH TRAP



ROMOLD PE-road gully ND 400, with outlet ND 150 for grating 500 x 500, outlet connection ND /OD 160, for connection of PVC pipe in accordance with DIN EN 1401, for PP pipe in accordance with DIN EN 1852 or for PE pipe in accordance with DIN 8074/75 or DIN EN 12666. Road gully with stench trap/siphon incl. connection for camera inspection or cleaning **PUBLIC TENDER TEXT EXAMPLE** of NBR for sealing in operating state and for extraction during cleaning and inspection procedures. Height: 73 cm

ROAD GULLY WITH STENCH TRAP

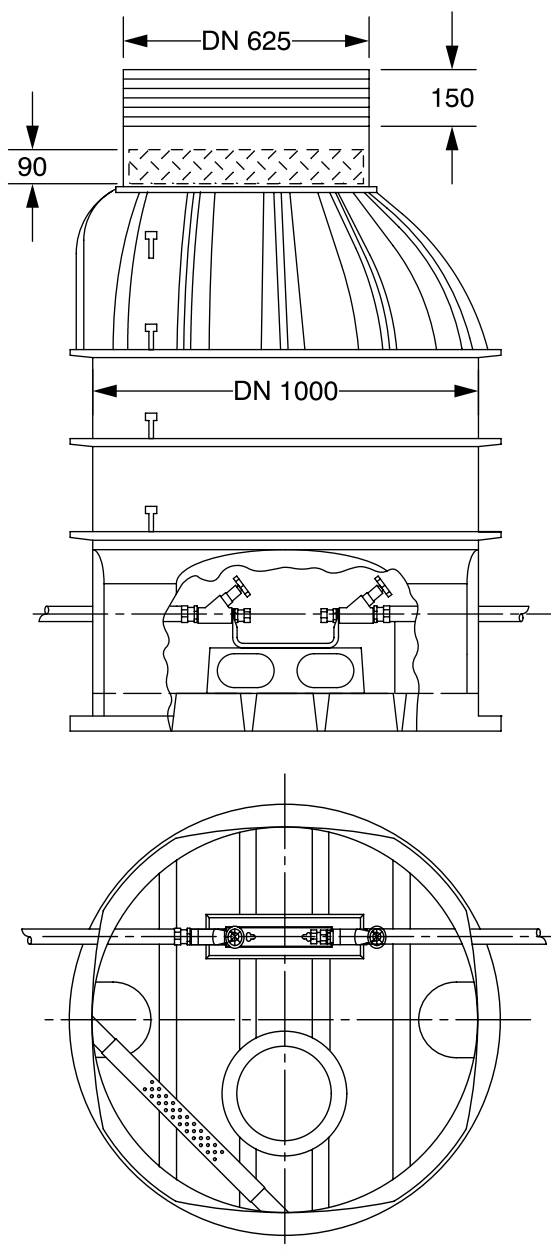
Height cm	Details	Weight kg	Article name
73	with stench siphon, for welded systems and socket ended pipes with splitter for cleaning option, outlet connection ND /OD 160 (additional versions by request)	12,5	GS 40.15/73 P

* = Ask about our action list prices. These will vary based on order quantity.



WATER METER CHAMBERS

FOR THE ASSEMBLY OF WATER METERS



WHAT YOU NEED TO KNOW

The water meter chambers are suited for watermeters QN 2.5 and 6 (QN 10 available on request). The height is flexible. The chamber base is equipped with a PE-support for light-weight installation of meters. The chambers are equipped with a flat ribbed base with pump sump, integrated steps and a polystyrene insulating board which serves as thermal insulation and dirt trap.



For latest information on this topic, visit www.romold.de, menu products, submenu supply-/dischargesystems, water meter chambers

PUBLIC TENDER TEXT EXAMPLE

PE-water meter chamber ND 1000 for water meter Qn=2,5 or 6,0 m³/h: PE-Chamber ND 1000, 100% virgin material without recycling content (ultimate elongation respectively elongation at tear ≥ 200 %), reinforced chamber base without channel, with corrosion-resistant steps, vertical step distance 25 cm, incl. console for water meter Qn 2,5 m³/h or 6,0 m³/h, inlet seals OD = 32 mm to 63 mm, polystyrene plate, clear opening of cone 625 mm partly eccentric, horizontal reinforcement rings to secure ←




Water meter chamber inside

CHAMBER ND 1000 - MONOLITHIC

FOR CHAMBER
COVERS
SEE PAGE 18

Height cm	Details	Weight kg	Article name
140	PE-water meter CHAMBERS ND 1000/625 flat, ribbed pump bottom with sump, with corrosion-resistant climbing steps, incl. Platform for water meter installation fittings Qn 2.5 and 6.0 m ³ /h, support for polystyrene insulation slab integrated in eccentric PE chamber cone LW 625 in accordance with DIN 4034	70,0	FWCE 100.63/140.2 SBSK
165	PE-water meter CHAMBERS ND 1000/625 flat, ribbed pump bottom with sump, with corrosion-resistant climbing steps, incl. Platform for water meter installation fittings Qn 2.5 and 6.0 m ³ /h, support for polystyrene insulation slab integrated in eccentric PE chamber cone LW 625 in accordance with DIN 4034	80,0	FWCE 100.63/165.2 SBSK
Polystyrene insulating slab for chamber cone		0,6	FWP 63
Additional PE-support for installation of water meters		1,8	FWKA 40.2

← uplift retention, valid „Allgemeine Bauaufsichtliche Zulassung“ issued by DIBT or another national certificate issued by a recognised institute and valid Certificate of Conformity. Type ROMOLD or equal.

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ACCESSORIES

SEALS, CUP SAWS AND WELDING

INLET SEALS FOR ND 500, ND 625 AND ND 800 CHAMBERS

for pipes	Details	Weight kg	Article name
OD = 32 mm	Inlet seal according to EN 1277, material SBR, standard in socket design for connecting a PVC pipe according to EN 1401, a PP pipe according to EN 1852, and/or a PE pipe according to EN 12666	0,01	IS 32
OD = 40 mm		0,02	IS 40
OD = 50 mm		0,05	IS 50
OD = 63 mm		0,06	IS 63
OD = 75 mm		0,07	IS 75
OD = 90 mm		0,08	IS 90
OD = 110 mm		0,16	IS 110 ND 100
OD = 125 mm		0,17	IS 125 ND 125
OD = 140 mm		0,22	IS 140
OD = 160 mm		0,23	IS 160 ND 150
OD = 180 mm		0,29	IS 180
OD = 200 mm		0,32	IS 200
OD = 225 mm		0,36	IS 225
OD = 250 mm		0,38	IS 250
OD = 315 mm		0,42	IS 315 ND 300
OD = 400 mm		0,64	IS 400



CUP SAWS FOR ND 500, ND 625 UND ND 800 CHAMBERS

for pipes	Details	Weight kg	Article name
OD = 32 mm (IS 32)	for pipe seal openings	0,07	CS 32
OD = 40 mm (IS 40)		0,10	CS 40
OD = 50 mm (IS 50)		0,12	CS 50
OD = 63 mm (IS 63)		0,15	CS 63
OD = 75 mm (IS 75)		0,17	CS 75
OD = 90 mm (IS 90)		0,26	CS 90
OD = 110 mm (IS 110)		0,38	CS 110 ND 100
OD = 125 mm (IS 125)		0,46	CS 125
OD = 140 mm (IS 140)		0,54	CS 140
OD = 160 mm (IS 160)		0,70	CS 160 ND 150
OD = 180 mm (IS 180)		0,88	CS 180
OD = 200 mm (IS 200)		1,06	CS 200
OD = 225 mm (IS 225)		1,36	CS 225
OD = 250 mm (IS 250)		1,66	CS 250
OD = 315 mm (IS 315)		2,52	CS 315 ND 300
OD = 400 mm (IS 400)		3,54	CS 400
Saw adapter for all cup saws		0,25	CSA2

WELDED SPIGOTS AND ADDITIONAL CHANNELS

Details	Article name
Welded pipe connection, e.g. for drop structures	RSG (32 up to 500)
Additional channel	GZ (160 up to 500)
Element welding of chamber parts	EV (500 up to 1000)

ACTIV-CARBON FILTER

PLEASE NOTE
AS WELL OUR
FILTER-CATALOG!

Details	Weight kg	Article name
Activ-Carbon Filter for wastewater chambers for elimination of odors	6,0	FIS 0600
Replacement for Activ-carbon wastewater chamber filter	1,0	CAR 0600



ASSEMBLY- AND INSTALLATION INSTRUCTIONS

FOR ROMOLD I PP & I PE MANHOLES ND 1000

1. TRANSPORT AND STORAGE

Storage of the manhole elements standing on level ground. Provided element seals should be stored packed, protected from frost and direct sunlight.

2. GENERAL INFORMATION

ROMOLD I PP / I PE-manholes are supplied ready to connect. The delivery has to be checked for completeness. All components must be checked for Damage or contamination before installation and if necessary cleaned or replaced. Damaged components must not be installed!

3. ASSEMBLING AND INSTALLING OF THE MANHOLE

3.1 BEDDING (GRANULAR SUBBASE)

The minimum required thickness below the base is 10cm. The thickness of the lower bedding layer (subbase) is according to EN 1610, Section 7.2 performed as "bedding type 1". The support area of the manhole base has to be stable, and must be carried out in a flat, planar manner.

The support area of the manhole base is established in accordance with the planning (differential between base to channel level = 19cm).

3.2 BASE AND PIPE CONNECTION

The base shall be positioned on the prepared support area according to the connecting pipes. The adjustment and flow direction of the chamber base must be checked.

Socket ended pipes:

All pipe connections at I PP are designed as sockets. On the sockets and in the channel flow direction arrows are attached. The connecting sockets are designed for direct mounting of PVC pipes according to EN 1401, PP pipes according to EN 1852 or plain plastic pipes. For the connection of other pipe materials, adapters or short pipes and cuffs are used (Note: with a change in material or when using special connection-adapters a created bed drop may be considered).

The proper seat of the inserted seals should be checked out and inspected for Damage, contamination may be required to be cleaned. Apply sufficient lubricant on the inside of the socket and the spigot end of the connecting pipe and then insert the pointed end up to the dead stop in the socket. In all sockets horizontal angles of $\pm 3.75^\circ$ and gradient changes up to 6.5% are possible. At the same time direction and gradient change, the indicated maximum values reduced accordingly. There are no connectors (short pipes or joints) required between ROMOLD PP-manhole and pipes

Welded connection of PE pipe:

Bases are delivered with welded spigots at the in- and outlet. The connection is done by using electrofusion sockets.

3.3 CONNECTION OF MANHOLE ELEMENTS

To create the plug-in connection the ROMOLD element-seal is to be slipped on to the upper end of the base or ring and checked for precise seating. Thoroughly clean ROMOLD element-seal and apply sufficient lubricant.

Clean the locating slot of the upper element and join together with the element seal to the lower element without tilting. The manhole elements have vertical marks to align the elements to ensure the vertical alignment of the ladder.

The manhole elements are connected together up the "stop" by using only body-weight or mdaest force.

Installation Tip: to avoid that an air cushion can be generated between ROMOLD element seal and upper slot, we recommend the use package leads placed over the element seal.

After assembling of the upper manhole element pull out the package seal. Alternatively, a cable tie can be used - smooth side of the cable tie set to seal.



3.4 BACKFILLING MATERIAL

It is important to ensure that non-cohesive materials are used for backfilling. The maximum particle size of rounded gravel material must not be larger than 32 mm and 16 mm if broken material is used.

The backfilling material must meet the requirements G1 or G2 according to ATV-A 127, section 3.1. The requirements of EN 1610, Section 5.3, or DWA-A 139, Section 7.1, must be followed.

3.5 BACKFILLING AND COMPACTING

The width of the backfilling must be in accordance with DIN EN 1610, Table 1 at any point in at least 40 cm. When installing the chambers in groundwater, for lift retention reasons a backfilling width of at least 50 cm is to be maintained all around.

The area of the pipe connection to the manhole has to be carefully under-packed e.g. with a narrow hand stamper. The backfilling material is to be inserted carefully and in layers of 20 – 40 cm layer thickness and compacted with a medium vibrating stamper (approx. 50kg).

The number of required compacting passes per layer dependent on backfilling material, dumping weight and compacting device are to be taken from table 2 from DWA-A 139 or table 6 from DIN EN 1046. A minimum degree of compaction of $D_{pr} = 97\%$ according to DWA-A 139, section 11.1 is to be established. In road foundations, at road level, a deformation module EV_2 of at least 100 MN/m² according to ZTVE-StB 94 is necessary for supporting the cover Class D 400 (compare section „installation of the cover“).

Installation Tip: before installation the backfilling material attach the upper unit (without seal) to the base or the ring and use ROMOLD-PE construction-site cover (yellow) or steel plate on the upper unit. After then put the backfilling material on the lid, wherein the backfilling material is distributed around the manhole is protected from contamination.

3.6 HEIGHT ADJUSTMENT

The height adjustment is done by shortening the neck of the upper unit. ROMOLD manhole have a maximum shortening of 25cm. The cutting is done with a saw in the rib-valley of the upper unit. The valleys are arranged in a distance of 1 cm. The resulting cut is deburred.

3.7 SUBSEQUENT CONNECTION TO THE ELEVATION ELEMENT (RING)

Drill manhole with electric hand drill with ROMOLD cup saw in the desired position in total drilling depth. The drilling in the area of a connecting element is not allowed. Burr hole and insert the seal without lubricant from the outside. The collar of the seal is up to the ribs on the outside of the manhole. Lubricate the spigot end of the pipe and the inside of the seal and then insert the pipe with an inner overlap.

4. INSTALLATION OF COVER

4.1 CONCRETE LOAD DISTRIBUTION RING WITH COMMERCIAL COVER

The ROMOLD concrete support ring, or concrete load distribu-





tion ring conducts the traffic loads in the road foundation and keeps it away from the manhole. It is important to ensure there is no direct load contact occurs between concrete ring and manhole (concrete support ring extends about 4 cm above the edge of the upper unit). Below the concrete support ring an EV_2 module of at least 100 MN/m² must be achieved. The bedding of the concrete support ring must be planar and free of point loads (possibly using grit, sand or poor concrete). If needed, the upper unit seal is to be mounted on the upper unit neck before assembling the concrete support ring with sufficient lubricant on the concrete ring and the seal. The concrete support ring has to set up centrally without affecting the bedding. Until the installation of the cover the concrete support ring is covered with a steel plate.

The total height of concrete support ring and commercial cover class D 400 is round about 19 cm (without using a compensation ring AR-V 625 x 60 mm) from the upper edge of the cone.

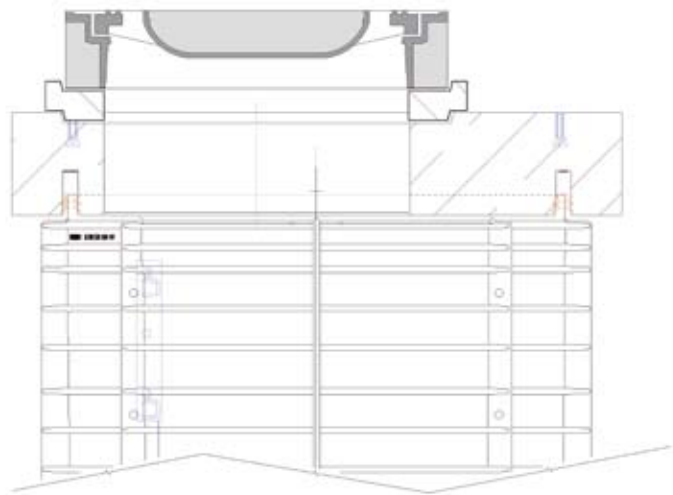
4.2 SELF LEVEL® COVERS

When using self level® covers alternatively, a small sized concrete support ring (BARB 67 VS) is used as a bearing for the adapter rings made of concrete or steel. Installation instructions and height see documents of the respective cover manufacturer.

tally and centered on the manhole on the prepared stable base. It is important to ensure there occurs no direct load contact between the concrete cover plate and the manhole. A commercial cover up to class D 400 can be assembled on the concrete cover plate. The height adjustment of the cover can be done with concrete balancing rings.

4.4 ODOR FILTER

If odor or a ROMOLD activated carbon filter can be installed in the frame of the cover.

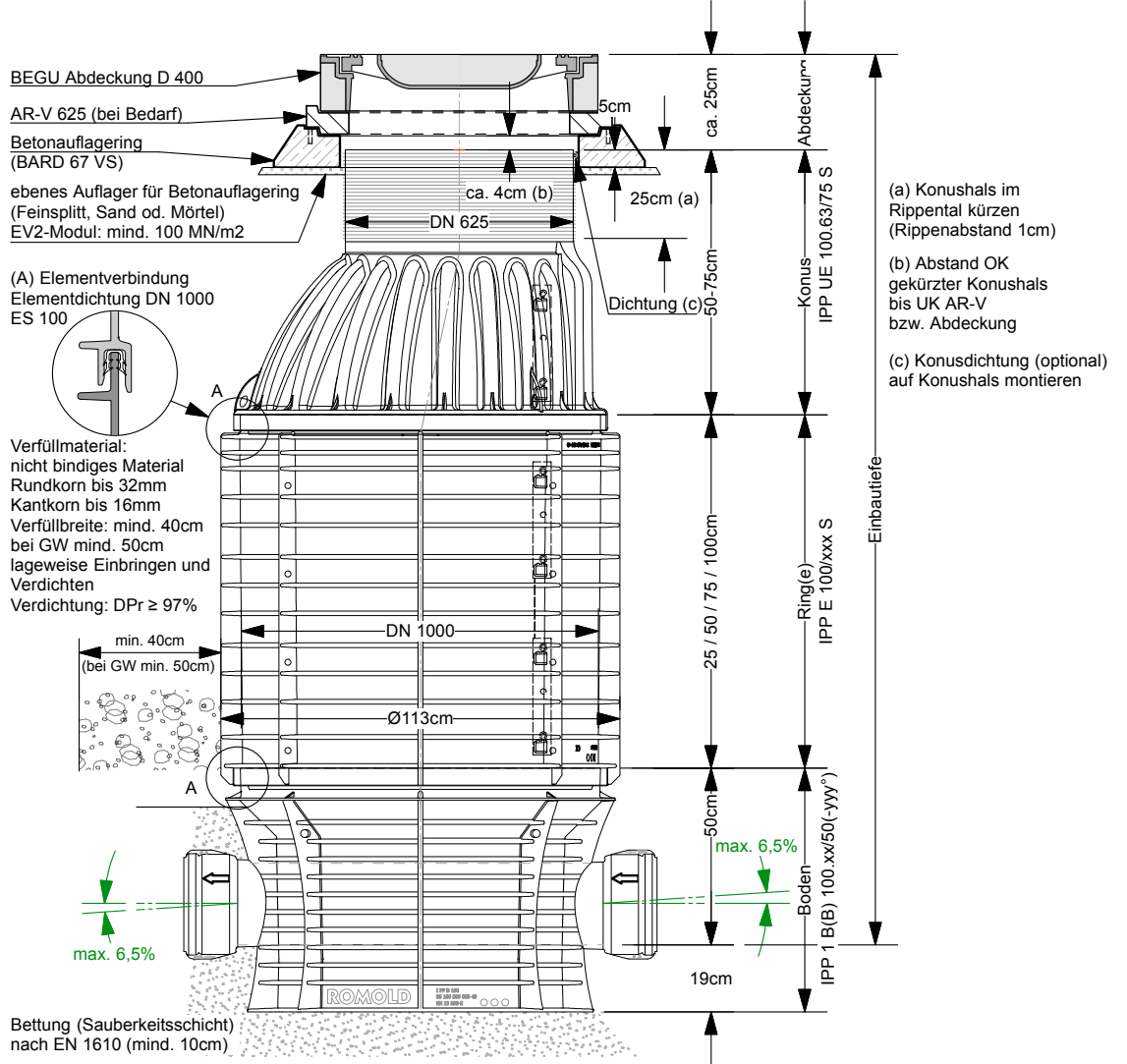


4.3 CONCRETE SLABS

Manhole installation analogy step 3.1 to 3.5
On top manhole element assemble element seal ES 100 and use enough lubricant. Move the concrete cover plate horizon-

5. INSTALLATION SKETCH:

PP-Schacht DN 1000, Betonauflagerung mit BEGU Abdeckung





ASSEMBLY- AND INSTALLATION INSTRUCTIONS FOR ROMOLD CHAMBERS

GENERAL

ROMOLD-PE-Chambers are supplied ready to connect. Pipe seals at the inlet are already inserted and the moulded spigot at the outlet has the required nominal diameter. Inlet seal and outlet spigot are suitable for the direct assembly of PVC-pipes according to DIN EN 1401, of PP-pipes according to DIN EN 1852 and for PE-pipes according to DIN EN 12666 or DIN 8074. In special cases or at the request of customers, the centre-drilling of the chamber ground, the insertion of the inlet seal or the fitting of the outlet spigot by sawing off can also be undertaken on the construction site.

FITTING INLET SEAL

Circular openings are to be produced at the area marked for the respective nominal diameter with the help of ROMOLD cup saws to prepare the connection at the inlet side of the chamber. The cup saw is to be positioned in such a way, that misalignment of the pipeline is excluded. The opening is to be deburred and cleaned. After this, insert ROMOLD inlet pipe seal without using any lubricant and the precise fitting of the seal is to be checked.

PIPE CONNECTION INLET-SIDE

Thoroughly clean the ROMOLD inlet-pipe seal before pipe assembly. The pointed end of the inlet-pipe is to be pushed into chamber ground in the inlet opening fitted with the ROMOLD inlet-pipe seal up to the stop using sufficient lubricant. No link pieces are required between ROMOLD PE-chamber and inlet pipe.

PIPE CONNECTION OUTLET

The socket of the outlet pipe is to be slipped on to outlet spigot up to the stop using sufficient lubricant. If necessary, the smaller not required outlet spigot must be cut off at right-angles with the help of a saw. Afterwards, the cut-edge is to be deburred and cleaned. No link pieces are required between ROMOLD PE-chamber and outlet pipe.

WELDING WITH PE-PIPELINE

Cut off the works-formed chamfer on the outlet spigot at right-angles with a saw. Electrofusion sockets are to be used for welding outlet spigots and continuation PE-pipe.



PIPE CONNECTION WITH CHANGE IN MATERIAL OR WHEN USING ADAPTERS

With a change in material or when using special connection-adapters, if applicable a created bed drop is to be observed according to DIN EN 476 section 6.2 and when measuring up the pipeline, both inlet as well as outlet side are to be taken into consideration.

CONNECTION OF CHAMBER ELEMENTS

To create the plug-in connection, the ROMOLD Element-seal of the respective nominal diameter is to be slipped onto the upper end of the chamber ground or -ring and checked for precise seating. Thoroughly clean ROMOLD Element-seal and apply sufficient lubricant. Clean the locating slot of the upper element and join together with the ROMOLD Element-seal to the lower element. The chamber elements are connected together up to the „Stop“ by using only body-weight or modest force.

HEIGHT ADJUSTMENT

The height adjustment is done by shortening the neck of the upper unit. ROMOLD chambers ND 500 and ND 625 have a maximum shortening of 30 cm, manholes ND 800 and ND 1000 have a maximum shortening of 25 cm.

BEDDING

The minimum required thickness below the base is 10cm. The thickness of the lower bedding layer (subbase) is according to EN 1610, Section 7.2 performed as "bedding type 1". The support area of the chamber base has to be stable, and must be carried out in a flat, planar manner.

BACKFILLING MATERIAL

It is important to ensure that non-cohesive materials are used for backfilling. The maximum particle size of rounded gravel material must not be larger than 32 mm and 16 mm if broken material is used. The backfilling material must meet the requirements G1 or G2 according to ATV-A 127, section 3.1. The requirements of EN 1610, Section 5.3, or DWA-A 139, Section 7.1, must be followed.



BACK-FILLING AND COMPACTING

After establishing the pipe connections and horizontal alignment of the chamber ground at the upper end of the elements, this is to be carefully underpacked e.g. with a narrow hand stamper according to ATV A-139, section 7.2. The compacting of the side wedge is properly carried out with a mechanical device. According to DIN EN 1610, table 1, the back-filling width at the side of the chamber for chambers ND 500 and ND 625 must be at least 35 cm at every point, for manholes ND 800 and ND 1000, at least 40 cm. When installing the chambers in ground water, for lift-retention reasons, a backfilling width of at least 50 cm is to be maintained all around. The back-filling material is to be inserted carefully and in layers of 20 – 40 cm layerthickness and compacted with a mediumweight vibration stamper (approx. 50 kg). The number of required compacting passes per layer dependent on back-filling material, dumping height and compacting device are to be taken from table 4 from ATV A-139 or table 6 from DIN EN 1046. A minimum degree of compaction of $DPr = 97\%$ according to ATV-A 139, section 11.1 is to be established. In road foundations, at road level, a deformation module $EV2$ of at least 100 MN/m^2 according to ZTVE-StB 94 is necessary for supporting the cover Cl. D 400 kN (compare section „Chamber covers“). Chamber cones and –necks are to be fitted and covered with a ROMOLD-PE-construction- site cover (colour yellow) or if necessary with a ROMOLD-cover plate made of castiron before backfilling and compacting. Adequate distance is to be maintained from heavy compacting devices (e.g. vibration rollers).

CHAMBER COVERS

ROMOLD-PE-cover (black) and

PE construction-site cover (yellow):

Position the ROMOLD-PE-cover after completing the height adjustment and before backfilling the chamber neck. The height of the ROMOLD-PE-cover is approx. 4 cm and is to be taken into account when adjusting the height of the chamber.

ROMOLD-System-cover Cl. A 15 and B 125 kN:

Position the ROMOLD-cover plate and insert the chamber cover after completing the height adjustment and before backfilling the chamber neck. The height of the ROMOLD-System-cover Cl. B 125 kN is approx. 4 cm and is to be taken into account when adjusting the height of the chamber.

ROMOLD-System-cover Cl. D 400 kN:

This cover conducts the traffic loads in the road foundation and keeps it away from the PE-chamber. It is therefore absolutely necessary to ensure that no direct load contact between cover and PE-chamber develops after fitting the cover. The uncoupling of PE-chamber and cover and their shifting security is ensured by an overlapping of 3 cm of both elements. The construction height of the ROMOLD-System- cover Cl. D 400 kN is approx. 13 cm and is to be taken into account when adjusting the height of the chamber.

ROMOLD Concrete load-distribution ring for commercial cover Cl. D 400 kN:

The ROMOLD Concrete load-distribution ring conducts the traffic loads in the road foundation away and keeps it away from the PE-chamber. It is therefore absolutely necessary to ensure that no direct load contact occurs between concrete ring and PE-chamber after fitting the concrete load



distribution ring. The uncoupling of PE chamber and concrete load-distribution ring and their shifting security is ensured by an overlapping of approx. 7 cm of both elements. The overall construction height of concrete load-distribution ring and common cover Cl. D 400 kN is approx. 24 cm and is to be taken into account when adjusting the height of the chamber.



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ROAD GULLY INSTRUCTIONS

ASSEMBLY AND INSTALLATION

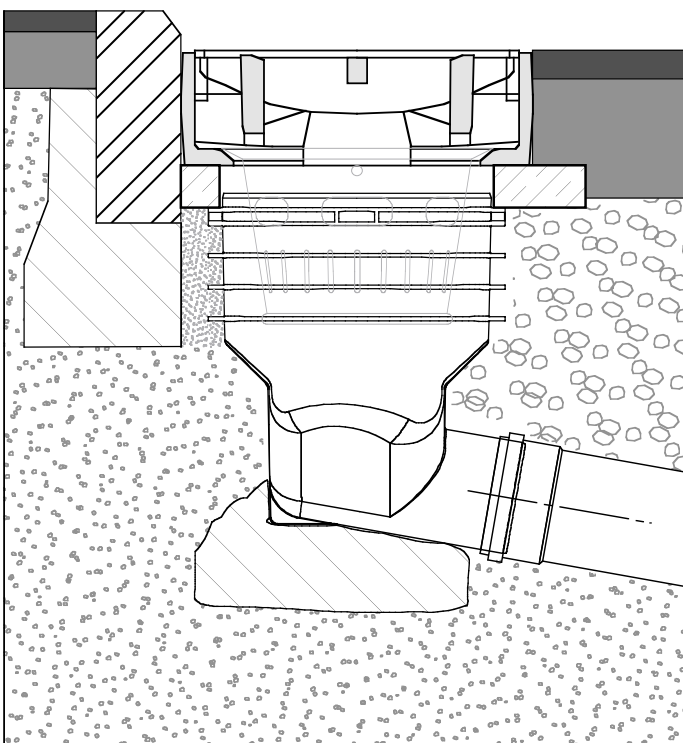
The foundation of the road gully must be at least a 10 cm thick lean concrete layer. To this end, the road gully is to be fully in concrete. The lateral backfilling of the road gully is to be completed using suitable backfilling (non cohesive or low cohesive soils as per DIN 18196, e.g. gravel/sand mixture, natural grain material particle size 0 to 32 mm or crushed material particle size 0 to 16 mm).

If necessary, the road gully can be shortened by a max. 10 cm with the aid of a saw suited for woodworking. The ribs located on the edge of the part must be carefully and completely embedded in the above mentioned filling material (remove large stones).

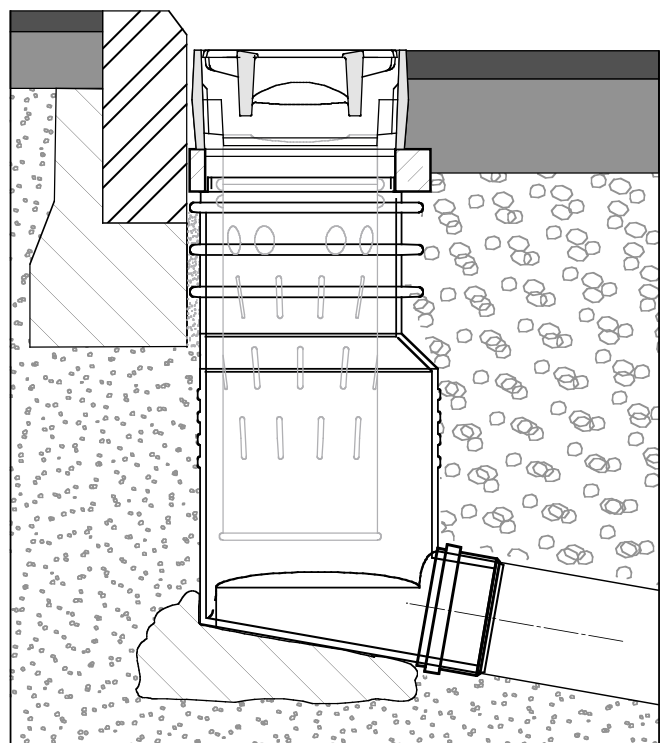


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CLEAR OPENING 500 x 300 mm





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