ROMOLD

WHEN IT COMES TO CHAMBERS.

Economical solutions with system. 2019

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With a mouse click you can move
from the content to a desired page –
and back with a click on the paging.

YOUR PARTNER FOR INNOVATIVE MANHOLES AND INSPECTION CHAMBERSRS

MAKE USE OF THE MARKET LEADER'S KNOW-HOW

- the highest quality requirements are our constant challenge
- we offer continuous innovation and developments
- we have qualified, experienced and highly committed staff
- our clients benefit from the highest service level

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 concentrates purely 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. You too can 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 batches of custom products, we are able to react to your wishes very flexibly.

We have a portfolio of over 1,000 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 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 in accordance with DIN ISO 9001, providing you with the security that you always get the best, as well as the most flexible systems.

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 offer seminars for planning offices and public authorities on site and in our headquarters.

CONTENT

All Prices in this catalogue
refer solely to the German Market

ROMOLD

DISTRIBUTION GERMANY

ALWAYS NEAR YOUR BUILDING SITE

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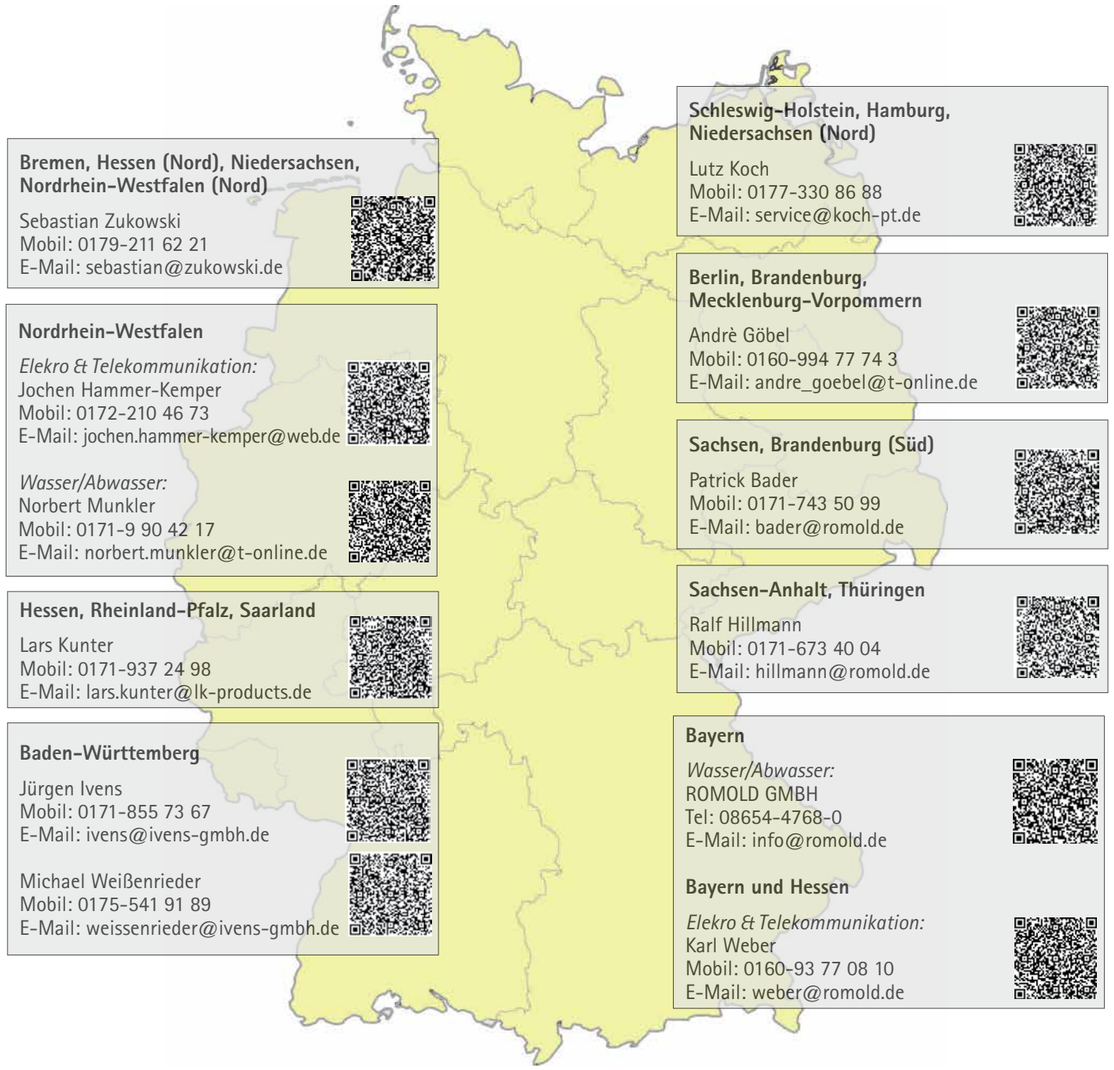

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EUROPE DISTRIBUTION

INTERNATIONALLY SUCCESSFUL

As the European pioneer for industrially manufactured plastic chambers (over 1,5 million chamber components sold), ROMOLD product development builds on more than 25 years of expertise.

On the basis of extensive international experience, ROMOLD offers its customers a selection of plastic chambers for any application - unique in its class world-wide.

In combination with the well-known ROMOLD quality and the customer service of a medium-sized company, ROMOLD offers advantages which can be delivered only by a pioneer in the plastic chambers sector.

ROMOLD: EASY TO RELY ON

INNOVATIONS COMBINED WITH CERTIFICATED QUALITY

WHEN IT COMES TO CHAMBERS: ROMOLD!

ROMOLD has been the European pioneer for industrial manufactured plastic chambers for over 20 years. Many innovations, which are today state of the art, have been developed by the engineers and employees of ROMOLD.

When it comes to chambers, go with ROMOLD.

1992:
first industrial DN 1000 manholes in Europe

1992:
indirect load transfer of traffic loads in road construction

1994:
first energy compensating chambers with self-cleaning round bottom

1995:
launch of the DN 800 chamber system in accordance with EN 476 in Europe

1996:
first watertight cable chamber system

1996:
road gullies made of plastics

1998:
corrosion-free pressure pipe end chambers based on the round bottom system

2000:
fully equipped valve chambers made of plastics

2002:
rain and wastewater combined in a single chamber

2005:
patented active-carbon-filter for elimination of odours from sewage systems

2008:
divisible square-section plastic cable chamber (ROM-Box))

2009:
road gullies with sludge sump also for longitudinal drainage

2010:
DN 1000 chamber system in accordance with EN 13598-2

2012:
road gullies with stench traps

2013:
RPC 80 domestic pump station for class D 400

2014:
Slug feeder, broadband chamber

2016:
Longitudinal drainage for motorway construction

2017:
2nd generation sewer chamber filter

2018:
Cover-in-cover system
absolutely watertight solution for valve chambers

„General approvals by the building authorities are provided for such building products and constructions within the scope of the country building code, for which there are no generally acknowledged rules of technology, especially DIN standards or which vary essentially from those." Source: https://www.dibt.de/de/Zulassungen/abZ-Zulassungsbereiche.html

Standard DIN EN 13598-2:2016 „Plastics piping systems for non-pressure underground drainage and sewerage - Unplasticized poly(vinyl chloride) (PVC-U), polypropylene (PP) and polyethylene (PE) - Part 2: Specifications for manholes and inspection chambers for traffic surfaces and deep installation" has applied for several years.

ROMOLD waste water chambers comply with the valid EN 13598-2.

Conformity must be proven for standardised products subject to an existing standard. Standardised products cannot be assigned to a general construction permit (any longer).

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're happy to advise you!

MORE VALUE THAT PAYS OFF IN THE END

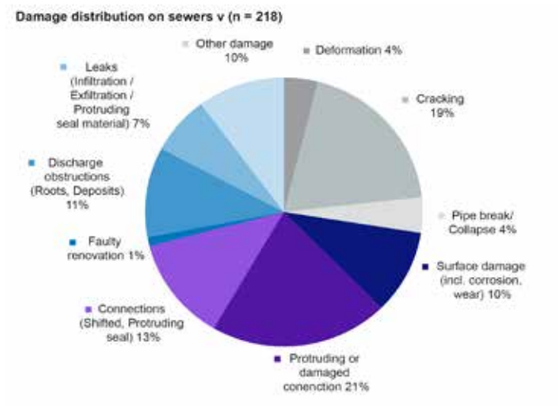
The most cost-effective and intelligent type of chamber maintenance is prevention, i.e. avoiding damage.

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 (IKT-eNewsletter 02/2002).

30–50 % of the German sewer network's approx. 10 million chambers require repair work.

The consequences are far-reaching: Interruptions to infrastructure caused by additional construction work, penetrating groundwater places a burden on the sewage systems. Leaking sewage pollutes the groundwater and subsiding chambers covers pose hazards that require costly repairs.

However there is an intelligent solution for all these problems: Chambers made of plastic by ROMOLD.



*Source: DWA-2015

DURABILITY

With its lifespan of at least 100 years, the plastic chamber is far superior to traditional systems.

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 internal and external pressure (0.5 bar). Therefore damage caused by leaks can be ruled out.

FLEXIBILITY

ROMOLD products react flexibly to any earth movements or subsidence. Therefore cracks are ruled out..

CORROSION RESISTANCE AND H_2S PROBLEM

ROMOLD chambers are particularly resistant to aggressive chemicals.

Therefore corrosion caused by hydrogen sulphide (H2S) can be ruled out 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: place the chamber, connect the pipes, put the lid on, that´s it!

THE OVERALL PERSPECTIVE

Prefabricated ROMOLD chambers are the superior alternative 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 longer-lasting solution. And everyone benefits from this because the citizens face lower charges whilst profiting from the new investments that are possible thanks to the savings made.

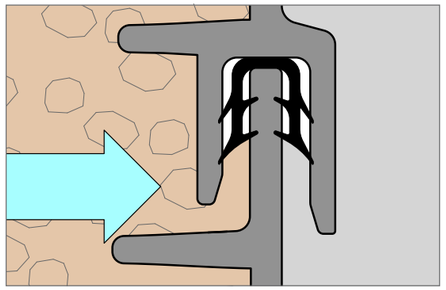
ECONOMIC SEWER NETWORK PLANNING

ROMOLD, in its capacity as an expert manufacturer of chambers, not only supplies type DN 1000 approved manholes, and also DN 800 for occasional access (in accordance with EN 476). Furthermore DN 400, DN 500, DN 625 and smaller inspection chambers are also available. This affords you access to alternative solutions when planning the sewage network. Save costs by using different chamber diameters in your sewage networkk.

ROMOLD: RELY ON THE ORIGINAL

QUALITY MEETS EXPERIENCE

Seamless bends

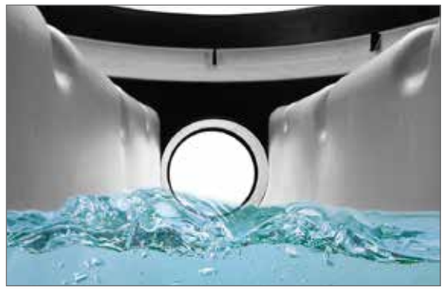


3-sided element seal (Triple-Safety-Seal)

- already over 2 million chamber components sold
- over 27 years of experience in developing plastic chambers
- chemical-resistant, also suitable for industrial wastewater
  certified buoyancy protection
- seamless bends ensure hydraulically optimised channels
- all catalogue products in stock for short delivery times

ROMOLD: ONE MANUFACTURER ALL POSSIBILITIES

2 MATERIALS (PP/PE) 2 PRODUCTION METHODS



100 % DIN EN 13598-2

ROMOLD is the only producer of plastic chambers that uses not only two raw materials (PP and PE), but also works with 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.

- PP chambers for socket-ended pipe systems
- PE chambers for welded pipe systems

Production of ROMOLD injection moulding chambers

ROMOLD rotational moulding production (water cooling)

The right manufacturing process enables competitive pricing.

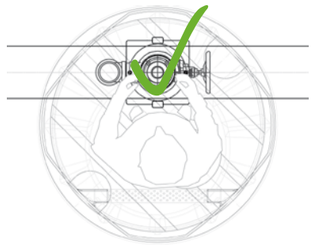
- Injection moulding for large-scale production
- Rotational moulding for individual customer products and small batchess

When it comes to chambers: ROMOLD

ROMOLD: TECHNIK IM DETAIL

QUALITÄT TRIFFT ERFAHRUNG

centric pipeline



eccentric pipeline

ROMOLD PIPE CONDUITS

With a centric pipe conduits, access to the chamber is complicated and the operation of the valves becomes nearly impossible.

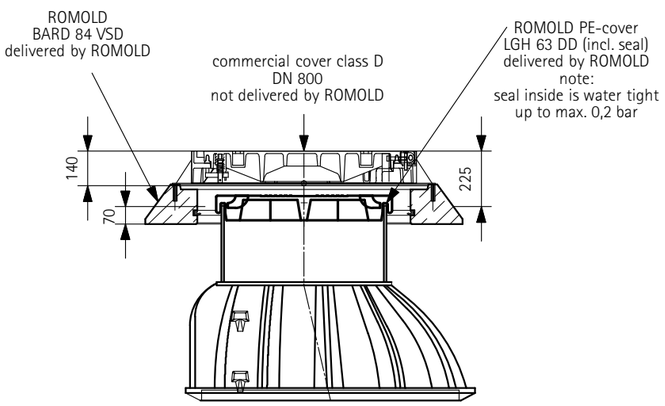
Eccentric pipe conduits offer much more space for a comfortable access and operation of the valves. With other materials this is very difficult.

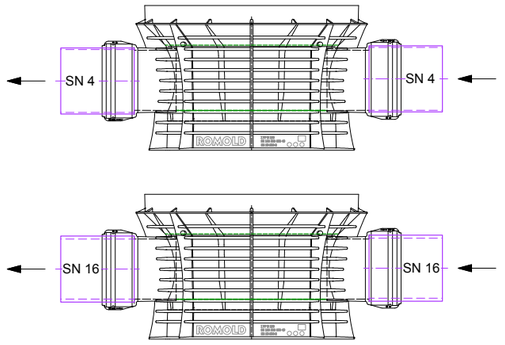
Example: Picture on page 119

ROMOLD COVERS FOR SUMP CHAMBERS

ROMOLD offers the perfect solution for excluding surface water and rain water from valve chambers.

For further information see page 10





SOCKET SYSTEM

As a dedicated manufacturer of chambers our chambers are compatible with all standard pipe systems.

Different pipe walls are compensated for by a unique and innovative socket system.

ROMOLD TECHNICAL SEMINARS

INTERESTED IN TECHNOLOGY?

Then visit one of our technical seminars.

-For municipality representatives

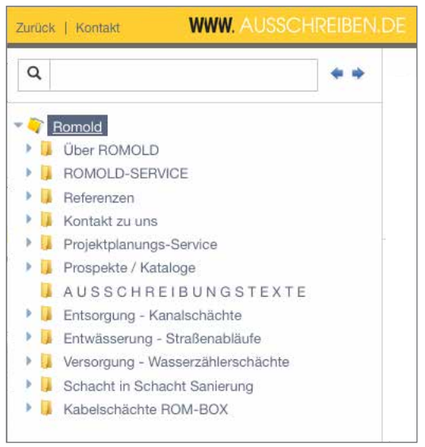
-For planners

-For users

-For retailers

-Product group- /project-specific

TALK TO US ABOUT AN APPOINTMENT



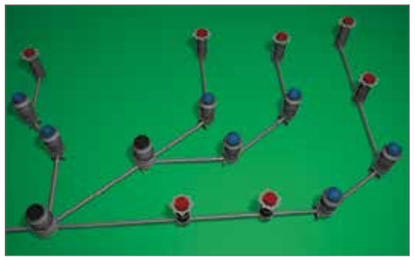
AUSSCHREIBEN.DE

See ausschreiben.de for a wide range of ROMOLD tender specifications. Take a look (only in German language)!!

HTTP://WWW.AUSSCHREIBEN.DE/
KATALOG/ROMOLD

ROMOLD: INVENTORS OF THE OPTIMISED LAYING METHOD

MODERN PLANNING FOR INTELLIGENT SAVING



Optimised sewage network, the same functional capacity and maintenance possibilities as traditional sewage networks
black: 2 x DN 1000
(access chamber)
blue: 7 x DN 800
(access chamber)
red: 7 x DN 625
(inspection chamber)

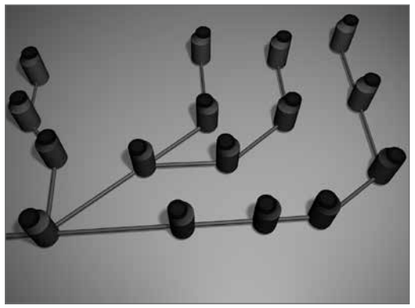
What means:
- minimal component weight
- high flexibility
- reduction in material costs
- DIN EN 476 compliant
- 100 % tight
- less excavation
- less backfilling
- shorter construction time

For almost 27 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 best demonstrated by comparisons between conventional methods of laying and those optimised 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 DN 1000 manhole.

Therefore ROMOLD recommends DN 625 chambers as inspection openings and DN 800 manholes (in accordance with DIN EN 476) for sites where there is a directional change (H < 3m). At junctions of main sewer lines we recommend manholes with a diameter of DN 1000.

Modern planning reduces construction costs. Our planning department is available to provide you with any support you may need.



Traditional sewage network
16 x DN 1000
Which means:
- heavy plant machinery is necessary
- higher excavation costs
- risk of corrosion
- greater risk of leakage

MAKES IT REALLY SENSE TO USE DN 1000 UP TO THE HIGHT OF 140 CM?
SEE PAGE 35

ROMOLD: INTELLIGENT INVESTMENT

SAVING FOR FUTURE GENERATIONS

„The price is crucial", this statement is heard very often, when it comes to solutions for the civil engineering.

- As the operator or planner of sewage networks you should ask yourself the following questions:

- Do you choose the cheapest vendor or the best?

- How much extraneous water do you have?

- Which costs are caused by this extraneous water in your sewage plant?

- How high are the chamber costs at your building site?

- What are the costs of renovation?

- What are the costs of a subsequent height adjustment to chamber covers?

- Do you have corrosion in your chambers?

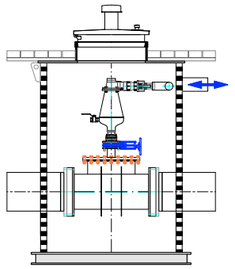
- Have you considered the costs of maintenance, rinsing etc.?

- Which amortisation periods do you base your calculations on?

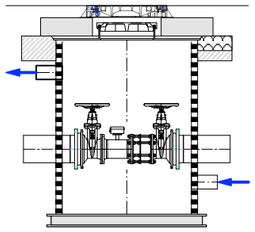
- Do you have damage in your existing sewage network?

CHAMBER SYSTEMS – AN OVERVIEW

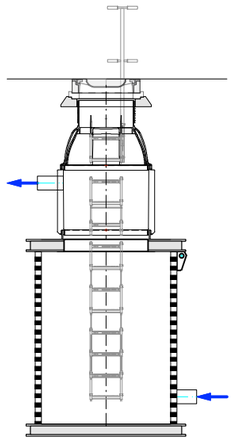
PE LARGE CHAMBERS DN 1300 TO 3600



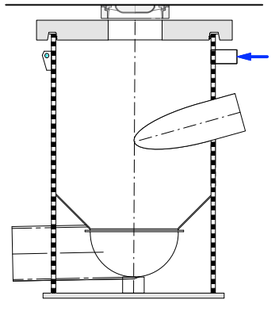
BEV chamber steel cover with vapour hood, access DN 800



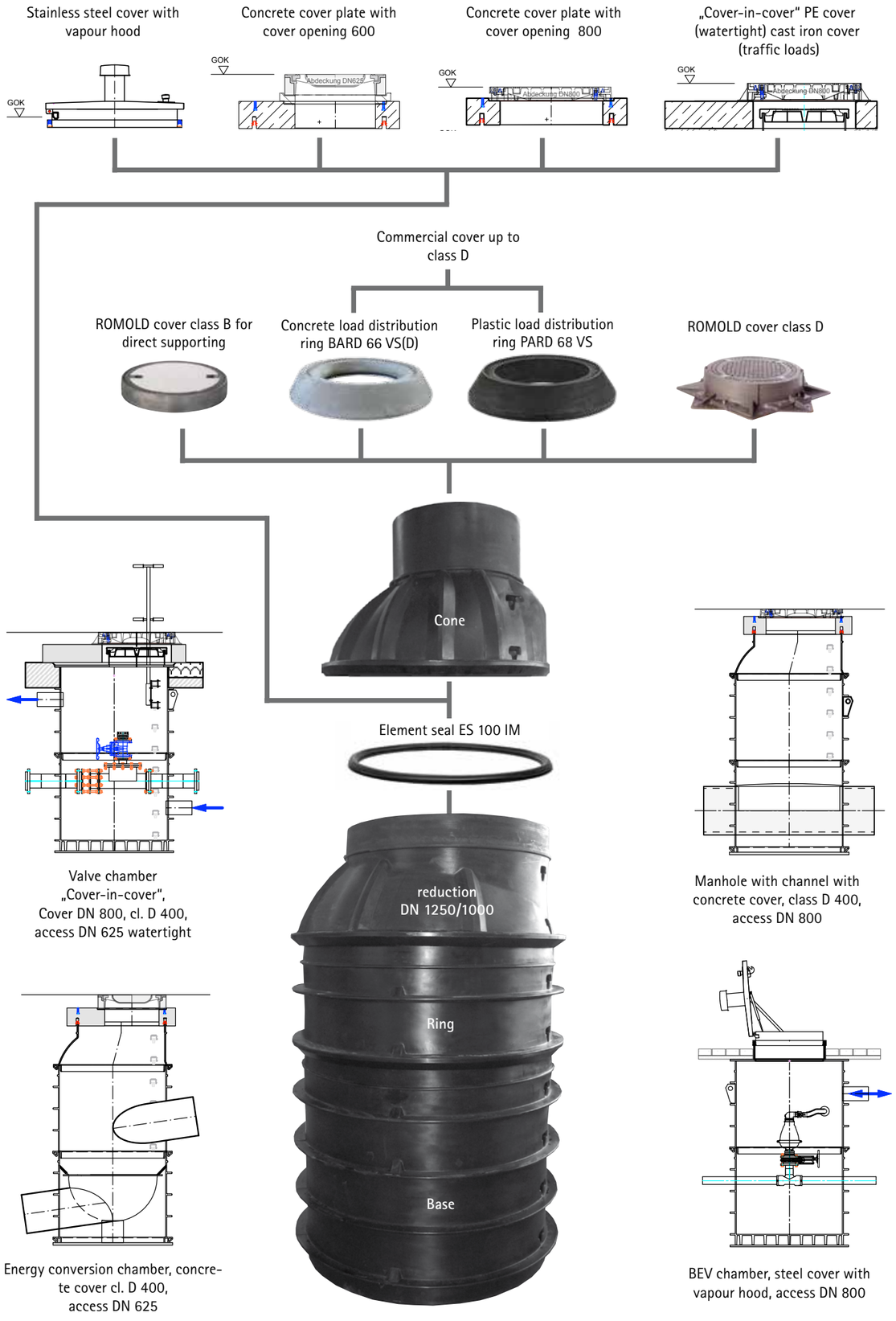
Valve chamber DN 1500
Cover-in-cover solution, access DN 800/625



Manhole DN 1500
PP-DOME DN 1000 with BARD, access DN 625



EU chamber with concrete cover plate,
Access DN 625



Valve chamber „Cover-in-cover", Cover DN 800, cl. D 400, access DN 625 watertight

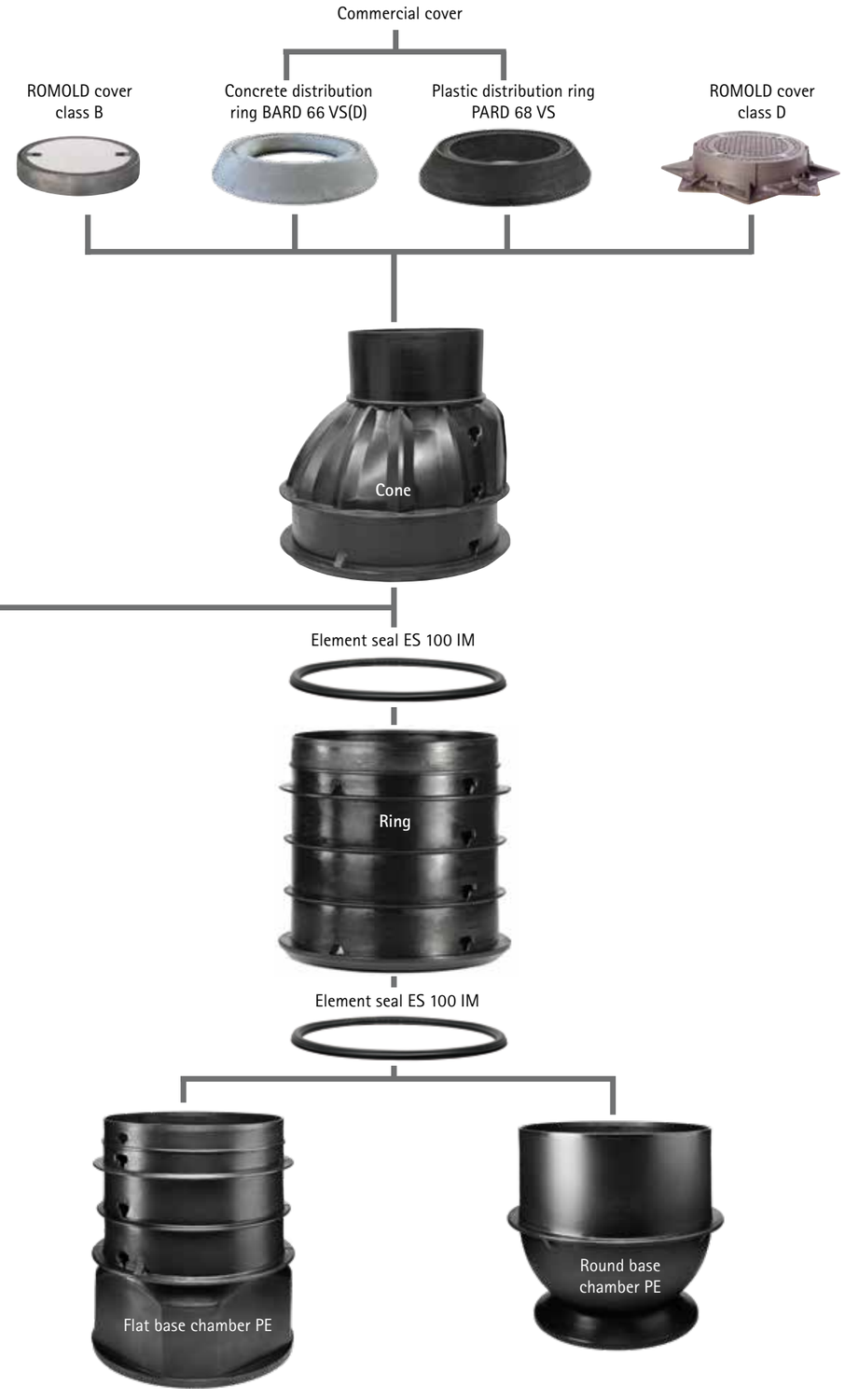
Energy conversion chamber, concrete cover cl. D 400, access DN 625

Manhole with channel with concrete cover, class D 400, access DN 800

BEV chamber, steel cover with vapour hood, access DN 800

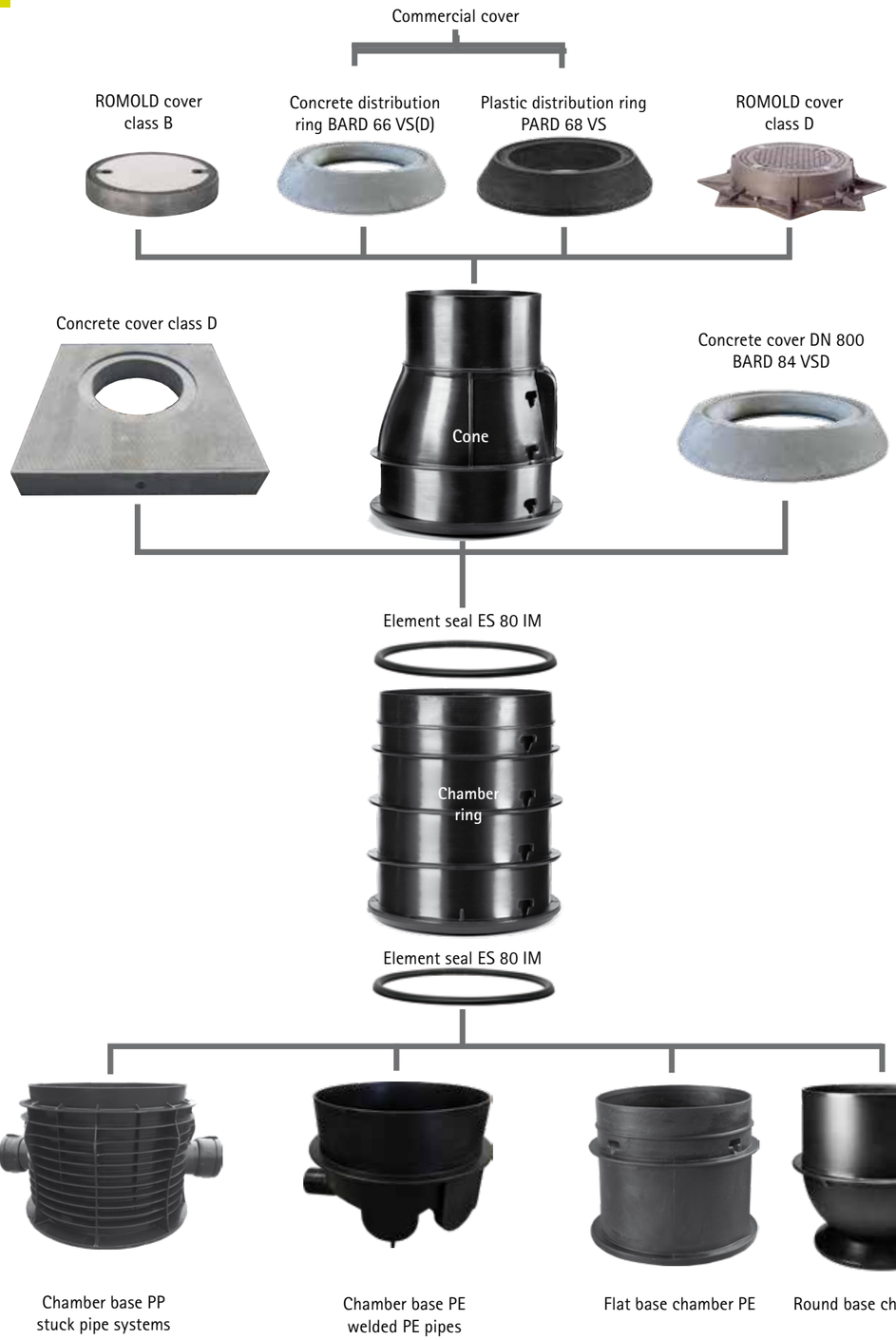
ROMOLD CHAMBER SYSTEMS – AN OVERVIEW

DN 1000



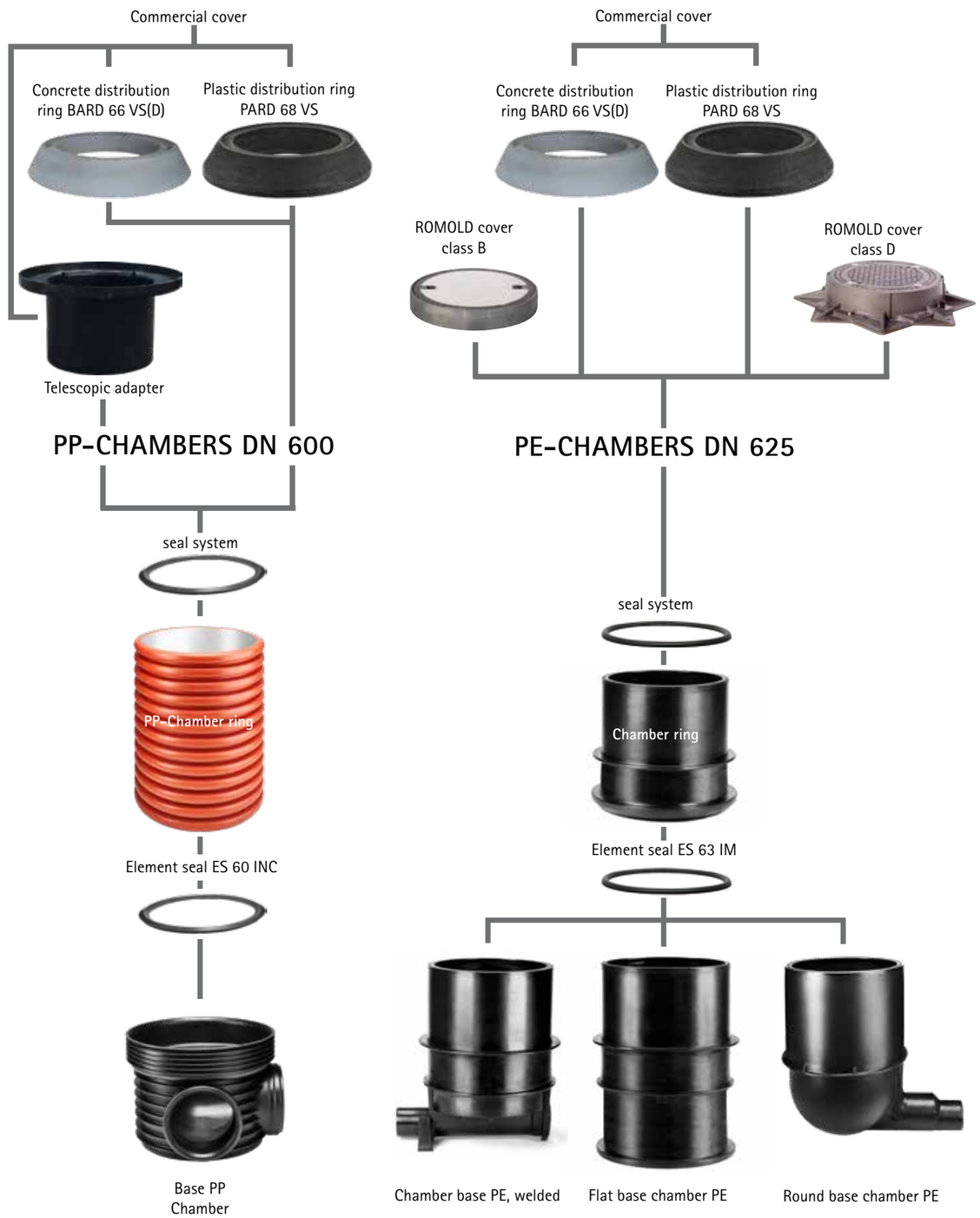
ROMOLD CHAMBER SYSTEMS – AN OVERVIEW

DN 800



ROMOLD CHAMBER SYSTEMS AN OVERVIEW

DN 600 AND DN 625

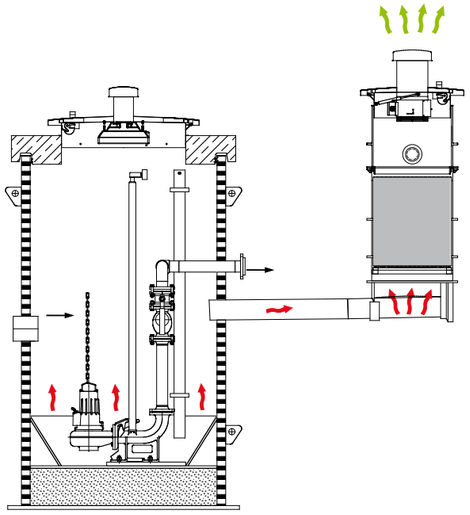


INNOVATIVE DOWN TO THE LAST DETAIL

TIME TO GO LARGE!

ROMOLD offers chamber systems of corrugated pipe in nominal widths DN 1300 to DN 3600 for water supply, waste water and pressure drainage products.

FOR FURTHER INFORMATION
SEE PAGES XVI AND 146



WE WON'T LEAVE YOU ALONE IN THE STENCH

ROMOLD keeps on working long after other odour filters reach their limits. Filter absorber chambers are custom planned and manufactured to suit each situation.

Our planning department is at your disposal.

SEE PAGE 163

SPECIAL SOLUTIONS FOR STANDARD PROBLEMS

Sometimes it takes plastic to professionally realise your planned solutions.

FOR FURTHER INFORMATION
SEE PAGE 46 FF

SMART UPGRADE KIT

As of now, ROMOLD is offering an upgrade kit for road gullies with wet sludge traps TYPE GRT. This facilitates retrofitting of an odour blocker.

SEE PAGE 103

DISCHARGE SYSTEMS

ROMOLD

CONTENTS: DISCHARGE SYSTEMS

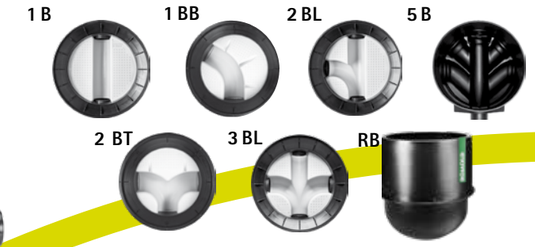
ROMOLD

ROMOLD CHAMBER SYSTEMS
AN OVERVIEW

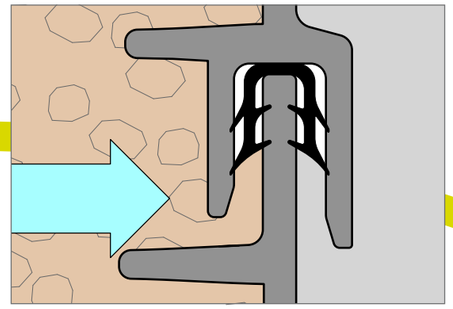
DIAMETER 500 TO 1250

EN 13598-2
Conformity guaranteed

ALL CHAMBERS
CLASS D
DRIVABLE



A variety of channels offer the best solutions for every inlet and outlet



3-sided element seal (Triple-Safety-Seal) The only chamber element seal that seals inwards and outwards.

DID YOU KNOW:

From the moment that a norm (EN/DIN) takes effect, the norm conformity substitutes a DIBt certification.

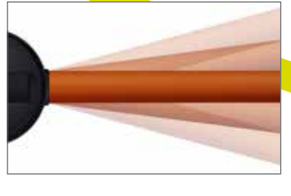
Low component weight with load weight category 4

Chamber cone can be shortened in cm increments

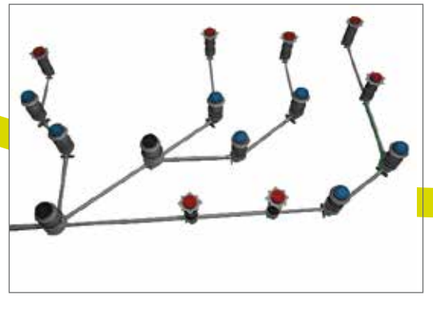
Concrete or plastic distribution rings

The principle of the ROMOLD system chamber in accordance with EN 13598-2 and EN 476

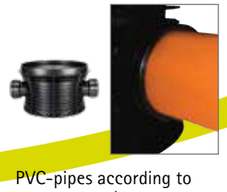
Standard gradient in all ROMOLD bases



Optimised sewage network, the same functional capacity and maintenance possibilities as traditional sewage networks
black: 2 x DN 1000 (access chamber)
blue: 7 x DN 800 (manhole)
red: 7 x DN 625 (inspection chamber)



Welding with electrofusion couplers with PE-pipes according to EN 12666.



PVC-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 is no problem with ROMOLD seals / connection saddles.

ROMOLD

PROJECT PICTURES

YOUR IDEAS IMPLEMENTED

Water-tight connection of chambers in the base plate

Sewer renovation – PP chamber and PP pipe welded

PE chamber DN1250 – pipe egg-profile 567/850

„Tight in Pipe" renovation – PP pipe D 392mm

housing development / PP domestic connection chambers DN 1000

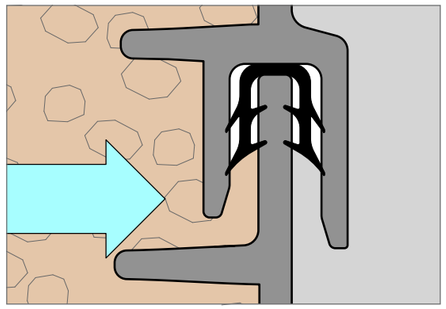
Drop chamber – welded PE system

Chamber in controlled low strength material (flowable fill)

ROMOLD

TECHNOLOGY THAT SATISFIES EVERY STANDARD

FIRST-RATE ROMOLD QUALITY



3-sided element seal (Triple-Safety-Seal) Don't be satisfied with less!

100 % VIRGIN MATERIAL

Only virgin material ensures lasting quality, welding capability and thereby absolute tightness Only our 100 % knowledge of the material alows definite statements on the durability of our products and welds

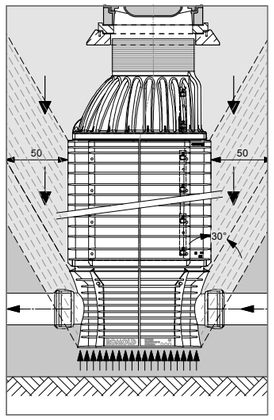
PRODUCT PALETTE

Over 160 different, industrially produced chamber bases (from DN/OD 160 to DN/OD 630) are available within a very brief time.

Connections are possible from 90° to 270° and are suitable for nearly all materials. Additional, custom connections are also no problem.

INTEGRATED UPLIFT PREVENTION

ROMOLD chambers all have integrated uplift prevention thanks to their external ribs. These ribs mesh with the backfilling material. No additional constructional measures are necessary. The chamber base is sufficiently secure against deformation, therefore lining with concrete is unnecessary.



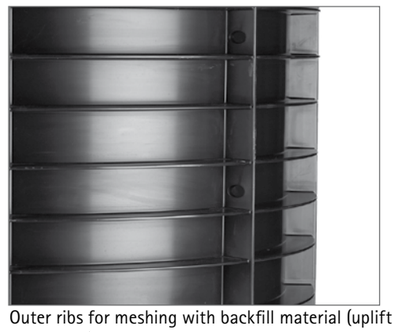
Please note assembly and installation instructions. Backfilling of the chamber construction must be done using materials of type **ATV-DVWK-A 127** (group 1 and group 2 of table 1) or in accordance with **DIN 1055** part 2 (non-cohesive soils - see table 1). Backfilling and compacting of the chamber construction must be carried out in accordance with **EN 1610** and **DWA-A 139**. According to static calculations, a ROMOLD chamber of DN 1000 (height 5.0 m, groundwater up to top ground surface) has a safety factor of 2.3 against uplift by groundwater.

Flexible sockets 3,75° in all directions

light surface

Hydraulically optimised channels

Edgeless outlet



Outer ribs for meshing with backfill material (uplift prevention)

INSTALLATION SITES

ROMOLD chambers can be deployed from class A 15 / group 1, to class E 600 / group 5, in accordance with EN 124. Tested in accordance with EN 14802 and deployed in Europe's streets for over 20 years.

CHAMBER ELEMENT SEAL

EN 681-1 and EN ISO 13259: watertight to 0.5 bar. ROMOLD element seals (Triple-Safety-Seal) meets the material requirements specified for EN 681-1 (EPDM material) and is available for all chamber diameters. ROMOLD element seals are 3-sided lip seals, which can easily be installed (manually without force). Increasing internal or external pressure increases the effectiveness of the seal. The labyrinth lip seal on both sides provides twice the safety of single -sided seal systems.

CHAMBER CONES

EN 476: Minimum access opening DN 600 required for accessible chamber systems. ROMOLD chambers have a DN 625 access opening.

OVERALL HEIGHT ADJUSTMENT

As opposed to the traditional construction, the height of ROMOLD plastic chambers is adjusted by shortening the upper component. On the outside, at intervals of 1 cm marking rings / small ribs permit precise level cuts. Chambers / cones can be shortened using a saw suitable for woodwork, e.g. a handsaw or jigsaw. DN 1000 and DN 800 chambers can be shortened by up to 250 mm, DN 625 and DN 500 chambers by up to 300 mm. All chambers are available in overall heights that differ by the shortening amount. This allows all overall heights to be created precisely and to the nearest centimetre.

CLIMBING STEPS

EN 13598-2 and/or EN 14396:
Corrosion-free climbing steps are factory fitted for ROMOLD DN 800 and DN 1000 accessible chambers. The strength fulfills standard requirements. The climbing steps are 250 mm apart.

ATV-DVWK-A 157:
The bottom climbing step is from ≥ 250 mm to ≤ 500 mm from the berm.

Safety is increased by a textured surface. If necessary, the climbing steps can be removed.

ACCESS AIDS

ROMOLD chambers can be fitted with access aids. Access aids can also be retro-fitted to installed chambers.

RINGS

Overall heights of DN 1000 rings are 25, 50, 75 and 100 cm. Overall heights for DN 800 are 50 cm and 100 cm, for DN 625 and DN 500 they are 10–40 cm, 30–60 cm, 60–90 cm.

Welding with electrofusion couplers with PE-pipes according to EN 12666.

PVC-KG-pipes that comply with EN 1401 and/or pp-pipes that comply with 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 is no problem with ROMOLD seals.

BERMS

DIN V 4034-1 / ATV-DVWK-A 157:
Angle of step surface ≤ 1:20. The berm is anti-slip.

CHANNEL

DIN V 4034-1 and/or ATV-DVWK-A 157:
channel height 1/1 D (for channels up to DN 400)

GRADIENT

The gradient is at least 0.5%.

INLET CONNECTION

DN 800 and DN 1000 chambers for socket-ended pipe systems:

Standard socket for connection of PVC pipes in accordance with **EN 1401** and PP in accordance with **EN 1852**, can be vertically and horizontally angled by +/- .3.75°.

DN 800 and DN 1000 chambers for welded pipe systems:

Standard spigot for connection via an electro-fusion sockets for PE pipes in accordance with **EN 12666** / DIN 8074/75.

DN 500 and DN 625 chambers:
Standard socket for connection of PVC pipes in accordance with **EN 1401** and PP in accordance with **EN 1852**,via ROMOLD inlet pipe seal in accordance with EN 681-1 and DIN 4060, can be vertically and horizontally angled.

Connection for all other materials via standard commercially available adapters.

OUTLET CONNECTION

DN 800 and DN 1000 chambers for socket-ended pipe systems:
Standard socket for connection of PVC pipes in accordance with **EN 1401** and PP in accordance with **EN 1852**, can be vertically and horizontally angled by +/- .3.75°.

DN 800 and DN 1000 chambers for welded pipe systems:
Standard spigot for connection via an electro-fusion sockets for PE pipes in accordance with **EN 12666** / DIN 8074/75.

DN 500 and DN 635 chambers:
Standard spigot for connection via an electro-fusion sockets for PE pipes in accordance with **EN 12666** / DIN 8074/75, or socket for connection of PVC pipes in accordance with **EN 1401** and PP in accordance with **EN 1852.**

The principle of the ROMOLD system chamber in accordance with EN 13598-2 and EN 476

Concrete or plastic ring for standard commercially available covers:
up to class D 400 EN 124

Cone:
Eccentric DN 625

with climbing steps in accordance with EN 13101 / EN 14396

Element seal:
Triple-Safety-Seal
EN 681-1, EN ISO 13259, EN 1610

Ring:
in various heights

climbing steps in accordance with EN 13598-2 / EN 14396

Element seal:
Triple-Safety-Seal
EN 681-1, EN ISO 13259, EN 1610

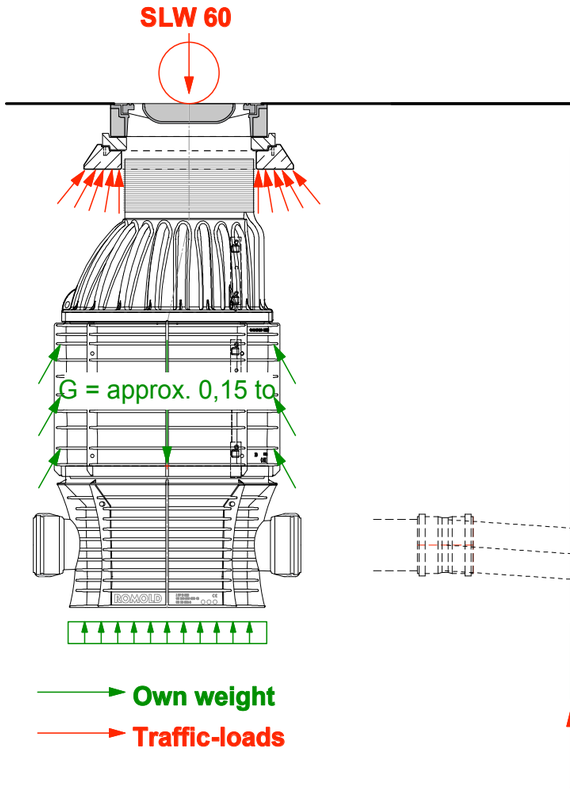
Base:
industrially manufactured base in various versions in accordance with EN 13598-2 and EN 476

Pipe seals:
EN 681-1, EN 1277, EN 1610

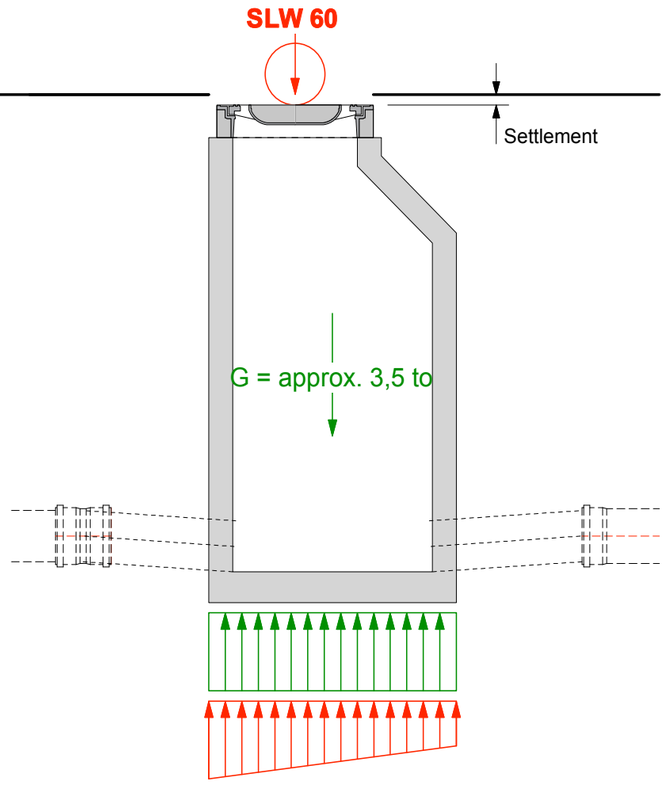
CHAMBER COVERS

EASY TO INSTALL AND FREE FROM SETTLING

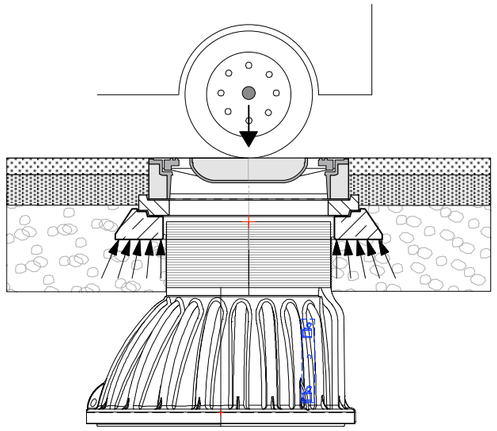
ROMOLD PP / PE-chamber



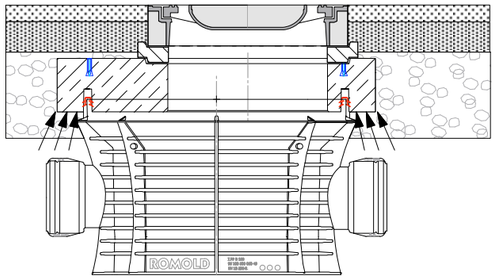
Concrete chamber



COMMERCIAL COVER WITH BARD-CLASS D



CLASS D DN 800 / DN 1000 COVER PLATE
FOR DN 800/ DN 1000 CHAMBERS



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 component using a ROMOLD frame (DN 500, DN 625 und DN 800).

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

For more information on plastic chamber levelling rings, see page 42

For more information on plastic or concrete support rings, see page 11

ROMOLD

CHAMBER COVERS FOR CLEAR WIDTH DN 625

LGH 63 D

PE accessible, smell-tight, weatherproof

LGH 63 DD

PE accessible, odour-proof, water-tight to 0.5 bar

LEA 63 G

Class A 15, without ventilation, for direct mounting on the chamber throat

LDB 63 B

Class B 125 without ventilation, for direct mounting on the chamber throat

LDB 63 BV

Class B 125, with ventilation, for direct mounting on the chamber throat

LDB 63 BDR

Class B 125 lockable, weather-proof, for direct mounting on the chamber throat

LDD 63 GDR

Class D 400 lockable, weatherproof

CHAMBER COVERS FOR PE CHAMBERS DN 625, DN 800 AND DN 1000

Class	Height cm	Details	Article name	Price €
accessible	3	PE, construction site lid for temporary covering of chamber opening, yellow	**LGH 63 RAL1033**	
accessible	3	PE, with seal and two integrated handles, resistant to pressureless surface or rain-water	**LGH 63 D**	
accessible	3	PE, with sealing and two integrated handles, watertight up to 0.5 bar	**LGH 63 DD**	
A	4	Cast iron, without ventilation, with ROMOLD frame, EN 124, for direct mounting on the chamber throat	**LEA 63 G**	
B	4	Cast iron infill, without ventilation, with ROMOLD frame, EN 124, for direct mounting on the chamber throat	**LDB 63 B**	
B	4	Cast iron infill, with ventilation, with ROMOLD frame, EN 124, for direct mounting on the chamber throat	**LDB 63 BV**	
B	4	Cast iron infill, surface water-proof, lockable with RO-MOLD frame, DIN 1229/EN 124, for direct mounting on the chamber throat	**LDB 63 BDR**	
D	13	Cast iron, surface water-proof, with 4 locking devices,with ROMOLD frame, with supporting flange, DIN 19584/EN 12	**LDD 63 GDR**	

All headrooms are net hights

LOAD DISTRIBUTION RINGS AND SEALS FOR CLEAR WIDTH DN 625 AND DN 800

BARB 66 VS

Concrete load distribution ring for commercial covers, Class B

BARD 66 VS BARD 67 VS

Concrete distribution ring for commercial covers, Class D

PARD 68/21 VS

Plastic distribution ring for commercial covers, Class D

BARD 66 VSD/ BARD 84 VSD

Concrete distribution ring Class D with seal for 625 and 800 access opening

LOAD DISTRIBUTION RINGS FOR PE CHAMBERS DN 625, DN 800 AND DN 1000

Class	Height cm	Details	Article name	Price €
accessible	3	PE, construction site lid for temporary covering of chamber opening, yellow	**LGH 63 RAL1033**	
D	7	Concrete load distribution ring for commercial covers	**BARD 67 VS**	
		Concrete load distribution ring with radial seal for commercial covers	**BARD 66 VSD**	
		Seal (Ø 30 mm) between UE 100.63/UE 80.63/E 63 and load distribution ring PARD 68 VS	**DS 67**	
D	15	Polymer load distribution ring for commercial covers	**PARD 68/21 VS**	

LOAD DISTRIBUTION RINGS AND SEALS FOR CHAMBERS I PP AND R PE DN 1000

Class	Height cm	Details	Article name	Preis €
A–D	5	Concrete load distribution ring for commercial cover	**BARD 66 VS**	
A–D	7	Concrete load distribution ring with radial seal for commercial cover	**BARD 66 VSD**	
		Seal between cone and load distribution ring (optional)	**ES 63 IM**	
		Seal (Ø 20 mm) between IPP/IPE cone and load distribution ring PARD 68/21 VS	**DS 68**	

All headrooms are net hights

COVER PLATES FOR MANHOLES DN 800 TO DN 1250

BAPD 80/63 VS

Class D concrete laod distribution ring
DN 800, class D, clear opening 625

BAPD 125/63 VS
BAPD 125/80 VS

Concrete lid für DN 1250
Class D, clear width 625 und clear opening 800

BAPD 100/63 VS
BAPD 100/80 VS

Concrete lid für DN 1000
Class D, clear opening 625 und clear width 800

COVER PLATES FOR COMMERCIAL COVERS DN 625/DN 800

Class	Height cm	Details	Article name	Price €
D	14	Cover plate for manhole DN 800 with clear opening ID 625 mm, with seal	**BAPD 80/63 VS**	
		Cover plate for manhole DN 1000 with clear opening ID 625 mm, with seal	**BAPD 100/63 VS**	
		Cover plate for manhole DN 1000 with clear opening ID 800 mm, with seal	**BAPD 100/80 VS**	

All headrooms are net hights

CHAMBER COVERS FOR DN 500

LG 50 DD

PE accessible, odourtight

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

CHAMBER COVERS DN 500

Class	Height cm	Details	Article name	Price €
accessible		PE, with sealing and two integrated handles, watertight and odourtight	**LG 50 DD**	
B	2	Cast iron, without ventilation, with locking mechanism, with ROMOLD frame, EN 124	**LEB 50 GL**	
B	2	Cast iron, with ventilation, with locking mechanism, with ROMOLD frame with gully trap holder, EN 124	**LEB 50 GVLS**	
D	11	Cast iron, surface water-proof, with ROMOLD frame with supporting flange, EN 124	**LED 50 GD**	

All headrooms are net hights

ACCESSORIES FOR CHAMBER COVERS

Details	Article name	Price €
Height adjustment ring DN 625 (for seal see element seal ES 63, page 32)	**E 63/40.8**	
Dirt bucket made of PE for chamber covers with ventilation	**SE 50 PE-B1**	
Dirt trap for cover LDB 63 BV		
Access aid hand rail, with two handles, for cover LDD 63	**EH 63 D-S**	
Access aid sleeve, for above-mentioned hand rail	**EH 63 D-H**	
Cover lifting equipment for ROMOLD Cover LDD 63 (2 required)	**HS M16**	

ROMOLD

ARTICLE NAMES EXPLANATION

ABBREVIATIONS AND WHAT THEY MEAN

1 B

Straight channel

1 BB

Angled channel

2 BL

Inlets 90° and 180°
bzw. 180° and 270°

2 BT

Inlets 90° and 270°

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**	**Access opening in cm**	**Overall height in cm**	**Equipped with climbing steps**

RING

E	100	/50	S
Ring	**Component nominal diameter in cm**	**Overall height in cm**	**Equipped with climbing steps**

BASE

2B	100	25	20	/50
Base form with two inlets (L) inlets have same gradient	**Component nominal diameter in cm**	**Channel nominal diameter in cm**	**Optional reduction of the spigot nominal diameter (outlet)**	**Overall height in cm**

TWO SOLUTIONS FOR YOUR SEWER SYSTEM

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

3 BL

Straight channel, with
2 additional inlets 90°
and 270°

5 B

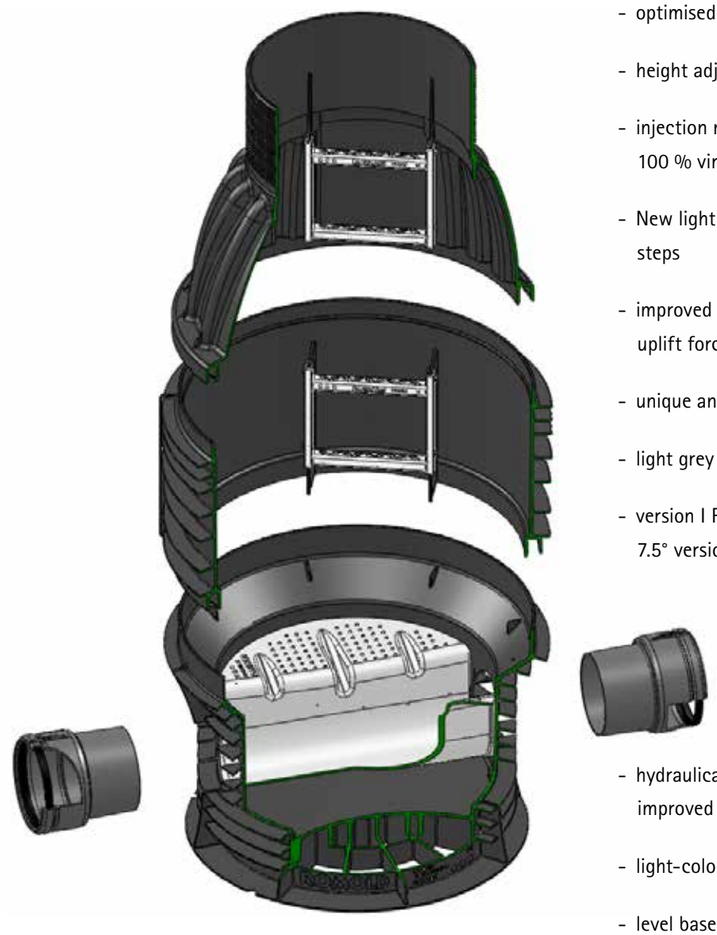
Straight channel, with
4 additional inlets 90°,
135°, 225° and 270°

F

Base without channel
with pump sump

RB

round base



- optimised stability
- height adjustment to the nearest centimetre
- injection moulding: solid wall,
  100 % virgin material without foam content
- New light grey, corrosion free and anti slippery steps
- improved rib spacing = greater security against uplift forces
- unique and well-proven triple-safety-seal
- light grey anti-slip berm
- version I PP: flexible sockets on inlet and outlet +/- 7.5° version I PE: welded on spigots
- hydraulically optimised channel:
  improved flow characteristic
- light-coloured inliner
- level base

ROMOLD

MANHOLES DN 1000

FOR ALL SOCKET-ENDED PIPES

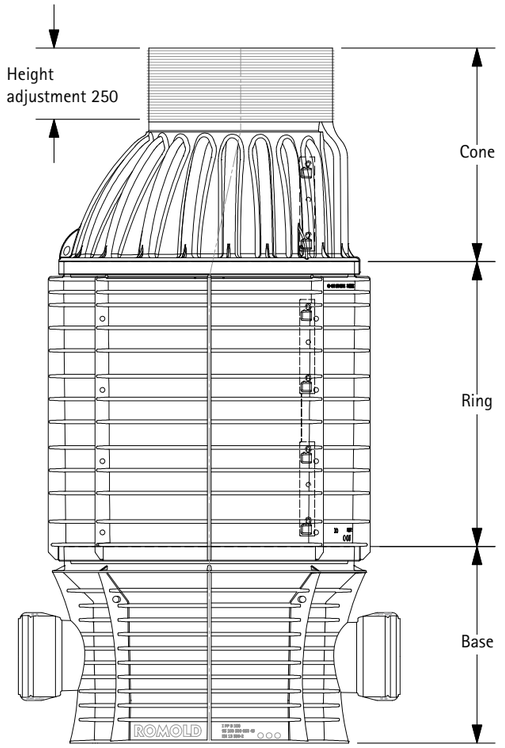
NOTE:

Custom solutions in manhole diameter DN 1250 are available on request.

Scan QR-Code for project questionnaire / see site questionnaire chapter

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

For the latest information on this topic, visit www.romold.de, Products menu, Supply-/ Discharge systems sub-menu, chambers DN 1000



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

PUBLIC TENDER TEXT EXAMPLE

PP-manhole DN 1000

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

Item 1: manholes DN 1000, channel DN/OD 160 manholes DN 1000 made of Polypropylene (PP) in accordance with EN 13598-2 and EN 476, 100 % virgin material without recycling or foam content, secured against uplift 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 in accordance with the national safety regulations, Triple-Safety-Seal (three sided lip-seal / element seal) in accordance with EN 681-1 and EN 1277, 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 DN/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 for load-decoupling with shifting prevention to take up a commercial cover with a 625 mm access opening, class D 400 in accordance with EN 14802.

Chamber height bed-GOK ..... m

Connecting pipe material .....

System ROMOLD, type: I PP 1 B 100.15 or equal

Deliver chamber and transfer it acc. to planning requirements.

ROMOLD

1 B

Straight channel

1 BB

Bended channel

2 BL

Inlet 90° and 180°
or 180° and 270°

2 BT

Inlet 90° and 270°

CONE PP DN 1000

FOR CHAMBER COVERS SEE PAGE 12

Height cm	DN mm	Details	Article name	Price €
50–75	DN 1000/ DN 625	Eccentric, with corrosion-resistant steps in light-grey	I PP UE 100.63/75 S	

CHAMBER RING PP DN 1000

Height cm	DN mm	Details	Article name	Price €
100	DN 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	

CHAMBER BASE PP DN 1000

STRAIGHT MAIN CHANNEL

Main channel	Height cm	Channel	Details	Article name	Price €
160	50		Socket joint on inlet 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	

CHAMBER BASE PP DN 1000

STRAIGHT MAIN CHANNEL WITH INLETS

Main channel	Height cm	Channel	Details	Article name	Price €
160	50		Socket joint on inlet 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			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 inlet and outlet for a flexible connection (+/- 7,5°) of smooth plastic pipes without a bed drop, inlets at 90° and 270°	I PP 2 BT 100.20/50-90°	
250	50			I PP 2 BT 100.25/50-90°	
315	50			I PP 2 BT 100.30/50-90°	
160	50		Socket joint on inlet and outlet for a flexible connection (+/- 7.5°) of smooth plastic pipes with without bed drop, inlets at 90°, 180° and 270°	I PP 3 BL 100.15/50-90°	
200	50			I PP 3 BL 100.20/50-90°	
250	50			I PP 3 BL 100.25/50-90°	
315	50			I PP 3 BL 100.30/50-90°	

3 BL

Straight channel with two additional inlets 90° and 270°

Project-spezific channel design

BASE PP DN 1000

ANGLED MAIN CHANNEL

Channel DN/OD	Height cm	Channel	Details	Article name	Price €
160	50		Socket joint on inlet and outlet for a flexible connection +/- 7.5° of smooth plastic pipes angled right or left, channel: industrially produced, seamless and angled (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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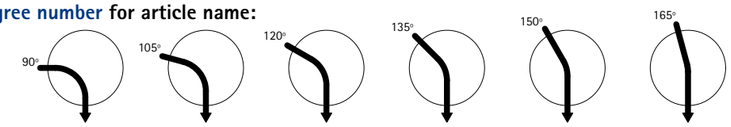
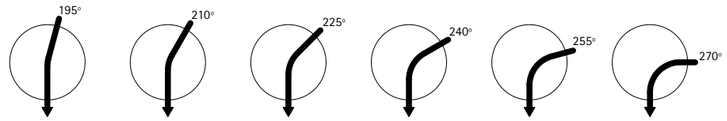


● **Angled left, Degree number for article name:**



ELEMENT SEAL

Details	Article name	Price €
Triple-Safety-Seal DN 1000 in accordance with EN 681-1 and EN 1277. For connecting DN 1000 manhole components	ES 100 IM	

ACCESSORIES

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

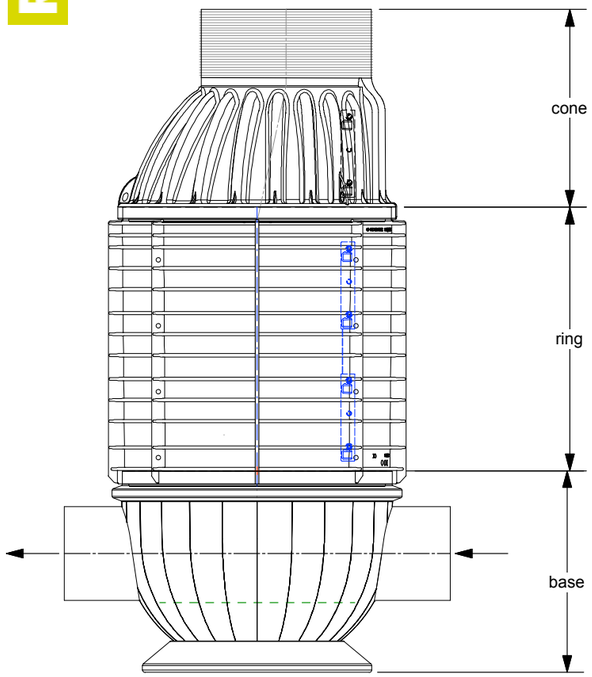
CUSTOMER-SPECIFIC REQUIREMENTS

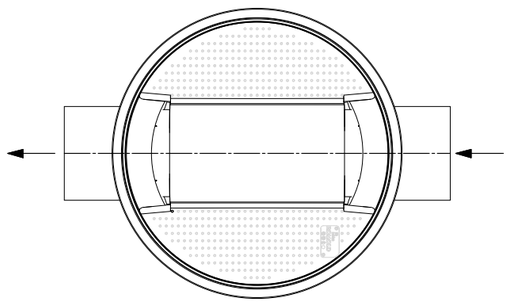
Details	Article name	Price €
Surcharge for additional angled inlet DN/OD 160–DN/OD incl. socket	I PP GZ XX	
Surcharge for dimension change, per socket/spigot deviating from the main channel	Dimension change	
Surcharge for gradient z 5 % per socket	Surcharge for socket angle	

ROMOLD

MANHOLES DN 1000

FOR WELDED PIPE SYSTEMS





BENEFITS OF ROMOLD CHAMBER SYSTEM DN 1000

Depending on the the region in Germany, the channel systems are socket-ended or welded. For both options ROMOLD has the right solution: PE chamber systems from PE for welded and PP chamber systems for socket-ended solutions. ROMOLD is based on your needs and requirements. ROMOLD fulfills your needs and requirements.

For the latest information on this topic, visit www.romold.de, Products menu, Supply-/ Discharge systems sub-menu, chambers DN 1000

PUBLIC TENDER TEXT EXAMPLE

Manhole DN 1000 with access DN 625, 1 inlet, straight channel:

Item 1: Manhole DN 1000 – with PE inlet and outlet spigot.

Access manholes DN 1000 – with PE base, polymer rings and cone in accordance with 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, Rings and eccentric cone with integrated, light-coloured, corrosion-resistant climbing steps, in accordance with national safety regulations, Triple-Safety-Seal (3-sided lip seal) in accordance with EN 681-1 and EN 1277 as element seal, base with non-deforming, flat support surface, light-coloured, inspection-friendly channel with standard gradient 0.5%.

Straight channel, welded PE spigot at specified angle at inlet and outlet for connection of PE pipes with electro-fusion sockets, berm height 1/1 D, light-coloured, structured, anti-slip berm surface. Load-distribution ring made of reinforced concrete C50/60 for load-decoupling with shifting prevention to accept a commercial cover with a 625 mm access opening, class D 400 in accordance with EN 14802.

Chamber height bed-GOK ..... m

connecting PE-pipes to dia 450 mm

Inlet: (PE-80 or PE-100, dia xx mm, SDR xx) .....

Outlet: (PE-80 or. PE-100, dia xx mm, SDR xx) .....

System ROMOLD, type: I PE 1 B 100.xx or equal
Deliver chamber and transfer it acc. planning project

Scan QR-Code for project questionnaire / see site questionnaire chapter

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

Base available with selected pipe spigots

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

Elastomer lip seal „Triple-Safety-Seal“ up to 0.5 bar

FOR CHAMBER COVERS SEE PAGE 12

CONE PP DN 1000

Height cm	DN mm	Details	Article name	Price €
50–75	DN 1000/ DN 625	Eccentric, with corrosion-resistant steps in light-grey	I PP UE 100.63/75 S	

RING PP DN 1000

Height cm	DN mm	Details	Article name	Price €
100	DN 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	

BASE PE DN 1000

STRAIGHT CHANNEL

Channel DN/OD	Height cm	Channel	Details	Article name	Price €
Da 160	50		Inlet and outlet spigot-ended for connection of PE pipe with electro-fusion socket	RPE 1 B 100.15/50 BS	
Da 180/200	50			RPE 1 B 100.20/50 BS	
Da 225/250	50			RPE 1 B 100.25/50 BS	
Da 280/315	50			RPE 1 B 100.30/50 BS	
Da 355/400	50			RPE 1 B 100.40/50 BS	
Da 450					

BASE PE DN 1000

STRAIGHT CHANNEL WITH INLETS

Channel DN/OD	Height cm	Channel	Details	Article name	Price €
Da 160	50		Spigot-ended on inlet and outlet for a flexible connection of smooth plastic pipes with electro-fusion socket, without a bed drop, inlets at 90°, 180° / 180°, 270°	RPE 2 BL 100.15/50–90° BS	
Da 180/200	50			RPE 2 BL 100.20/50–90° BS	
Da 225/250	50			RPE 2 BL 100.25/50–90° BS	
Da 280/315	50			RPE 2 BL 100.30/50–90° BS	
Da 160	50			RPE 2 BL 100.15/50–270° BS	
Da 180/200	50			RPE 2 BL 100.20/50–270° BS	
Da 225/250	50			RPE 2 BL 100.25/50–270° BS	
Da 280/315	50			RPE 2 BL 100.30/50–270° BS	
Da 180/200	50		Spigot-ended on inlet and outlet for a flexible connection of smooth plastic pipes with electro-fusion socket, without a bed drop, inlets at 90°	RPE 2 BT 100.20/50–90° BS	
Da 225/250	50			RPE 2 BT 100.25/50–90° BS	
Da 280/315	50			RPE 2 BT 100.30/50–90° BS	
Da 160	50		Spigot-ended on inlet and outlet for a flexible connection of smooth plastic pipes with electro-fusion socket, without a bed drop, inlets at 90°, 180° and 270°	RPE 3 BL 100.15/50–90° BS	
Da 180/200	50			RPE 3 BL 100.20/50–90° BS	
Da 225/250	50			RPE 3 BL 100.25/50–90° BS	
Da 280/315	50			RPE 3 BL 100.30/50–90° BS	

1 B

Straight channel

1 BB

Bended channel

2 BL

Inlet 90° and 180°
resp. 180° and 270°

2 BT

Inlet 90° and 270°

3 BL

Straight channel with
two additional inlets
at 90° and 270°

Projek specitic
channel formation

BASE DN 1000

BENDED CHANNEL

Main channel	Height cm	Channel	Details	Article name	Preis €
Da 160	50		PE spigot on inlet 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–●	
Da 180/200	50			I PE 1 BB 100.20/50–●	
Da 225/250	50			I PE 1 BB 100.25/50–●	
Da 280/315	50			I PE 1 BB 100.30/50–●	
Da 355/400	50			I PE 1 BB 100.40/50–●	
Da 450					

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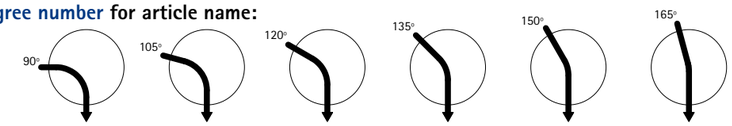

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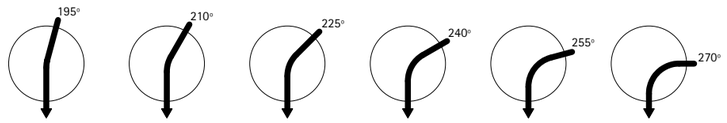


ELEMENT SEALS

Details	Article name	Price €
Triple-Safety-Seal DN 1000 in accordance with EN 681-1 and EN 1277. For connecting DN 1000 manhole components.	ES 100 IM	
Chamber construction PE for fully welded chambers		

ACCESSORIES

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

BASE PE DN 1000

STRAIGHT CHANNEL

Main channel	Height cm	Channel	Details	Article name	Price €
500	80		Inlet and outlet spigot, DN/OD 500	1 B 100.50/80 BIR	

BASE PE DN 1000

ANGLED MAIN CHANNEL

Main channel	Height cm	Channel	Details	Article name	Price €
500	80		Inlet and outlet spigot, DN/OD 500, angled to 135°, 153°, 171°, 189°, 207°, 225°; channel: industrially produced, seamlessly angled (not segmented) base with three-point support	1 BB 100.50/80-XXX° BIR XXX comply with required degree value	

FLAT BASE PE DN 1000

WITHOUT CHANNEL

Height cm	Base design	Details	Article name	Price €
115		Flat base with climbing steps	F 100/65 FIBS BS	
115			FCE 100.63/115 FIBS BS	
140		Flat base with climbing steps incl. eccentric cone	FCE 100.63/140 FIBS BS	
165			FCE 100.63/165 FIBS BS	

ELEMENT SEAL

Details	Article name	Price €
Triple-Safety-Seal DN 1000 in accordance with EN 681-1 and EN 1277. For connecting DN 1000 manhole components.	ES 100 IM	

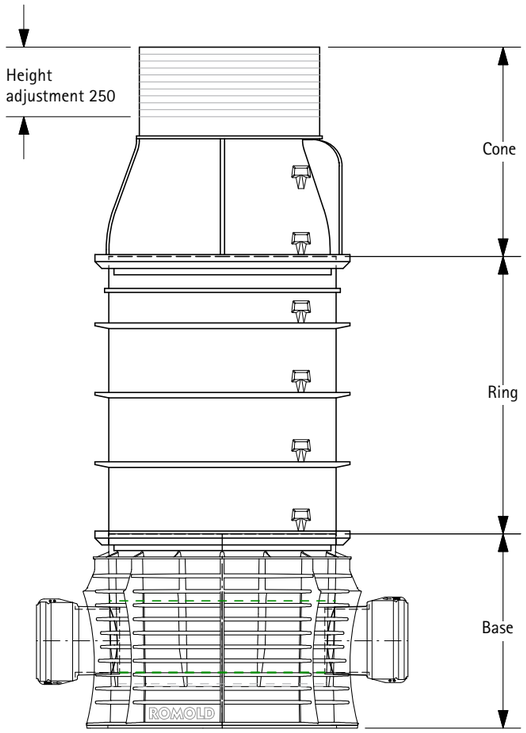
CUSTOMER-SPECIFIC REQUIREMENTS

Details	Article name	Price €
Surcharge for additional inlet dia 160 - dia 400, incl. spigot	I PE G'Z XX	
Surcharge for dimension change, per inlet deviating from the main channel	Dimension change	
Surcharge for gradient > 5 %, per spigot	Surcharge for spigot angle	
Chamber construction PE for fully welded chambers		

ROMOLD

MANHOLES DN 800

FOR SOCKET-ENDED PIPES



BENEFITS OF ROMOLD CHAMBER SYSTEM DN 800

- space saving, ideal for inner city areas
- staff access option
- cost-effective initial investment and long-term maintenance
- ideal connection between control chamber and manhole
- high quality chamber system
- full possibility of controlling and cleaning

ROMOLD DN 800 Chamber. THE ORIGINAL.

For the latest information on this topic, visit www.romold.de, Products menu, Supply-/ Discharge systems sub-menu, chambers DN 800

PUBLIC TENDER TEXT EXAMPLE

Manholes DN 800 with access DN 625,
1 inlet, straight channel:

Item 1: Access manhole DN 800 – with inlet and outlets.

Access manholes DN 800 – with PP base, polymer rings and cone in accordance with 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, Rings and eccentric cone with integrated, light-coloured, corrosion-resistant climbing steps, in accordance with national safety regulations, Triple-Safety-Seal (3-sided lip seal) in accordance with EN 681-1 and EN 1277 as element seal, base with non-deforming, flat support surface, light-coloured, inspection-friendly channel with standard gradient 0.5%, straight channel, welded PE socket at inlet and outlet for connection of smooth plastic pipes can be angled horizontally and vertically, berm height 1/1 D, light-coloured, structured, anti-slip berm surface.

Chamber height bed-GOK ..... m

connecting pipe lin (to DN/OD 315 mm)

Inlet: Material ..... DN/OD .....

Outlet: Material ..... DN/OD .....

System ROMOLD, Typ: I PP 1 B 80.xx or equal
Deliver chamber and transfer it acc. to planning specifications

Scan QR-Code for project questionnaire / see site questionnaire chapter


System base


Cones


Rings


Elastomer-lip-seal „Triple-Safety-Seal"

FOR CHAMBER COVERS SEE PAGE 12

CONE DN 800

Height cm	DN	Details	Article name	Price €
50–75	DN 800/ DN 625	Eccentric, with climbing steps	**UE 80.63/75 FIBS**	
75–100			**UE 80.63/100 FIBS**	
100–125			**UE 80.63/125 FIBS**	
125–150			**UE 80.63/150 FIBS**	
30–60		Centric, without climbing steps	**U 80.63/60**	

RING DN 800

Height cm	DN	Details	Article name	Price €
50	800	With climbing steps	**E 80/50 FIBS**	
100			**E 80/100 FIBS**	

ROMOLD

1 B

Straight channel

1 BB

Bended channel

2 BL

Inlet 90° and 180°
or 180° and 270°

2 BT

Inlet 90° and 270°

3 BL

Straight channel, with
2 additional inlets 90°
and 270°

Projek specitic
channel formation

5 B

Straight channel, with 4
additional inlets 90°, 135°,
225° und 270°

F

Base without channel
with sump

BASE PP DN 800 — STRAIGHT CHANNEL

Main channel	Height cm	Channel	Details	Article name	Price €
160	50		Inlet and outlet: PE spigot for connection of PE pipe with electro-fusion socket or smooth pipe using a double socket	**I PP 1 B 080.15/50**	
200	50			**I PP 1 B 080.20/50**	
250	50			**I PP 1 B 080.25/50**	
315	50			**I PP 1 B 080.30/50**	

BASE PP DN 800 — STRAIGHT CHANNEL WITH ADDITIONAL INLETS

Main channel	Height cm	Channel	Details	Article name	Price €
160	50		Inlets and outlet: PE spigot for connection of PE pipe with electro-fusion socket or smooth pipe using a double socket, without bed drop, inlets at 90°, 180° or 180°, 270°	**I PP 2 BL 080.15/50–90°**	
200	50			**I PP 2 BL 080.20/50–90°**	
250	50			**I PP 2 BL 080.25/50–90°**	
315	50			**I PP 2 BL 080.30/50–90°**	
160	50			**I PP 2 BL 080.15/50–270°**	
200	50			**I PP 2 BL 080.20/50–270°**	
250	50			**I PP 2 BL 080.25/50–270°**	
315	50			**I PP 2 BL 080.30/50–270°**	
200	50		Inlets and outlet: PE spigot for connection of PE pipe with electro-fusion socket or smooth pipe using a double socket without bed drop, Inlets 90°, 270°	**I PP 2 BT 080.20/50–90°**	
250	50			**I PP 2 BT 080.25/50–90!**	
315	50			**I PP 2 BT 080.30/50–90°**	
160	50		Inlets and outlet: PE spigot for connection of PE pipe with electro-fusion socket or smooth pipe using a double socket, 2 cm bed drop at Inlets 120° and 240° or at the inlets 90° and 270°	**I PP 3 BL 080.15/50–90°**	
200	50			**I PP 3 BL 080.20/50–90°**	
250	50			**I PP 3 BL 080.25/50–60°**	
315	50			**I PP 3 BL 080.30/50–90°**	

BASE PP DN 800 — ANGLED MAIN CHANNEL

Main channel	Height cm	Channel	Details	Article name	Price €
160	50		Inlet and outlet: PE spigot for connection of PE pipe with electro-fusion socket or smooth pipe using a double socket angled right or left channel: industrially produced, seamless angled (not segmented)	**I PP 1 BB 080.15/50–●**	
200	50			**I PP 1 BB 080.20/50–●**	
250	50			**I PP 1 BB 080.25/50–●**	
315	50			**I PP 1 BB 080.30/50–●**	

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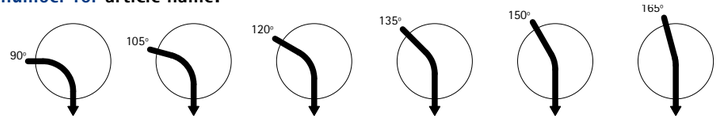

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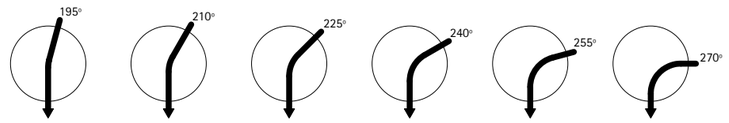


ELEMENT SEAL

Details	Article name	Price €
An ES 80 element seals is necessary for connecting DN 800 manhole components.	**ES 80 IM**	

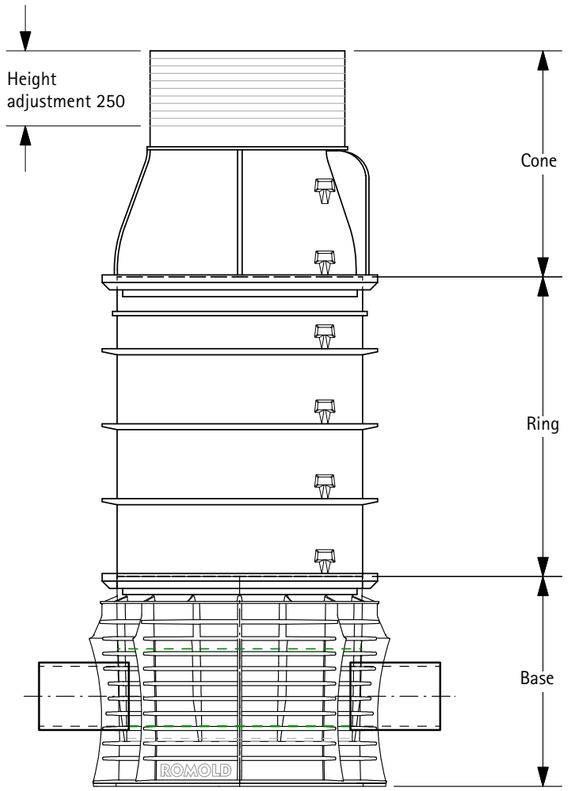
CUSTOMER-SPECIFIC REQUIREMENTS

Details	Article name	Price €
Surcharge for additional angled inlet DN/OD 160–DN/OD 315 incl. socket	**I PP GZ XX**	
Surcharge for dimension change, per socket/spigot deviating from the main channel	dimension change	
Surcharge for gradient > 5 % per socket	Socket angle surcharge	

ROMOLD

HOUSE INSPECTION CHAMBER DN 800

FOR SOCKET-ENDED AND WELDED PIPES



BENEFITS OF ROMOLD CHAMBER SYSTEM DN 800

- space-saving, ideal for inner city areas
- staff access option
- cost-effective initial investment and long-term maintenance
- ideal connection between control chamber and , manhole
- high quality chamber system
- full possibility of controlling and cleaning

ROMOLD DN 800 Chamber. THE ORIGINAL.

PUBLIC TENDER TEXT EXAMPLE

Manholes DN 800 with access DN 625, 1 inlet, straight channel:

Item 1: Manhole DN 800 – with PE inlet and outlet spigots

Access manhole DN 800 made of polyethylene (PE), in accordance with DIN EN 13598-2 and DIN EN 476, made of 100% virgin material with no recycled content, sorted and without foam additives, solid-walled prefabricated elements with external ribs for uplift prevention, manhole rings and eccentric cone with integrated, light, corrosion-resistant steps in accordance with national safety regulations, triple safety seal (3-sided lip seal) in accordance with EN 681-1 and DIN 4060 as an element seal.

Chamber base floor with 3 point supports; straight channel DN / OD 160, berm height 1/1 D. The standard conformity in accordance with EN 13598-2 must be proven by German-language certificates issued by an accredited test institute.

Socket connection: Inlet with seal for hinged integration of smooth plastic tubes on the outside, outlet can be angled vertically and horizontally as a spigot end DN / OD 160 for connection to the outside smooth plastic pipes.

PE connection welded: inlet and outlet welded at the specified angle with a spigot end for connection of PE pipe with electro-fusion sockets up to max. D 180mm

Chamber height bed-GOK ..... m

Connecting PE pipes to dia 315 mm

Inlet: (PE-80 or PE-100, dia xx mm, SDR xx) .....

Outlet: (PE-80 or PE-100, dia xx mm, SDR xx) .....

System ROMOLD, Typ: I PE 1 B 80.xx or equal

Deliver chamber and transfer it acc. planning project

Scan QR-Code for project questionnaire / see site questionnaire chapter


Cone


Rings

Elastomer-lip-seal

1 B


Straight channel

5 B


Straight channel with four additional inlets 90°, 135°, 225° and 270 with with bed drop

FOR CHAMBER COVERS SEE PAGE 12

CHAMBER CONE DN 800

Height cm	DN mm	Details	Article name	Price €
50–75	DN 800/ DN 625	Eccentric, with climbing steps	**UE 80.63/75 FIBS**	
75–100			**UE 80.63/100 FIBS**	
100–125			**UE 80.63/125 FIBS**	
125–150			**UE 80.63/150 FIBS**	
30–60		Centric, without climbing steps	**U 80.63/60**	

CHAMBER RING DN 800

Height cm	DN mm	Details	Article name	Price €
50	800	With climbing steps	**E 80/50 FIBS**	
100			**E 80/100 FIBS**	

BASE DN 800 WITHOUT CHANNEL

Height cm	Details	Article name	Price €
65	Flat base with climbing steps	**F 80/65 FIBS BS**	
115	Flat base manhole with climbing steps (Combi-manhole)	**FCE 80.63/115 FIBS BS**	

BASE DN 800 STRAIGHT MAIN CHANNEL

Main channel	Height cm	Zusätzliwche Zuläufe	Details	Artikelbezeichnung	Preis €
160	60	–	straight inlet, base part with three-point supports, spigot-ended outlet	**1 B 80.15/60 BIT**	
160	60	4 x 160	same as 1 B, 4 additional inlets, DN/OD 160, 45° and 90° left and right, bed drop +1/2 D cm	**5 B 80.15/60 BIT**	

ELEMENT SEAL

Details	Article name	Price €
An ES 80 element seals is necessary for connecting DN 800 manhole components	**ES 80 IM**	
Fully welded chambers		

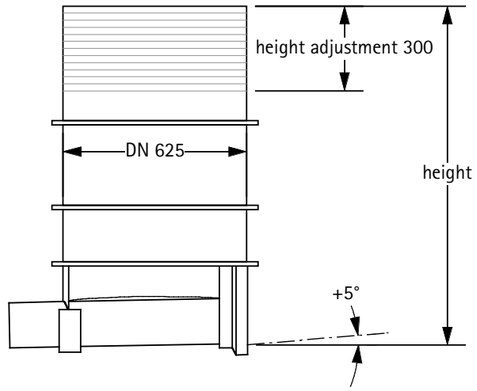
CUSTOMER SPECIFIC REQUIREMENTS

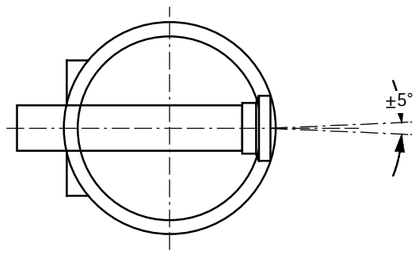
Details	Artikelbezeichnung	Preis €
Inlet seal for connection of socket-ended pipe systems DN/OD 160	**IS 160**	
PE pipe spigots for inlet and outlet (PE D 160, SDR XX)	**RSG 160/30**	

ROMOLD

HOUSE INSPECTION CHAMBERS DN 625

FOR SOCKET-ENDED AND WELDED PIPES





PUBLIC TENDER TEXT EXAMPLE

PE-Chamber DN 625 – straight channel DN/Dia 160:

PE-Chamber DN 625, 100 % virgin material without recycling content (ultimate elongation / elongation at tear >_ 200%), monolithic construction, straight channel, straight inlet DN/OD 160 with elastomer seal for a flexible connection of pipes in accordance with EN 681-1 and EN 1277, berm 1/1 D, outlet spigot DN/OD 160, horizontal reinforcement ribs to prevent uplift, Triple-Safety-Seal in accordance with 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.

Schamber height bed-GOK .....

Connecting pipe material .....

System ROMOLD, Typ: 1 B 63.15/xx BID, or equal

ADVANTAGES OF THE ROMOLD CHAMBER SYSTEM DN 625

- up to channel DN 300
- available as version 5B (with 4 additional inlets)
- space saving, ideal for inner city areas
- cost-effective initial investment and long-term maintenance
- ideal inspection chamber
- high quality chamber system
- full possibility of controlling and cleaning

For the latest information on this topic, visit www.romold.de, menu products, sub-menu supply-/discharge systems, chambers DN 625

RING DN 625

FOR CHAMBER COVERS SEE PAGE 12

Height cm	DN mm	Details	Article name	Price €
10–40	625	without climbing steps	**E 63/40.8**	
30–60			**E 63/60.8**	
60–90			**E 63/90.8**	

BASE DN 625

STRAIGHT MAIN CHANNEL

Main channel	Height cm	Additional inlets	Details	Article name	Price €
160	60–90	–	straight inlet with elastomer lip seal for flexible connection of inlet pipe, base component with three-point support	**1 B 63.15/90 BITD**	
	90–120			**1 B 63.15/120 BITD**	
	120–150			**1 B 63.15/150 BITD**	
	150–180			**1 B 63.15/180 BITD**	
160	60–90	4 x 160	same as 1 B4 additional inlets, DN /OD 160, 45° and 90° left and right, bed drop +1/2 D cm	**5 B 63.15/90 BITD**	
	90–120			**5 B 63.15/120 BITD**	
	120–150			**5 B 63.15/150 BITD**	
	150–180			**5 B 63.15/180 BITD**	
160/200	35–75	2 x 200	Inlet and outlet connection optional reduced, 2 additional inlets, DN /OD 200, 90° left and right, without bed drop, base component with integrated stand support	**3 BL 63.20.15/75 BI**	

Scan QR-Code for project questionnaire
PE 3 BL 63.20.15:
or see site questionnaire chapter.

Scan QR-Code for project questionnaire
PE 1 B 63.15 + 5 B 63.15:
or see site questionnaire chapter

1 B

Straight channel

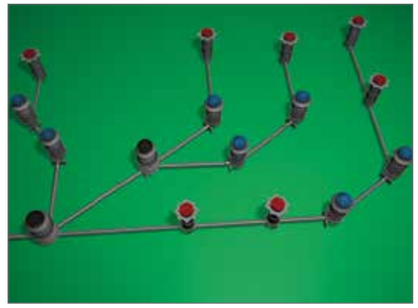
5 B

Straight channel with four additional inlets 90°, 135°, 225° and 270 with with bed drop

F

Base without channel

DOES DN 1000 UP TO A HEIGHT OF 140 CM REALLY MAKE SENSE? SEE PAGE 38



Optimised sewage network, the same functional capacity and maintenance possibilities as traditional sewage networks black: 2 x DN 1000 (access chamber)
blue: 7 x DN 800 (manhole)
red: 7 x DN 625 (inspection chamber)

BASE DN 625

WITHOUT CHANNEL

Height cm	Details	Article name	Price €
60–90	Flat base, for installation of inspection fittings, valves etc.	**F 63/90 BS**	
90–120		**F 63/120 BS**	

ELEMENT SEAL

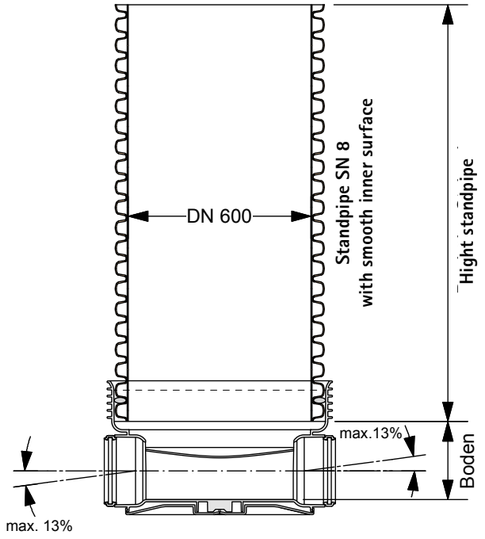
Details	Article name	Price €
An ES 63 element seal is required for connecting DN 625 chamber elements.	**ES 63**	

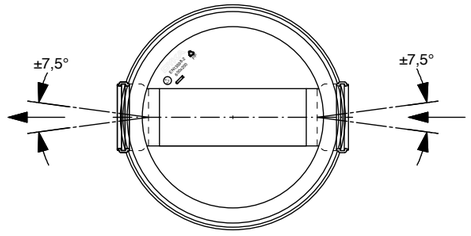
ACCESSORIES

Additional inlets, pipe connection for welded pipes and element welds on request.

PP DN 600 SEWER CHAMBER

FOR SOCKET-ENDED PIPES





flex sleeves integrated

BENEFITS OF ROMOLD CHAMBER SYSTEM DN 600:

- fitted with integrated flexible socket-ends for all inlets and outlets as standard
- with SN 8 riser pipe as standard
- class D 400 as standard
- suitable for up to 5 m groundwater level as standard

PUBLIC TENDER TEXT EXAMPLE

PP sewer chamber DN 600, straight channel, DN/OD 200 to DN/OD 400

Polypropylene (PP) inspection chamber DN 600, anti-lift in accordance with DIN EN 13598-2 and DIN EN 476, chamber base with level contact surface and sufficient deformation stability for installation in 5.0 m groundwater, exterior corrugated riser pipe with inspection-friendly, light coloured, smooth internal surface. Ring stiffness of riser pipe min. SN 8. Chamber base with straight channel. Channel gradient 0 %.

Connection: inlet and outlet, with joint socket,up 7.5° in each direction, for direct connection to smooth plastic pipes.

Norm-conformity in acc. with EN 13598-2 must be certified by an accredited testing institute. Inspection chamber complete with concrete load distribution ring for shift-proof fit of a commercial chamber cover ID 625 to class D 400.

Dimensions:

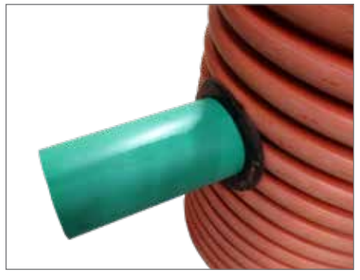
Chamber height: GOK-bottom: ‚.....' m

Pipe diameter for connection: ‚.....'

Deliver inspection chamber and install at correct height and alignment,

inspection chamber DN 600

Brand: ROMOLD, Type I PP 1 B 60.xx or equal



Connection in riser pipe

base

riser

telescopic adapter

load distribution ring PARD 70 VS

seal system for:
base/riser
riser/telescopeic adapter
riser/distribution ring

BASE, RISER PIPE AND TELESCOPIC ADAPTER

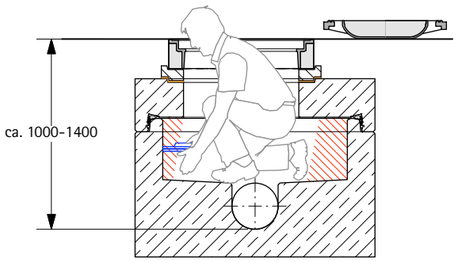
For the latest information on this topic, visit www.romold.de, Products menu, Discharge systems sub-menu, chambers DN 600

Scan QR-Code for project questionnaire / see site questionnaire chapter

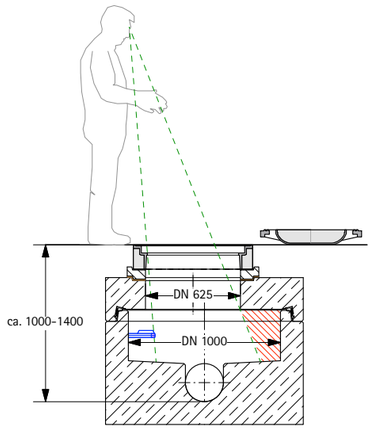
ROMOLD

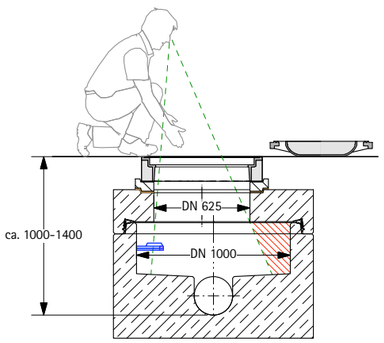
DOES DN 1000 UP TO A HEIGHT OF 140 CM REALLY MAKE SENSE?

No, because blind spots make inspection impossible. Therefore you can save money and make use of the alternative from ROMOLD. Therefore you can save money and make use of the alternative from ROMOLD..

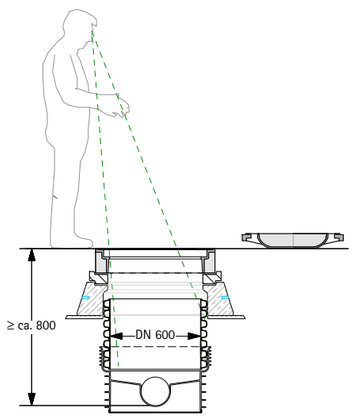


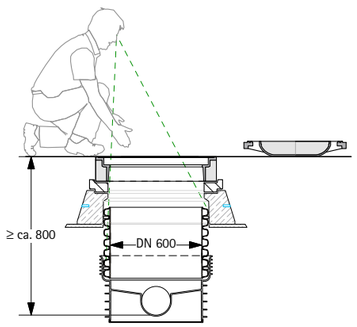
DN 1000:
LIMITED INSPECTIONS





ROMOLD DN 600:
COMPLETE INSPECTION





1 B

Straight channel

1 BB

Angled channel

2 BL

Inlets 90° and 180° / 180° and 270

2 BT

Inlets 90° and 270°

3 BL

Straight channel, with two additional inlets 90° and 270°

BASE PP DN 600 — STRAIGHT CHANNEL

Main channel	Height cm	Channel	Details	Article name	Price €
Da 160	20		Socket joint on inlet and outlet for a flexible connection up to +/- 15° of smooth plastic pipes, incl. seal to riser pipe	I PP 1 B O60.15/20	
Da 200	23			I PP 1 B O60.20/23	
Da 250	29			I PP 1 B O60.25/29	
Da 315	36			I PP 1 B O60.30/36	
Da 400	45			I PP 1 B O60.40/45	

BASE PP DN 600 — STRAIGHT CHANNEL WITH INLETS

Main channel	Height cm	Channel	Details	Article name	Price €
Da 160	20		Socket joint on inlet and outlet for a flexible connection up to +/- 15° of smooth plastic pipes, without bed drop, inlets at 90°, 180° / 180°, 270°, incl. seal to riser pipe	I PP 2 BL O60.15/20–90°	
Da 200	23			I PP 2 BL O60.20/23–90°	
Da 250	29			I PP 2 BL O60.25/29–90°	
Da 315	36			I PP 2 BL O60.30/36–90°	
Da 160	20			I PP 2 BL O60.15/20–270°	
Da 200	23			I PP 2 BL O60.20/23–270°	
Da 250	29			I PP 2 BL O60.25/29–270°	
Da 315	36			I PP 2 BL O60.30/36–270°	
Da 160	20		Socket joint on inlet and outlet for a flexible connection up to +/- 15° of smooth plastic pipes, without bed drop, inlets at 90°, 270°, incl. seal to riser pipe	I PP 2 BT O60.15/20–90°	
Da 200	23			I PP 2 BT O60.20/23–90°	
Da 250	29			I PP 2 BT O60.25/29–90°	
Da 315	36			I PP 2 BT O60.30/36–90°	
Da 160	20		Socket joint on inlet and outlet for a flexible connection up to +/- 15° of smooth plastic pipes, without bed drop, inlets at 90°, 180°, 270°, incl. seal to riser pipe	I PP 3 BL O60.15/20–90°	
Da 200	23			I PP 3 BL O60.20/23–90°	
Da 250	29			I PP 3 BL O60.25/29–90°	
Da 315	36			I PP 3 BL O60.30/36–90°	

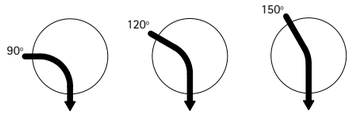
Assembly and Installation:
QR-Code einscannen,
or see ROMOLD.de

BASE PP DN 600

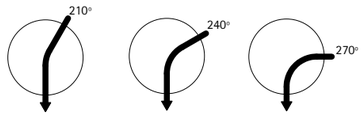
ANGLED MAIN CHANNEL

Main channel	Height cm	Channel	Details	Article name	Price €
Da 160	20		Socket joint on inlet and outlet for a flexible connection up to +/- 15° connection channel, inkc. seal to riser pipe	I PP 1 BB O60.15/20-●	
Da 200	23			I PP 1 BB O60.20/23-●	
Da 250	29			I PP 1 BB O60.25/29-●	
Da 315	36			I PP 1 BB O60.30/36-●	

● **Angled right, Degree number for article name:**



● **Angled left, Degree number for article name:**



RISER PIPE DN 600

FOR CHAMBER COVERS SEE PAGE 12

Height cm	DN mm	Details	Article name	Price €
100	600	Corrugated riser pipe SN 8 with smooth inner surface	E 60/100-SN8-INC	
150			E 60/150-SN8-INC	
200			E 60/200-SN8-INC	
300			E 60/300-SN8-INC	
600			E 60/600-SN8-INC	
600	600	Corrugated riser pipe SN 4 without smooth inner surface	E 60/600-SN4-PLAST	

LOAD DISTRIBUTION RING

Height cm	DN mm	Details	Article name	Price €
10	600	Polymer load distribution ring for commercial covers	PARD 70/17 VS	
10	600	Concrete load distribution ring for commercial cover	BARD 69 VS	

TELESCOPIC ADAPTER

Details			Article name	Price €
10–40	600	Telescopic adapter from PP inclusive seal in connection with riser pipe SN4 (without smooth inner surface)	T 60/036 D	

ACCESSORIES

Details	Article name	Price €
Seal for connection between base and riser pipe	ES 60 INC	
Seal between riser pipe and polymer load distribution ring	ES 60 INC	
Seal between riser pipe and concrete load distribution ring	DS 67	
ROMOLD elastomer-lip-seal DN 150 / d = 160 mm, for the connection of smooth plastic pipes for drop structures, material: SBR	I SB ISR 160	
ROMOLD elastomer-lip-seal DN 200 / d = 200 mm, for the connection of smooth plastic pipes for drop surfaces, material: SBR	I SB ISR 200	
ROMOLD cup saw DN/OD 160 (188) mm, for inlet pipe seal ISR 160 / DN 150, incl. saw for adapter CSA2	CS-I 160/188	
ROMOLD cup saw DN/OD 200 (228) mm, for inlet pipe seal ISR 200 / DN 200, incl. saw for adapter CSA2	CS-I 200/228	

ROMOLD

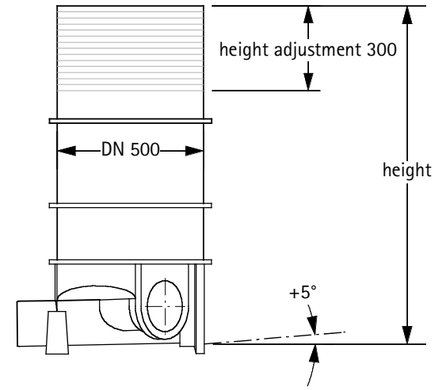
CHAMBERS DN 500

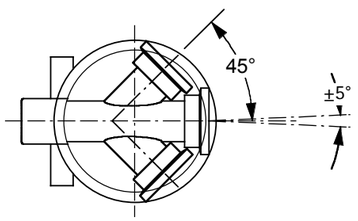
FOR SOCKET-ENDED AND WELDED PIPES

System chamber

Rings

Elastomer-lip-seal





BENEFITS OF ROMOLD CHAMBER SYSTEM DN 500

- ideal as a domestic connection chamber
- available in version 3B (with 2 additional inlets)
- space-saving
- cost-effective initial investment and long-term maintenance
- high quality chamber system
- full possibility of controlling and cleaning

PUBLIC TENDER TEXT EXAMPLE

PE-Chamber DN 500 – straight channel DN/dia 160:

PE-Chamber DN 500, 100 % virgin material without recycling content (ultimate elongation / elongation at tear >_ 200%),

straight channel, straight inlet DN/OD 160 with elastomer seal for a flexible connection of pipes in accordance with EN 681-1 and EN 1277, berm 1/1 D, outlet spigot DN/OD 160, horizontal reinforcement ribs to prevent uplift, Triple-Safety-Seal in accordance with 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

Schamber height bed-GOK .....

Connecting pipe material .....

System ROMOLD, Typ: 3 B 50.15/xx BITD or equal

For the latest information on this topic, visit www.romold.de, menu products, sub-menu supply-/discharge systems, chambers DN 500

3 B

Straight channel with 2 additional inlets 45° right and left.

FOR CHAMBER COVERS SEE PAGE 12

CHAMBER RING DN 500

Height cm	DN mm	Details	Article name	Price €
10–40	500	without steps	**E 50/40**	
30–60			**E 50/60**	
60–90			**E 50/90**	

CHAMBER BASE DN 500

STRAIGHT MAIN CHANNEL

Main channel	Height cm	Additional inlets DN/OD	Details	Article name	Price €
160	60–90	2 x 160	straight channel, with elastomer seal, for connection of inlet pipe with 2 extra inlets DN/OD 160 45° left and right, bed drop + 5 cm.	**3 B 50.15/90 BITD**	
	90–120			**3 B 50.15/120 BITD**	
	120–150			**3 B 50.15/150 BITD**	
	150–180			**3 B 50.15/180 BITD**	

ELEMENT SEAL

Details	Article name	Price €
An ES 50 element seal is required for connecting DN 500 chamber elements	**ES 50**	

ACCESSORIES

Additional inlets, pipe connection for welded pipes and element welds on request

ROMOLD

ACCESSORIES

SEALS, CUP SAW AND WELDING

INLET PIPE SEALS FOR DN 500, DN 625 AND DN 800 CHAMBERS

For pipes	Details	Article name	Price €
da = 32 mm	Inlet seal in accordance with EN 1277, material SBR, standard in socket design for connecting a PVC pipe in accordance with to EN 1401, a PP pipe in accordance with EN 1852, and/or a PE pipe in accordance with EN 12666	**IS 32**	
da = 40 mm		**IS 40**	
da = 50 mm		**IS 50**	
da = 63 mm		**IS 63**	
da = 75 mm		**IS 75**	
da = 90 mm		**IS 90** DN 80	
da = 110 mm		**IS 110** DN 100	
da = 125 mm		**IS 125**	
da = 160 mm		**IS 160** DN 150	
da = 180 mm		**IS 180**	
da = 200 mm		**IS 200**	
da = 225 mm		**IS 225**	
da = 250 mm		**IS 250**	
da = 315 mm		**IS 315** DN 300	
da = 400 mm		**IS 400**	

CHAMBER-HEIGHT ADJUSTMENT RINGS

Article name	Height and diameter	Price €
PDRD 63/04 VS	40 mm/625 mm (ID630/OD840/H40)	
PDRD 63/06 VS	60 mm/625 mm (ID630/OD840/H60)	
PDRD 63/08 VS	80 mm/625 mm (ID630/OD840/H80)	
PDRD 63/10 VS	100 mm/625 mm (ID630/OD840/H100)	
PDRD 63/12 VS	120 mm/625 mm (ID630/OD840/H120)	
PARD 63/06 K VS	30 to 60 mm (v-shaped, for Height and slope compensation DN 625)	

ROMOLD plastic levelling rings are lightweight, flexible, non-slip and unbreakable, i.e. stretching and and impacts can not affect the levelling rings.

An additional advantage is that ROMOLD levelling rings are resistant to frost, corrosion and de-icing salt. The different construction heights of 4 to 12 cm can be combined easily and comfortably.

An angled levelling ring rounds off the range of products.

CUP SAWS* FOR CHAMBERS DN 500, DN 625 AND DN 800

For seals	Details	Article name	Prie €
da = 32 mm (IS 32)	for pipe seal openings	**CS 32**	
da = 40 mm (IS 40)		**CS 40**	
da = 50 mm (IS 50)		**CS 50**	
da = 63 mm (IS 63)		**CS 63**	
da = 75 mm (IS 75)		**CS 75**	
da = 90 mm (IS 90)		**CS 90** DN 80	
da = 110 mm (IS 110)		**CS 110** DN 100	
da = 125 mm (IS 125)		**CS 125**	
da = 160 mm (IS 160)		**CS 160** DN 150	
da = 180 mm (IS 180)		**CS 180**	
da = 200 mm (IS 200)		**CS 200**	
da = 225 mm (IS 225)		**CS 225**	
da = 250 mm (IS 250)		**CS 250**	
da = 315 mm (IS 315)		**CS 315** DN 300	
da = 400 mm (IS 400)		**CS 400**	
Saw adapter for all cup saws		**CSA2**	

* suitable for inlet pipe seals for DN 500, DN 625 and DN 800 chambers

WELDED SPIGOTS AND ADDITIONAL CHANNELS

Details	Article name	Price €
Welded pipe connection, e.g. for drop structures	**RSG (32 to 500)**	
Additional channel	**GZ (160 to 400)**	
Element welding of chamber parts	**EV (50 to 100)**	

ACTIV-KOHLEFILTER*

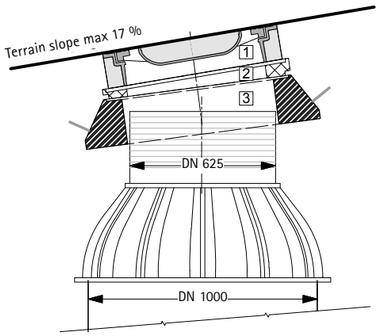
Details	Article name	Price €
Active carbon Filter for sewer chambers for elimination of odours	**FIS-0600-2**	

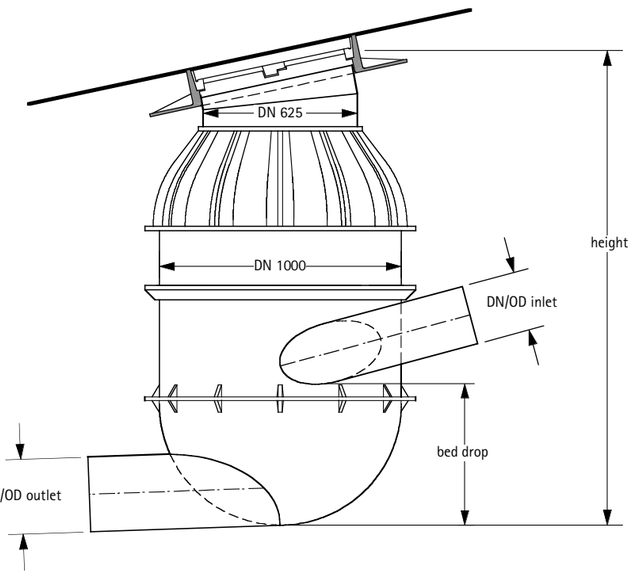
*= for more details on the *ACTIV* carbon filter please see page 154

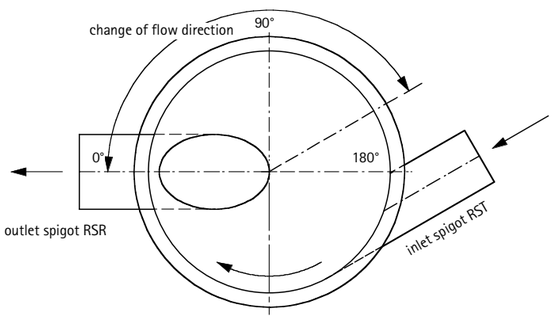
ROMOLD

ENERGY COMPENSATING CHAMBERS

SELF-CLEANING ROUND BASES







BENEFITS OF ROMOLD ENERGY COMPENSATING CHAMBERS

- Serious savings potential in excavation and the number of chambers compared to traditional construction
- Inlet and outlet on site adjustable (optionally)
- also applicable for bridges

SLOPING COVER CAN BE PRODUCED ON-SITE

1 Commercial cover
2 V-shaped height adjustment ring PAR-V 63 S slope = approx. 4 %
3 Polymer support ring PARD 68 V max. slope = approx. 13 %

WHAT YOU NEED TO KNOW ABOUT ENERGY COMPENSATING CHAMBERS

In strongly inclined areas (e.g. mountain drainage) the standard pipe gradient results in very deep pipe trenches with short chamber intervals. The construction costs are usually uneconomical. Using pipes 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. The version above allows shallow chambers and downscaled diameters (also see pg. 35 for considerable reduction of number of chambers). Actuated by welded PE-pipes, this results in a flexible, leak-tight sewer pipe system.

Video: functionality of a ROMOLD energy compensating chamber, scan QR-Code.

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

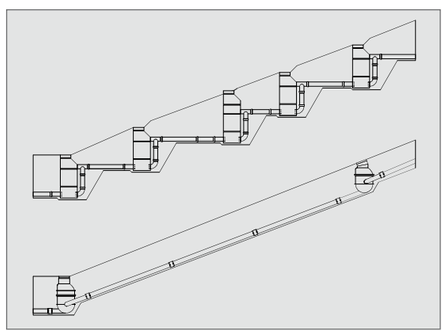
FOR CHAMBER COVERS SEE PAGE 12

ENERGY COMPENSATING CHAMBER DN 1000

Height cm	Details	Article name	Price €
100	Active carbon Filter for sewer chambers for elimination of odours	**RB 100/100 BS**	
50	PE chamber ring with light corrosion-resistant steps	**E 100/50 FIBS**	
100	PE chamber ring with light corrosion-resistant steps	**E 100/100 FIBS**	
75	PE chamber cone, partly eccentric with light corrosion-resistant steps	**UE 100.63/75 FIBS**	
100	PE chamber cone, partly eccentric with light corrosion-resistant steps	**UE 100.63/100 FIBS**	
	Triple-Safety-Seal (3-sided lip seal) in accordance with EN 681-1 and EN ISO 13259 as element seal. For connecting chamber elements	**ES 100 IM**	

ENERGY COMPENSATING CHAMBER DN 800

Height cm	Details	Article name	Price €
80	PE chamber base without channel, maximum pipe diameter DN 300	**RB 80/80 BS**	
50	PE chamber ring with light corrosion-resistant steps	**E 80/50 FIBS**	
100	PE chamber ring with light corrosion-resistant steps	**E 80/100 FIBS**	
75	PE chamber cone, partly eccentric with light corrosion-resistant steps	**UE 80.63/75 FIBS**	
100	PE chamber cone, partly eccentric with light corrosion-resistant steps	**UE 80.63/100 FIBS**	
	Triple-Safety-Seal (3-sided lip seal) in accordance with EN 681-1 and EN ISO 13259 as element seal. For connecting chamber elements	**ES 80 IM**	



Saving potential thanks to use of ROMOLD energy compensating chambers.

Scan QR-Code for project questionnaire / see site questionnaire chapter

ENERGY COMPENSATING CHAMBER DN 625

FOR CHAMBER COVERS SEE PAGE 12

Height cm	Details	Article name	Preis €
90	PE chamber base without channel, integrated outlet spigot DN/OD 200/160	**RBS 63.20.15/90**	
90	PE chamber base without channel, maximum pipe diameter DN 200	**RB 63/90**	
40	PE chamber ring	**E 63/40.8**	
60	PE chamber ring	**E 63/60.8**	
90	PE chamber ring	**E 63/90.8**	
	Triple-Safety-Seal (3-sided lip seal) in accordance with EN 681-1 and EN ISO 13259 as element seal. For connecting chamber elements	**ES 63 IM**	

ACCESSORIES

Details	Article name	Price €
Chamber opening with gradient (max. 25°) for adapting to area	**US 63**	
Inliner from high molecular PE for DN 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 page 44**	
Tangential pipe spigot at inlet (RST) of energy conversion chamber		
Radial outlet spigot (RSR) at lowest point of energy conversion chamber		
Additional inlets and element welds upon request		

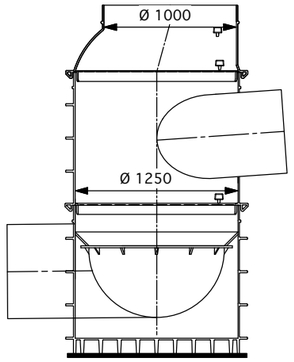
RB

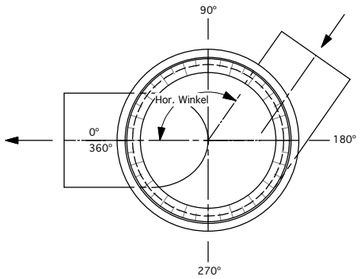
Round base for welding of PE-pipe connections as energy compensating or pressure line end chamber.

ROMOLD energy conversion chambers have a bottom part with a hemispherical round bottom with a standing aid for DN 800 and DN 1000 - without the use of funnels, bends or similar hydraulically unfavourable shapes - this prevents deposits and ensures the best flow conditions.

Scan QR-Code for project questionnaire / see site questionnaire chapter

ENERGY COMPENSATING CHAMBER DN 1250



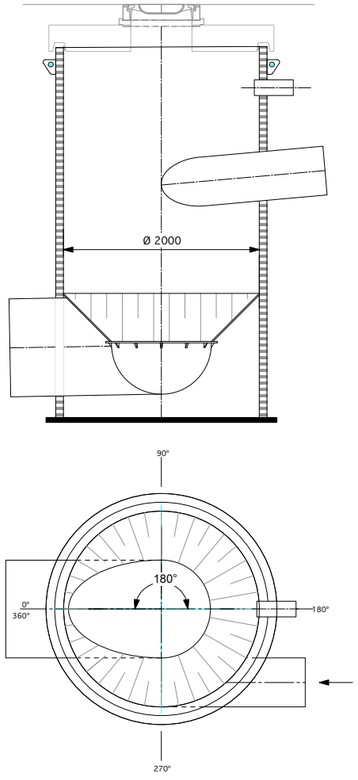


CONSTRUCTION UNITS DN 1250

Height cm	Details	Article name	Preis €
100	PE chamber base without a channel (without welded in round base) DN 1250	**F 125/100 FIBS**	
100	Chamber ring DN 1250 with corrosion-resistant steps	**E 125/100 FIBS**	
50	Chamber ring DN 1250 with corrosion-resistant steps	**E 125/50 FIBS**	
50	Reduction DN 1250 to DN 1000 Further construction can be done with cone 100.63 or with a cover plate.	**ER 125.100/50 FIBS**	
	Triple-Safety-Seal (3-sided lip seal) in accordance with EN 681-1 and EN 1277 as an element seal. For connecting chamber elements DN 1250	**ES 125**	
	Element welding of PE components DN 1250	**EV 125**	

The above table contains the standard components. For project-specific requirements, please contact our ROMOLD team.

ENERGY COMPENSATING CHAMBER > DN 1250



Example energy conversion chamber DN 2000

GENERAL NOTES ON ENERGY CONVERSION CHAMBERS

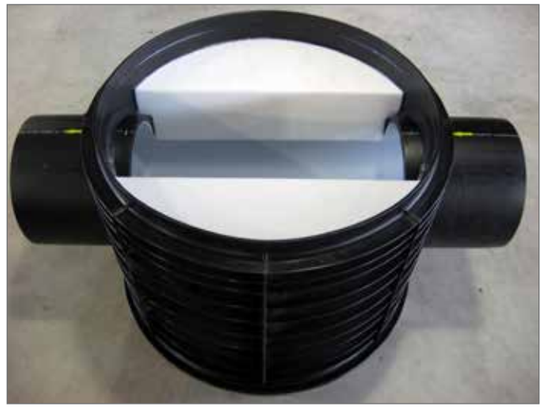
The aim of energy conversion chambers is reduced flow speed. Therefore the outflow performance of the

outlet can be lower than the results of the pipe hydraulics.

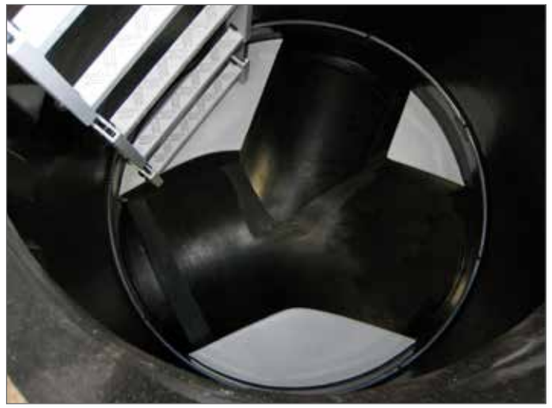
The assessment of the energy conversion chambers requires the determined amounts of water, pipe diameters and gradients.

Internal view with inlet spigots and round base

HANDMADE CHANNEL CHAMBERS



Example: Chamber DN 1000 PE pipe D 450 x 25.5 mm



Chamber DN 1000 channel DN 500 + side Inlet DN 400

In case of confined spaces and large pipe diameters (≥ DN 500), shafts without a channel or with one-sided berms with round bottoms and PE sockets are also available.

Chamber DN 1250. Angled channel DN 600 with side inlet

ASSEMBLY AND INSTALLATION NOTES

FOR ROMOLD I PP/I PE MANHOLE SYSTEM DN 1000

Scan the QR code for assembly and installation notes to go

1. TRANSPORT AND STORAGE

Store chamber elements vertically on level ground. In case of extended outdoor storage, protection of the chambers against the sun is vital. All supplied element seals have to be stored in their packaging, protected from frost and direct sunlight.

2. GENERAL INFORMATION

ROMOLD PP/PE-manholes are provided ready to connect.

Deliveries must be checked for completeness.

All components must be checked for damage or contamination before installation and cleaned or replaced if necessary. Damaged components must not be installed!

3. CHAMBER ASSEMBLY AND INSTALLATION

All of the installation parameters listed below must be permanently ensured! For example, use appropriate measures to prevent rinsing out of fine material (by using fleece, cross-beam out of clay or similar).

3.1 BEDDING (GRANULAR SUB BASE)

The minimum depth required below the base is 10 cm. The thickness of the lower bedding layer (sub-base), must be "bedding type 1" in accordance with EN 1610, Section 7.2.

The support area of the manhole base must be load-bearing and completely levelled.

The support area of the manhole base must be established in accordance with the planning (differential between base to channel level = 20 cm).

3.2 BASE/PIPE CONNECTION

The base shall be positioned on the prepared support area in accordance with the connecting pipes.The adjustment and flow direction of the manhole base must be checked. The adjustment and flow direction of the manhole base must be controlled.

3.2.1 PP-BASE WITH SOCKETS

All pipe connections are sockets. There are flow direction arrows on the sockets and in the channel. The connecting sockets are designed for direct fitting of PVC pipes in accordance with EN 1401, PP pipes in accordance with EN 1852 or plain plastic pipes.

For the connection of other pipe materials, adapters or short pipes and cuffs should be used.

(Note: when changing material or using special connection-adapters consider a Manufactured bed drop).

The inserted seals should be checked for correct fitting and inspected for damage, cleaning may be necessary.

Apply sufficient lubricant on the connecting pipe in the socket as well as at the end of the spigot and fully insert the pointed end in the socket. For all permit sockets horizontal angles of ± 3.75° and gradient changes up to 6.5 %. Simultaneous direction and gradient changes will reduce the indicated maximum values accordingly.

No connectors (short pipes or joints) are required between ROMOLD PP/PE-manholes and pipes.

If fittings are used, check insertion depths and seal position.

3.2.2 PE-BASE WITH PE-PIPE SPIGOT END

All inlets and outlets: welded-on with PE-pipe spigot ends (Standard: PE SDR 17,6) and can be connected to PE-pipes with electro-fusion sockets by welding directly.

All PE spigot ends have to be pre-cleaned, the pipe end checked for perpendicularity, cutting edges to be deburred and sawdust removed. The oxide layer has to be scraped away properly. We recommend the use of a eotational scraper tool. Clean all pipe

ends with PE-cleaner, mark insertion depths, push in sockets and weld without causing tension. Installation instructions of the socket manufacturer must be observed!

3.3 CONNECTION OF MANHOLE ELEMENTS

To get the plug-in connection the ROMOLD element seal is to be slipped onto the upper end of the base or ring and checked for precise seating.

Thoroughly clean ROMOLD element seal and apply sufficient lubricant. Clean the slot of the upper element and join together with the element seal to the lower element without tilting.

Align all manhole elements in acordance with vertical marks to ensure the vertical alignment of the ladder.

The manhole elements are connected together fully by using bodyweight or modest force only.

Installation Tip: To prevent the creation of an air cushion between the ROMOLD element seal and upper slot, we recommend the use of parcel twine placed over the element seal.

After fitting the upper chamber elements, remove the parcel twine. Alternatively, cable ties can be used - smooth side of the cable tie facing the seal.

3.4 BACKFILLING MATERIAL

It is important to ensure that non-cohesive, well-graded (all sizes of material), compressible materials are used for backfilling. The maximum particle size of rounded gravel material shall not exceed 32 mm, and 16 mm if broken material is used. The backfilling material must meet the requirements G1 or G2 in accordance with 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 for backfilling around the manhole must be in accordance with DIN EN 1610, Table 1 at any point at least 40 cm. When installing the manholes in groundwater, a backfilling width of at least 50 cm is to be maintained all around to prevent uplift.

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 depends on the backfilling material. The 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 DPr = 97 % in accordance with DWA-A 139, section 11.1 is to be established for the entire depths of the manhole. In road foundations at road level a deformation moduleEV2 of at least 100 MN/m2 in accordance with ZTVE-StB 94 is necessary for supporting the cover Class D 400 (compare section „Installation of the cover").

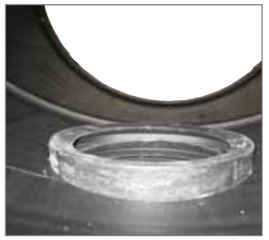
Installation Tip: before pouring down the backfilling material attach the upper unit (without seal) to the base or the ring and use ROMOLD-PE construction-site cover (yellow) or a steel plate on the upper unit for covering. After then pour the backfilling material on the lid, wherein the backfilling material is distributed around the manhole and the manhole is protected from contamination. Now remove upper unit and assemble next component in accordance with 3.3.

3.6 HEIGHT ADJUSTMENT

To adjust the height shorten the neck of the upper unit. ROMOLD PP/PE-manholes can be shortened by a maximum of 25 cm. The cutting is to be done with a saw between two ribs of the upper unit. The ribs are arranged in a distance of 1 cm. The resulting cut needs to be deburred.

3.7 SUBSEQUENT CONNECTION TO THE ELEVATION ELEMENT

Drill with an electric hand drill at the desired position with a ROMOLD cup saw the total possible drilling depth. Drilling in the area of a connecting element is not allowed. Deburr hole and insert the seal from the outside without using lubricant. The collar of the seal is up to the ribs at the outside of the manhole. Lubricate the spigot end of the pipe as well as the inside of the seal and insert the pipe creating an inner overlap afterwards.



3.7.1 ALTERNATIVE CONNECTION WITH CONNECTION SADDLE DN 150

Cut hole using ROMOLD Kronenbohrer (ø200mm) as described in 3.7. If the hole is cut in the are of the vertical ribs, these vertical ribs must be reduced to the depth of the horizontal ribs.

Push on the connection saddle from the outside, (assembly in accordance with the included installation notes).

Push pipe fully into the saddle.

4. INSTALLATION OF THE COVER

4.1 LOAD DISTRIBUTION RING MADE OF CONCRETE WITH COMMERCIAL COVER

The ROMOLD concrete load distribution ring conducts traffic loads to the road foundation and away from the PP/PE-manhole. It is important to ensure there occurs no direct load contact between concrete ring and PP-manhole.

Below the concrete support ring (concrete support ring extends about 4 cm above the edge of the upper unit) an EV2 module of at least 100 MN/m2 must be achieved. The bedding of the concrete support ring must be level and free from 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 ring and seal with sufficient lubricant. The concrete support ring must be set up centrally without affecting the bedding. The concrete support ring is covered with a steel plate until the installation of the cover.

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

4.2 SELF LEVEL® COVERS

When using self level® covers, alternatively a small sized concrete support ring (BARB 67 VS) can be used as a bearing for the adapter rings made of concrete or steel.

For instructions and correct installation height see documents of the concerned cover manufacturer.

4.3 CONCRETE COVER PLATE

Manhole installation in accordance with step 3.1 to 3.5.

On top of PP/PE-manhole element assemble element seal ES 100 and use enough lubricant. Assemble the concrete cover plate horizontally and centered on the manhole in 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 for the cover can be done with concrete height adjustment rings.

4.4 ODOUR FILTER

In case of odour nuisance a ROMOLD activated carbon filter can be installed in the frame of the cover.

5. LIABILITY FOR DEFECTS

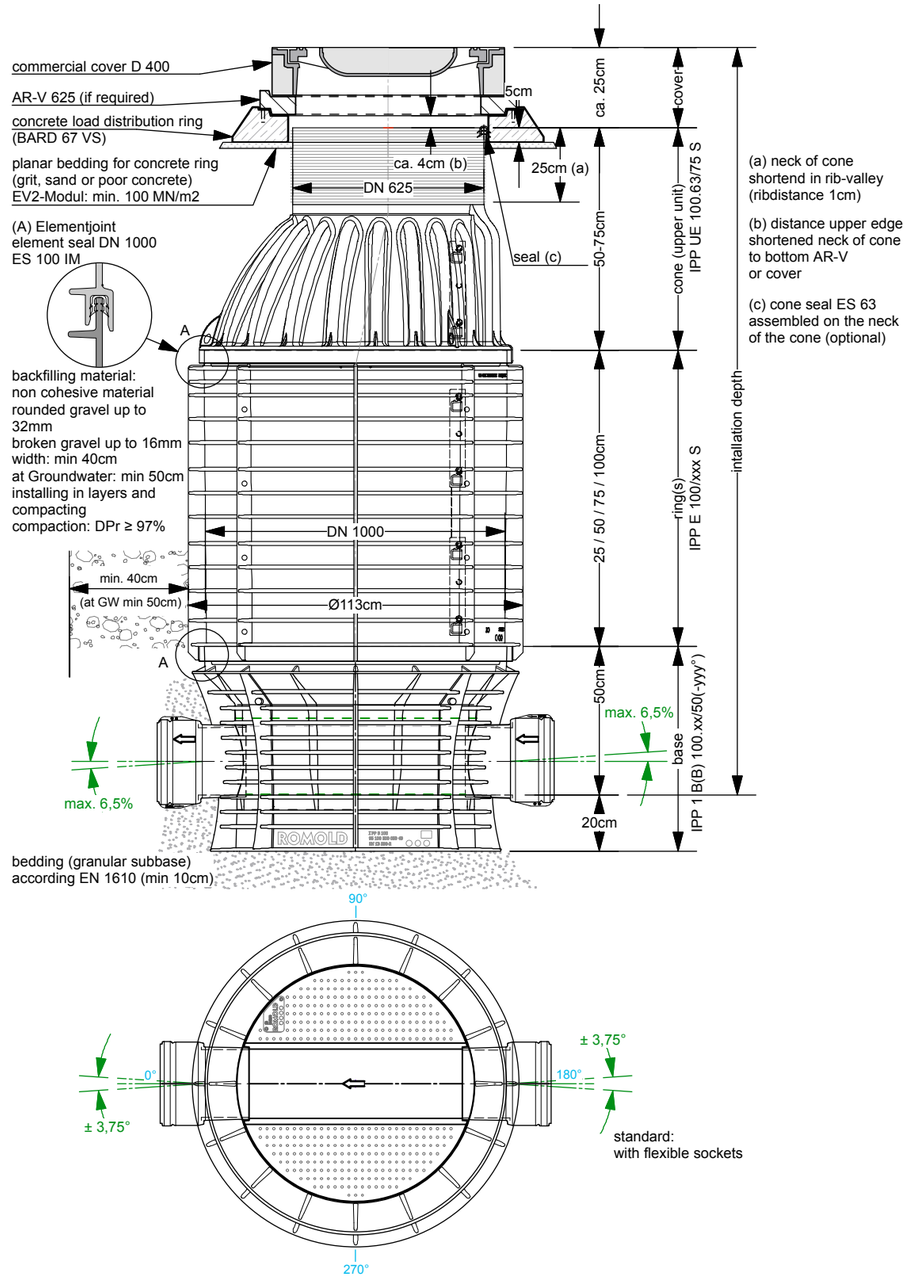
Liability for defects is excluded if mounting and installation instructions are not complied with, unless the customer is able to prove that he is not responsible. This also applies if installation parameters are not met later.

ALL OF THE INSTALLATION PARAMETERS MUST BE PERMANENTLY ENSURED!

INSTALLATION SKETCH

FOR ROMOLD I PP-MANHOLES DN 1000

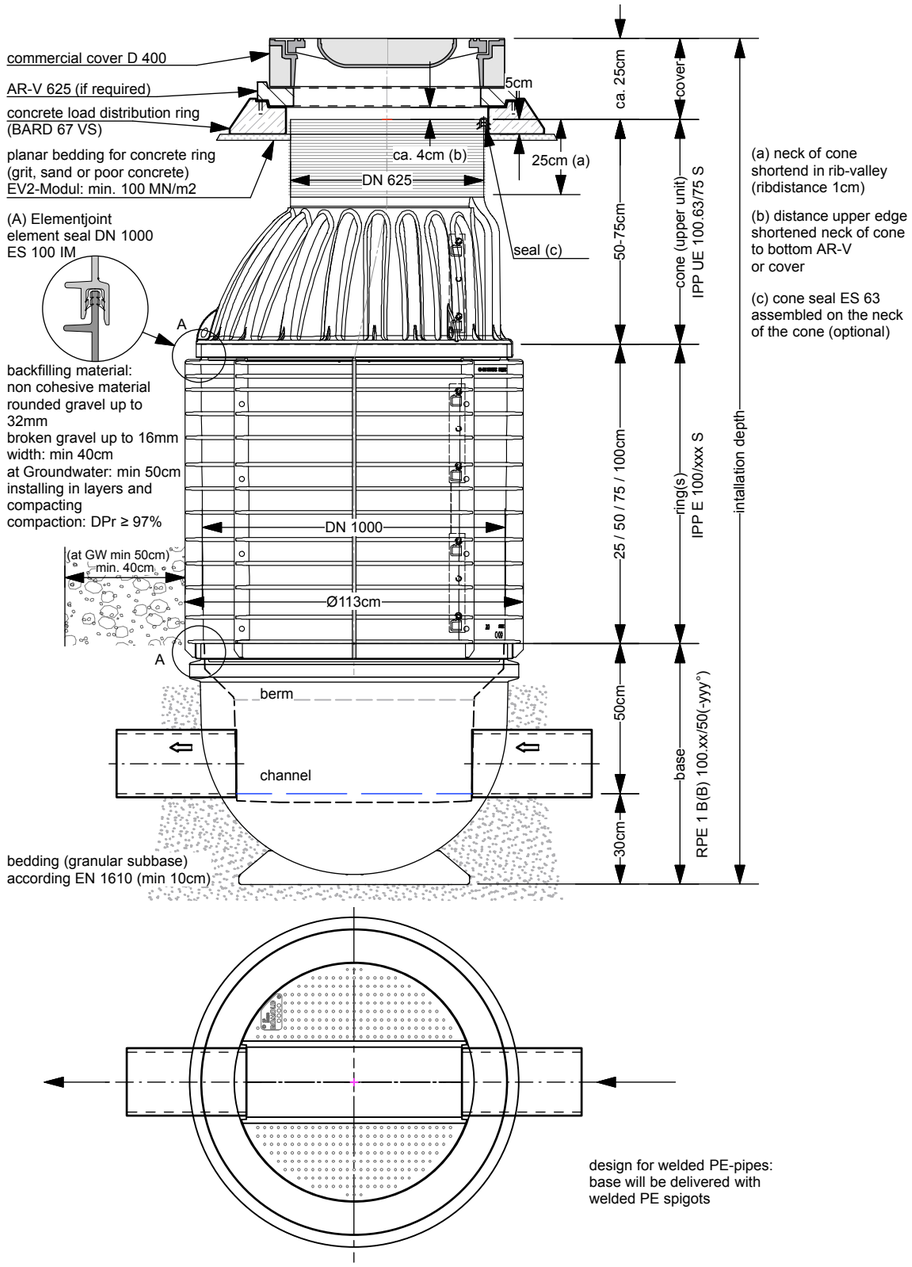
I PP-manhole DN 1000, concrete load distribution ring with commercial cover



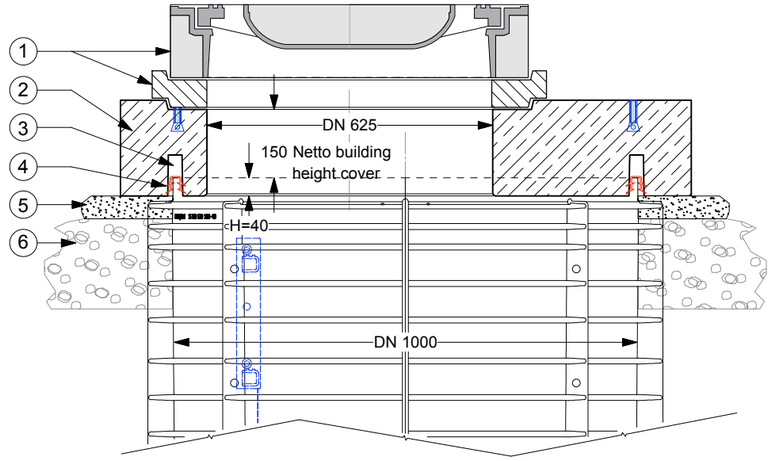
INSTALLATION SKETCH

FOR ROMOLD RPE-MANHOLES DN 1000

RPE-Manholes DN 1000, concrete load distribution ring with BEGU cover

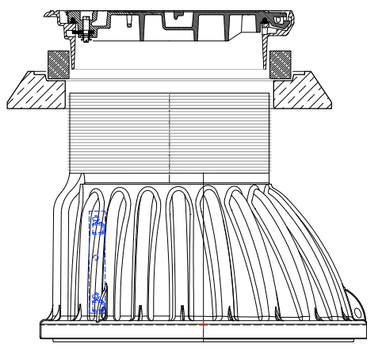


PP/PE-manhole DN 1000, Cover plate for commercial covers

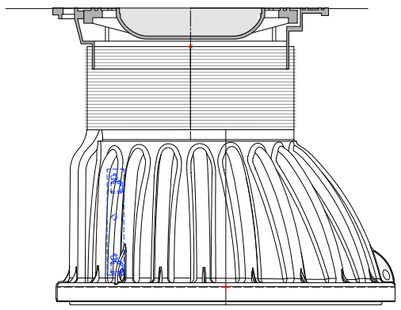


1. Standard commercial cover cl. B/D, here: with ring AR-V 625 x 60, alternative: PDRD 63/06 VS
2. ROMOLD concrete cover plate
3. decoupling of cover and manhole
4. element seal ES 100 IM
5. Level bedding for concrete plate (grid, sand or poor concrete)
6. backfilling material, compacted

PE/PP chamber with "selflevel" cover with adapter frame



PE/PP chamber with „selflevel“ cover without adapter frame



ROMOLD

ASSEMBLY- AND INSTALLATION NOTES

FOR ROMOLD PE CHAMBERS DN 500 UP TO DN 1250

For Assembly- and installation notes „to go", scan QR-Code.

1. TRANSPORT AND STORAGE

Store chamber elements vertically on level ground. In case of extended outdoor storage, protection of the chambers against the sun is vital. All supplied element seals have to be stored in their packaging, protected from frost and direct sunlight.

2. GENERAL INFORMATION

ROMOLD PE-chambers are provided ready to connect. All components must be checked for damage or contamination before installation and cleaned or replaced if necessary. Damaged components must not be installed!

Pipe seals at the inlet are already inserted and the moulded spigot at the outlet got the required nominal diameter. Inlet seal and outlet spigot are suitable for direct installation of PVC pipes in accordance with DIN EN 1401, of PP pipes in accordance with DIN EN 1852 and for PE-pipes in accordance with DIN EN 12666 or DIN 8074. In special cases or if requested by the customer, manhole base pre-drilling, insertion of the inlet seal or adjusting of the outlet spigot by sawing can also take place at the construction site.

3. CHAMBER ASSEMBLY AND INSTALLATION

All of the installation parameters listed below must be permanently ensured! For example, avoid rinsing out fine material with appropriate measures (by using fleece, cross-beam out of clay or similar).

3.1 BEDDING (GRANULAR SUB BASE):

The minimum depth required below the base is 10 cm. The thickness of the lower bedding layer (sub-base), must be "bedding type 1" in accordance with EN 1610, Section 7.2.

3.2 INSTALLING INLET SEAL

To prepare the connection at the inlet side of the manhole base, circular openings should be cut using ROMOLD cup saws at the area marked for the concerned nominal diameter. The cup saw must be positioned to prevent misalignment of the pipe. The opening is to be deburred and cleaned. Afterwards, insert ROMOLD inlet pipe seal without using any lubricant. The precise fitting of the seal must be checked. Seals must only be fitted between the ribs in the ring.

3.2.1 PIPE CONNECTION INLET-SIDE ROMOLD

Thoroughly clean the inlet pipe seal before fitting the pipe. The end of the pipe must be fully inserted into the inlet opening at the chamber base equipped with ROMOLD inlet seal by using sufficient lubricant. No articulation pieces are required between ROMOLD PE-manholes and inlet pipes.

3.2.2 PIPE CONNECTION OUTLET-SIDE

The socket of the outlet pipe is to be fully inserted onto the outlet spigot, using sufficient lubricant. If necessary, the smaller, not required outlet spigot must be cut off with a saw. Afterwards, the cutting-edge is to be deburred and cleaned. Between ROMOLD PE-manhole and inlet pipe no joint pieces for bending are required. re-quired outlet spigot must be cut off with a saw. Afterwards, the cutting-edge is to be deburred and cleaned. No articulation pieces) are required between ROMOLD PE-manholes and outlet pipes.

3.3. WELDING WITH PE-PIPE

3.3.1 CHAMBER WITHOUT CHANNEL

All inlets and outlets are with PE-pipe spigots and can be connected to PE-pipes with electro-fusion sockets directly.

All PE-spigots must be cleaned, the pipe end checked for the right angle, cutting edges deburred and sawdust removed. The oxide layer at the PE-spigot end has to be scraped away properly. We recommend the use of a Rotational Scraper Tool. Clean all pipe ends with PE-cleaner, mark insertion depths, push in sockets and weld without causing tension. Installation instructions of the socket manufacturer must be followed!

3.3.2 CHAMBER WITH CHANNEL

Use a saw to cut off the very end of the outlet spigot at a right angle. . To weld the outlet spigot and continuing PE pipe, use welding sockets of type SDR 17/10 bar. Welding as described in point 3.3.1.

3.4 PIPE CONNECTION WITH CHANGE IN MATERIAL OR IF USING ADAPTERS

With a change in material or if using special connection-adapters, a resulting bed drop must be considered in accordance with DIN EN 476 section 6.2, if applicable. The length of the pipe for the inlet as well as outlet must be taken into consideration.

3.5 CONNECTION OF MANHOLE ELEMENTS

IITo create the plug-in connection, the ROMOLD element-seal of the concerned nominal diameter is slipped onto the upper end of the manhole base or the manhole ring and must be checked for a proper fitting.

For manholes with diameters of DN 500 and DN 625 the transport security ring needs to be removed. Remove any burrs as well. Clean ROMOLD element-seal thoroughly and apply sufficient lubricant. Clean








the locating slot of the upper element and assemble with the ROMOLD element-seal the lower element. The manhole elements must be connected up to the stop by using only body-weight or modest force.

Installation tip: To prevent a build-up of air between the ROMOLD element seal and upper element, we recommend the use of parcel twine placed at the element seal.

After assembling the upper manhole element pull out all parcel twines. Alternatively, a cable tie can be used – set smooth side of the cable tie to the seal.

3.6 BACKFILLING MATERIAL

It is important to ensure that non-cohesive, well-graded (all sizes of material), compressible materials are used for backfilling. The maximum particle size of rounded gravel material shall not exceed 32 mm, and 16 mm if broken material is used. The backfilling material must meet the requirements G1 or G2 in accordance with ATV-A 127, section 3.1. The requirements of EN 1610, Section 5.3, or DWA-A 139, Section 7.1, must be followed.

3.7 BEDDING OF MANHOLE BASE

3.7.1 MANHOLE WITHOUT CHANNEL

The foundation of the manhole base must be stable, flat, and level, in accordance with the planning specifications.

3.7.2 MANHOLE WITH CHANNEL

After pipe connections and horizontal alignment of the manhole a proper tamping in accordance with A-139, section 7.2 e.g. with a narrow hand rammer is necessary.

3.8 BACKFILLING AND COMPACTING

Mechanical (recommended) compaction at the side of the manhole must be according EN 1610, table 1 for manholes DN 500 and DN 625 at each point at least 35 cm, for manholes DN 800 up to DN 1250 at least 40 cm. When installing the manholes in groundwater, a backfilling width of at least 50 cm is to be maintained all around to prevent uplift. The back-filling material is to be inserted carefully and in layers of 20 – 40 cm layer thickness and compacted with a medium weight vibration stamper (approx. 50 kg). The number of required compacting passes per layer depends on the back-filling material, dumping height and compacting machine and must be taken from table 4 from ATV DWA-139 or table 6 from DIN EN 1046.

A minimum degree of compaction of DPr = 97 % in accordance with DWA-A 139, section 11.1 has to be ensured. In road construction, a deformation module EV2 of at least 100 MN/m2 in accordance with ZTVE-StB 94 for supporting the class D cover (see "chamber covers") is required on the planum. Before back-filling and compacting, the manhole cones and necks are to be fitted and covered temporary with a ROMOLD PE-construction-site cover (colour yellow) or if necessary with a ROMOLD cover-plate made of cast-iron. If using standard commercially available covers in confined sites use the concrete / plastic load distribution rings to support the temporary construction site cover (steel plate). Adequate distance must be given using heavy compacting devices (e.g. vibration rollers).

3.9 HEIGHT ADJUSTMENT

To adjust the height, shorten the neck of the uppermost chamber unit. ROMOLD PE-manholes with diameters of DN 500 and DN 625 can be shortened to a maximum of 30 cm, with diameters of DN 800 and DN 1000 to a maximum of 25 cm. The cutting is to be done with a saw along the marked ribs. The resulting cut needs to be deburred.

4. CHAMBER COVERS

If necessary for chambers with diameters of DN 500 and DN 625 the transport security ring needs to be removed (see picture).

ROMOLD PE-cover (black) and PE-construction-site cover (yellow):

Position the ROMOLD PE-cover after completing the height adjustment and before back-filling the manhole neck. The height of the ROMOLD PE-cover is approx. 3 cm and must be taken into account for adjusting the height of the manhole.

ROMOLD system-cover cl. A 15 and B 125 kN:

Position the ROMOLD cover-plate and insert the manhole cover after height adjustment and before backfilling the manhole 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 manhole.

ROMOLD system-cover cl. D 400 kN:

This cover conducts traffic loads to the road foundation and away from the PE-chamber. Therefore it is absolutely necessary to ensure that no direct load contact between cover and PE-chamber occurs. A decoupling of the PE-chamber, the cover and its shifting security will be ensured by an overlap of 3 cm of both elements. The construction height of the ROMOLD system cover cl. D 400 kN is approx. 13 cm and must be taken into account for adjusting the height of the chamber.

ROMOLD concrete load-distribution ring for common cover cl. D 400 kN:

A ROMOLD concrete load-distribution ring conducts the traffic loads in the road foundation and away from the PE-chamber. Therefore it is absolutely necessary to ensure that, after fitting the concrete load distribution ring, no direct load contact occurs between concrete ring and PE-chamber. The decoupling of the PE-chamber, the cover and its shifting security will be ensured by an overlap of 7 cm of both elements. The overall construction height of concrete load-distribution ring and commercial cover class D 400 kN is approx. 24 cm and must be considered for adjusting the height of the chamber.

5. LIABILITY FOR DEFECTS

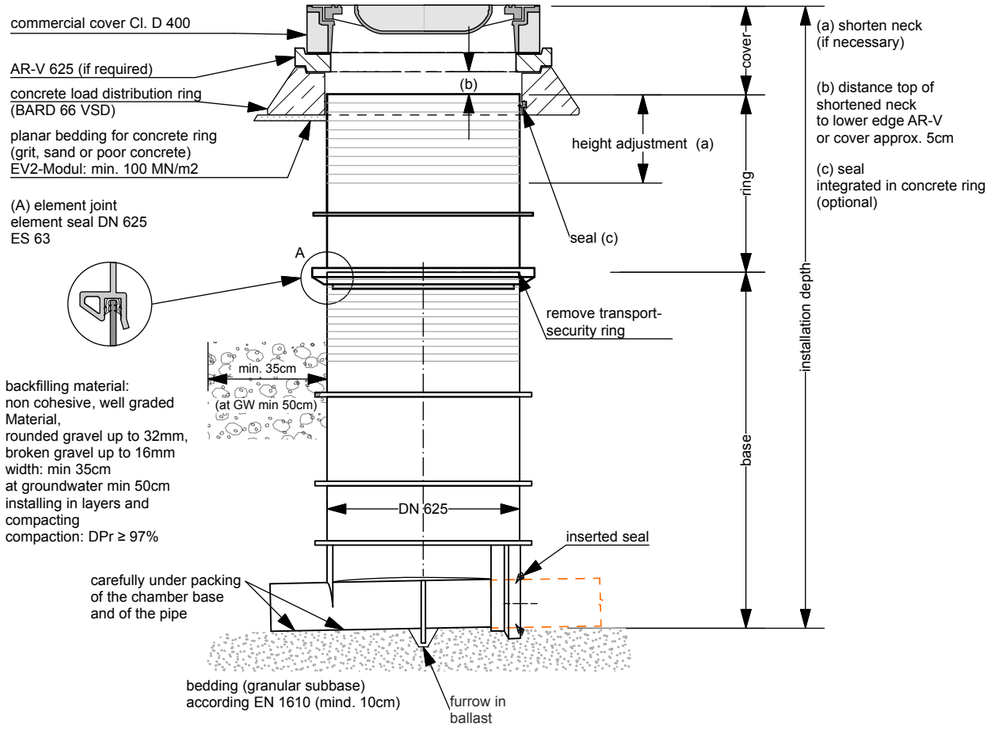
Liability for defects is excluded if mounting and installation instructions are not complied with, unless the customer is able to prove that he is not responsible. This also applies if installation parameters are not met later.

The installation instructions must be ensured permanentlyy.

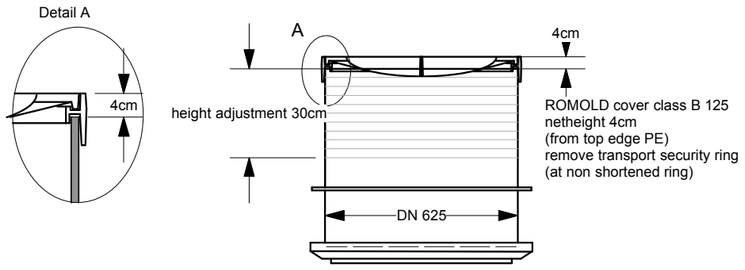
INSTALLATION SKETCH

FOR ROMOLD PE CHAMBER SYSTEMS DN 500 TO DN 625

PE CHAMBER, DN 625, concrete load distribution ring with cast iron infill cover



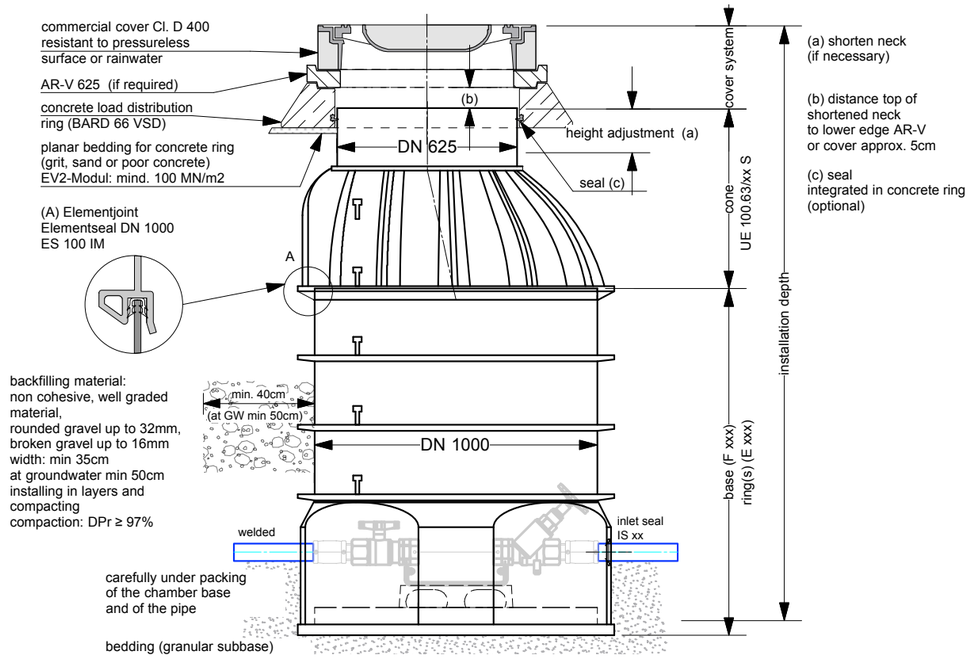
PE CHAMBER, DN 625, ROMOLD system cover Cl. B 125



INSTALLATION SKETCH

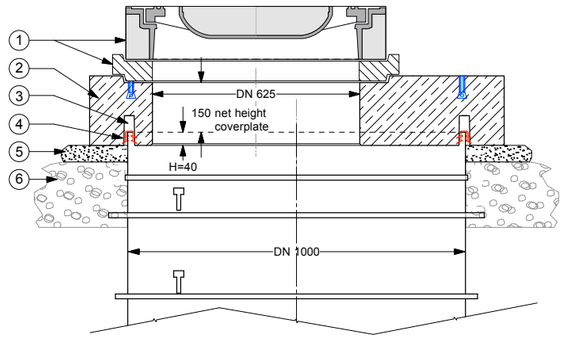
FOR ROMOLD PE MANHOLE SYSTEMS DN 800 TO DN 1250

PE MANHOLE, DN 1000, concrete load distribution ring with cast iron infill cover



PE MANHOLE, DN 1000 with cast iron infill cover

1. commercial cover cl. B/D, AR-V 625x60, if required
2. ROMOLD concrete cover plate
3. decoupling of cover and manhole
4. element seal ES 100 IM
5. planar bedding for concrete plate (grit, sand or poor concrete)
6. backfilling material, compacted



ROMOLD

ASSEMBLY AND INSTALLATION NOTES

FOR ROMOLD I PP DN 600

For assembly and installation notes „to go“, scan QR-code.

1. TRANSPORT AND STORAGE

Store chamber elements vertically on level ground. In case of extended outdoor storage, protection of the chambers against the sun is vital. All supplied element seals have to be stored in their packaging, protected from frost and direct sunlight.

2. GENERAL INFORMATION

ROMOLD PP manholes are delivered ready to connect.

Deliveries must be checked for completeness.

All components must be checked for damage or contamination before installation and cleaned or replaced if necessary. Damaged components must not be installed!

3. CHAMBER ASSEMBLY AND INSTALLATION

All of the installation parameters listed below must be permanently ensured! For example, avoid with appropriate measures rinsing out fine material (by using fleece, cross-beam out of clay or similar).

3.1 BEDDING (GRANULAR SUB BASE):

The minimum depth required below the base is 10 cm. The thickness of the lower bedding layer (sub-base), must be “bedding type 1” in accordance with EN 1610, Section 7.2.

The support area of the manhole base must be load-bearing and completely levelled.

The support area of the manhole base must be established in accordance with the planning specifications (difference between base and channel level = 5 cm).

3.2 BASE/PIPE CONNECTION

The base shall be positioned on the prepared support area in accordance with the connecting pipes. The adjustment and flow direction of the manhole base must be controlled.

All pipe connections are joint sockets. The connecting sockets are designed for direct fitting of PVC pipes in accordance with EN 1401, PP pipes in accordance with EN 1852 or plain plastic pipes. For the connection of other pipe materials, adapters or short pipes and cuffs should be used.

(Note: if changing material or using special connection-adapters consider a created bed drop).

The inserted seals should be checked for correct fitting and inspected for damage, cleaning may be necessary.

Apply sufficient lubricant on the connecting pipe in the socket as well as at the end of the spigot and fully insert the pointed end in the socket. For all sockets horizontal angles of ± 7.5° and gradient changes up to 13 % are possible. Direction and gradient changes at the same time will reduce the indicated maximum values accordingly.

No connectors (short pipes or joints) are required between ROMOLD PP/PE-manholes and pipes.

If fittings are used, check insertion depths and seal position.

3.3 CHAMBER FLOOR – RISER PIPE CONNECTION

To make the plug-in connection, stretch element seal ES 60 INC across the cleaned first trough of the riser pipe.

Thoroughly clean the element seal if necessary and apply sufficient lubricant. Clean the plug-in area of the chamber floor and coat with lubricant before pushing the riser pipe in fully without tilting.

3.4 BACKFILLING MATERIAL

It is important to ensure that non-cohesive, well-graded (all sizes of material), compressible materials are used for backfilling. The maximum particle size shall not exceed 16 mm. The backfilling material must meet the requirements G1 or G2 in accordance with 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 for backfilling around the manhole must be in accordance with DIN EN 1610, Table 1 at any point at least 40 cm. When installing the manholes in groundwater, a backfilling width of at least 50 cm is to be maintained all around to prevent uplift.

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 depends on the backfilling material. The dumping weight and compacting device are to be taken from table 2 from DWA-A 139 or table 6 from DIN V ENV 1046. A minimum degree of compaction of DPr = 97 % in accordance with DWA-A 139, section 11.1 is to be established for the entire depths of the manhole. In road foundations at road level a deformation module EV2 of at least 100 MN/m2 in accordance with ZTVE-StB 94 is necessary for supporting the cover Class D 400 (see section „Installation of the cover“).

3.6 HEIGHT ADJUSTMENT

To adjust the height, shorten the riser pipe. The cutting is to be done with a saw (electric jigsaw or sabre saw). If a chamber neck seal is used, the cut must be at the crest of the riser pipe. The crests are 66 mm apart. The resulting cut needs to be deburred..

3.7 SUBSEQUENT CONNECTION TO THE ELEVATION ELEMENT

Drill with an electric hand drill at the desired position with a ROMOLD cup saw the total possible drilling depth. Drilling in the area of the base - riser pipe connection is not allowed. Deburr hole and insert the seal

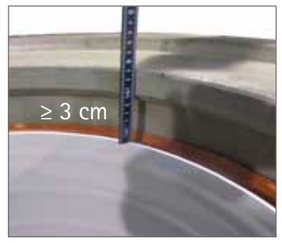
from the outside without using lubricant, the collar of the seal is up to the ribs at the outside of the riser pipe. Lubricate the spigot end of the pipe as well as the inside of the seal and insert the pipe creating an inner overlap afterwards.

4. INSTALLATION OF THE COVER

4.1 LOAD DISTRIBUTION RING MADE OF CONCRETE WITH COMMERCIAL COVER

The ROMOLD concrete or polymer load distribution ring conducts traffic loads to the road foundation and away from the PP/PE-manhole.

Below the support ring, an EV2 module of at least 100 MN/m2 must be achieved. The bedding of the concrete support ring must be level and free from point loads (possibly using grit, sand or poor concrete).



Ensure that there is no direct load contact between the support ring and riser pipe (distance ≥ 3 cm).

If needed, the seal is to be mounted on the chamber neck before assembling the concrete ring and seal with sufficient lubricant. The concrete support ring must be set up centrally without affecting the bed-

ding. The concrete support ring is covered with a steel plate until the installation of the cover.

The total height of the concrete support ring and commercial cover class D 400 is about 30 cm (without using a height adjustment ring AR-V 625 x 60 mm) from the upper edge of the PP riser pipe.

4.2 TELESCOPE WITH COMMERCIAL COVER

Seals can only be used between the pipe and telescope for riser pipes DN 600 SN4 (without Inliner). In this case, a seal on the inside of the riser pipe must be fitted between the first and second trough.

Lubricate the seal and push in the telescope.

The telescope can be extended by 0–30 cm; an overlap of at least 12 cm must be maintained.

A point-load free, sufficiently load-bearing support must be provided below the point at which the telescope projects.

4.3 ODOUR FILTER

In case of odour nuisance a ROMOLD activated carbon filter can be installed in the frame of the cover.

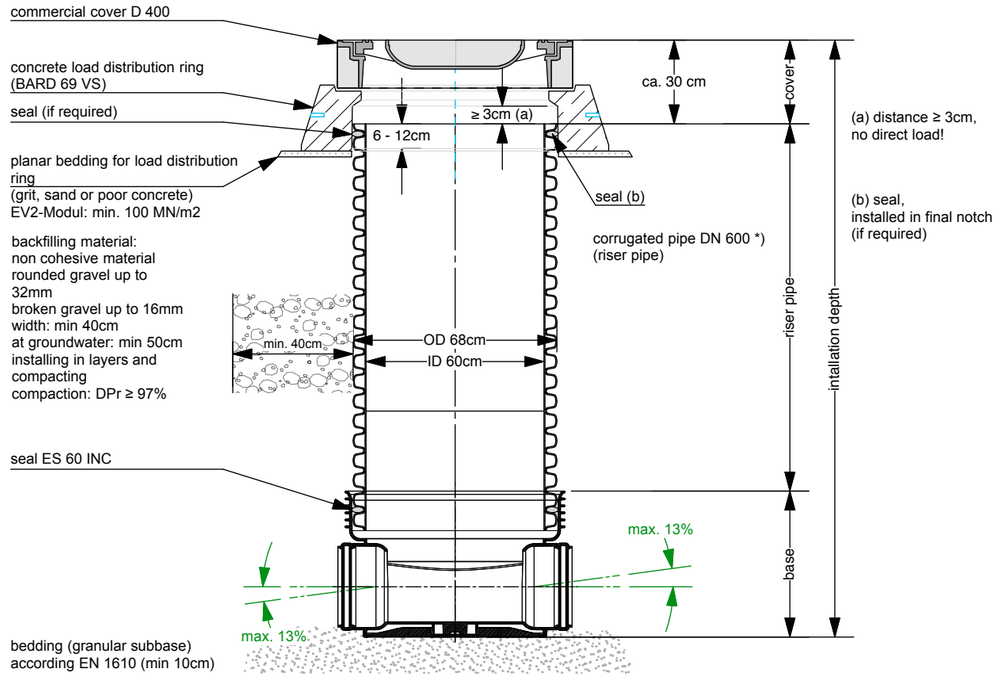
5. LIABILITY FOR DEFECTS

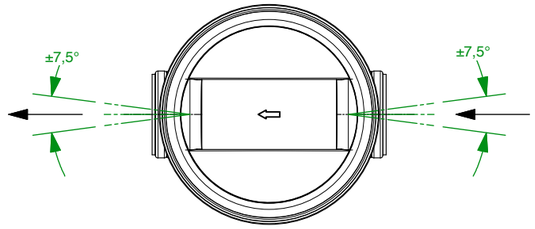
Liability for defects is excluded, if the mounting and installation does not comply with instructions, unless the customer is able to prove evidence that the defects are not caused by this non-compliance This also applies if after a certain period installation parameters are not met anymore.

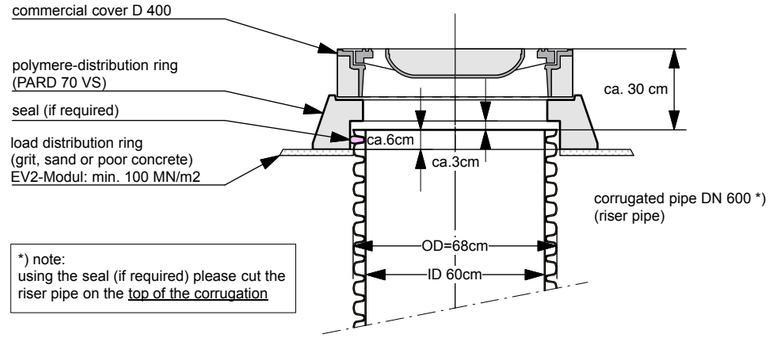
The installation instructions must be ensured permanently.

INSTALLATION SKETCH

FOR ROMOLD I PP CHAMBERS DN 600







RENOVATION

ROMOLD

CONTENT SHAFT-IN-SHAFT RENOVATION

ROMOLD RENOVATION – AN OVERVIEW

MAKE NEW FROM OLD

Starting point:
corroded concret chamber

Detailed chamber measurements
ideally via chamber scan

Prefabricated renovation base

Lower new base into the chamber

Backfill gap

Road restauration

Load decoupled cover

New PE chamber DN 800
in corroded chamber DN 1000

Filling the gap between DN 800 PE chamber and DN 1000 concrete manhole with filling mortar

YOUR BENEFITS:

- easy installation,
- no heavy plant machinery on the building site
- new self-supporting chamber system
- brief water retention
- integrated steps
- load decoupled cover
- long lifetime
- new PE chamber, 100 % corrosion-resistant
- only 1 day installation time, therefore minimal traffic obstruction
- separate, independent chamber system
- no additional renovation

ROMOLD

PHOTOS OF PROJECTS

YOUR IDEAS FIELD-TESTED

BEFORE RENOVATION

AFTER RENOVATION

BEFORE RENOVATION

AFTER RENOVATION

H_2S-CORROSION – NOT WITH ROMOLD

INTELLIGENT INVESTMENT IN PLASTIC-SYSTEMS
ONE PROBLEM – TWO SOLUTIONS!

WHAT YOU NEED TO KNOW

Replacing a corroded concrete chamber is definitely the most durable and best solution from a technical point of view. As the Romold motto says: BURY and FORGET.

In urban areas or challenging sites and with a high groundwater level, renovation using open construction methods is often not possible.

For such cases, renovation is the most effective compromise. ROMOLD offers the perfect solution: Installation of a new ROMOLD chamber with smaller diameter.Advantage: A new chamber from industrial manufactured in the accustomed ROMOLD quality. The highlight: The existing building stays put in the mould as lost formwork. That saves time and money.

New chambers


Shaft-in-shaft renovation

SHAFT-IN-SHAFT RENOVATION

INCLUSIVE CHAMBER BASE

Installation of a new self-supporting DN 800 PE chamber in a corroded concrete DN 1000 manhole. Complete shaft incl. bottom has to be renovated.


1.) Cut the asphalt, and lift the concrete cone


2.) Remove climbing steps, reduce berm and flume, water retention, set the over-pumping operation


3.) Prefabricated channel with PE socket meeting precise chamber measurementsß


4.) Adapt the prefabricated channel with PE socket


5.) Adapt the prefabricated channel with PE socket and place it in the chamber bottom


6.) Set the sealing plug for the inlet and outlets, fill the gap with modified filling mortar


The PE pipe is connected to the old pipe using filling mortar

The PE pipe is connected to the old pipe either using Quicklock collar or with construction chemicals


7.) After the filling mortar has hardened, water retention can be removed


8.) Fitting the seals and chamber components - PE shaft system DN 800


9.) Filling the gap between DN 800 PE chamber and DN 1000 concrete manhole with filling mortar


10.) Renovated manhole. Steps were removed on customer request


11.) Restoring of road construction incl. decoupled load cover

The trick: the concrete shaft remains in the ground as formwork and does not have to be laboriously removed

Note: Adhere to the relevant safety regulations regarding entering and working in sewage facilities.

ROMOLD

SHAFT-IN-SHAFT RENOVATION

WITHOUT A CHAMBER BASE

Installation of a new self-supporting DN 800 PE chamber, in a corroded concrete manhole DN 1000. The manhole without a base must be renovated.

1.) Determine current status and record chamber data

2.) Record data of additional inlets or special constructions

3.) Cut the asphalt, and lift out the concrete cone and remove steps

4.) Fix the mounting ring on the berm

5.) The picture shows the fixed mounting ring

6.) Fitting the ROMOLD element seal on the mounting ring. 100 % watertight transition to the manhole..

7.) ROMOLD DN 800 standard chamber components

8.) Fitting the seals and chamber components - PE chamber system DN 800

9.) Renovated manhole. Steps were removed on customer request

The trick: the concrete shaft remains in the ground as formwork and does not have to be laboriously removed

10.) Filling the gap. Restoring of road construction incl. decoupled load cover

Note: Adhere to the relevant safety regulations regarding entering and working in sewage facilities.

For the latest information on this topic, visit www.romold.de, menu products, submenu renovation,

CURRENT PRICES

Current prices for ROMOLD shaft-in-shaft renovation available on request.

Please contact us on: VERKAUF@romold.de

ROMOLD

CONTENT ROAD GULLIES

ROMOLD

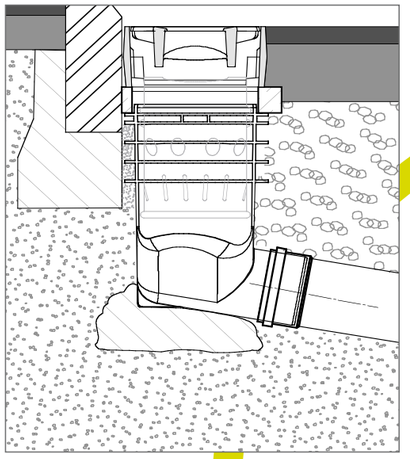
ROMOLD ROAD GULLIES – AN OVERVIEW

TECHNICAL ADVANTAGES

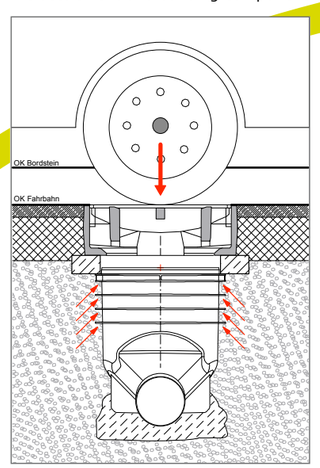
Special solutions at page 100/101!

- single piece unit
- integrated outlet spigot
- chemical resistant
- de-icing salt resistant
- for socket-ended pipe systems
- for welded pipe system
- settlement-free

only with the original:
no cast-in-place concrete in the rib area



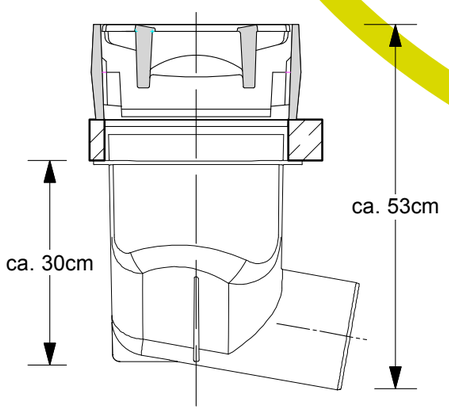
to class D:
integrated load transfer,
no settlement of a building component



all ROMOLD
road gullies
can be drilled

- commercial load distribution rings
- commercial inlet rate
- swaging cover possible

all ROMOLD
road gullies
with height adjustment



- easy to lift
- easy handling
- no lifting tool
- quick build-in

ROMOLD

PHOTOS OF PROJECTS

YOUR IDEAS FIELD-TESTED

ROMOLD ROAD GULLIES

SOLUTIONS FOR ALL APPLICATION AREAS

ROAD GULLY:
STANDARD

ROAD GULLY:
LONGITUDINAL DRAINAGE

ROAD GULLY:
WET SLUDGE TRAP

ROAD GULLY:
STENCH TRAP

CLEVER:
For the build-in in the conical channel or the pendulum channel can be used the 12 % angular load distribution rings.

Details see page 105

GRT E 40/55
Height 55 cm
Shorting dimension 45 cm
incl. seal

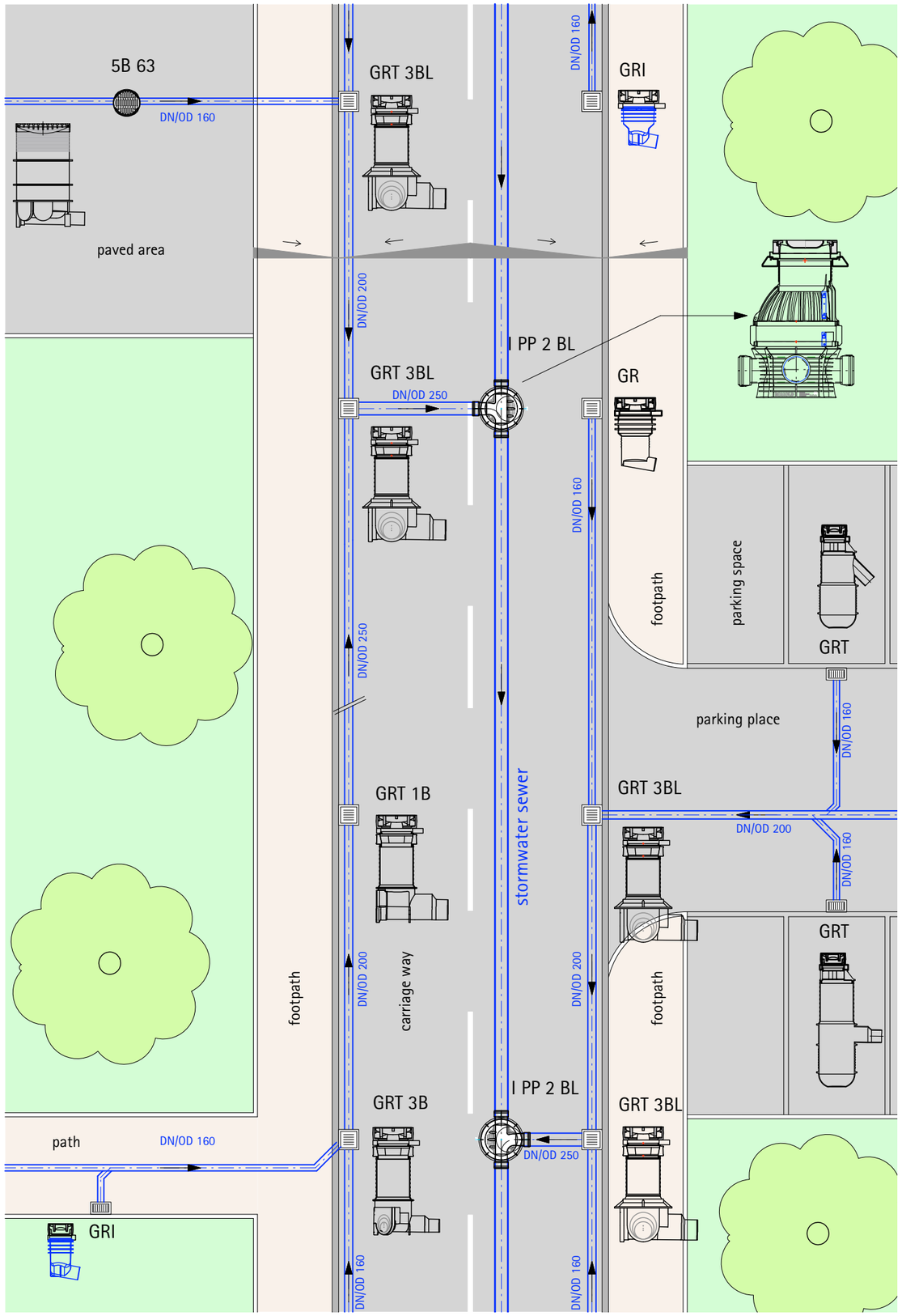
Details see page 105

Suitable for all ROMOLD road gullies. load absorbing load distribution rings from plastic, unbrakable and directl attachable, no kein mortar bed necessary.

Details see page 105

Bearing rin in v-shaped version

More than 150.000 units built-in



Special solutions see page 100/101

ROMOLD
MOTORWAY DRAINAGE
EVERYTHING FROM A SINGLE SOURCE

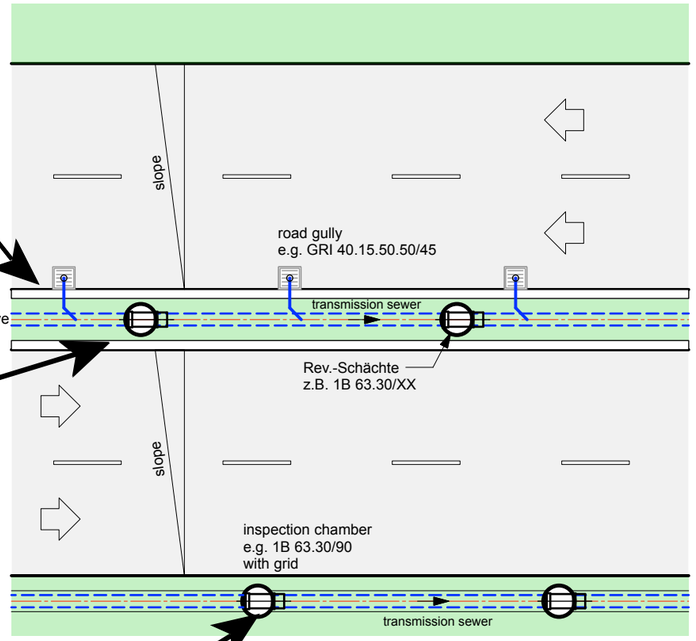
VARIANT 1 (TRADITIONAL)

COLLECTOR PIPE IN THE CENTRAL RESERVATION

Road gullies with connection to transport pipe with chamber

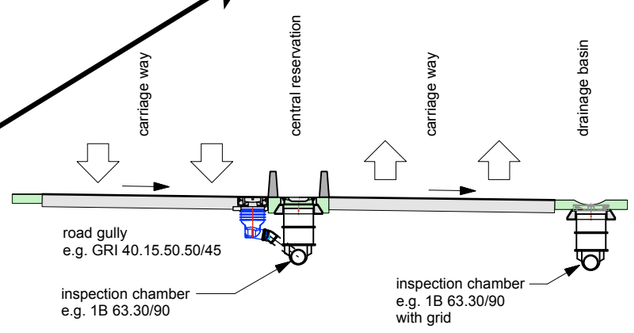
- Additional chambers and covers necessary
- Many additional side inlets necessary (each connection poses a risk of leaks)
- Many formed pieces necessary

GRI 40.50.50.15/45 BI



System chamber DN 625

System chamber DN 625

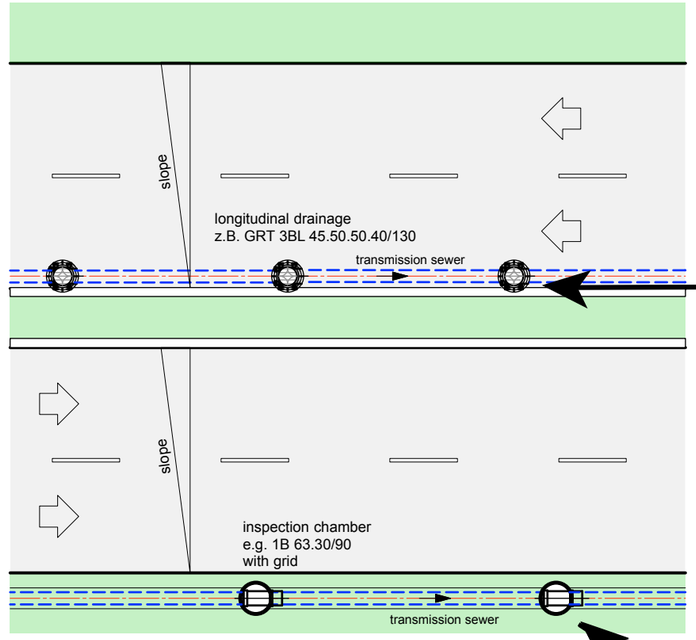


VARIANT 2 (ECONOMICAL)

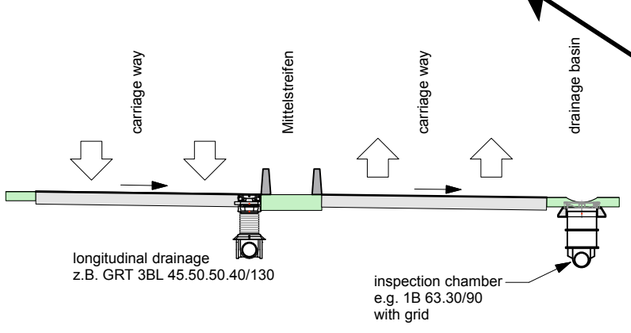
COLLECTOR PIPE BELOW THE ROAD GULLIES

Road gullies with combined inlet and transport function. Transport channel directly under the inlet gratings:

+ fewer chambers necessary
+ no side inlets necessary for transport pipe



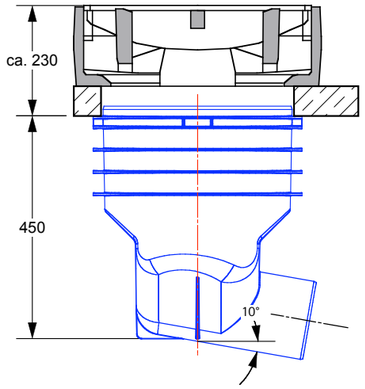
GRT 3BL 45.50.50.40/130

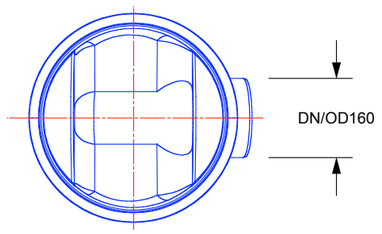


System chamber DN 625

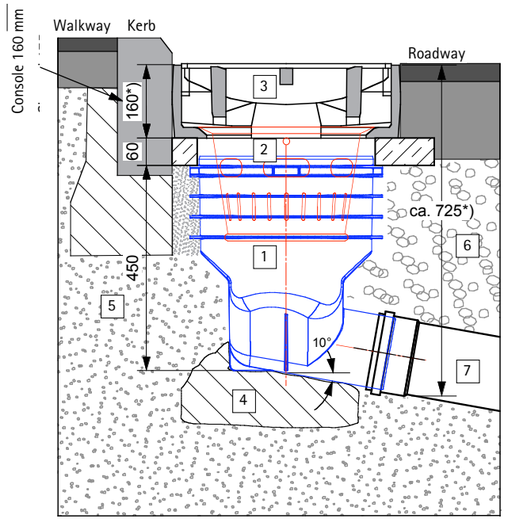
PP ROAD GULLY TYP GRI

FOR DRY SLUDGE TOP UNIT 500 X 500, BUCKET LOW VERSION FORM B1





For latest information on this topic, visit www.romold.de, menu products, submenu drainage systems/road gullies



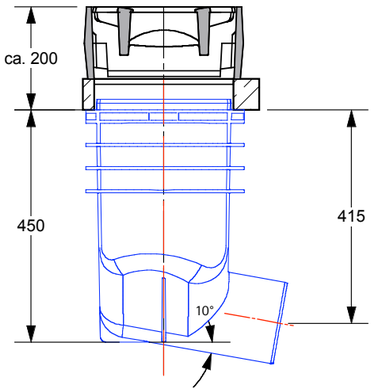
GRI 40.50.50.15/45 BI

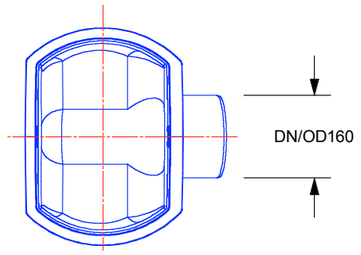
KEY

1. ROMOLD PP road gully
2. Load distribution ring plastic/concrete page 105
3. Grating 500 x 500, Class D acc. DIN 19594
4. Lean concrete bearing, h = mind. 10 cm
5. Compressible backfill material
6. Frost protection layer road bed
7. Connecting pipe line DN/OD 160

PP ROAD GULLY TYP GRI

FOR DRY SLUDGE TOP UNIT 300 X 500, BUCKET LOW VERSION FORM D1



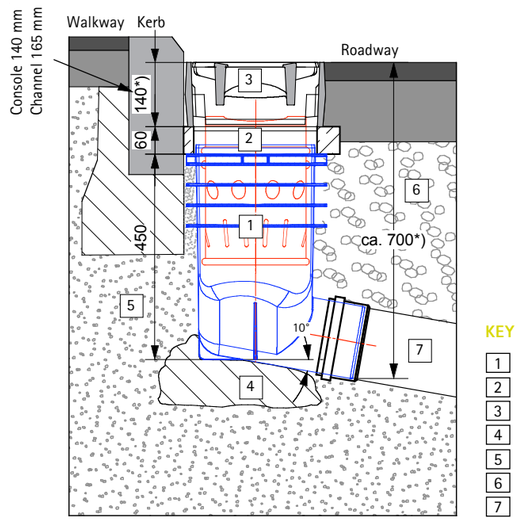


PUBLIC TENDER TEXT EXAMPLE

ROMOLD PP road gully DN 400, for Aufsätze 300 x 500 mm, H= ca. 45 cm

Typ: GRI 40.50.30.15/45 BI

ROMOLD PP road gully DN 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 DN /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 ribs 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.
System ROMOLD or equal



GRI 40.50.30.15/45 BI

KEY

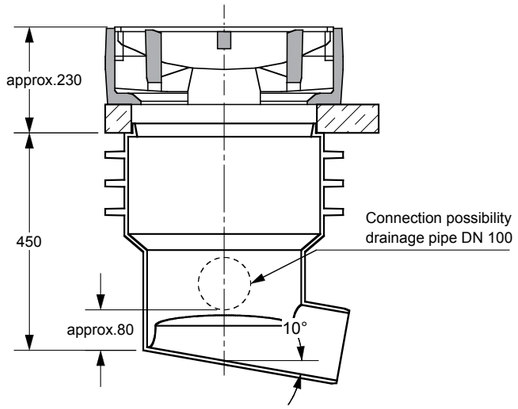
1. ROMOLD PP road gully
2. Load distribution ring plastic/concrete page 105
3. Grating 300 x 500, class D acc. DIN 19594
4. Lean concrete bearing, h = mind. 10 cm
5. Compressible backfill material
6. Frost protection layer road bed
7. Connecting pipe line DN/OD 160

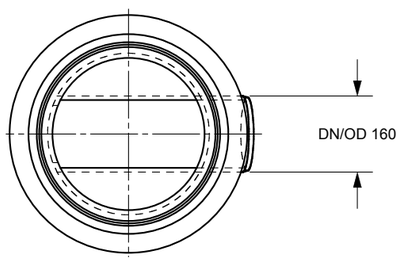
Scan QR-Code for project questionnaire / see site questionnaire chapter

ROMOLD

PE ROAD GULLY TYP GR

FOR DRY SLUDGE TOP UNIT 500 X 500, BUCKET LOW VERSION FORM B1





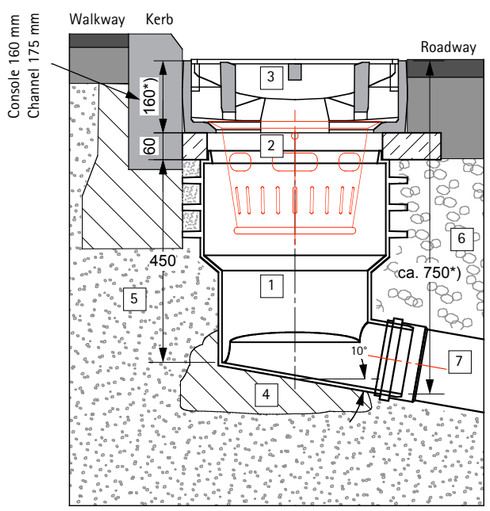
PUBLIC TENDER TEXT EXAMPLE

ROMOLD PE road gullies DN 400, for top unit 300 x 500 mm, H= app. 45 cm

Typ: GR 40.50.30.15/45 BI

ROMOLD PE road gully DN 450, for grating 300 x 500 mm class C 250 or class D 400 in ac-cordance with DIN EN 124/ DIN 1229, material PE, made with 100 % virgin material with no recycled parts or foaming agents. Resistant to agressi-ve wastewater, road salts and frost, consisting of base part (shorting dimension 460 mm) and turnable grating adapter. Base part with inlet option with 180° with 3-point support (self-standing), outlet connection DN /OD 315 or 250 mm, gradient app. 1%. Connection for PVC-KG pipes in accor-dance 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 instal-lation height with standard gra-ting: app. 180 cm).

System ROMOLD or equal



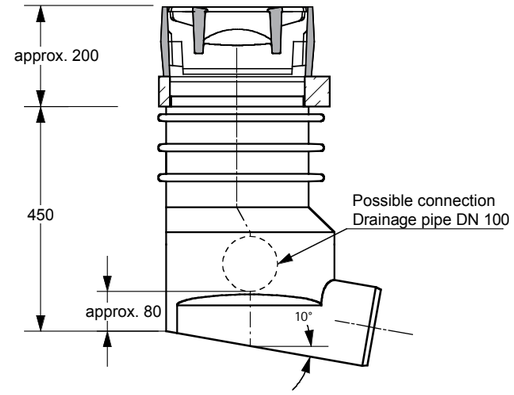
GR 40.50.50.15/45

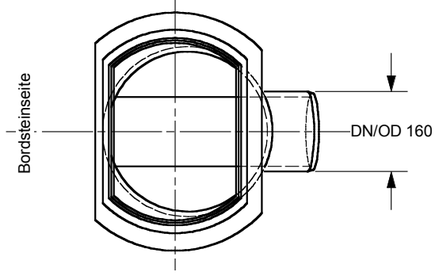
KEY

1 ROMOLD PE road gully
2 Load distribution ring plastic/concrete page 105
3 Grating 500 x 500, Class D acc. DIN 19594
4 Lean concrete bearing, h = mind. 10 cm
5 Compressible backfill material
6 Frost protection layer road bed
7 Connecting pipe line DN/OD 160

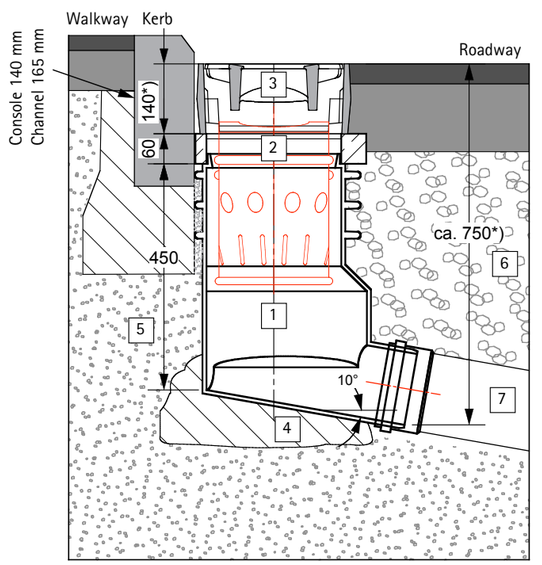
PE ROAD GULLY TYP GR

FOR DRY SLUDGE TOP UNIT 300 X 500, BUCKET LOW VERSION FORM D1





For latest information on this topic, visit www.romold.de, menu products, submenu drai-nage systems/road gullies.



GR 40.50.30.15/45

KEY

1 ROMOLD PE road gully
2 Load distribution ring plastic/concrete page 105
3 Grating 300 x 500, Class D acc. DIN 19594
4 Lean concrete bearing, h = mind. 10 cm
5 Compressible backfill material
6 Frost protection layer road bed
7 Connecting pipe line DN/OD 160

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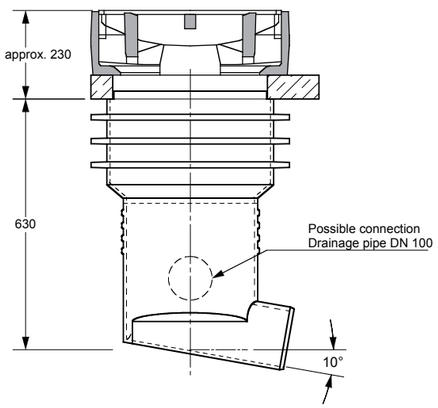
PE ROAD GULLY TYP GR

FOR DRY SLUDGE

GRATING 500 X 500, BUCKET HIGH VERSION FORM A4



For latest information on this topic, visit www.romold.de, menu products, submenu drainage systems/road gullies.

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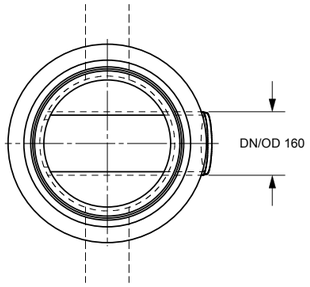
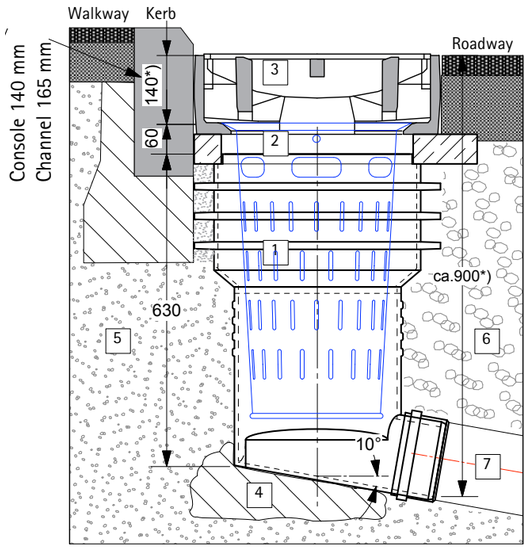




GR 40.50.50.15/63

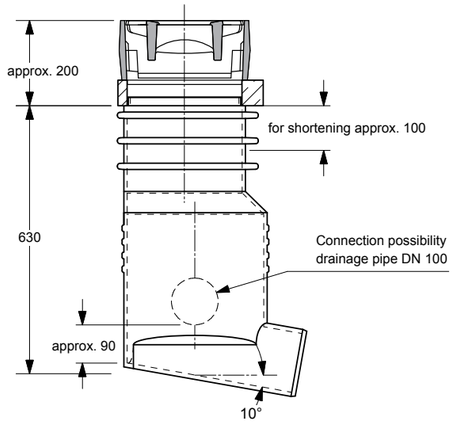
KEY

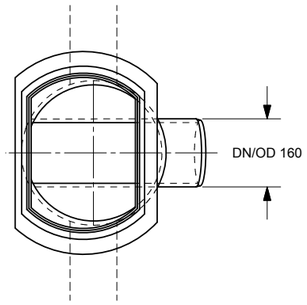
1. ROMOLD PE road gully
2. Load distribution ring plastic/concrete page 105
3. Grating 500 x 500, Class D acc. DIN 19594
4. Lean concrete bearing, h = mind. 10 cm
5. Compressible backfill material
6. Frost protection layer road bed
7. Connecting pipe line DN/OD 160

PE ROAD GULLY TYP GR

FOR DRY SLUDGE

GRATING 300 X 500, BUCKET HIGH VERSION FORM C3





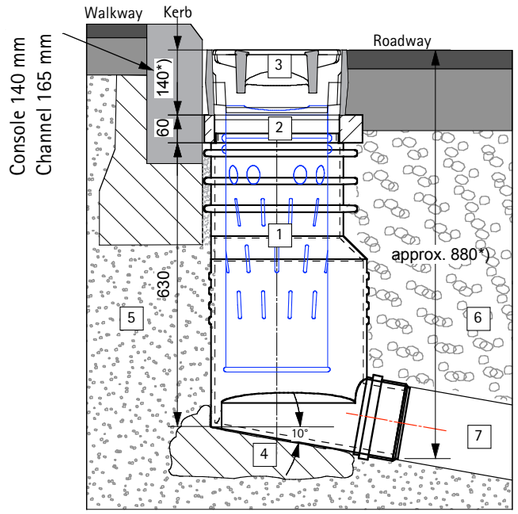
PUBLIC TENDER TEXT EXAMPLE

ROMOLD PE road gully DN 400,
for grating
300 x 500 mm, H= ca. 63 cm

Typ: GR 40.50.30.15/63 BI

PE-road gully DN 400, for gratings 300 x 500 mm class C 250 or D 400 acc. DIN EN 124/ DIN 1229, material PE, road gully from 100 % new material without recycling and foaming agents, resistant against aggressive wastewater, de-icing salt and frost, outlet spigot DN/OD 160 mm, 10° sloped, connection for PVC-KG pipes acc. DIN EN 1401, PE-pipes acc. DIN 8074/75 or DIN EN 12666 and PP pipes acc. DIN EN 1852, with integrated slide guard suiting for load distribution ring 10b acc. DIN 4052-3, suitable for equipment with dirt bucket Form D1 acc DIN 4052-4, with horizontally reinforcement ring, Colour: black, height: ca. 63 cm (total height with standard grating: ca. 83 cm), delivery/build-in according to the installation guide of the manufacturer.

System ROMOLD, or equal



GR 40.50.30.15/63 BI

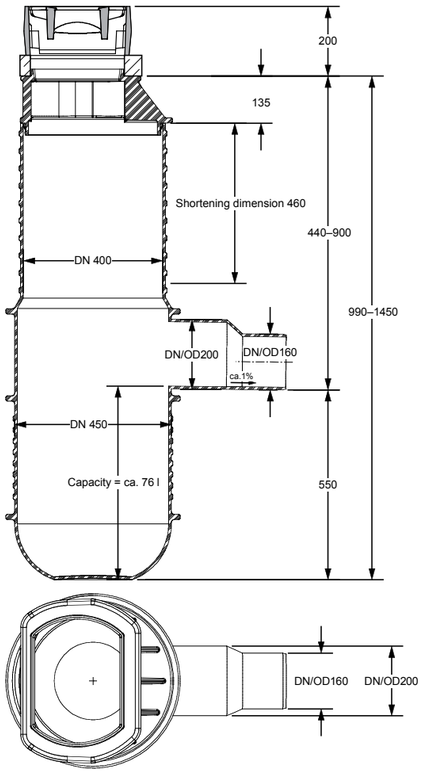
KEY

1. ROMOLD PE road gully
2. Load distribution ring plastic/concrete page 105
3. Grating 300 x 500, Class D acc. DIN 19594
4. Lean concrete bearing, h = mind. 10 cm
5. Compressible backfill material
6. Frost protection layer road bed
7. Connecting pipe line DN/OD 160

ROMOLD

PE ROAD GULLY TYP GRT

WITH WET SLUGDE TRAP AND WITH REMOVABLE GRATING
500 X 500 OR 300 X 500, SAND TRAP APP. 76 L–156 L



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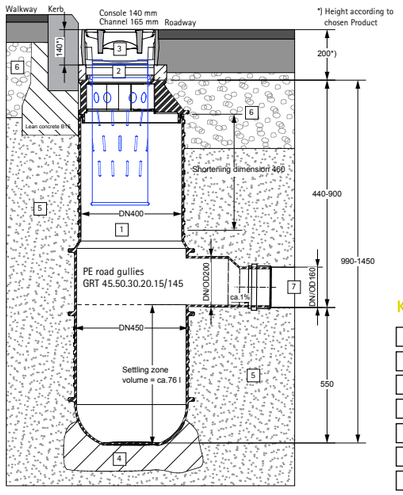


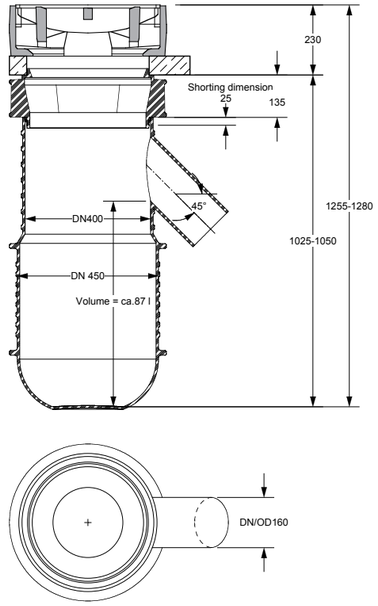
GRT 45.50.50.20.15/145

KEY

1	ROMOLD PE road gully
2	Load distribution ring plastic/concrete page 105
3	Grating 500 x 500 or 300 x 500, Class D acc. DIN 19594
4	Lean concrete bearing, h = mind. 10 cm
5	Compressible backfill material
6	Frost protection layer road bed
7	Connecting pipe line DN/OD 200 or 160

PE ROAD GULLY TYP GRT

WITH WET SLUDGE TRAP AND WITH REMOVABLE GRATING
500 X 500 OR 300 X 500, SAND TRAP APP. 87 L, OUTFLOW 45°



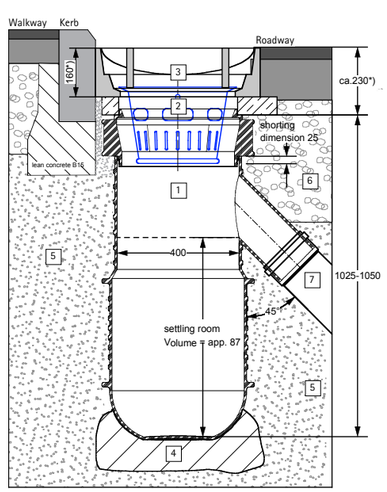
PUBLIC TENDER TEXT EXAMPLE

ROMOLD PE road gully DN 450, with sand trap for gratings 500 x 500 mm, H= app. 105 cm, outlet spigot DN/OD 160

Typ: GRT 45.50.50.15/105

ROMOLD PE road gully DN 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 agressive wastewater, road salts and frost, consisting of base part (shorting dimension 460 mm) and turnable grating adapter. Base part: Round bottom with flat support surface (self-standing), optimised form for cleaning with suction tube, outlet connection DN /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).

System ROMOLD or equal.



GRT 45.50.30.15/105

GRT 45.50.50.15/105

KEY

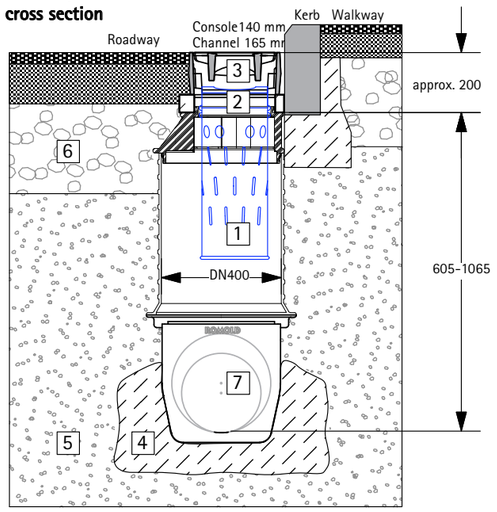
1	ROMOLD PE road gully
2	Load distribution ring plastic/concrete page 105
3	Grating 500 x 500 or 300 x 500, Class D acc. DIN 19594
4	Lean concrete bearing, h = mind. 10 cm
5	Compressible backfill material
6	Frost protection layer road bed
7	Connecting pipe line DN/OD 160

PE-ROAD GULLY TYP GRT 1B

FOR LONGITUDINAL DRAINAGE WITH REMOVABLE GRATING 500 X 500 OR 300 X 500

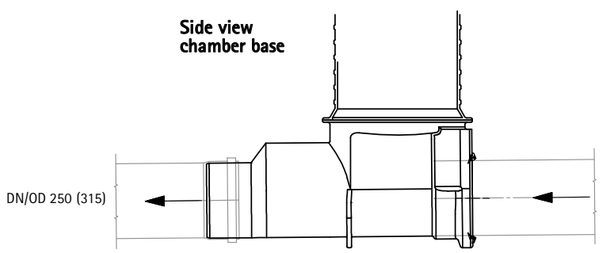
GRT 1B 45.50.XX.20.15/90
Height from 60 cm to 160 cm incl. turnable grating.
Pipe joint DN/OD 200 and DN/OD 160

Roadway – cross section

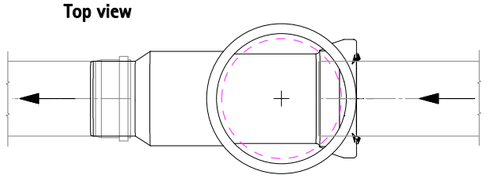


GRT E 40/55
Height 55 cm
shorting dimension 45 cm
incl. seal
GRT ES 039

Side view chamber base



Top view

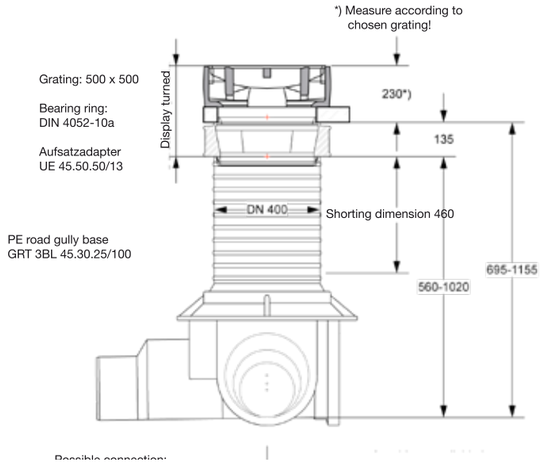


KEY

1. ROMOLD PE road gully
2. Load distribution ring plastic/concrete page 105
3. Grating 500 x 500 or 300 x 500, Class D acc. DIN 19594
4. Lean concrete bearing, h = mind. 10 cm
5. Compressible backfill material
6. Frost protection layer road bed
7. Connecting pipe line DN/OD 2050 bzw. 315

PE-ROAD GULLY TYP GRT 3B AND 3BL

FOR LONGITUDINAL DRAINAGE WITH REMOVABLE GRATING 500 X 500 OR 300 X 500



PUBLIC TENDER TEXT EXAMPLE

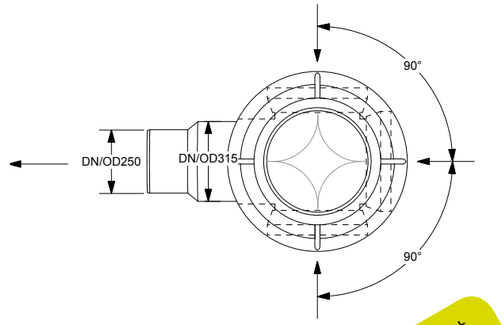
ROMOLD PE road gully DN 450, longitudinal drainage for grating 300 x 500 mm, H= app. 115 cm,

outlet spigot DN/OD 315 and 250

Typ: GRT 3BL 45.50.30.30.25/115

ROMOLD PE road gully DN 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 agressive wastewater, road salts and frost, consisting of base part (shorting dimension 460 mm) and turnable grating adapter. Base part with inlet option with 180° with 3-point support (self-standing), outlet connection DN /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 instal-lation height with standard grating: app. 180 cm).

System ROMOLD or equal.



GRT 3B 45.50.XX.20.15/90
Height from 60 cm to 160 cm incl. turnable grating.
pipe connection DN/OD 200 / DN/OD 160

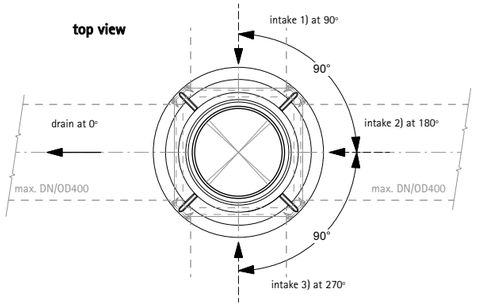
GRT 3BL 45.50.
XX.30.25/115
Height from 70 cm to 150 cm
incl. turnable grating.
pipe joint DN/OD
315 and DN/OD 250

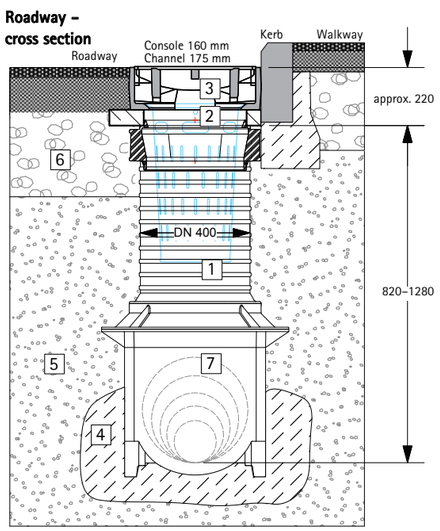
Scan QR-Code for project questionnaire / see site questionnaire chapter

For latest information on this topic, visit www.romold.de, menu products, submenu drainage systems/road gullies

PE ROAD GULLY TYP GRT BL

FOR LONGITUDINAL DRAINAGE WITH TURNABLE GRATING 500 X 500 OR 300 X 500





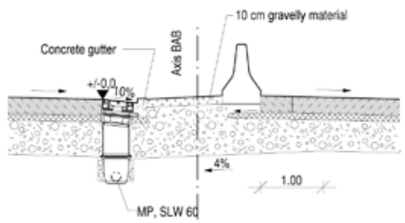
PUBLIC TENDER TEXT EXAMPLE

ROMOLD PE road gully DN 450, longitudinal drainage for grating 500 x 500 mm, H = approx. 130 cm, Connection up to DN/OD 400

Typ: GRT 3BL 45.50.50.40/130

ROMOLD PE road gully DN 450, for grating 500 x 500 mm class C 250 or class D 400 according to DIN EN 124 / DIN 1229, material PE, aus 100 % made with 100 % virgin material with no recycled parts or foaming agents. Resistant to agressive wastewater, road salts and frost, consisting of base part (shorting dimension 460 mm) and turnable grating adapter,. base part with 3 possible connections at 90°, 180° and 270°, selfstanding, Slope approx. 1 %. Inlets and outlet for connection spiky end for PVC-KG pipes according to DIN EN 1401, for PE pipes according to DIN 8074/75 respectively DIN EN 12666 or PP pipes acc. to DIN EN 1852, with level ribs. Grating adapter with integrated shift protection, compatible with support ring 10a acc. to DIN 4052-3 made of concrete or plastic, suitable for attachment of dirt bucket form B1 acc. to DIN 4052-4. Color: black, height: approx. 130 cm (Overall installation height with standard grating: ca. 145 cm). Delivery and setting according to the manufacturer installation notes.

System ROMOLD or equal.



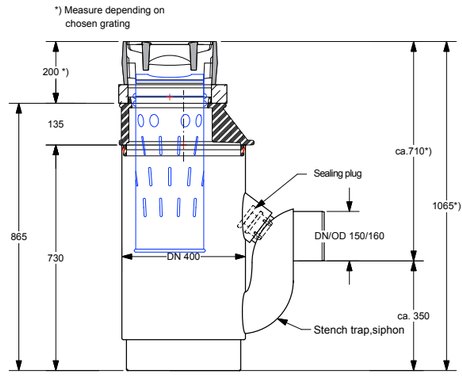
Exa,ple: Rule profile Motorway central strip

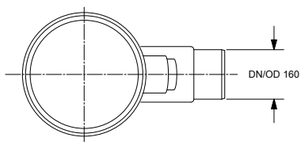
KEY

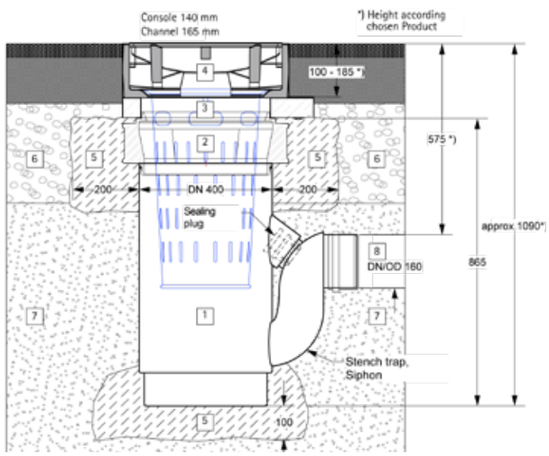
1 ROMOLD PE road gully
2 Load distribution ring plastic/concrete DIN 4052-10A
3 Grating 500 x 500 or 300 x 500, Class C/D acc. to DIN 19594
4 Lean concrete bearing, h = mind. 10 cm
5 Backfill material G1 or G2 acoording to ATV A 127
6 Frost protection layer road bed
7 Possibility of connection on intakes 0°/90°/180°/270°: DN/OD 110–400 with seal IS 110–400

PE ROAD GULLY TYP GST

WITH STENCH TRAP GRATING 500 X 500, OR GRATING 300 X 500







PUBLIC TENDER TEXT EXAMPLE

ROMOLD PE road gully with sand trap and Siphon,

Grating 500 x 500 mm, H = app. 86 cm,

Typ: GST 40.50.50.15/86 P

ROMOLD PE road gully DN 400, 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 agressive wastewater, road salts and frost, consisting of base part and turnable grating adapter, outlet connection DN /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. Road gully with stench trap/siphon incl. cross connection for camera inspection or cleaning device. Cross connection with sealing plug vrom NBR for sealing in opaerating status and for extraction while cleaning and inspection works. 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. 106 cm). Delivery and setting according to the manufacturer installation notes.

System ROMOLD or equal.

For latest information on this topic, visit www.romold.de, menu products, submenu drainage systems/road gullies.

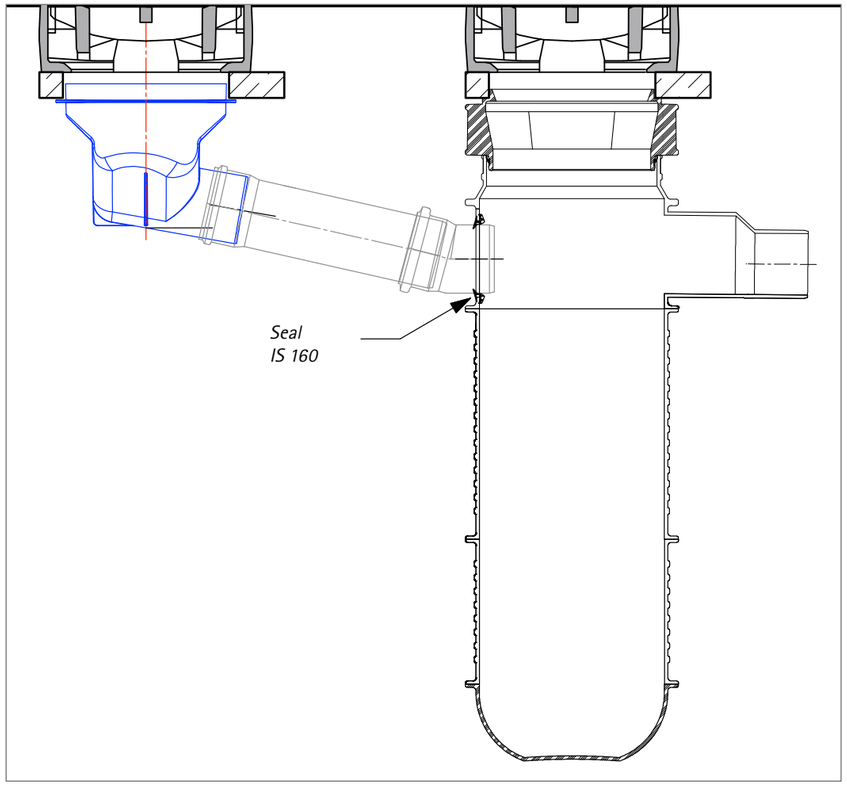
Scan QR-Code for project questionnaire / see site questionnaire chapter

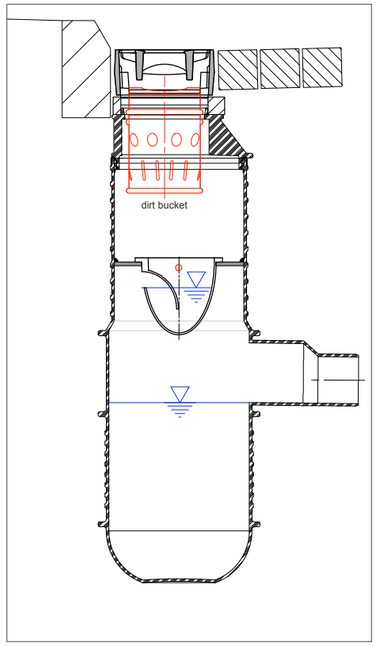
KEY

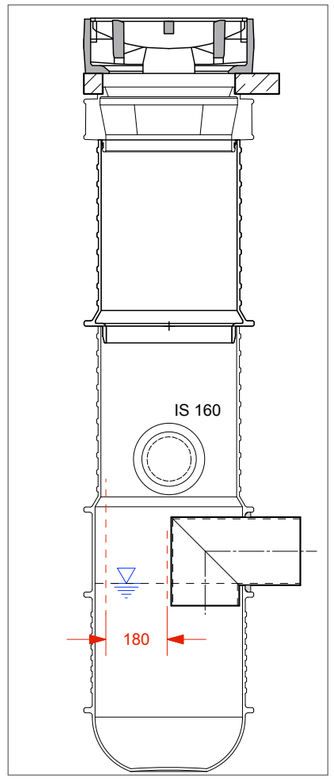
1 ROMOLD PE road gullyf
2 Grating adaptor
3 Load distribution ring plastic/concrete refer to page 105
4 Grating 500 x 500 or 300 x 500, Class D acc. to DIN 19594
5 Lean concrete
6 Frost protection layer road bed
7 Backfill material G1 or G2 acoording to ATV A 127
8 Connectivity pipe DN/OD 160

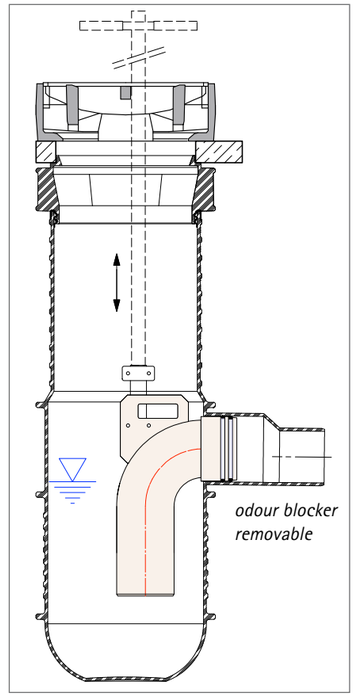
SPECIAL SOLUTIONS

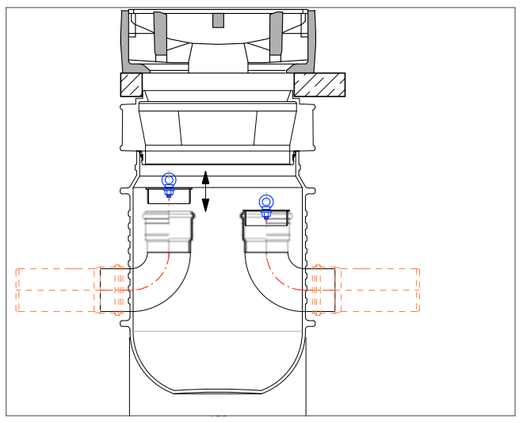
EXECUTION EXAMPLE

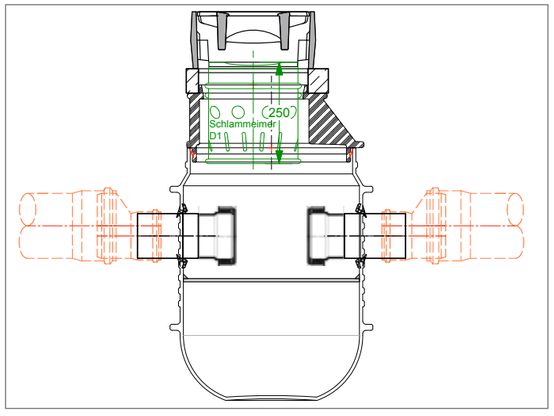


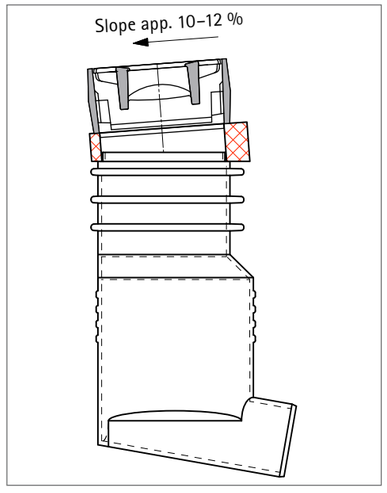


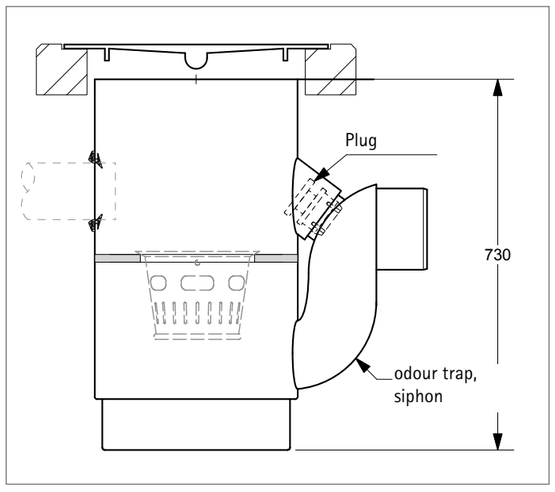












ROMOLD

ROAD GULLIES

PRICES AND DETAILS

Ask about our special offer prices. These vary depending on order quantity.

All ROMOLD road gullies are designed for usage commercial inlet grates and dirt buckets

Height cm	Details for version dry slugde	Article name	Price €
35–45	for socket-ended pipes, PP, straight outlet, horizontal reinforcement rings, outlet connection ND /OD 160, Grating 500 x 500 mm or 500 x 300 mm	**GRI 40.50.30.15/45 BI**	*
		GRI 40.50.50.15/45 BI	*
45	as well for welded systems, PE, straight outlet, horizontal reinforcement rings, outlet connection ND /OD 160, Grating 500 x 500 mm or 500 x 300 mm	**GR 40.50.30.15/45 BI**	*
		GR 40.50.50.15/45 BI	*
63	as well for welded systems, PE, straight outlet, horizontal reinforcement rings, outlet connection ND /OD 160 for high dirt bucket, grating 500 x 500 mm or 500 x 300 mm	**GR 40.50.30.15/63 BI**	*
		GR 40.50.50.15/63 BI	*

Height cm	outlet	Details for version longitudinal drainage	Article name	Price €
60–105	DN/OD 200/160	Road gully DN 450 for longitudinal drainage, 1° gradient, turnable Grating 500 x 500 optionally 500 x 300 with element seal, outlet DN/OD 200 and 160, 2 additional inlets DN/OD 200 and 160, can be shortened	**GRT 1B 45.50.XX.20.15/105**	*
60–105	DN/OD 200/160	Road gully DN 450 for longitudinal drainage, outlet DN /OD 315 and 250, 1° gradient, turnable Grating 500 x 500, optionally 500 x 300, with element seal, can be shortened	**GRT 3B 45.50.XX.20.15/105**	*
70–115	DN/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, 3 level even inlet options DN/OD 315 and 250 at 90°, 180° and 270°, can be shortened	**GRT 3BL 45.50.XX.30.25/115**	*
130	DN/OD 315/250	GRT mit channel 400	**GRT 3BL 45.50.50.40/130**	*
130			**GRT 3BL 45.50.30.40/130**	*

Height cm	outlet	Details for version wet sludge trap	Article name	Price €
103–105	DN/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°, Storage volume app. 87 l	**GRT 45.50.50.15/105**	*
			GRT 45.50.30.15/105	*
100–145	DN/OD 200/160	For welded systems and socket-ended pipes, turnable Grating 500 x 500 mm or 500 x 300 mm, can be shortened, Storage volume app. 78 l	**GRT 45.50.50.20.15/145**	*
			GRT 45.50.30.20.15/145	*

Height cm	Details for version stench trapArtikelbezeichnung	Article name	Price €
86	With stench siphon, as well for welded systems with turnable grating, splitter for cleaning option, outlet connection ND /OD 160 for grating 500 x 500 mm or 500 x 300 mm	**GST 40.50.50.15/86 P**	*
		GST 40.50.30.15/86 P	*

Height cm	Details	Article name	Price €
15–55	Extention for ROMOLD road gully Typ GRT and GST	**GRT E 40/55**	*
6	Plastic support ring for road gully with grate 500 x 500	**PARD 50.50/06**	*
6	Plastic support ring for road gully with grate 500 x 500	**PARD 50.30/05**	*
8/12	Plastic support ring for road gully with grate 300 x 500 with cross slope of 2 % for the installation in the in der spiky gullyw oder pendulum gully	**PARD 50.30/12 K**	*
	Lip seal for connecting street drainage elements	**ES 039 W**	

Odour blocker details	Article name	Price €
Odour stop for retrofitting in GRT wet sludge traps with low overall height	**GRT Odour blocker**	
Odour stop for retrofitting in GRT wet sludge traps with high overall height including sleeve for seating a lifting bar, including base installation aids	**GRT Odour blocker with sleeve**	

All ROMOLD road gullies are designed for usage commercial inlet grates and dirt buckets

Version		Bases	Element seal ES 039W	Extension GRT E 40/**55***	Adapter U 45.*50.50*/**13***	Adapter GRT UE 45.*50.30*/**13***	Load distribution ring PARD *50.50*/**06***	Load distribution ring PARD *50.30*/**05***	Height from–to cm complete without grate	Peice €
dry slugde	50x50	**GRI 40.50.50.15/45 BI**					1		51	*
		GR 40.50.50.15/45 BI					1		51	*
		GR 40.50.50.15/63 BI					1		69	*
	50x30	**GRI 40.50.30.15/45 BI**						1	51	*
		GR 40.50.30.15/45 BI						1	51	*
		GR 40.50.30.15/63 BI						1	69	*
longitudinal drainage	50x50	**GRT 1B 45.50.50.20.15/105**	1		1		1		65–111	*
		GRT 1B 45.50.50.20.15/160	2	1	1		1		111–166	*
		GRT 3B 45.50.50.20.15/105	1		1		1		65–111	*
		GRT 3B 45.50.50.20.15/160	2	1	1		1		111–166	*
		GRT 3BL 45.50.50.30.25/115	1		1		1		75–121	*
		GRT 3BL 45.50.50.30.25/170	2	1	1		1		121–176	*
		GRT 3BL 45.50.50/130	1		1		1		90–136	*
		GRT 3BL 45.50.50/185	2	1	1		1		136–191	*
	50x30	**GRT 1B 45.50.30.20.15/105**	1			1		1	65–111	*
		GRT 1B 45.50.30.20.15/160	2	1		1		1	111–166	*
		GRT 3B 45.50.30.20.15/105	1			1		1	65–111	*
		GRT 3B 45.50.30.20.15/160	2	1		1		1	111–166	*
		GRT 3BL 45.50.30.30.25/115	1			1		1	75–121	*
		GRT 3BL 45.50.30.30.25/170	2	1		1		1	121–176	*
		GRT 3BL 45.50.30/130	1			1		1	90–136	*
		GRT 3BL 45.50.30/185	2	1		1		1	136–191	*

*The numbers in italix describe the grating size of the road gully (50 x 50/50 x 30), the last number after the slash is the height of the original individual part in cm. Extensions can be shortened.

ROMOLD

ROAD GULLIES

PRICES AND DETAILS

All ROMOLD road gullies are designed for usage commercial inlet grates and dirt buckets

Version		Bases	Element seal ES 039W	Extension GRT E 40/**55***	Adapter U 45.*50.50*/**13***	Adapter GRT UE 45.*50.30*/**13***	Load distribution ring PARD *50.50*/**06***	Load distribution ring PARD *50.30*/**05***	Height from–to cm complete without grate	Price €
wet sludge trap	50×50	**GRT 45.50.50.15/105**	1		1		1		105–111 cm	
		GRT 45.50.50.15/160	2	1	1		1		176–221 cm	
		GRT 45.50.50.20.15/145	1		1		1			
		GRT 45.50.50.20.15/200	2	1	1		1			
	50×30	**GRT 45.50.30.15/105**	1			1		1		
		GRT 45.50.30.15/160	2	1		1		1		
		GRT 45.50.30.20.15/145	1			1		1		
		GRT 45.50.30.20.15/200	2	1		1		1		
stench trap	50×50	**GST 40.50.50.15/86 P**					1			
	50×30	**GST 40.50.30.15/86 P**						1		

*The numbers in italix describe the grating size of the road gully (50 x 50/50 x 30), the last number after the slash is the height of the original individual part in cm. Extensions can be shortened.

ACCESSORIES ROAD GULLIES

PLASTIC LOAD DISTRIBUTION RING

from recycling material for road gullies.
Measurement analog to DIN 4052-3, Typ 10a or 10b, height approx. 60 mm

PARD 50.50/06

with inlet grate 500 x 500,
Weight approx. 13 kg

PARD 50.30/05

with inlet grate 300 x 500,
Weight approx. 4,1 kg

PARD 50.30/12K

Plastic load distribution ring from recycling material for road gullies with inlet grate
300 x 500, measurement analog to DIN 4052-3, Typ 10b, with cross slope 12 % for the installation in the spiky gully or pendulum gully.

Height approx. 80/120 mm, Weight approx. 9 kg

REMOVABLE ADAPTER

ROMOLD PE chamber construction DN 450/500/300

GRT UE 45.50.30/13

500 x 300 mm
Height: 13 cm

GRT U 45.50.50./13

500 x 500 mm
Height: 13 cm

EXTENSION FOR ROAD GULLIES

from Typ GRT and GST incl. seal.

GRT E 40/55

Height 55 cm,

Shorting dimension 45 cm

GRT ODOUR BLOCKER

Odour stop retrofit upgrade available for GRT wet sludge traps.

Pendelrinne: optimal gelöst mit ROMOLD

Resistance as well against high installation temperature from asphalt

ROMOLD

ASSEMBLY- AND INSTALLATION NOTES

FOR ONE-PIECE ROAD GULLIES

For assembly- and installation notes „to go", scan QR-Code.

GRI 40.50.30.15/45 BI

GRI 40.50.50.15/45 BI

GR 40.50.50.15/45 BI

GR 40.50.50.15/63 BI

1. GENERAL INFORMATION

ROMOLD PP/PE road gullies are delivered ready for connection.

All components must be checked for damage or contamination before installation and if necessary cleaned or replaced. Damaged components may not be installed!

Technical details:

- Material: made of 100 % virgin material Polyethylen (PE) or. Polypropylen (PP)
- Pipe line pluggable or weldable (with waste water welding socket)
- Connection nominal diameter DN/OD 160
- suitable for commercial gratings 500 x 300 mm or. 500 x 500 mm

2. EXCAVATION

The excavation or the size of the head hole has to be created in a way, that there is enough workspace for the necessary work.

3. INSTALLATION

Compress the natual ground if needed.

The bearing of the road gully has to be of minimum 10 cm concrete granular subbase. C12/15. Hereby the road gully has to be bedded up to the apex area in concrete or support it from the side.

It is recommended to connect the outlet pipe before positing of the road gully. The filling on the side of the road gully to be produced with suiting backfilling material (non-cohesive earth or earth of low cohesion acc. to DIN 18196, e. g.: Kgravel/sand mixture, natural grain material particle size 0–32 mm or crushed material particle size 0–16 mm).

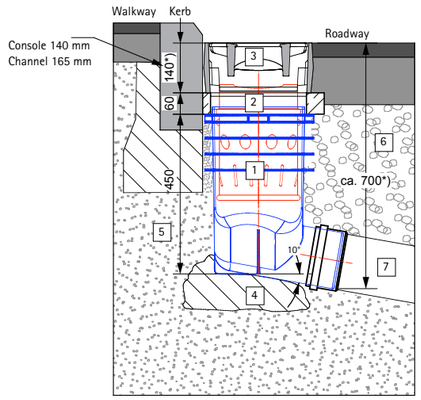
Arrange the backfilling material in layers and compress it. If necessary can the road gully be cut by max. 10 cm with a saw suiting for woodworking. The shortening has to be done always underneath the ribs, that the shift protection for the load distribution ring stays put. The ribs on the building part must be bedded completely and carefully in backfilling material or frost protection material (big stones has to be removed). Potential hallows between kerb and the back of road gully are to be filled with trickling material or concrete.

4. TOP PART

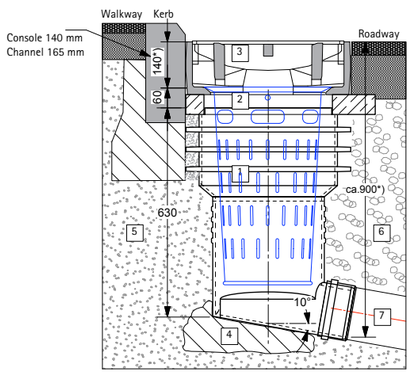
Upside the road gully the load distribution ring acc. to DIN 4052, Typ 10a for grating 500 x 500 mm or Typ 10b for grating 500 x 300 mm has to be put on. The use of polymer load distribution rings (dimensions acc. to DIN 4052, Typ 10a or Typ 10b) is possible. Further are the polymer load distribution rings with cross slope for use in spiky gully

Moreover polymer load distribution rings with cross slope are offered from ROMOLD for the use in spiky and pendulum gully. On top of the load distribution ring commercial inlet grates are to be placed.

GRI 40.50.30.15/45



GR 40.50.50.15/63



KEY

1 ROMOLD PP road gully
2 Load distribution ring plastic/concrete page 73
3 Grating 450 x 450, Class C/D acc. ÖNorm B 5110
4 Lean concrete bearing, h = mind. 10 cm
5 Compressible backfill material
6 Frost protection layer road bed
7 Connecting pipe line DN/OD 160

3. Min.: bedding in lean concrete mix

5. Min.: height adjustment

7. Min.: backfilling and compacting

15. Min.: assembly of grating

ROMOLD

ASSEMBLY- AND INSTALLATION NOTES

FOR TWO-PIECE ROAD GULLIES WITH WET SLUGDE TRAP

For assembly- and installation notes „to go“, scan QR-Code.

1. GENERAL INFORMATION

ROMOLD PE road gullies are provided ready to connect. All components must be checked for damage or contamination before installation and if necessary cleaned or replaced. Damaged components may not be installed! All supplied element seals have to be stored packed, protected from frost and direct sunlight.

Technical details:

- Material: made of 100 % virgin material Polyethylen (PE)
- Pipe line for socket-ended- bzw. welded possible (with waste-water-welding socket)
- Connection nominal diameter: DN/OD 160 to DN/OD 200
- Suiting for commercial gratings 500 x 300 mm respectively 500 x 500 mm

2. EXCAVATION

The Excavation respectively the size of the head hole has to be made in a way that there is enough work room for the necessary working steps.

3. INSTALLATION

The upcoming ground compressing if needed.

The bearing of the road gully has to be executed from a at least 10 cm strong concrete granular subbase C12/15. Adjust road gully according to the outlet direction. Then bed the gully at least up to the OK semi-ball in concrete or support it laterally.

The laterally filling of the road gully is to be made with suiting filling material (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). Build in the filling material in layers and compress it.

For connection of pipe DN/OD 200 cut the outlet nozzle DN/OD 160 and deburr it. Sockets with smooth walled plastic pipes can be directly connected, for other pipe materials or profiled pipes has to be used conversion adapters. If needed can the bottom part of the road gully (depends on the version) be shortened with a wood saw in the cylindrical part for max. 46 cm respectively max. 2,5 cm.

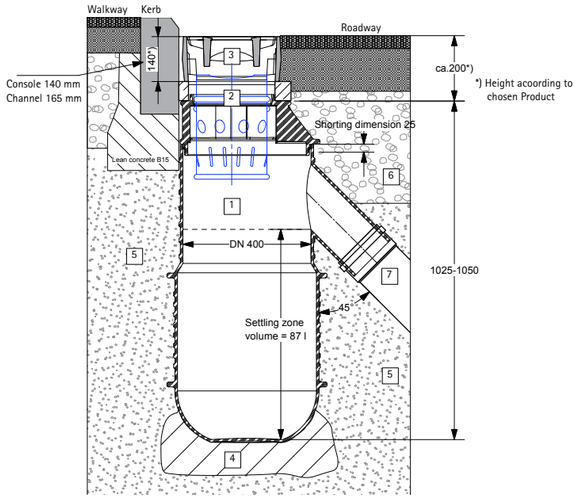
Eventual cut surfaces are to be deburred and than the item seal put on at the above end. Clean ROMOLD item seal, if necessary and provide it with enough lubricant.

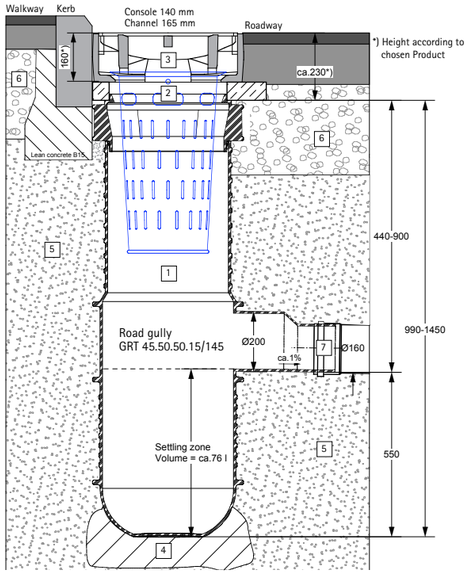
For the next step put up the conversion adapter without tilting on the kerb and bring together to the stop. The ribs on the building part have to be completely bedded carefully in backfill material respectively frost protection material (remove big stones). The connection of drainage pipes or additional pipe connections takes place through bore of the road gully (in cylindrical parts) with a core drill and the insertion of a lip seal. Core drill and lip seal are abailable as accessories from ROMOLD.

GRT 45.50.50.20.15/145 **GRT 45.50.50.15/105**

4. GRATING

On the upper side of the road gully will be placed the bearing rind according to DIN 4052, Typ 10a for grating 500 x 500 mm respectively. Typ 10b for grating 500 x 300 mm. The use of polymere load distribution rings (measurement according DIN 4052, Typ 10a respectively Typ 10b) is possible. Further are offered polimere load distribution rings with cross slope for use in spiky gully/
pendulum gully from ROMOLD. The commercial inlet grates has to be placed on the load distribution ring.





KEY

1	ROMOLD PE road gully
2	Load distribution ring plastic/concrete page 73
3	Grating 500 x 500 or 300 x 500, Class D acc. DIN 19594
4	Lean concrete bearing, h = mind. 10 cm
5	Compressible backfill material
6	Frost protection layer road bed
7	Connecting pipe line DN/OD 200/160

ASSEMBLY- AND INSTALLATION NOTES

FOR ROMOLD PE ROAD GULLIES FOR TYP GST WITH STENCH TRAP GRATING

Zur Montageanleitung „to go" QR-Code einscannen.

1. GENERAL INFORMATION

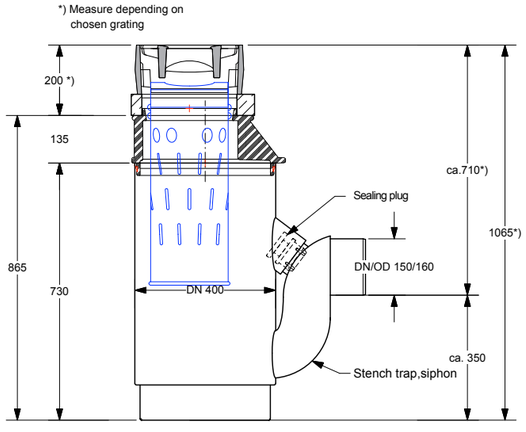
ROMOLD PE road gullies are provided ready to connect. All components must be checked for damage or contamination before installation and if necessary cleaned or replaced. Damaged components may not be installed! All supplied element seals have to be stored packed, protected from frost and direct sunlight.

Technical details:

- Material: made of 100 % virgin material Polyethylen (PE)
- Pipe line for socket-ended- bzw. welded possible (with waste-water-welding socket)
- Connection nominal diameter: DN/OD 160
- Suiting for commercial gratings 500 x 300 mm respectively 500 x 500 mm

2. EXCAVATION

The Excavation respectively the size of the head hole has to be made in a way that there is enough work room for the necessary working steps.



3. INSTALLATION

The upcoming ground compressing if needed.

The bearing of the road gully has to be executed from a at least 10 cm strong concrete granular subbase C12/15. Adjust road gully according to the outlet direction. Then bed the gully at least up to the bottom expiration of the siphon in concrete or support it laterally.

The laterally filling of the road gully is to be made with suiting filling material (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). Build in the filling material in layers and compress it. Smooth walled plastic pipes can be directly connected, for other pipe materials or pipes with profile there are conversation adapters to be used. Core drills and lip seals are offered from ROMOLD as accessories.

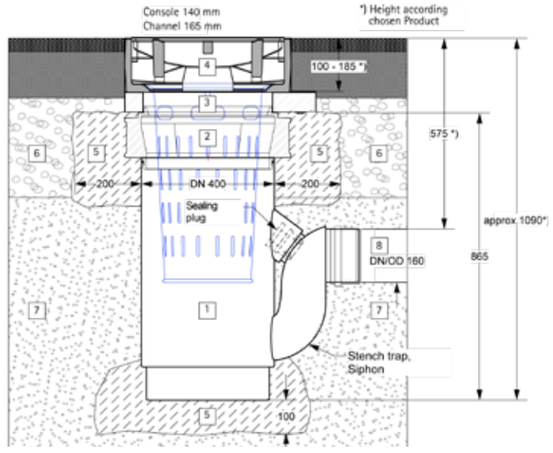
For heat sealing with PE pipelines are to use waste water welding sockets If needed can the bottom part of the road gully (depends on the version) be shortened with a wood saw in the cylindrical part max. 5 cm. Eventual cut surfaces are to be deburred and than the item seal put on at the above end. Clean ROMOLD item seal, if necessary and provide it with enough lubricant.

For the next step put up the conversion adapter without tilting on the kerb and bring together to the stop. The ribs on the building part have to be completely bedded carefully in backfill material respectively frost protection material (remove big stones).

From the to edge conversion adapter is the PE road gully to sheathe with Height = approx. 30 cm lean concrete. The connection of drainage pipes or additional pipe connections takes place through bore of the road gully (in cylindrical parts) with a core drill and the insertion of a lip seal. Core drill and lip seal are abailable as accessories from ROMOLD.

4. GRATING

On the upper side of the road gully will be placed the bearing rind according to DIN 4052, Typ 10a for grating 500 x 500 mm respectively. Typ 10b for grating 500 x 300 mm. The use of polymere load distribution rings (meassurement according DIN 4052, Typ 10a respectively Typ 10b) is possible. Further are offered polimere load distribution rings with cross slope for use in spiky gully/ pendulum gully from ROMOLD. The commercial inlet grates has to be placed on the load distribution ring.



LEGENDE

1. ROMOLD PP road gully
2. Grating Adapter
3. Load distribution ring plastic/concrete page 73
4. Grating 500 x 500 or 300 x 500, Class. D acc. to DIN 19594
5. Lean concrete bearing
6. Frost protection layer road bed
7. Backfill material G1 or G2 acc. to ATV A 127
8. Connecting pipe line DN/OD 160

ROMOLD

ASSEMBLY- AND INSTALLATION NOTES

FOR TWO-PIECE ROAD GULLIES FOR LONGITUDINAL DRAINAGE

For assembly- and installation notes „to go", scan QR-Code.

1. GENERAL INFORMATION

ROMOLD PE road gullies are provided ready to connect. All components must be checked for damage or contamination before installation and if necessary cleaned or replaced. Damaged components may not be installed! All supplied element seals have to be stored packed, protected from frost and direct sunlight.

Technical details:

- Material: made of 100 % virgin material Polyethylen (PE)
- Pipe line for socket-ended- bzw. welded possible (with waste-water-welding socket)
- Connection nominal diameter: DN/OD 160 to DN/OD 400
- Suiting for commercial gratings 500 x 300 mm respectively 500 x 500 mm

2. EXCAVATION

The Excavation respectively the size of the head hole has to be made in a way that there is enough work room for the necessary working steps.

3. INSTALLATION:

The upcoming ground compressing if needed.

The bearing of the road gully has to be executed from a at least 10 cm strong concrete granular subbase C12/15. Adjust road gully according to the outlet direction. Then bed the gully at least up to the apex area in concrete or support it laterally.

For connection of the bigger pipe diameter cut the smaller outlet spigot and deburr it. For connection of the pipes with seals drill the appropriate connection holes with a core drill, deburr it and put the seal in. The connection or drainage pipes or additional pipes can be done through drilling of the road gully (in cylindrical parts) like described above. Smooth walled plastic pipes can be directly connected, for other pipe materials or pipes with profile there are conversation adapters to be used. Core drills and lip seals are offered from ROMOLD as accessories.

The lateral filling of the road gully with suiting filling material, 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. Build in the filling material in layers and compress it.

If needed can the bottom part of the road gully (depends on the version) be shortened with a wood saw in the cylindrical part for max. 46 cm. Eventual cut surfaces are to be deburred and than the item seal put on at the above end. Clean ROMOLD item seal, if necessary and provide it with enough lubricant.

For the next step put up the conversion adapter without tilting on the kerb and bring together to the stop. The ribs on the building part have to be completely bedded carefully in backfill material respectively frost protection material (remove big stones).

GRT 3B 45.50.XX.20.15/105

GRT 1B 45.50.30.30.25/105

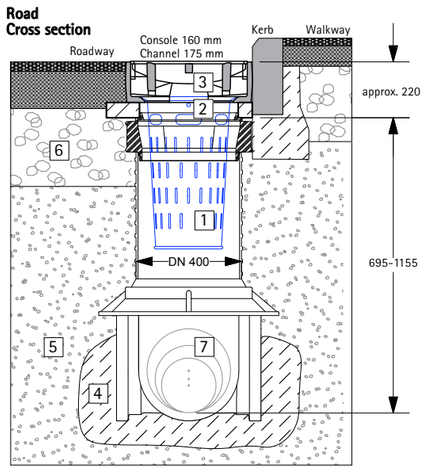
GRT 3BL 45.50.XX.30.25/115

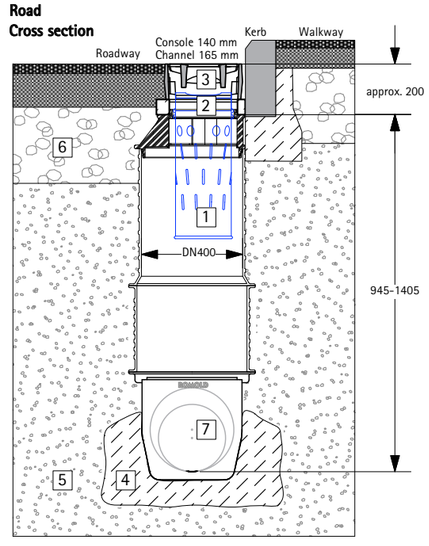
GRT 3BL 45.50.XX.40/130

4. GRATING:

On the upper side of the road gully will be placed the bearing rind according to DIN 4052, Typ 10a for grating 500 x 500 mm respectively. Typ 10b for grating 500 x 300 mm. The use of polymere load distribution rings (measurement according DIN 4052, Typ 10a respectively Typ 10b) is possible.

Further are offered polimere load distribution rings with cross slope for use in spiky gully/pendulum gully from ROMOLD. The commercial inlet grates has to be placed on the load distribution ring..





KEY

1 ROMOLD PP road gully
2 Load distribution ring plastic/concrete page 73
3 Grating 450 x 450, Kl. C/D acc. ÖNorm B 5110
4 Lean concrete bearing, h = mind. 10 cm
5 Compressible backfill material
6 Frost protection layer road bed
7 Connecting pipe line

PRESSURE DRAINAGE

ROMOLD

CONTENT PRESSURE DRAINAGE SYSTEM

ROMOLD PRESSURE DRAINAGE – AN OVERVIEW

EVERYTHING FROM A SINGLE SOURCE

ALL CHAMBERS SUITABLE UP TO CLASS D TRAFFIC LOADS

ROMOLD
domestic chamber
DN 500 to DN 1000

ROMOLD
chamber
DN 625 to DN 1000

ROMOLD
Activ-Filter*

ROMOLD
pump stations
DN 800 to DN 3600

ROMOLD
control panel

ROMOLD
compressor station

ROMOLD
air valve chambers
DN 800 to DN 1250

ROMOLD
flowmeter chamber (MID)

Scan QR-Code for project questionnaire / see site questionnaire chapter

Activ-Filter by ROMOLD

ROMOLD
pressure pipe end chamber

YOUR BENEFIT:

- compatible with all maufacturers
- a planning department for your support
- can be combined with own brands
- delivered ready for on-site connection
- more space in the chamber thanks to excentric pipeline (see page XVIII in introduction)

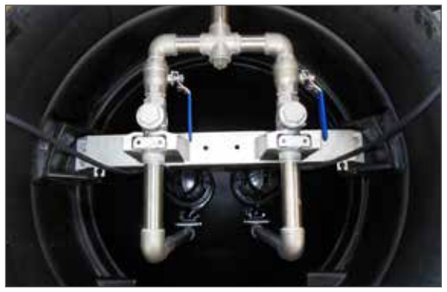
For the flowmeter chamber project questionnaire scan QR-Code or go to chapter.

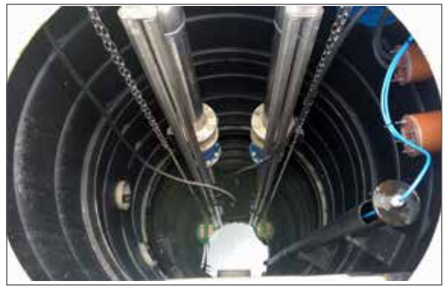
PHOTOS OF PROJECTS

YOUR IDEAS FIELD-TESTED




We plan your custom pump station with you



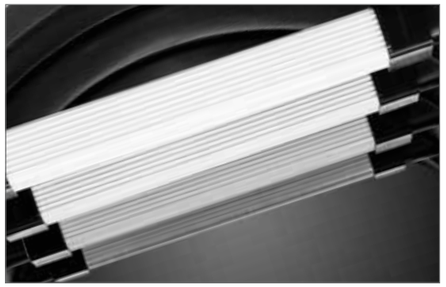



For project questionnaire scan QR-Code or see Questionnaire chapter.

ROMOLD

ROMOLD PRESSURE DRAINAGE CHAMBERS

PLANNING FOR THE FUTURE WITH PLASTIC



Pump chamber RPF 100

WITHOUT DOUBT

The use of plastics is the perfect alternative to traditional concrete chambers due to the durability of the material and its many advantages such as absolute impermeability, high material quality and cost effectiveness. The chambers can be equipped with class D covers.

POLYETHYLEN

The environmentally-friendly material satisfies all current standards and is the first choice for the technician because of its handling qualities.

ROMOLD uses 100 % new materials. The polyethylene material provides long-lasting resistance against chemical influences caused by aggressive bottom surfaces and waste water, along with stress loads and abrasion. Its weldable quality enables a bottle-tight seal. Polyethylene is a solution for the future.

MATURE SYSTEM TECHNOLOGY

ROMOLD offers the largest range of products in the world and is sure to provide a solution to meet your individual needs. Special requirements can always be accommodated upon customer request.

We plan your custom pressure drainage pipe ends chambers with you

LOW WEIGHT

Part weight of approx. 30-40 kg
quick installation by hand.

100 % WATERTIGHT

All parts are tested against
internal & external pressure (0.5 bar).

LONGEVITY

A service life up to 100 years is realistic

FLEXIBILITY

No cracks and breaks due to movement.

COMPATIBILITY

Designed to be connected to all current pipe systems.

OPERATING EFFICIENCY

Investment in the future
with clear overall advantages.

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

THE INNOVATIVE CHAMBER SYSTEM

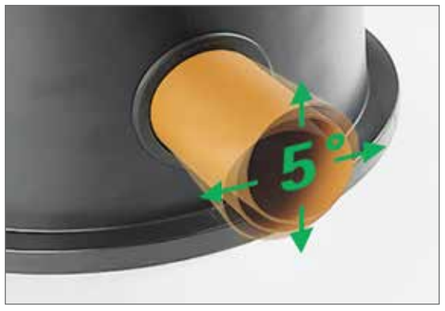
AN OVERVIEW OF ROMOLD QUALITY

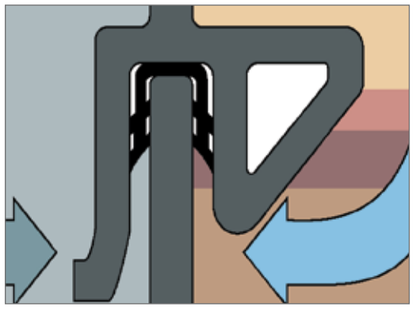
PIPE CONNECTIONS

The possibilities for connection pipe positions are unlimited and can be designed with any diameter for any location, with seals or weld-in spigots..

FLEXIBLE

The ROMOLD seal for the articulated pipe joint made of PVC, PE and PP is flexible for movement in any direction (allowing bending +/- 5°).





ELEMENT SEAL

Thanks to the three-side Triple-Safety-Seal made of EPDM, increasing internal or external pressure increases the seal effect.

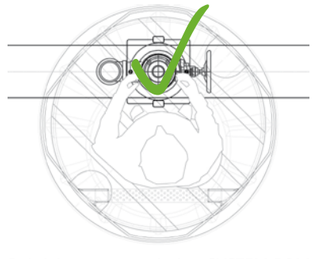
HEIGHT ADJUSTMENT

All heights can be manufactured continually and precisely by shortening the top part.

ROMOLD ROHRLEITUNGSDURCH-FÜHRUNGEN

A central pipeline impedes access to the chamber and renders operation of controls almost impossible. Excentric pipelines essentially offer more space for easier access and operation of controls and is costly or impossible with other materials

Rohrleitung zentrisch



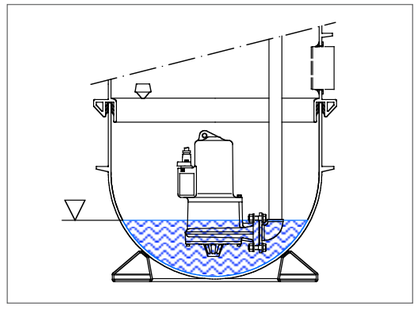
Rohrleitung exzentrisch = SYSTEM ROMOLD

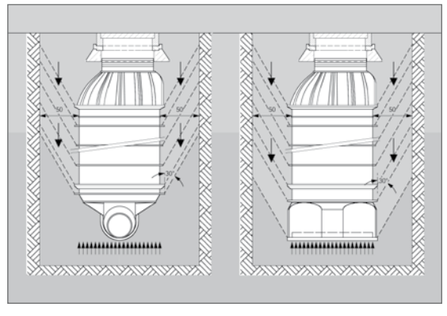
CLIMBING STEPS

Accessible DN 800 and DN 1000 manholes are factory fitted with various versions, including non-slip and fixed at factory locations.

ROUND BOTTOM PUMP CHAMBER

Optimal pump sump without sedimentation and with minimal residual water in the chamber.





UPLIFT RETENTION

ROMOLD chambers feature standard anti-lift protection through external ribs which interlock with the soil.

CHAMBER BOTTOM BI

To ensure the stability of the chamber during assembly and safe setup by one person.

OVERVIEW OF PUMP CHAMBERS

ROMOLD SYSTEMS FOR PRESSURE DRAINAGE

WHAT YOU NEED TO KNOW

ROMOLD PE-pre-fabricated pump manholes are variable in height and can handle up to class D 400 traffic loads. They have a reinforced bottom and a coupling pedestal for one or two pumps for using in disposal of sewage- and waste water.

The chambers are optionally constructed with an overwater coupling or with a pump foot, installed at the chamber bottom and can be used for pressure drainage with a grinder pump or a vortex impeller pump. A stainless steel pipe and fixings for one or two pumps are pre-installed.

No lifts or excavators are required at the construction site, saving you time and money when moving the chamber. The inlet is variable and can be mounted on-site, using a drill.

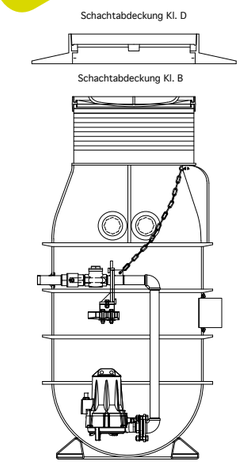
All inlet- and outlet seals allow flexible integration of the pipes at an angle of up to 5° and are pressure proof up to 0.5 bar of external- and internal pressure

We plan your custom pump station with you

RPC 80

DN 800

one-piece and up to class D traffic loads



Pump quantity:
one

Height:
190 cm one-piece

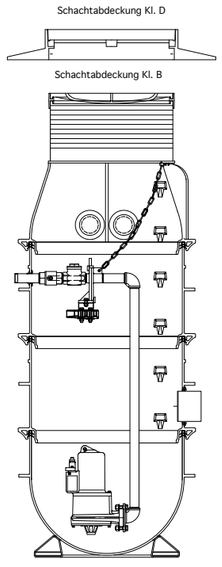
Chamber cover:
Class A–D

Pressure pipe:
1 ¼ or 1 ½"

For pump types:
Drainage pumps
Sewage pumps
Grinder pumps

RP 80

DN 800



Pump quantity:
one

Height:
205–305 cm

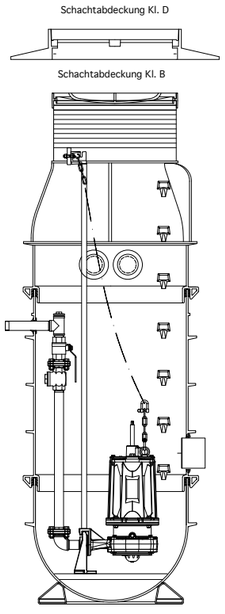
Chamber cover:
Class A–D

Pressure pipe:
1 ½"

For pump types:
Drainage pumps
Sewage pumps
Grinder pumps

RPF 80

DN 800



Pump quantity:
one

Height:
205–405 cm

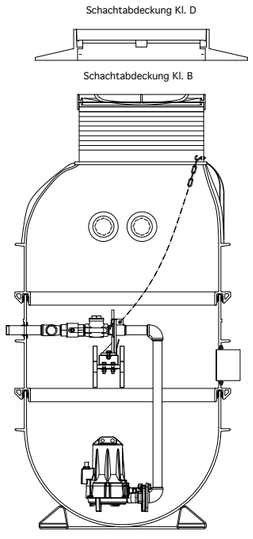
Chamber cover:
Class A–D

Pressure pipe:
1 ½"

For pump types:
Drainage pumps
Sewage pumps
Grinder pumps

RP 100

DN 1000



Pump quantity:
one or two

Height:
225–325 cm

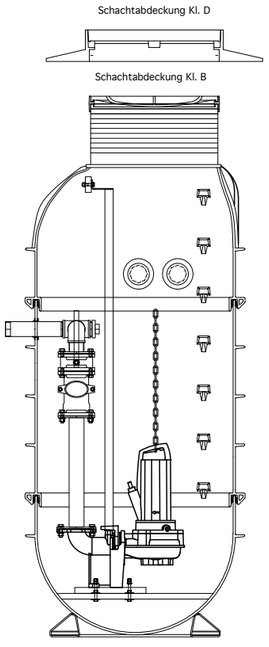
Chamber cover:
Class A–D

Pressure pipe:
1 ½", 2", 2 ½"

For pump types:
Drainage pumps
Sewage pumps
Grinder pumps

RPF 100

DN 1000



Pump quantity:
one or two

Height:
225–425 cm

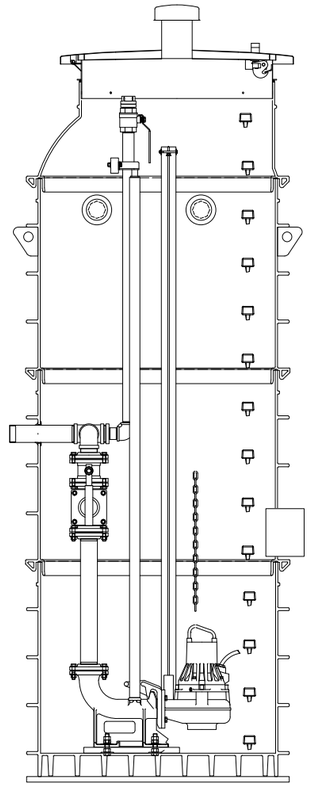
Chamber cover:
Class A–D

Pressure pipe:
1 ½", 2", 2 ½", DN 80

For pump types:
Drainage pumps
Sewage pumps
Grinder pumps

FP 125

DN 1250



Pump quantity:
two

Height:
250–400 cm

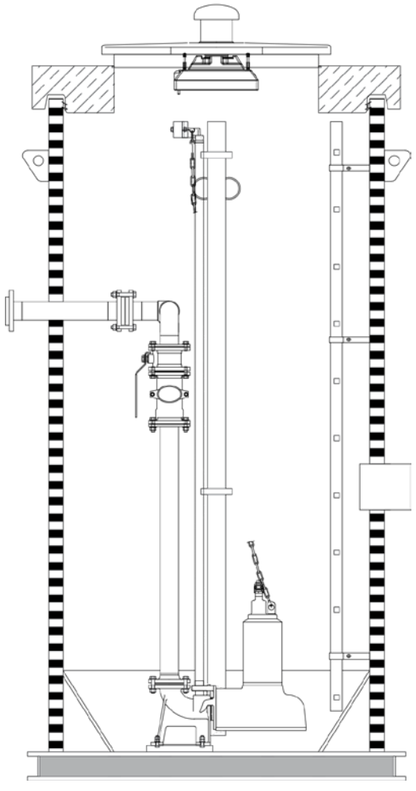
Chamber cover:
Class A–D

Pressure pipe:
1 ½", 2", 2 ½", DN 80

For pump types:
Drainage pumps
Sewage pumps
Grinder pumps

FP 150–FP 200

DN 1500–DN 2000



Pump quantity:
two

Height:
250–350 cm

Chamber cover:
Class A–D

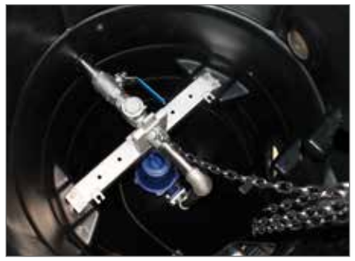
Pressure pipe:
DN 80–DN 150

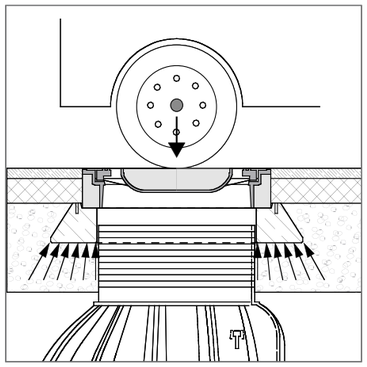
For pump types:
Sewage pumps
Grinder pumps

ROMOLD

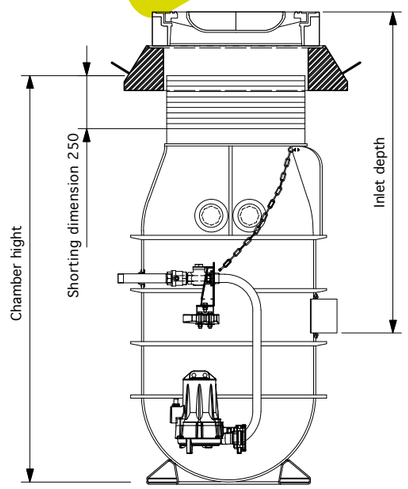
PUMP MANHOLES RPC 80 DN 800

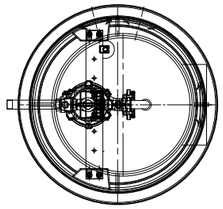
DISCHARGE FOR SINGLE-FAMILY HOUSES





single piece and suitable for up to class D traffic loads





RPC 80-1-190-XXX-VA

RPC: Round base-pump chamber combo (one-piece)
80: Internal diameter in cm
1: Number of pumps
190: Chamber height in cm
XXX: Pressure line – 1 ¼" or 1 ½"
VA: Stainless steel (Overwater coupling, crossbeam, pressure line)

WHAT YOU NEED TO KNOW

Up to class D traffic loads, one-piece, flexible in connection, optionally with extension

For latest information on this topic, visit www.romold.de, menu products, sub menu Pressure Drainage, Overview of pump chambers, pump chambers RPC 80

EQUIPMENT

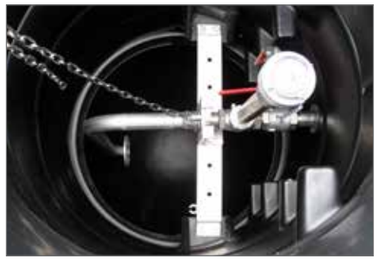
All chambers feature fully mounted fittings and pressure pipes, extending outside the chamber through an opening and end with R 1 ½" external thread ends, and consist of:
- Stainless steel pipe for a pump
- Stainless steel pipe including flange connection for pump
- Backflow preventer: cast iron ball valve or stainless steel non-return valve
- Fastening screws, chain, shackles, stainless steel hooks
- Inlet seal IS 160 for KG pipe DN 150 (other diameters available upon request)
- Seal(s) IS 110 for connecting cable duct pipes and vent pipes DN 100

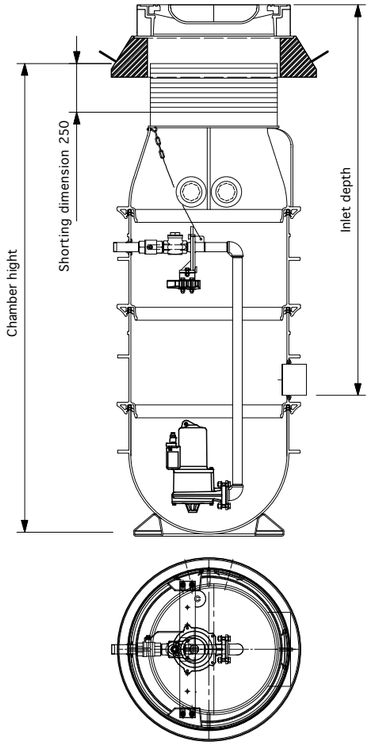
Chambers without pump, control system, level indicator, flush connection, compression-type fitting, chamber cover

Overview of pumps starting on p. 133, controls and level indicators starting on p. 134, chamber covers beginning on p. 152

PUMP MANHOLES RP 80 DN 800

DISCHARGE FOR SINGLE-FAMILY HOUSES





RP 80-1-XXX-1 ½"-VA

RP: Round base-pump chamber (multipart)
80: Internal diameter in cm
1: Number of Pumps
XXX: chamber height – 205 up to 305 cm
11/2": Nominal width pressure line
VA: Stainless steel (Overwater coupling, crossbeam, pressure line)

WHAT YOU NEED TO KNOW

Up to class D traffic loads, one-piece, flexible in connection, optionally with extension

For latest information on this topic, visit www.romold.de, menu products, sub menu Pressure Drainage, Overview of pump chambers, pump chambers RP 80

EQUIPMENT

All chambers feature fully mounted fittings and pressure pipes, extending outside the chamber through an opening and end with R 1 ½" external thread ends, and consist of:
- Stainless steel pipe for a pump
- Stainless steel pipe including flange connection for pump
- Backflow preventer: cast iron ball valve or stainless steel non-return valve
- Fastening screws, chain, shackles, stainless steel hooks
- Inlet seal IS 160 for KG pipe DN 150 (other diameters available upon request)
- Seal(s) IS 110 for connecting cable duct pipes and vent pipes DN 100

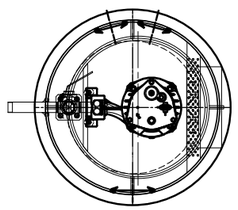
Chambers without pump, control system, level indicator, flush connection, compression-type fitting, chamber cover

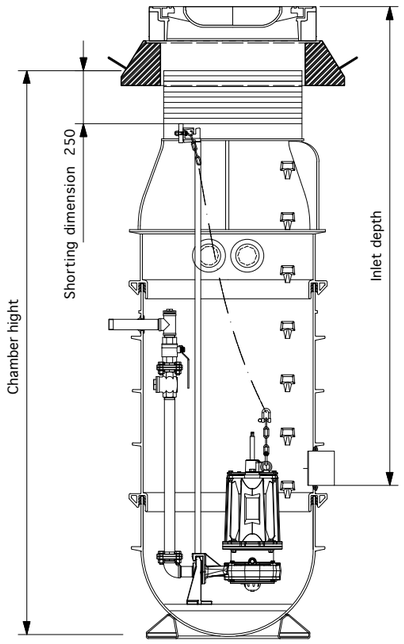
Overview of pumps starting on p. 133, controls and level indicators starting on p. 134, chamber covers beginning on p. 152

ROMOLD

PUMP CHAMBER RPF 80
DN 800

DISCHARGE FOR SINGLE-FAMILY HOUSES





RPF 80-1-XXX-1 ½"

RP: Round base-pump chamber (multipart)
80: Internal diameter in cm
1: Number of Pumps
XXX: chamber height – 205 up to 405 cm
11/2": Nominal width pressure line

WHAT YOU NEED TO KNOW

Up to class D traffic loads, multipart, flexible connection

For latest information on this topic, visit www.romold.de, menu products, sub menu Pressure Drainage, Overview of pump chambers, pump chambers RPF 80

EQUIPMENT

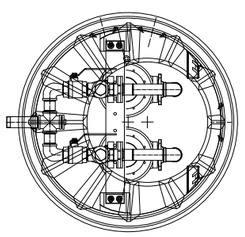
All manholes feature fully mounted fittings and pressure pipes, extending outside the manhole through an opening and end with R 1 ½", R 2", R 2 ½" external threads, and consist of:
- Coupling pedestal(s) made of cast iron
- Stainless steel pipe including flange connection for pump
- Backflow preventer: cast iron ball valve or stainless steel non-return valve
- Fastening screws, chain, shackles, stainless steel hooks
- Inlet seal IS 160 for KG pipe DN 150 (other diameters available upon request)
- Seal(s) IS 110 for connecting cable duct pipes and exhaust pipes DN 100

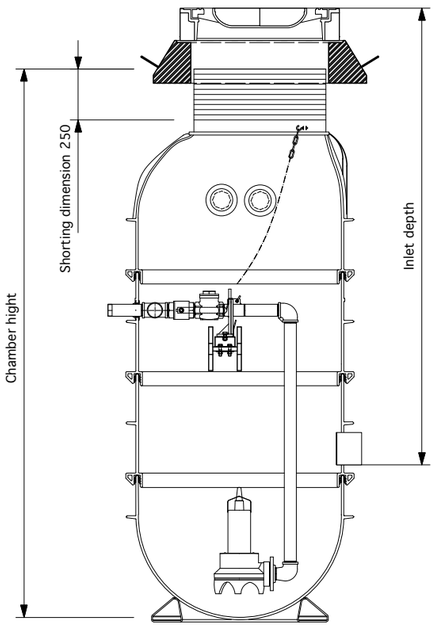
Chambers without pump, control system, level indicator, flush connection, compression-type fitting, chamber cover

Overview of pumps starting on p. 133, controls and level indicators starting on p. 134, chamber covers beginning on p. 152

PUMP CHAMBER RP 100
DN 1000

DISPOSAL FOR MULTI-FAMILY HOUSES AND BUSINESSES





RP 100-X-XXX-XXX-VA

RP: Round base-pump chamber (multipart)
100: Interior diameter in cm
X: Number of pumps – 1 = one pump or 2 = two pumps
XXX: Chamber height – 225 up to 325 cm
XXX: Pressure line – 1 ½" or 2"
VA: Stainless steel (Overwater coupling, crossbeam, pressure line)

WHAT YOU NEED TO KNOW

Up to class D traffic loads, multipart, optionally with one or two pumps, flexible connection

For latest information on this topic, visit www.romold.de, menu products, sub menu Pressure Drainage, Overview of pump chambers, pump chambers RP 100

EQUIPMENT

All chambers feature fully mounted fittings and pressure pipes, extending outside the chamber through an opening and end with R 1 ½", R 2", R 2 ½" external threads, and consist of:
- Overwater coupling(s) made of stainless steel
- Stainless steel pipe(s) including flange connection for pump(s)
- Shutoff device: stainless steel ball cock, backflow preventer: stainless steel non-return valve
- Fastening screws, chain(s), shackles, stainless steel hooks
- Inlet seal IS 160 for KG pipe DN 150 (other diameters available upon request)
- Seal(s) IS 110 for connecting cable duct pipes and vent pipes DN 100

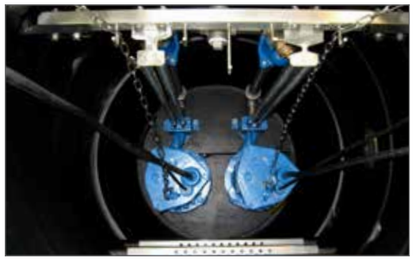
Chambers without pump, control system, level indicator, flush connection, compression-type fitting, chamber cover

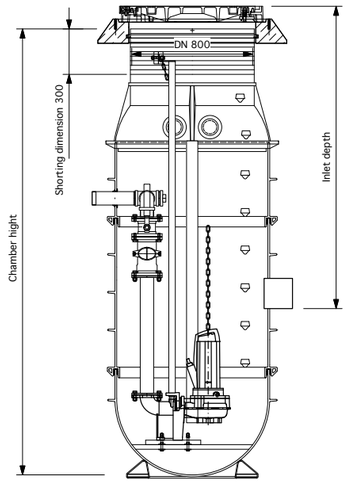
Overview of pumps starting on p. 133, controls and level indicators starting on p. 134, chamber covers beginning on p. 152

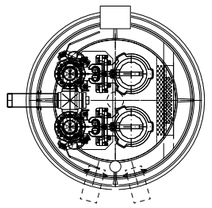
ROMOLD

PUMP CHAMBERS RPF 100
DN 1000

DISPOSAL FOR MULTI-FAMILY HOUSES AND BUSINESSES







RPF 100-X-XXX-XXX

RPF: Round base – pump chamber with version flat base
100: Interior diameter in cm
X: Number of pumps – 1 = one pump or 2 = two pumps
XXX: Chamber height – 225 up to 425 cm
XXX: Pressure line – 1 ½" or 2" or 2 ½" or 3"

WHAT YOU NEED TO KNOW

Up to class D traffic loads, multipart, optionally with one or two pumps, flexible connection

For latest information on this topic, visit www.romold.de, menu products, sub menu Pressure Drainage, Overview of pump chambers, pump chambers RPF 100

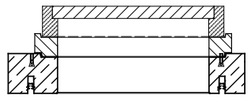
EQUIPMENT

All manholes feature fully mounted fittings and pressure pipes, extending outside the manhole through an opening and end with R 1 ½", R 2", R 2 ½" external threads, and consist of: - Coupling pedestal(s) made of cast iron - Pipe(s) made of stainless steel - Backflow preventer: cast iron ball valve - Shut-off device: RG spacer bush or stainless steel ball cock - Fastening screws, chain(s), shackles, stainless steel hooks - Inlet seal IS 160 for KG pipe DN 150 (other diameters available upon request) - Seal IS 110 for connecting cable duct pipes and vent pipes DN 100
Manholes without pump, control system, level indicator, flush connection, compression-type fitting, manhole cover
Overview of pumps starting on p. 133, controls and level indicators starting on p. 134, chamber covers beginning on p. 152

PUMP CHAMBERS FP 125
DN 1250

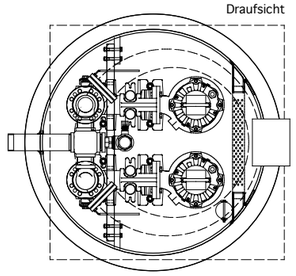
DISPOSAL FOR MULTI-FAMILY HOUSES AND BUSINESSES

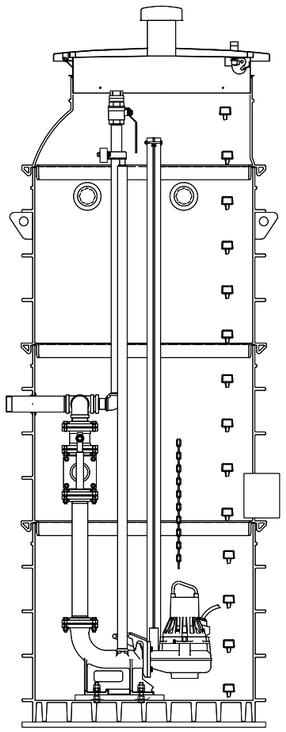
We plan your custom pump station with you



Concrete cover BAPD
with manhole
DN 625 or DN 800

Draufsicht





FP 125-X-XXX-XXX

FP: Flat base – pump chamber with concrete haunch
125: Interior diameter in cm
X: Number of pumps – 1 = one pump or 2 = two pumps
XXX: Chamber height – 250 up to 400 cm
XXX: Pressure line – 1 ½" or 2" or 2 ½" or 3"

WHAT YOU NEED TO KNOW

Up to class D traffic loads, multipart, optionally with one or two pumps, flexible connection

For latest information on this topic, visit www.romold.de, menu products, sub menu Pressure Drainage, Overview of pump chambers, pump chambers FP 125

EQUIPMENT

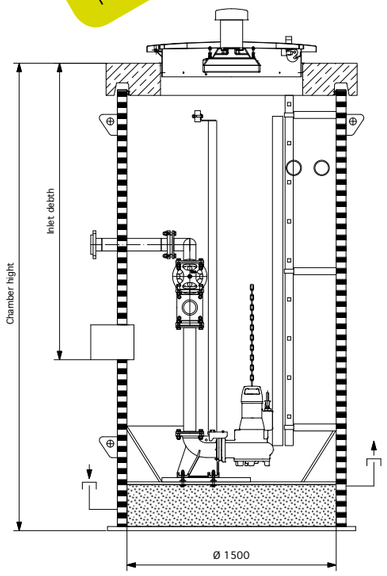
All manholes feature fully mounted fittings and pressure pipes, extending outside the manhole through an opening and end with R 1 ½", R 2", R 2 ½" external threads, and consist of: - Coupling pedestal(s) made of cast iron - Pipe(s) made of stainless steel - Backflow preventer: cast iron ball valve - Shut-off device: RG spacer bush or stainless steel ball cock - Fastening screws, chain(s), shackles, stainless steel hooks - Inlet seal IS 160 for KG pipe DN 150 (other diameters available upon request) - Seal IS 110 for connecting cable duct pipes and vent pipes DN 100
Chambers without pump, control system, level indicator, flush connection, compression-type fitting, chamber cover
Overview of pumps starting on p. 133, controls and level indicators starting on p. 134, chamber covers beginning on p. 152

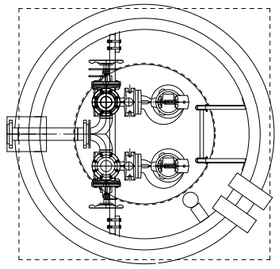
ROMOLD

PUMP CHAMBERS FP 150–FP 360
DN 1500 UP TO DN 3600

DISPOSAL IN COMMUNAL AREAS

We plan your custom pump station with you





WHAT YOU NEED TO KNOW

Up to class D traffic loads, one-piece, optionally with one or two pumps, flexible connection

For latest information on this topic, visit www.romold.de, menu products, sub menu Pressure Drainage, Overview of pump chambers, pump chambers FP 150 to FP 360

FP 150 – FP 360 DOUBLE PUMP SYSTEMS

Height cm	DN	Cover
ascending at any desired incline after 250 cm in 25 cm increments up to max 350 cm	PE pre-fabricated pump manholes accessible, available with interior diameters of DN 1400, DN 1500, DN 1800, DN 2000 other diameters on request	Industrially produced cover made of reinforced concrete and designed for a live load of SLW 60, access opening as required **Optimal load distribution:** Uncoupling of dynamic load from the manhole cover to the manhole, vertical and horizontal traffic loads are routed into the base layer, no load dispersal due to the manhole design **Seal:** Protected seal located in interior, prevents splashing water **Easy to install:** Height adjustment up to 50 mm, molded thread sleeves for attaching the manhole cover

AUSRÜSTUNG

Fully pre-assembled fittings and pressure pipes, extending outside the manhole, ending with a flange DN 80 to DN 150 depending on the pressure pipe, consisting of:
- Coupling pedestal(s) made of cast iron DN 80 to DN 150
- Pipe(s) made of PE-HD, vertical pipe up to the fittings: an FF piece made of stainless steel
- shut-off valve of GGG 40 grey cast iron, epoxy coating
- Backflow preventer: ball valve with access opening, epoxy coating
- Crossbeam, special protective pipe, stainless steel chains
- Connection of cable duct pipe and ventilation for KG pipe DIN 100
- Stainless steel manhole ladder, removable climbing support and anti-fall bar

WASTE WATER PUMPS

THE RIGHT PUMP FOR ANY APPLICATION

CALCULATION OF THE CHARACTERISTIC LINE

Not only the size of the manhole, but also correct pumps selection are of vital importance for the dimesioning and proper functioning of the pump station. We are haapy to calculate the pipeline loss (pipe network characteristic line) for you.

$H_{GES} = H_{GEO} + H_{ROHR} + H_{ARM} + H_{FORM} + H_{AUSL}$ (m)

H_{GES} = Total discharge head (m)

H_{GEO} = Geodesic Height (m)

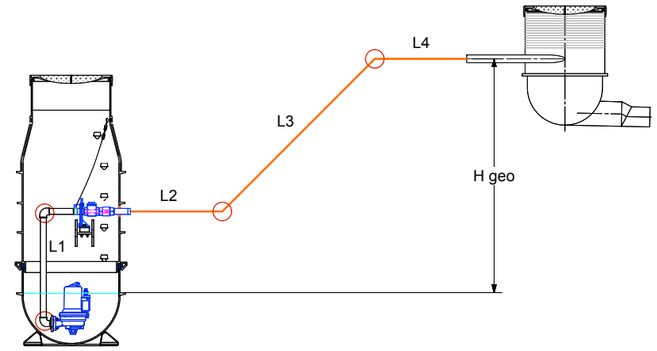
H_{ROHR} = Pressure loss: pipeline (m)

H_{ARM} = Pressure loss: valve (m)

H_{FORM} = Pressure loss: socket fitting (m)

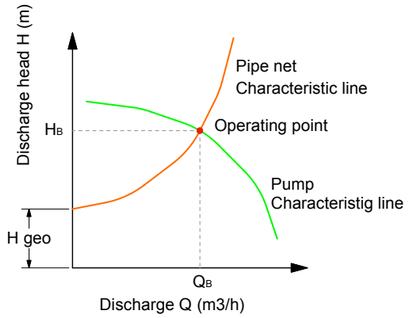
H_{AUSL} = Pressure loss: outlet (m)

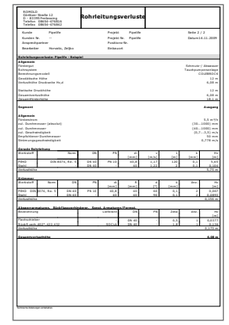
L_{GES} = L1+L2+L3+L4 Pipe line length (m)



CHOICE OF PUMP

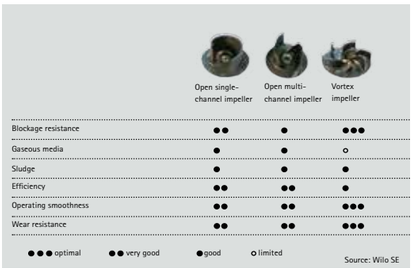
Construction software from the various pump manufacturers makes it possible to choose the right one with a suitable operating point for your pump chamber or pressure drainage system.

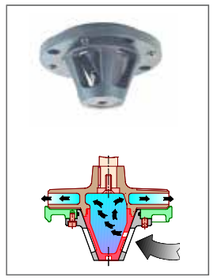




IMPELLER SHAPE

ROMOLD chooses, according to the requirement, the right impeller shape for the pumps: depending on pumping medium, discharge flow and discharge head.





PROJECT QUESTIONNAIRE

For the form with required details for the installation of pump chamber, see the Project questionnaire or scan the QR-code.

ROMOLD

CONTROLS AND OUTDOOR CONTROL CABINETS

FROM PLANNING TO DESIGN

PUMP CONTROLS

Details	Article name
Standard **single pump control** system, Pump output up to 4.0 kW	**ROM-Control-104, 400 V, 4 kW**
Standard **double pump control** system, Pump output up to 4.0 kW	**ROM-Control-204, 400 V, 4 kW**

ROM-Control-104
single pump control

ROM-Control-204
double pump control

OPEN-AIR STANDS

Details	Article name
Open-air control cabinet for **individual pump systems**, pump output up to 4.0 kW, pump control system ROM-Control-104 already integrated, incl. pre-fuse 16 A, anti-vandalism alarm light, cable channel with strain relief, simultaneous-locking half cylinder, diagram pocket with documentation, N- and PE terminal, dimensions: H x W x D = 1460 x 310 x 207 mm, Digging depth: 600 mm	**FS-ROM-1**
Open-air control cabinet for **double pump systems**, pump output up to 4.0 kW, Pump control system ROM-control-104 pre-integrated, incl. 25A pre-fuse, anti-vandalism alarm light, cable channel with strain relief, simultaneous locking half cylinder, diagram pocket with documentation, N- and PE terminal, dimensions: H x W x D = 1460 x 410 x 207 mm, Digging depth: 600 mm	**FS-ROM-2**

FS-ROM-1

FS-ROM-2

WHAT YOU NEED TO KNOW

Switching systems and controls available with special equipment upon request. Contact us.

For latest information on this topic, visit www.romold.de, Products, Plant engineering, Controls and control cabinets systems

CONTROL CABINETS SYSTEMS

FROM PLANNING TO DESIGN

ROMOLD customized switching systems

SYSTEM CONTROLS

Details	Article name
Basic equipment: - Sheet metal cabinet - Main switch - Voltmeter - separate motor protection fuse - temperature monitoring for pumps - phase monitoring - star delta starter - modem (optional) - for double pump systems, - Pump control system pre-integrated	**ROM-2-system-4 kW** **ROM-2-system-15 kW** **ROM-2-system-30 kW**

ROM-2-System

Open air System control FS-ROM-2-System

Dynamic pressure set

Air bubbling set

Pressure transmitter

Pressure transmitter FMX167

Ex barriere

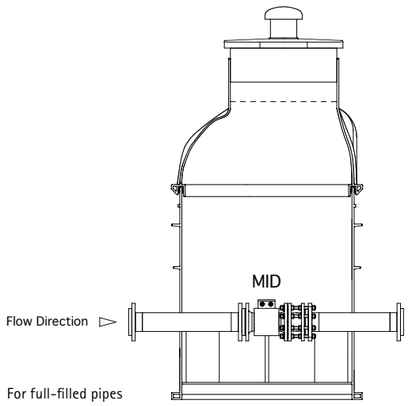
ROMOLD

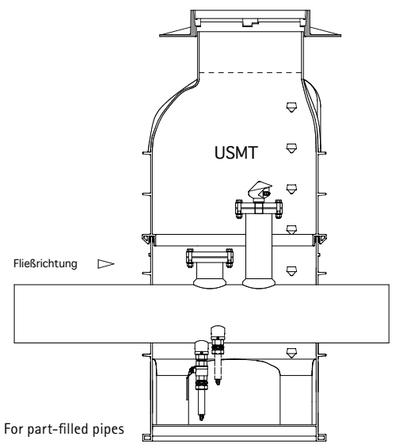
VOLUME FLOW SENSOR MANHOLES DN 1000 AND DN 1250

RECORDING OF THROUGHPUT IN WATER AND WASTE WATER PIPES

MID-Measuring instrument

USMT-Measuring instrument





WHAT YOU NEED TO KNOW

Anti-lift, up to class D traffic loads, sealed

ROMOLD MID pre-fabricated variable height manhole with ready-to-operate, integrated magnetic-inductive flow meter (MID) for fully filled pipes or ultrasound flow meter for partially filled pipes. Flat, ribbed manhole bottom with sump, pipe, spool and flow meter are fully pre-assembled, stilling pipes in front of and behind the flow meter. Its ease of handling at the building site saves you time and money when moving the manhole. ROMOLD seals enable flexible integration of cable duct pipes as well as venting and exhaust at up to a 5° angle. Seals are pressure proof up to 0.5 bar of external and internal pressure.

For the latest information on this topic, visit www.romold.de, Products, Plant engineering, Volume flow sensor chambers

MID CHAMBERS DN 1000 OR DN 1250 — MEASUREMENT MANHOLES

Details		Article name
F:	Flat base, PE pre-fabricated manhole, up to class D traffic loads, ribbed, chamber base with sump	
XXX:	internal diameter – 100 or 125 cm	
XXX:	Chamber height – 200 up to 500 cm	F XXX-XXX-MID-XXX-XXX
MID:	Magneti Inductive flow measurement	
XXX:	Main pipe continuous da (mm) from 063 to 225	
XXX:	Nominal width of meansurement devicefrom DN 50 to DN 200	

EQUIPMENT

Fully pre-assembled fittings, MID and pipe, extending outside manhole, ending with flange DN 50 to DN 200 (according to the pressure pipe diameter), and consisting of:
- Pipe acting as stilling pipe (5 x DN) made of PE HD on the inlet side
- Pipe acting as stilling pipe (3 x DN) made of PE HD on the outlet side
- Magnetic-inductive flow meters DN 50 to DN 200
- Spool, lockable, EKB-coated or stainless steel
- Flange connecting screws (stainless steel)
- IS 110 seal for KG pipe DN 100 for cable duct pipe

all chambers without a cover of surfacewater-proof class B, D or PE or stainless steel, accessible

Overview of chamber covers starting on page 136

ULTRASOUND MANHOLES DN 1000 OR DN 1250 — MEASUREMENT MANHOLES

Details		Article name
F:	Flat base, PE pre-fabricated manhole, up to class D traffic loads, ribbed pump bottom with sump	
XXX:	interior diameter – 100 or 125 cm	
XXX:	Chamber height – 200 up to 500 cm	F XXX-XXX-USMT-XXX
USMT:	Ultrasound measurement part-full line	
XXX:	Main pipe continuous D (mm) from 200 to 630	

EQUIPMENT

Fully pre-assembled ultrasound flow meter and pipe, extending out of the manhole, ending with flange DN 200 to DN 400, or spigot (according to pressure pipe diameter), and consisting of:
- Pipe acting as stilling pipe (5 x DN) made of PE HD on the inlet side
- Pipe acting as stilling pipe (3 x DN) made of PE HD on the outlet side
- Speed measuring sensor and ultrasound level sensor
- Access opening DN 150
- Flange connecting screws (stainless steel)
- Seal IS 110 for KG pipe DN 100 for cable duct pipe
- Speed measurement sensor and ultrasound level sensor, delivered to site by manufacturer
- Evaluation electronics for volume measurement, delivered to site by manufacturer

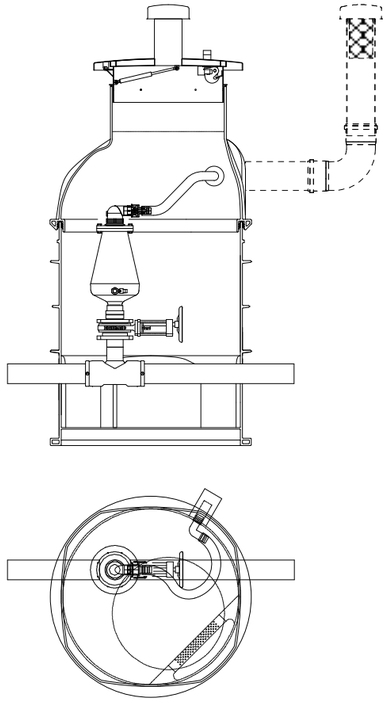
all manholes without a cover of surfacewater-proof class B, D or PE or stainless steel, accessible

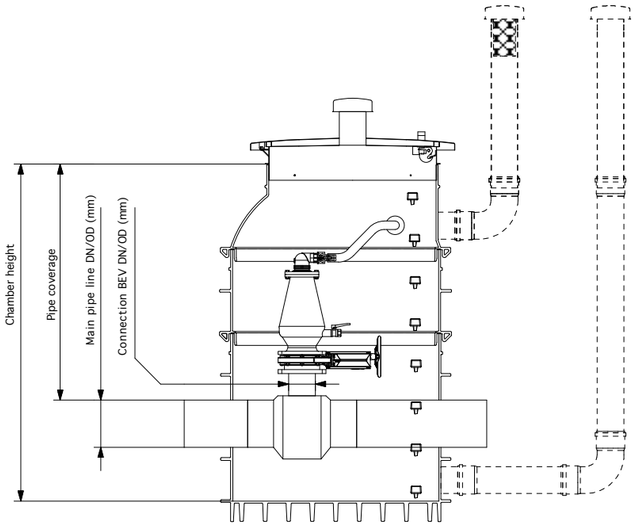
Overview of chamber covers starting on page 152

COMBINATION AIR VALVE MANHOLES DN 1000 AND DN 1250

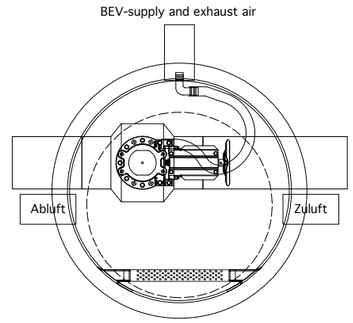
EXHAUST REGULATION IN PRESSURE PIPES

For the latest information on this topic, visit www.romold.de, Products, submenu plant enin-geering, combination air valve chambers





We plan your custom BEV Chambers with you DN 1500, DN 2000 on request



WHAT YOU NEED TO KNOW

Anti-lift, up to class D traffic loads, sealed ROMOLD pre-fabricated manholes in variable heights with ready-to-operate, integrated venting and exhaust valve (BEV). The ROMOLD BEV pre-fabricated manhole, with its ease of handling, simplifies installation of a venting and exhaust valve into the pressure pipe, saving time and costs.

BEV DN 1000 — VENTING/EXHAUST MANHOLE

Details		Article name
F:	Flat base, PE pre-fabricated manhole, up to class D traffic loads, flat, ribbed, mahole base with sump	F 100-XXX-BEV-XXX-XXX-D0XX
100:	internal diameter in cm	
XXX:	Chamber height – 200 up to 500 cm	
BEV:	Venting/exhaust manhole	
XXX:	Main pipe continuous da (mm) from 063 to 225	
XXX:	Connection for BEV valve da (mm) from 063 to 225	
D0XX:	Valve type D020 or D025 or D030	

BEV DN 1250 — VENTING/EXHAUST SHAFT

Details		Article name
F:	Flat base, PE pre-fabricated manhole, up to class D traffic loads, flat, ribbed, manhole bottom with sump	F 125-XXX-BEV-XXX-XXX-D0XX
125:	internal diameter in cm	
XXX:	Chamber height – 200 up to 500 cm	
BEV:	Venting/exhaust shaft	
XXX:	Main pipe continuous da (mm) from 250 to 450	
XXX:	Connection for BEV valve da (mm) from 110 to 225	
D0XX:	Ventiltyp D020 or D025 or D030	

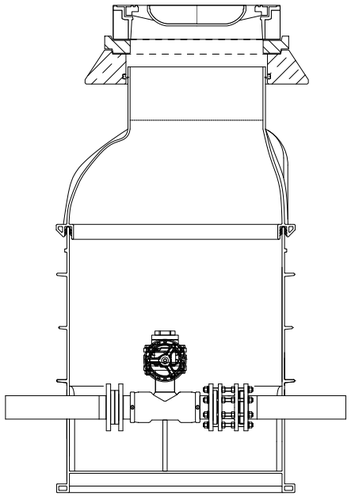
EQUIPMENT

Completely pre-assembled pressure pipes, extending outside manhole, ending with flanges based on pressure pipe diameter, or ending with spigot, and consisting of: - Pressure pipe made of PE-HD - Shutoff device between BEV and pressure pipe - Storz couplings for simple installation and disassembly of the ventilation & exhaust valve - Inlet- and outlet pipe through Camlock coupling integrated with the venting and exhaust valve - BEV valve D020 or D025 completely pre-assembled - Flange connecting screws made of stainless steel
All manholes with no ventilation hood, no filters, and no manhole cover
Overview of chamber covers starting on page 152 (using surfacewater-proof covers)

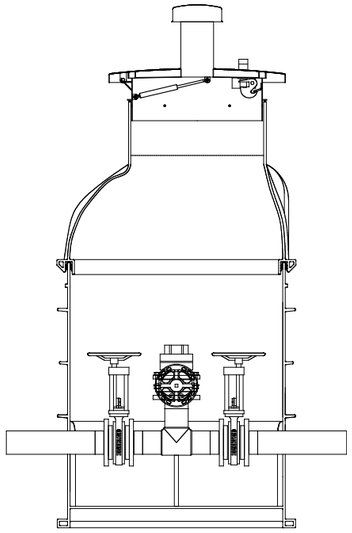
ROMOLD

FLUSHING MANHOLES AND PIG MANHOLES DN 1000 AND DN 1250

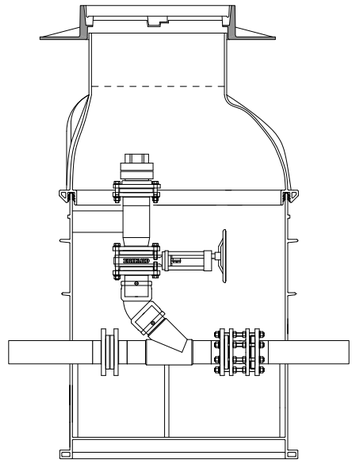
SLIDE-VALVE FUNCTION IN PRESSURE PIPE SYSTEM



Flushing Manhole DN 1000 1 Slide Valve



Flushing Manhole DN 1000 3 Slide Valve



Pig Manhole DN 1000

WHAT YOU NEED TO KNOW

ROMOLD also offers solutions for special applications: valve manholes as pressure line flushing manholes or pig chambers.

Anti-lift, up to class D traffic loads, sealed ROMOLD pre-fabricated manholes in variable heights, with ready-to-operate integrated pipes and fittings to suit the operator's requirements. The technical designer and the operator work together to determine what equipment is needed, and to put together design documents along with detailed content for the tender. Pipe fittings and fixtures comply with applicable standards and specifications. The ROMOLD pre-fabricated manhole, with its ease of handling, simplifies installation of pressure pipes saves time and costs.

For the latest information on this topic, visit www.romold.de, Products, Plant engineering, Flushing chambers and Pig chambers

F 100-SPUL 1 SLIDE VALVE — FLUSHING MANHOLES

Details		Article name
F:	Flat base, PE pre-fabricated pump manhole, up to class D traffic loads, flat, ribbed pump bottom with sump	
100:	Internal diameter in cm	
XXX:	Chamber height – 200 up to 500 cm	F 100-XXX-SPUL-XXX-XXX
SPUL:	Flushing manhole	
XXX:	Main pipe continuous da (mm) from 063 to 250	
XXX:	Flush connection da (mm) from 063 to 110	

F 100-SPUL 3 SLIDE VALVE — FLUSHING MANHOLES

Details		Article name
F:	Flat base, PE pre-fabricated pump manhole, up to class D traffic loads, flat, ribbed pump bottom with sump	
100:	Internal diameter in cm	
XXX:	Chamber height – 200 up to 500 cm	F 100-XXX-SPUL-2x-XXX-1x-XXX
SPUL:	Flushing manhole	
XXX:	Main pipe continuous da (mm) from 063 to 125 with 2 slide valve	
XXX:	Flush connection da (mm) from 063 to 110 with 1 Slide valve	

F 100-MOL — PIG MANHOLES

Details		Article name
F:	Flat base, PE pre-fabricated pump manhole, up to class D traffic loads, flat, ribbed pump bottom with sump	
100:	Internal diameter in cm	
XXX:	Chamber height – 200 up to 500 cm	F 100-XXX-MOL-XXX-XXX
MOL:	Mol manhole	
XXX:	Main pipe continuous da (mm) from 063 to 110	
XXX:	Pig connection da (mm) from 075 to 125 with 1 Slide valve	

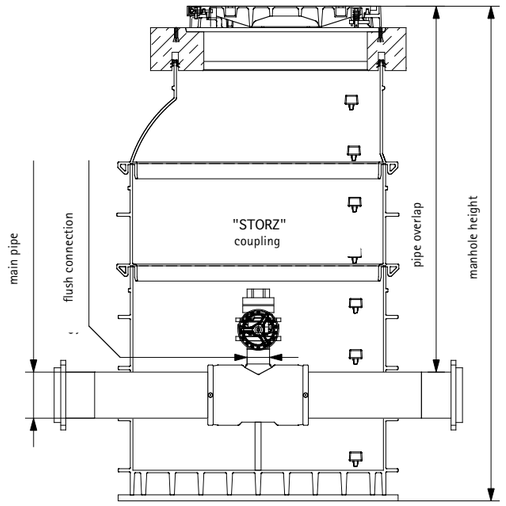
EQUIPMENT

Fully pre-assembled fittings and pressure pipes, extending outside the manhole, ending with flanges based on the pressure pipe diameter, or ending with spigot: - Pressure pipe made of PE-HD, stainless steel or based on the operator's requirements - Shut-off devices based on the operator's requirements - Flange connecting screws (screws V2a, screw nuts V4a stainless steel)
Overview of chamber covers starting on page 152 (using surfacewater-proof covers)

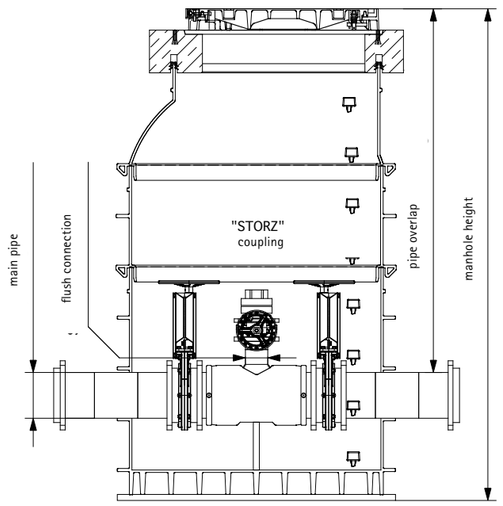




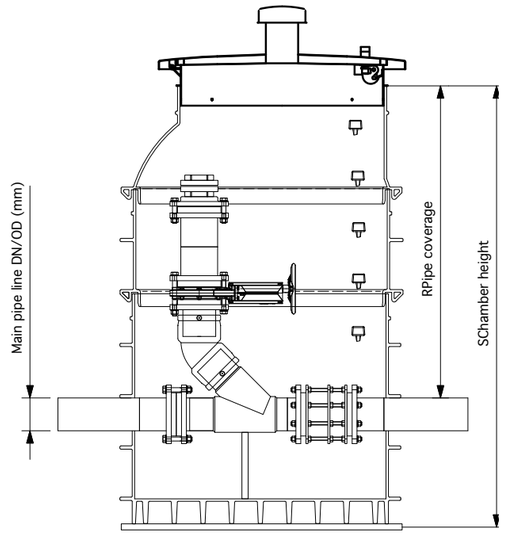

covering plate cl. D



covering plate cl. D



Stainless steal cover DN 1000



F 125-SPUL 1 SLIDE VALVE — FLUSHING MANHOLES

Details		Article name
F:	Flat base, PE pre-fabricated pump manhole, up to class D traffic loads, flat, ribbed pump bottom with sump	
100:	Internal diameter in cm	
XXX:	Chamber height – 200 up to 500 cm	F 125-XXX-SPUL-XXX-XXX
SPUL:	Flushing manhole	
XXX:	Main pipe continuous da (mm) from 250 to 450	
XXX:	Flush connection da (mm) 110	

F 125-SPUL 3 SLIDE VALVE — FLUSHING MANHOLES

Details		Article name
F:	Flat base, PE pre-fabricated pump manhole, up to class D traffic loads, flat, ribbed pump bottom with sump	
100:	Internal diameter in cm	
XXX:	Chamber height – 200 up to 500 cm	F 125-XXX-SPUL-2x-XXX-1x-XXX
SPUL:	Flushing manhole	
XXX:	Main pipe continuous da (mm) from 160 to 225 with 2 slide valve	
XXX:	Flush connection da (mm) 090 with 1 Slide valve	

F 125-MOL — PIG MANHOLES

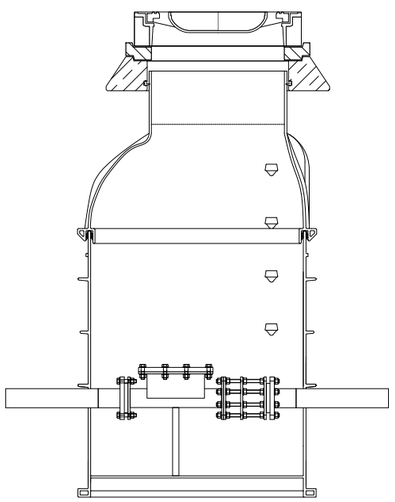
Details		Article name
F:	Flat base, PE pre-fabricated pump manhole, up to class D traffic loads, flat, ribbed pump bottom with sump	
100:	Internal diameter in cm	
XXX:	Chamber height – 200 up to 500 cm	F 125-XXX-MOL-XXX-XXX
MOL:	Pig manhole	
XXX:	Main pipe continuous da (mm) from 063 to 160	
XXX:	Pig connection da (mm) from 075 to 180 with 1 slide valve	

EQUIPMENT

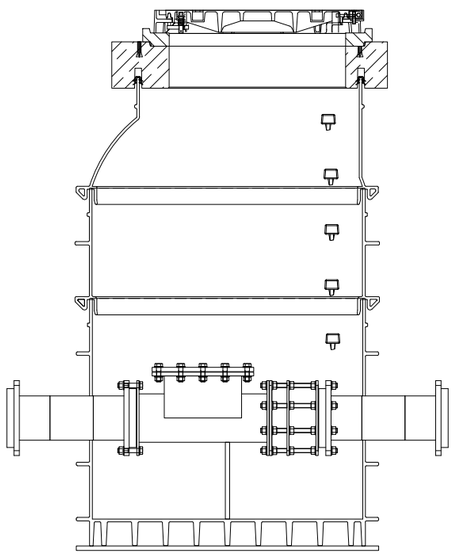
Fully pre-assembled fittings and pressure pipes, extending outside the manholes, ending with flanges based on the pressure pipe diameter, or ending with spigot: - Pressure pipe made of PE-HD, stainless steel or based on the operator's requirements - Shut-off devices based on the operator's requirements - Flange connecting screws (screws V2a, screw nuts V4a stainless steel)
Overview of chamber covers starting on page 152 (using surfacewater-proof covers)

MANHOLES DN 1000 UND DN 1250 WITH A CLEANING APERTURE

FOR CLEANING WATER AND SEWAGE PIPES



manhole wirh cleaning aperture DN 1000



manhole wirh cleaning aperture DN 1250

WHAT YOU NEED TO KNOW

ROMOLD offers solutions which satisfy the highest standards of our customers when it comes to cleaning water and sewage pipes:

Manholes DN 1000 and DN 1250 with a cleaning aperture, secured against uplift retention, suitable for all covers up to cl. D 400. ROMOLD manholes have a flexible height and include a pipe or gate valve according to the requirements of the operator. All gate valves and adapters we provide fully comply with the latest engineering standards and specifications. Furthermore, we support civil engineers and operators in close collaboration by elaborating suitable solutions and providing necessary planning documentations as well as tender texts. ROMOLD manholes offer easy handling and are most suitable for pressure pipes due to their cost and time saving design.

For the latest information on this topic, visit www.romold.de, Products, Plant engineering, Chambers with cleaning aperture

F 100-PUTZ — MANHOLES WITH CLEANING APERTURE

Details		Article name
F:	Flat base, pre-fabricated pump manholes, up to class D traffic loads, flat, ribbed chamber base with sump	F 100-XXX-PUTZ-XXX-XXX
100:	Internal diameter in cm	
XXX:	Chamber height – 200 up to 500 cm	
PUTZ:	Cleaning chamber	
XXX:	**Main pipe continuous da** (mm) from 063 to 125	
XXX:	Nominal width of cleaning component and removable component D (mm) from 063 to 125	

F 125-PUTZ — MANHOLES WITH CLEANING APERTURE

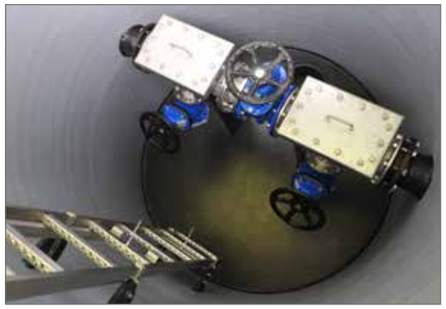
Details		Article name
F:	Flat base, pre-fabricated pump manholes, up to class D traffic loads, flat, ribbed chamber base with sump	F 125-XXX-PUTZ-XXX-XXX
100:	Internal diameter in cm	
XXX:	Chamber height – 200 up to 500 cm	
PUTZ:	Cleaning chamber	
XXX:	**Main pipe continuous da** (mm) from 063 bis 225	
XXX:	Nominal width of cleaning component and removable component D (mm) from 063 to 225	

EQUIPMENT

Fully pre-assembled fittings and pressure pipes, extending outside the manholes, ending with flanges based on the pressure pipe diameter, or ending with spigot: - Pressure pipe made of PE-HD, stainless steel or based on the operator's requirements - Shut-off devices based on the operator's requirements - Flange connecting screws (screws V2a, screw nuts V4a stainless steel)
Overview of chamber covers starting on page 152 (using surfacewater-proof covers)

SPECIAL MANHOLES
DN 1000 UP TO DN 3600
ADDITIONAL FUNCTIONS IN PRESSURE PIPE SYSTEM

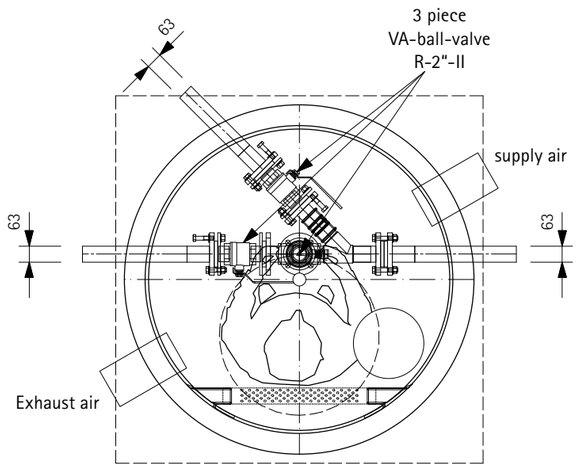
Chamber example t DN 2000



WHAT YOU NEED TO KNOW

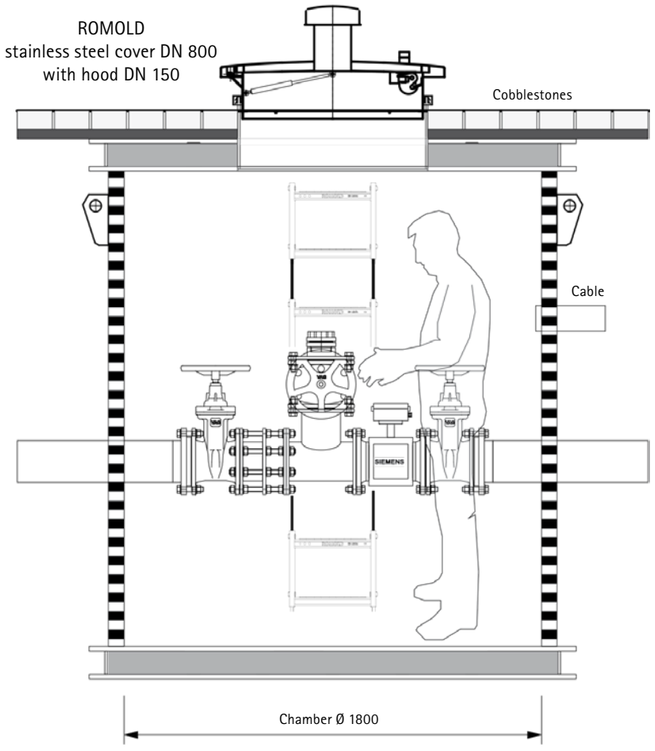
ROMOLD also offers solutions for special applications: Fitting manholes, pressure-pipeline-draining chambers, inspection and cleaning manholes for use not only in waste water systems but also in water supply systems.

Anti-lift, up to class D traffic loads, sealed ROMOLD pre-fabricated manholes in variable heights with ready-to-operate, integrated pressure pipelines and fittings to meet the operator's requirements. The technical designer and the operator work together to determine what equipment is required, and put together design documents along with detailed content for the tender. Pipe fittings and fixtures comply with the applicable standards and specifications. The ROMOLD pre-fabricated manhole, with its ease of handling, simplifies installation in pipelines, saving time and costs.



Example: Top view of customer-specific special chamber

For the latest information on this topic, visit www.romold.de, Products, Plant eningeering, Special chambers



Cleaning aperture

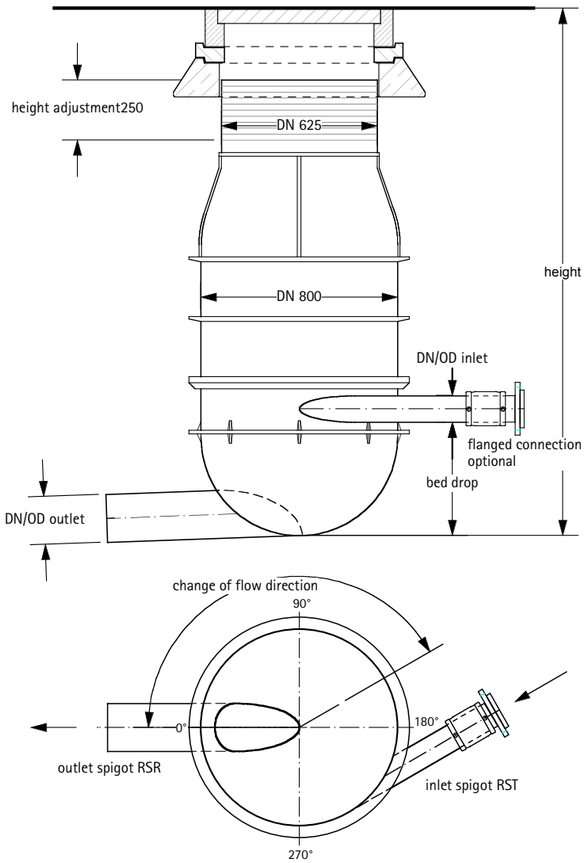
Flushing manhole

Cleaning manhole

PRESSURE PIPE END CHAMBERS

NO STAGNANT WATER IN CHAMBER

Video: for operating mode of ROMOLD D pressure pipe end chamber scan QR-Code .



WHAT YOU NEED TO KNOW

Pressure pipe end chambers are normally planned with a base with a rising channel, in order to reduce turbulence and H2S corrosion of concrete chambers. PE is absolutely chemically resistant to H2S and thus allows other solutions. The pressure pipe is connected tangentially and higher than the outlet at the chamber. Strong turbulence is effected by the altered positioning of the inlets and outlets, thus assisting the outgassing of H2S in the pressure pipe end sump.

This results in a reduced H2S load and thus a decrease in unpleasant odour and concrete corrosion downstream. In addition to that, the swirling in the chamber enriches the waste water with oxygen. If necessary, the H2S loaded waste air may be purified using ROMOLD Active filters (see p. 133).

For the latest information on this topic, visit www.romold.de, Products, Supply / Discharge Systems, Pressure pipe end chambers

Example DN 625

Example DN 800

Example DN 1000

BENEFITS:

- no stagnant water in the chamber
- H2S degassing
- oxygen enriched water
- reduced odour nuisance in downstream positions or chambers
- multiple penstocks can be connected

For complete chamber construction see page 46–49

ROUND BOTTOM DN 625, DN 800, DN 1000

Height cm	DN mm	Details	Article name
90	625	Without channel, molded outlet nozzles DN 200/DN 150	**RBS 63.20.15/90**
90	625	Without channel, maximum pipe diameter DN 200	**RB 63/90**
80	800	Without channel, maximum pipe diameter DN 300	**RB 80/80 BS**
100	1000	Without channel, maximum pipe diameter DN 600	**RB 100/100 BS**

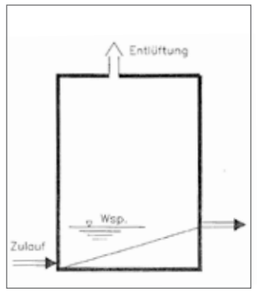
ACCESSORIES

Details	Article name	Price €
Flange connection for pressure pipe	**DN XXX**	
Pipe seal for ventilation line, adapter for other piping materials	**see page 44**	
Tangential pipe connection at the inlet (RST) or outlet nozzle RSR for pressure pipe end chamber optional		
Radial outlet spigot (RSR) at lowest point of pressure line end chamber		
For other inlets, pipe connections for welded pipelines and element welds are possible.		

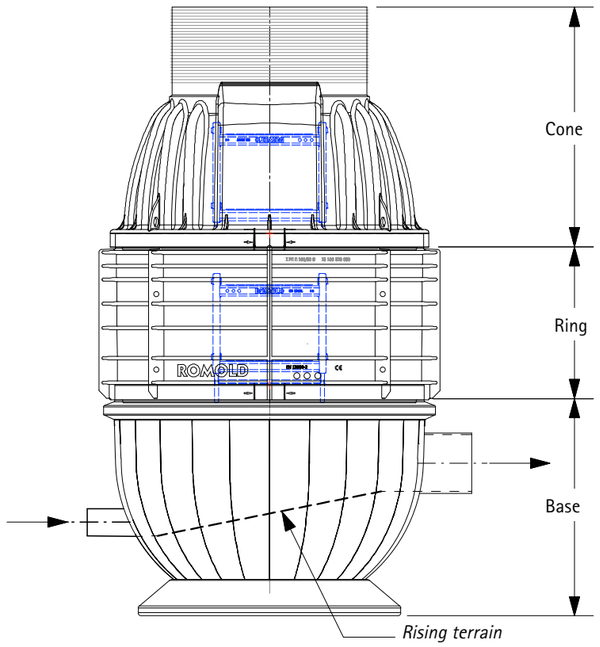
ROMOLD

PRESSURE PIPE END MANHOLES (ATV)

INNOVATIVE DESIGN MEETS STATE OF THE ART MATERIAL



Pressure Pipe End Chamber in accordance with ATV-DVWK-A 157



WHAT YOU NEED TO KNOW

Stagnant waste water in pressure pipe end manholes according to ATV A 157 often causes severe corrosion problems, for these buildings are commonly constructed from traditional materials. PE is chemically resistant to H2S, allowing manholes to made made in accordance with ATV design - without corrosion problems and with service life up to approx. 100 years. The integrated, bright, corrosion-free steps meet national safety requirements.

Scan QR-Code for project questionnaire / see site questionnaire chapter

MANHOLE BASE DN 1000

RISING, STRAIGHT MAIN CHANNEL

Height cm	Pressure Pipe	Details	Article name
50	Up to DN/OD 160	welded inlet at specified angle, for the connection of PE pipes with electro-fusion coupler, outlet either spigot or socket joint (up to D 250 mm).	**I PE 1B 100.25/50 DES**
For additional manhole construction using element seals, rings and cones, see I PE DN 1000 page 22 ff			

COMPRESSOR STATIONS

PRESSURE DRAINAGE IN THE PRESSURE PIPE

compressor station 250

concrete base 250-440

casing compressor station 250-440

COMPRESSOR STATIONS

Details			Article name
Volumetric air flow	440 l/min	2,4 kW	**Compressor station-440**
Concrete base			**Base for compressor station 250–440**

CONTROL SYSTEM FOR COMPRESSOR STATIONS

Details	Article name
for -250 and -350	**Compressor control 2 kW**
for 440, -660 and -840	**Compressor control 4 kW**

WHAT YOU NEED TO KNOW

ROMOLD compressor stations reduce the retention time of waste water in pipes. This avoids H2S emissions, odours and corrosion. The compressor stations are assembled including control cabinets and outdoor control cabinets (concrete or aluminium).

For the latest information on this topic, visit www.romold.de, Products, Plant engineering, Compressor stations

Compressor control 2 kW

ROMOLD

CHAMBER COVERS

EASY TO INSTALL AND FREE FROM SHIFTING

WHAT YOU NEED TO KNOW

ROMOLD chamber covers are specially designed for use with ROMOLD plastic chambers and guarantee the fastest possible assembly as well as a shift-proof fit for the cover. Class A 15 and B 125: installation directly on the system chamber part using ROMOLD frames (DN 500, DN 625 and DN 800). Class D 400: installation with ROMOLD cover with support flange on system chamber DN 500, DN 625 and DN 800 or with all diameters with load distribution ring (BARD) indirectly in the road foundations. All commercial self-level-systems are also compatible with ROMOLD chambers. This prevents damage to covers and frames.

For the latest information on this topic, visit www.romold.de, Products, Plant engineering, Chamber covers

AK 000003

High-grade steel cover DN 625,
with vapour membrane

AK 000005

High-grade steel cover DN 800,
with vapour membrane

AK 000007

High-grade steel cover DN 1000,
with vapour membrane

STAINLESS STEEL COVERS

standard covers see page 12–15

Details	Article name
Stainless steel cover DN 625 with insulation and vapour hood DN 150	**AK 000003**
Stainless steel cover DN 800 with insulation and vapour hood DN 150	**AK 000004**
Stainless steel cover DN 1000 with insulation and vapour hood DN 150	**AK 000005**

SEALED COVER SOLUTIONS

SEPARATION OF SEALING AND BEARING FUNCTION

Cover-in-cover solution:
Sealing function by PE cover DN 625
Bearing function with standard
cover DN 800, class D 400

Example photograph Manhole with channel in area prone to flooding

WHAT YOU NEED TO KNOW

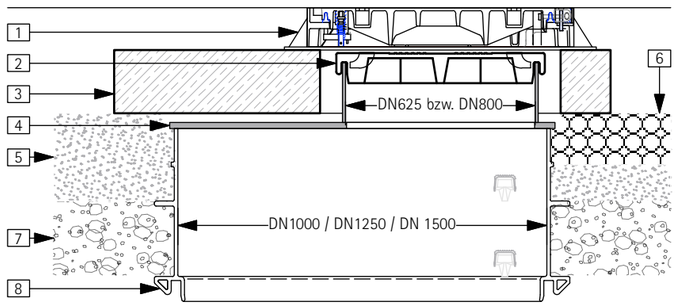
Especially with valve shafts, a waterproof cover solution is absolutely necessary in order to protect the valuable installed components and their smooth functioning.

Even in the flood-prone areas, water penetration is prevented by this cover-in-cover solution, preventing overloading of the sewage treatment plant.

COVER-IN-COVER SOLUTION

Class D concrete cover plate for chamber nominal widths DN 1000 to DN 1500 with access opening diameter 625 / 800.

This solution is particualry recommended for valve chambers because the penetration of rain / surface water is prevented.



KEY

1. Commercial cover Class B/D
2. ROMOLD PE-lid DN625, watertight
3. ROMOLD - concrete plate
4. ROMOLD - PE-plate incl. dome
5. planar bedding for concrete plate (e.g. poor concrete)
6. drainage trench
7. backfilling material, compacted
8. ROMOLD chamber system

ASSEMBLY AND INSTALLATION

SEE PAGE 60

Scan the QR code for assembly
and installation notes to go

FILTER

ROMOLD

CONTENT FILTER

ROMOLD FILTER – AN OVERVIEW

EVERYTHING FROM A SINGLE SOURCE

Der Clou:
AUFBLASBARES DICHTUNGSSYSTEM

ROMOLD
Channel chamber
DN 625 to DN 1000

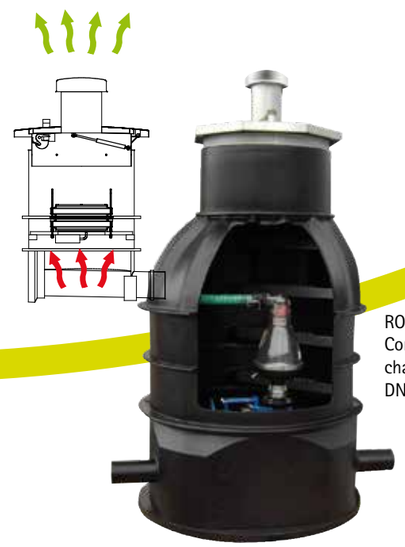
H_2S MEASUREMENT ON REQUEST

ROMOLD
Aktive-filter

ROMOLD
pump chambers
DN 800 bis DN 3600

ROMOLD
Active-filter

ROMOLD
transition chamber



ROMOLD
Filter with cartridges

ROMOLD
Combination air valve chambers
DN 800 to DN 1250

ROMOLD
Pressure pipe end chambers

BENEFIT *ACTIVE*-FILTER

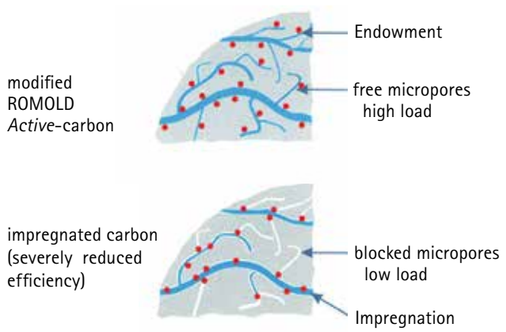
- quick installation
- for all covers
- for all chambers
- for retrofitting
- works immediately
- no remoistening
- water resistant
- works up to 5 years
- carbon replaceable without tools
- made in Germany

ROMOLD: THE ORIGINAL.

ROMOLD

THE CARBON MAKES THE DIFFERENCE

ROMOLD *ACTIVE*-CARBON



SYSTEM ASSETS ARE:

- free accessible micropores
- effectively loading at short holding times
- water-insoluble „Active centers“ sorption catalysis
- high pore volume
- huge loading capacity

Bundesministerium für Wirtschaft und Technologie

Fraunhofer IUSE Institut Umwelt-, Sicherheits-, Energietechnik UMSICHT

NEMO Netzwerkmanagement-Ost

ROMOLD *Active*-carbon is a development from the “Netzwerkmanagement Ost” (Network management east) BMWi program under the leadership of the Fraunhofer IUSE UMSICHT institute. It is produced industrially and the effectiveness of the mechanism is proven both in theory and in practice.

WHAT IS ACTIVATED CARBON?

Activated carbon is a highly porous carbon-based material which binds atoms and molecules to this surface by means of an attractive force (adhesion) on account of its internal surface area.

One gram of activated carbon has an internal surface area of 700-1800 m2. Activated carbon consists of micropores (up to 1 nm), mesopores (1–25 nm) and macropores (above 25 nm).

Activated carbon has been mass produced since the early 20th century.

MODIFIED *ACTIVE*-CARBON

Activated carbon has long been available for use in odour elimination – but *Active*-carbon, with its catalytic effects, has only just become available for use in reducing H2S and odours. The secret lies in the patented manufacturing process (doping) that's used in the ROMOLD *Active*-carbon product. Modified *Active*-carbon begins working immediately through catalytic reaction without compromising the adsorptive capacity that comes from the surface coating (impregnation). This creates a seal in the micro- and mesopores which is critical for adsorption and thus significantly reduces the internal surface area and in turn the adsorptive capability. The internal surface area of 5 g of *Active*-carbon is roughly equivalent to a football pitch. The carbon contained in a ROMOLD *Active*-filter has the internal surface area of 500 football pitches. An *Active*-filter for pumping stations cleans the exhaust air of 150 000 m3 of waste water per year and eliminates peak values of up to 300 ppm H2S. Whether on hot or cold days, damp or dry. The *Active*-filter maintains its effectiveness over time (day after day). The patented, modified *Active*-carbon from ROMOLD solves the problem of odour elimination through catalytic conversion.

Substance	Size [nm]	Chemical characteristic	Adsorption conduct with ROMOLD *Activ*-carbon
C_4H_{10} (Butan)	0,41	not polar	very good
C_6H_6 (Benzol)	0,67	not polar	very good
H_2S (Schwefelwasserstoff)	0,36	polar	very good
NH_3 (Ammoniak)	0,38	polar	very good

ADSORPTION PERFORMANCE

The *Active*-filter is specially designed for the elimination of hydrogen sulfide and ammonia. Thanks to the special manufacturing process of the activated carbon, other aromatic substances which are typical of wastewater can be absorbed through adsorption processes and odours can thus be largely eliminated.

The adsorption occurs primarily in the micro- and small mesopores. The size of the pores and the distribution of the pore size together determine the adsorption characteristics of individual substances, independently of their size and chemical properties.

PHYSICAL ADSORPTION AND CHEMISORPTION

Non-polar substances (e. g. hydrocarbons) are adsorbed very efficiently by the *Active*-carbon (=physical adsorption). The adsorption performance of polar substances (e. g. H2S) on activated carbon can be increased through specific adsorption and surface reactions (= chemisorption).

WHEN ODOURS ARISE

The problem: the population is consuming less water, while sewer networks are oversized. At the same time, the quantity of industrial waste waters is increasing. Sometimes it stinks to high heaven, and not just on hot days.

The *Active*-carbon itself is resistant to moisture and dryness. At no time is there a risk of clumping or airtight sealing of the chambers (as occurs with other systems)..

ROMOLD *ACTIVE*-FILTER COMPLETE SYSTEM

FOR MANHOLES

No odours thanks to *Activ*-Filter for manholes

Built-in activated carbon filters for manholes

FOR MANHOLES

The easy to install filter unit fits into any standard chamber with cone opening DN 625. Installation also possible for smaller and larger diameters (59.5 to 64.5 cm). The compact design also allows retrofitting in concrete chambers. For sewer manholes with normal H2S levels, a lifetime of up to five years can be expected for the activ-carbon.

Filter system (all components consisting of:

- Filter housing (incl. water drainage)
- *Activ*-carbon cassette
- Fastening kit
- Installation instructions
- Dimensions: 59.5–64.5 x 22 cm (ø x H)

All components are made of corrosion-resistant materials (PE, stainless steel, etc.).

For latest information on this topic, visit www.romold.de, menu products, submenu Active-filter

How the ROMOLD activated carbon filter works in manholes

ACTIVE-CARBON CHAMBER FILTER

Quantity	Details	Article name	Price €
1–5	*Active*-carbon wastewater chamber filter	**FIS-0600-2**	
6–10		**FIS-0600-2**	
>10		**FIS-0600-2**	
1	Active-Filter for Pressure-end-chambers	**DES-ACF-0600-2**	

ROMOLD *ACTIV*-FILTER

APPLICATION AREAS

Two sacks of Activ-carbon for use in pressure line end chambers

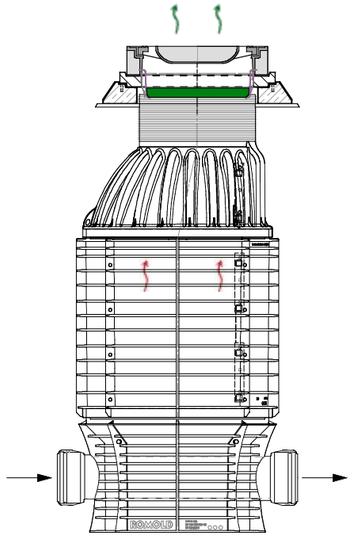
CHAMBER FILTER

The design of the ROMOLD Activ filter for manholes and for pressure line chambers is identical. The distinction is in the area of application and this varies the amount of activated carbon.

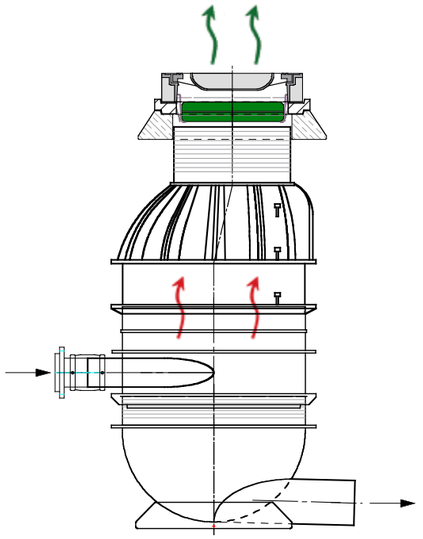
In the case of sewer manholes, 5 kg of Activ-carbon (1 sack) is usually sufficient, in case of more heavily polluted chambers, such as pressure line end chambers, twice the amount of carbon (2 sacks) is used.

The low diffusion resistance ensures the air flow through the carbon and concrete shafts are not exposed to any additional corrosion.

Insert: FIS-0600-2



Insert: DES-ACF-0600-2



H_2S MEASUREMENT ON REQUEST

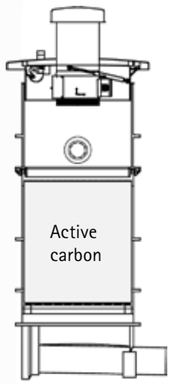
ACCESSORIES

Details	Article name	Price €
Activ-carbon refill pack 5 kg for DES-ACF-0600-2	**ROM-Hand**	
Activ-carbon refill pack 2 x 5 kg for DES-ACF-0600-2 (please specify)	**CAR-0600-5000**	
Manual pump for inflating the seal system	**ROM-Hand**	

ROMOLD FILTERADSORBER

WE CAN HELP WITH STRONG ODOURS

Filter adsorber DN 625 with fan



ROMOLD *Active*-carbon is used in adsorbers (filter chambers) to eliminate odours in cases of very strong, bad odours and high air quantities. The filtering system is put together on a custom-made basis according to the local requirements. We recommend carrying out an H2S measurement in advance to allow the filter adsorbers to be precisely designed. The ROMOLD product line includes adsorber sizes: DN 625, DN 1000 and DN 1250, equipped with:

- Filter cartridges CAR-1050 (max. 3 units)
- Activated carbon in loose form with a bed height of 30–100 cm

ACTIVE-CARBON-FILTER ADSORBER - FANLESS

Details	Article name	Price €
Ground installation with cartridge(s) CAR-1050	**FS-625-1B-CARX**	
Freestanding with cartridge(s) CAR-1050	**FS-625-KS-CARX**	
VA Cover – 625 with vapour hood DN 150	**VA-625-150**	
PE Cover – 625 with vapour hood DN 100	**PE-625-100**	

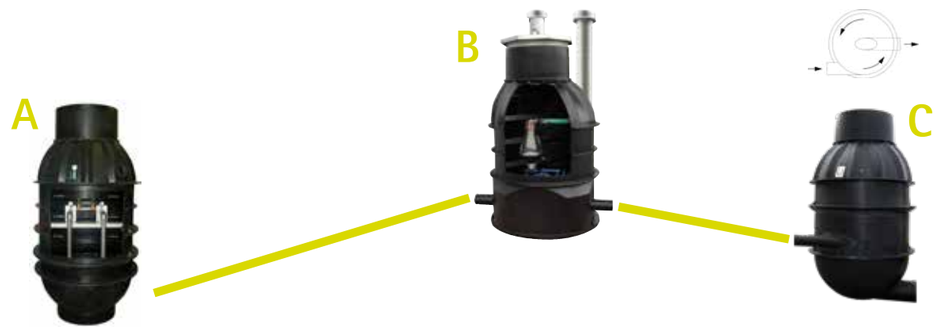
ACTIVE-CARBON-FILTER ADSORBER - WITH FAN

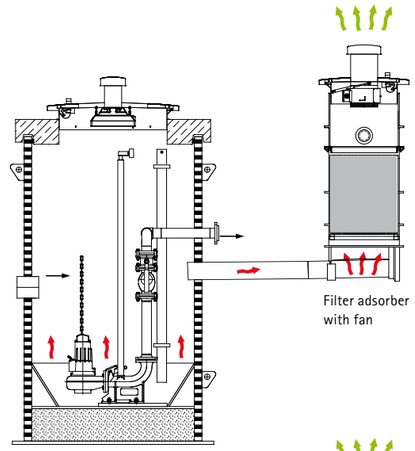
Details	Article name	Price €
Ground installation with 100 kg activated carbon	**FS-625-1B-100-L3**	
Freestanding with 100 kg activated carbon	**FS-625-KS-100-L3**	
VA Cover – 625 with vapour hood DN 250	**VA-625-250**	
PE Cover – 625 with vapour hood DN 250	**PE-625-250**	

SOLUTIONS FOR POSSIBLE ODOUR PROBLEMS

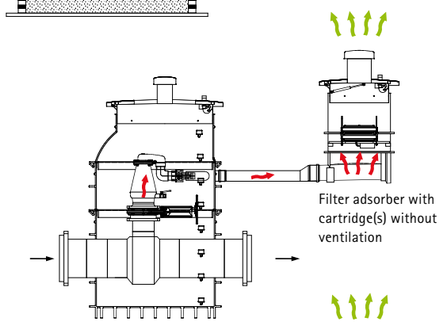
WE WON'T LEAVE YOU IN THE LURCH WITH YOUR "STENCH"

H_2S MEASUREMENT ON REQUEST

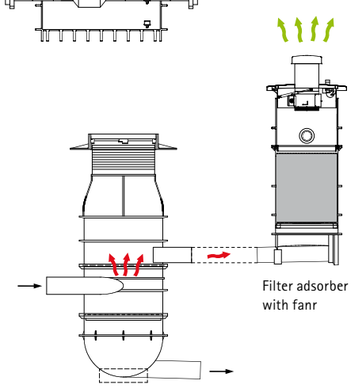




Filter adsorber with fan



Filter adsorber with cartridge(s) without ventilation



Filter adsorber with fanr

A) PUMP CHAMBER

In cases of strong, offensive odours, the entire air is suctioned out of the pump chamber. A fan in the adsorber chamber creates a slight negative pressure, extracting the entire exhaust air via an activated carbon bed. A filter in the pump chamber cover, reducing odours even in the event of a power failure. The amount of activated carbon is determined according to the H2S condensation and the period of use required.

B) VENTING AND EXHAUST VALVE CHAMBER

At certain points in a pressure pipe, a venting/exhaust valve may be required (e.g.: high points). At such points, exhaust air with H2S levels is blown out in the exhaust process. This exhaust air is cleaned by activated carbon in a filter chamber. The filter chamber can be equipped with a loose bed or with filter cartridges.

C) PRESSURE PIPE END CHAMBER

At the end of pressure pipes, H2S is outgassed through the desired turbulence of the waste water, thus reducing the load in the following gravitational sewer. The exhaust air from these chambers is suctioned by a fan through a filter chamber, the purified air thus being discharged into the atmosphere. This filter chamber can also be used for pressure pipe end chambers with a rising incline or other chambers with odour problems..

ROMOLD

ASSEMBLY AND INSTALLATION NOTES

ROMOLD *ACTIVE* SEWER MANHOLE FILTER FIS-0600-2 AND ROMOLD *ACTIVE* PRESSURE PIPE END CHAMBERS FILTER DES-ACF-0600-2

*** CAUTION:** For the pressure pipe end chambers filter obtain the same installation steps. For them always use 2 x 5 kg-bags of *Active* carbon.

PACKAGE CONTENTS

Designation	Item
Filter base unit, consisting of - 4 Mounting brackets V2A - 8 Socket screws M8x40 - 24 Nuts M8 - 2 Sealing hoses (Schrader valve)	1
Activated carbon bag 5 kg (sewer manhole)	1
Activated carbon bag 5 kg (pressure pipe end chambers)	2
Leaf trap with 2 tether ropes	1
Small air pump	1
Marking plug (green)	1
Installation notes – Filter	1
Installation notes – Plugs	1

GENERAL POINTS:

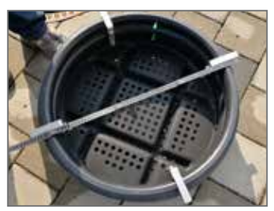
ROMOLD *Active* sewer chamber filters are delivered pre-assembled. They are positioned beneath the sewer manhole cover. Their *Active* carbon acts as a catalyst there, reducing H_2S and unpleasant odours. If both H_2S and NH_3 occur, NH_3 can also be eliminated. The delivery includes a suitable PE leaf trap, which replaces the customary leaf trap insert. ROMOLD *Active* filters with patented, modified *Active* carbon solve the problem with the catalytic conversion of H_2S. The *Active* carbon's typical adsorption of unpleasant odours remains unaffected. The secret is in the patented manufacture process (modification) of the ROMOLD *Active* carbon. Modified *Active* carbon is immediately and instantly an effective catalyst, without affecting the adsorptive properties with surface coating. ROMOLD *Active* sewer manhole filters do not need to be moistened!

INSTALLATION:

ROMOLD *Active* sewer manhole filters are designed to allow fitting in all standard sewer manholes with DN 625 access. The variable sealing hoses allow the filter to be adjusted to fit opening diameters from 595 mm to 645mm. This is done by variable levels of inflation of the sealing hoses (Schrader valve). The positi-

on of the mounting brackets needs to be adapted to suit the cover diameter. This is done using a size 13 mm spanner, which is used to loosen and countertighten the M8 nuts at the mounting brackets. These can be moved to adapt to the concerned diameter. The mounting brackets are factory-fitted for the smallest diameter of 595 mm. At least 10 mm of the brackets should fit flat. The distance between outer edges of the indentations in the cover should be measured before installation to allow the brackets to be precisely set.

The *Active* carbon package (bag)* is installed in the fitted filter unit after both hoses have been inflated using a standard pump / compressor via their Schrader valves. The leaf trap is loosely fitted over the filter.



INSTALLATION STEPS:

- Remove the manhole cover and leaf trap.
- Thoroughly clean the bearing surfaces and sealing surfaces of the existing manhole.
- Place the *Active* sewer filter in the indentations for mounting the standard leaf trap.
- Fill both sealing hoses with air until their fit to the manhole wall is secure (max. 1.5 bar pressure).

- Place the *Active* carbon bag* in the filter and distribute the filter material up to the edge of the filter unit to an even depth.

- Replace the PE leaf trap and the manhole cover.

CHANGING THE ACTIVATED CARBON

- Remove the manhole cover and PE leaf trap.
- Lift the *Active* carbon bag* out of the filter base.
- If the filter base is very dirty, you should clean it.
- Check the condition of the hoses, these should be pumped up or replaced as necessary.
- Continue with the installation steps as described.
- **Ensure that the *Active* carbon is evenly distributed.**

MAINTENANCE:

- Check the filter at regular intervals.
- Check the air pressure in the hoses / check for a secure fit at the manhole wall.
- Replace worn hoses.
- The service life of the *Active* carbon is up to 5 years. Severe contamination may reduce the service life.
- Used *Active* carbon must be properly disposed of **(waste code number: 061302*/061302/150202*/**
- **150202 for used *Active* carbon)**

Manhole covers with an installed Activated sewer manhole can also be indicated with the supplied green marking plugs.

For assembly and installation notes „to go", scan QR-code.

SUPPLY SYSTEMS

ROMOLD

CONTENT SUPPLY SYSTEMS

OVERVIEW – ROMOLD SUPPLY

EVERYTHING FROM A SINGLE SOURCE

from DN 500 to DN 2000
– always the right chamber
for you building project

Water meter chamber with
integrated installation
fittings

Water meter chamber with
MID-measure

Venting- and exhaust manhole

Draining chamber

OUR PLANNING DEPART-
MENT ASSISTS YOU

Valve chamber
for example. DN 2000

Pressure reduction chamber

Scan QR-Code for pro-
ject questionnaire / see
site questionnaire chap-
ter

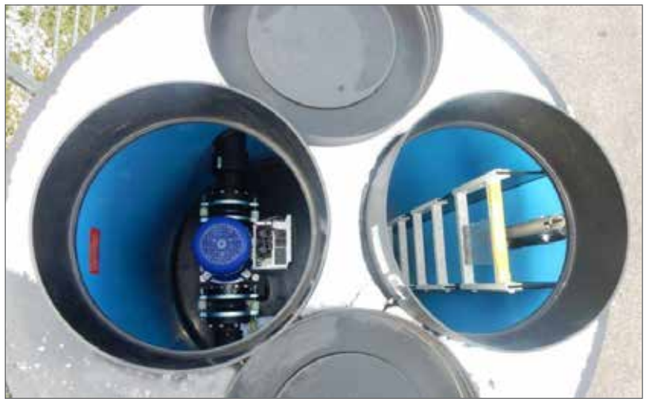
YOUR BENEFIT:

- compatible with all maufacturers
- a planning department for your support
- to combine with own brands as well
- ready for on site connection delivery
- cost reduced „DOM" solution
- more space in the chamber with excentric pipe line (see page XVIII in introduction)

ROMOLD

PROJECT PICTURES

YOUR IDEAS IMPLEMENTED



Simple easy handling

Distribution chamber with stainless steel components

Simple easy handling

Water distributor DN 150

Water meter with downstream distributor

Junction valve with manometer

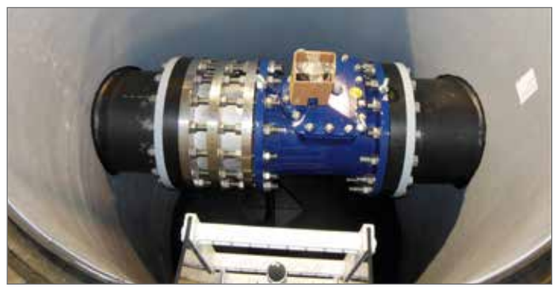
Ventilation and air release chmaber with backflow protection

Ventilation and air release valve with drain option

Distribution chamber with PE components

Distribution chamber with PE components

Pressure reduction chamber



Woltmann meter for PE pipe D 450

Double water meter chamber

WATER SUPPLY PROBLEMS

AND THEIR SOLUTION

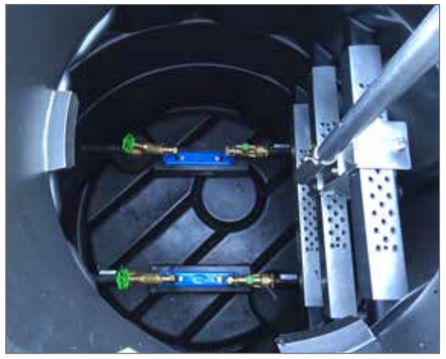
PROBLEM

CHAMBERS ARE FLOODED

In many cases, groundwater floods chambers. The adjacent groundwater seeps through the material / runs into the chamber past faulty seals

SOLUTION

100 % WATERTIGHT CHAMBERS



The three-sided lip seal (Triple-Safety-Seal) from ROMOLD ensures 100% watertightness of the chamber.

PROBLEM

LEAKY COVERS

Surface watertight covers only rarely offer 100% watertightness. The ROMOLD cover-in-cover system offers a 100 % solution

PROBLEM

SURFACE-WATERTIGHT COVERS

Surface watertight covers only rarely offer 100% watertightness. The ROMOLD cover-in-cover system offers a 100 % solution

PROBLEM

CORRODED FITTINGS

Over time, the damp atmosphere in the chamber leads to corroded fittings and equipment. In most cases, this is due to traditional materials and their hydrophilic properties.

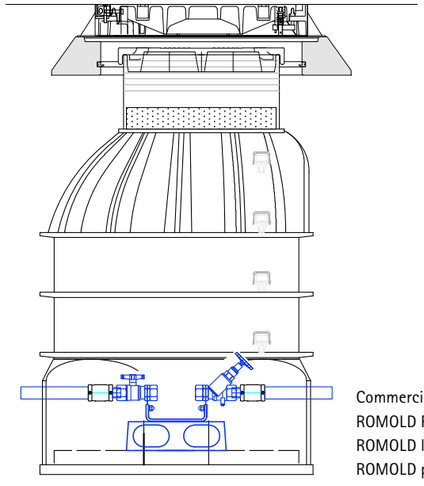
SOLUTION

100 % WATERTIGHT CHAMBERS

Hydrophobic plastic chambers considerably reduce the corrosion of fittings

SOLUTION

ROMOLD COVER-IN-COVER SYSTEM

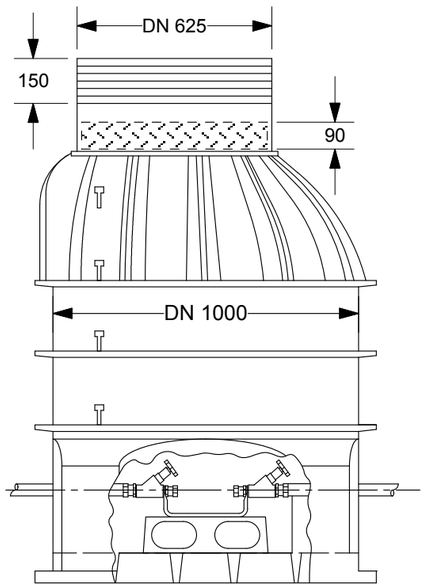


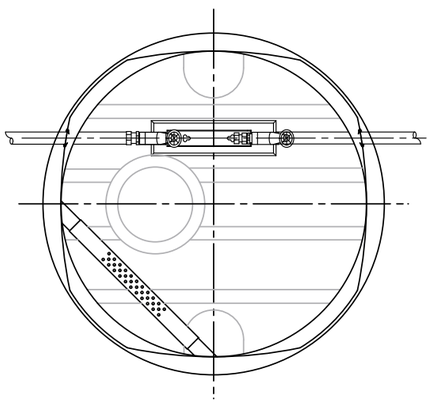
Commercial cover cl. B/D
ROMOLD PE cover DN 625
ROMOLD load distribution ring DN 800
ROMOLD plastic chamber

ROMOLD

WATER METER CHAMBERS

FOR THE ASSEMBLY OF WATER METERS





PUBLIC TENDER TEXT EXAMPLE

PE Water meter chambers DN 1000:

Pos. 1: PE Water meter chamber DN 1000 for water meter Qn = 2,5 or 6,0 m3/h

PE-Chamber DN 1000, 100 % virgin material without recycling content (ultimate elongation respectively elongation at tear ≥ 200 %), reinforced 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 ribs to secure uplift rentention, valid „Allgemeine Bauaufsichtliche Zulassung" issued by DIBT or another national certificate issued by a recognised institute and valid Certificate of Conformity.

Overburden hights .....

Water meter set Qn = ... m3/h

Pipe da = ... mm

Type ROMOLD or equal

Note:

The water meter set is commercial and not part of this position.

Scan the QR code for assembly and installation notes „to go"..

FOR CHAMBER COVERS SEE PAGE 12

CHAMBER DN 1000 – MONOLITHIC

Height cm	Details	Article name	Preis €
140	PE-water meter CHAMBERS DN 1000/625 flat, ribbed pump base with sump, with corrosion-resistant climbing steps, incl. Platform for water meter installation fittings Qn 2.5 and 6.0 m3/h, support for polystyrene insulation slab integrated in eccentric PE cone Clear width 625 in accordance with DIN 4034	**FWCE 100.63/140.2 FIBS BSK**	
165		**FWCE 100.63/165.2 FIBS BSK**	
Polystyrene insulating slab for cone		**FWP 63**	
Additional PE-support for installation of water meters		**FWKA 40.2**	

WHAT YOU NEED TO KNOW

ROMOLD water meter chambers are for their high quality and long lifetime listet at many water suppliers, for example at the Berliner Wasserbetrieben (BWB) and the Mainova AG (Frankfurt/M.).

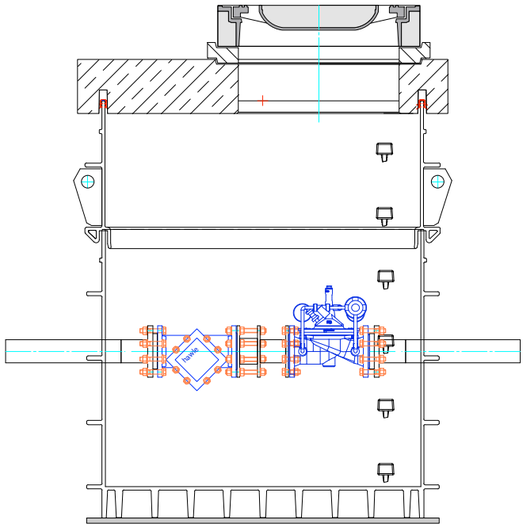
Of course ROMOLD offers also watertight covers for performances for different load classes

Performance for On 10 and large water meter on request

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

SPECIAL MANHOLES FOR WATER SUPPLY

EXAMPLE OF USE



Example: Top view of customer-specific special chamber

Scan the QR code for assembly and installation notes „to go“..

WHAT YOU NEED TO KNOW

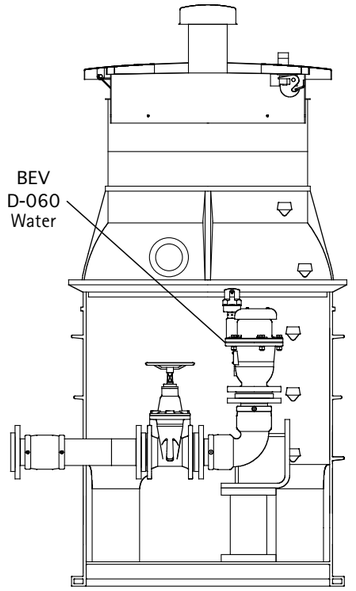
ROMOLD also offers solutions for special applications: Armature manholes, pressurepipeline-draining chambers, inspection- and cleaning manholes for use not only in waste water systems but also in water supply systems.

Anti-lift, accessible (through class D), sealed ROMOLD pre-fabricated manholes in variable heights with ready-to-operate, integrated pressure pipelines and armatures to meet the operator's requirements. The technical designer and the operator work together to determine what equipment is required, and put together design documents along with detailed contents for the bid invitation.

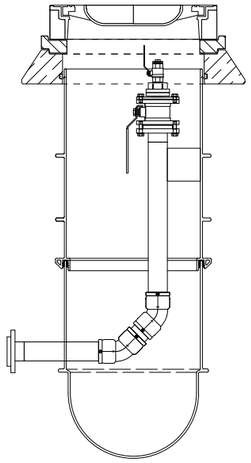
Pipe fittings and armatures comply with the applicable standards and specifications. The ROMOLD pre-fabricated manhole, with its ease of handling, simplifies installation in pipelines in a cost-effective and time-effective manner.

For latest information on this topic, visit www.romold.de, menu products, submenu plant eningeering, special chambers

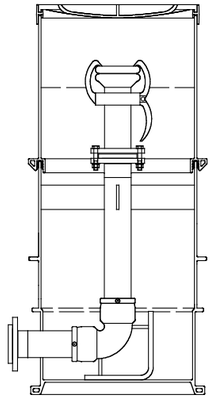
VENTING- AND EXHAUST MANHOLE DN 1000



FLUSHING MANHOLE DN 625



CLEANING MANHOLE DN 625



Venting- and exhaust manhole as side port

Venting- and exhaust manhole on continuous pipe line

CABLE CHAMBERS

ROMOLD

CONTENT CABLE CHAMBERS

THE FOLLOWING PAGES PROVIDE A BRIEF OVERVIEW. FOR MORE INFORMATION ABOUT ROMOLD CABLE CHAMBERS, REQUEST OUR CABLE CATALOGUE!

ROM-BOX OVERVIEW

TECHNICAL VIRTUES

Scan QR-Code for project questionnaire / see site questionnaire chapter

can be paved

plastic cover

T-bars

multi-part cover

can be concrete-filled

can be drilled on site in acc. with instruction

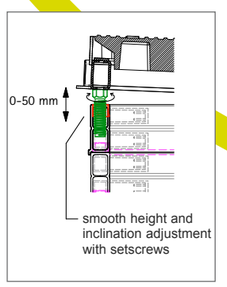
angled pipe joint

perpendicular pipe joint

head frame (Z-profile)

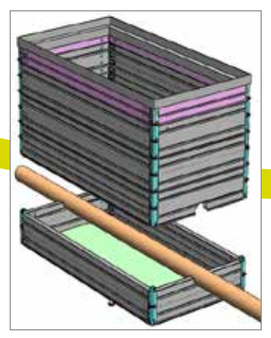
lockable

save

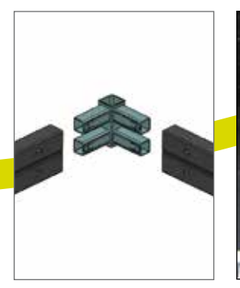


adjustable height

cone drill, sealing cap, lift/locking key



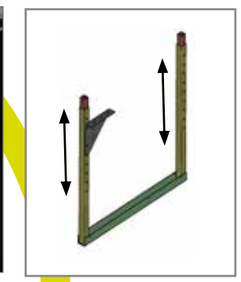
can be built on



vertically separable, profile with corner connecting elements, drainage opening in base plate

FOR MORE INFORMATION VISIT WWW.ROMOLD.DE OR REQUEST THE PRINT VERSION (E & T).

telescopic U-frame



ladder

special covers

ROUND CABLE CHAMBERS – AN OVERVIEW

TECHNICAL VIRTUES

various chamber covers – including lockable

can be shortened

Separating and welding together again is possible

Watertight – good cable positioning and installation options

multiple pipe connections possible

FOR MORE INFORMATION VISIT WWW.ROMOLD.DE OR REQUEST THE PRINT VERSION (E & T).

Climbing steps can be easily removed if necessary (cable installation).

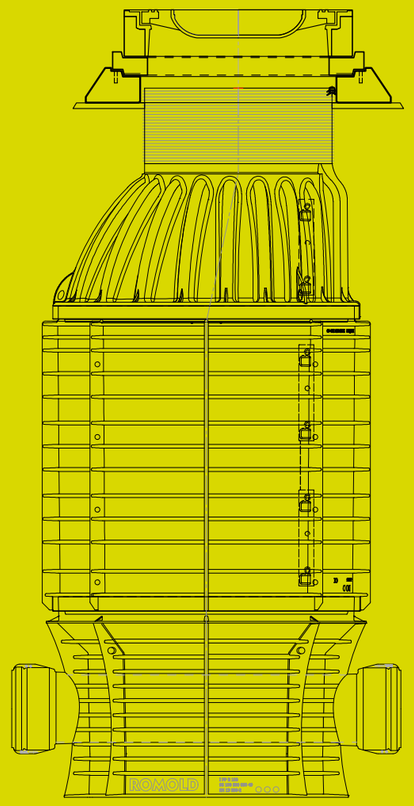
Watertight chamber cover system with separate sealing and load-bearing function

can be drilled in accordance with instructions

Seal installation

Pipe connection with seal watertight to 0.5 bar

PROJECT QUESTIONNAIRE



ROMOLD

CONTENT PROJECT QUESTIONNAIRE

For overview project questionnaire scan QR-Code

PROJECT QUESTIONNAIRE

ROMOLD PP-manhole DN 1000

☐ order ☐ request for information

Romold GmbH
Sägewerkstraße 5
D-83416 Surheim
Tel: +49-8654-4768-0
Fax: +49-8654-4768-47
E-mail: verkauf@romold.de

project: _____

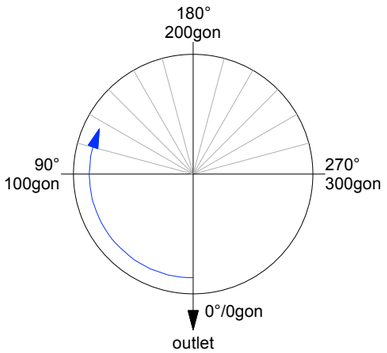
manhole no.: _____

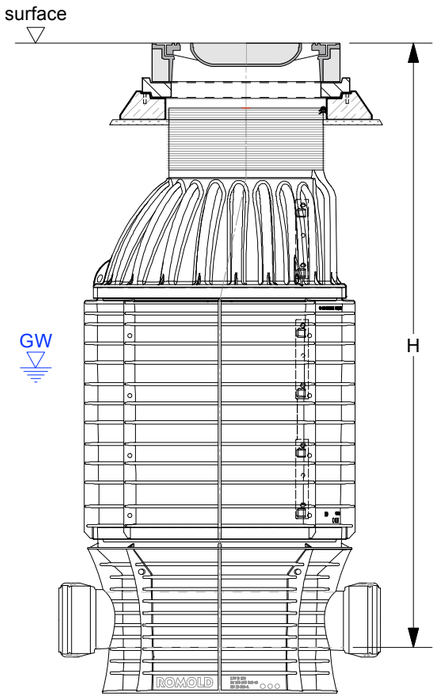
depth H [m]: _____
surface to channel

ground water level [m]: _____
ground water depth relative to surface

commercial cover
class: o B125 o D400
please indicate

seal to cone: o yes o no
please indicate





	DN/OD	plain pipe	others, clay pipe, concrete	falling	angular degrees [°]	centesimal degrees [gon]	bed drop [cm]	pipe gradient [%]
outlet				----	0°	0 gon	----	
inlet 1							o no bed drop o + _____	
inlet 2							o no bed drop o + _____	
inlet 3							o no bed drop o + _____	

company: _____

contact person: _____

tel. / fax: _____

E-mail: _____

stamp

_____
date, signature

PROJECT QUESTIONNAIRE

ROMOLD Manhole DN 1000 for welded PE pipes

☐ order ☐ request for information

Romold GmbH
Sägewerkstraße 5
D-83416 Surheim
Tel: +49-8654-4768-0
Fax: +49-8654-4768-47
E-mail: verkauf@romold.de

project: _____

desired delivery date: _____

* for multiple orders, please indicate installation order

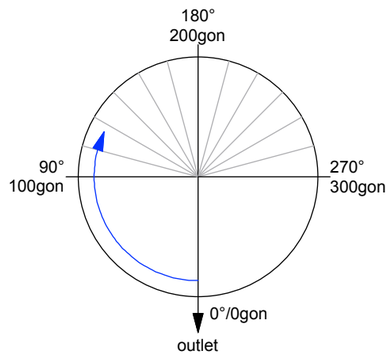
manhole no.: _____

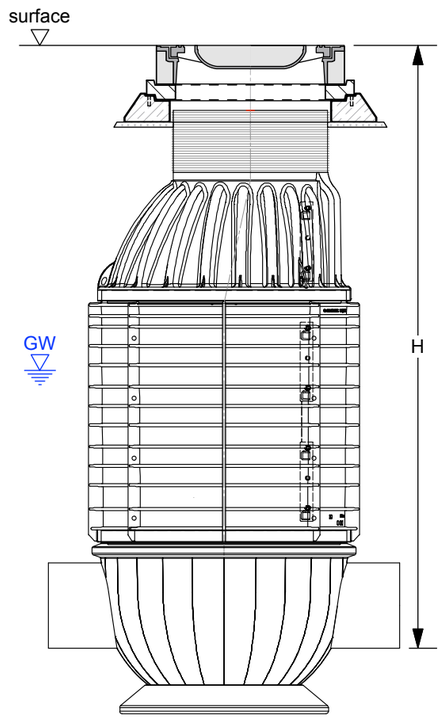
depth H [m]: _____
surface to channel

ground water level [m]: _____
ground water depth relative to surface

commercial cover
class: o B125 o D400
please indicate

seal to cone: o yes o no
please indicate





	PE-pipe Dia ..... mm x .... mm Standard: SDR 17.6 with a bright inner surface	others, clay pipe, concrete	falling	angular degrees [°]	centesimal degrees [gon]	bed drop [cm]	pipe gradient [%]
outlet			----	0°	0 gon	----	
inlet 1)						o no bed drop o + _____	
inlet 2)						o no bed drop o + _____	
inlet 3)						o no bed drop o + _____	

company: _____

contact person: _____

tel. / fax: _____

E-mail: _____

stamp

_____
date, signature

PROJECT QUESTIONNAIRE

ROMOLD PP-manhole DN 800

☐ order ☐ request for information

Romold GmbH
Sägewerkstraße 5
D-83416 Surheim
Tel: +49-8654-4768-0
Fax: +49-8654-4768-47
E-mail: verkauf@romold.de

project: _____

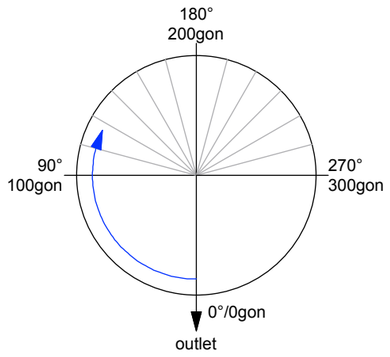
manhole no.: _____

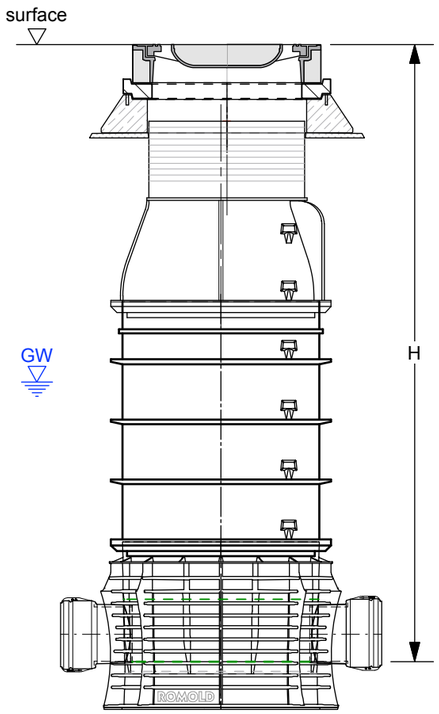
depth H [m]: _____
surface to channel

ground water level [m]: _____
ground water depth relative to surface

commercial cover
class: o B125 o D400
please indicate

seal to cone: o yes o no
please indicate





	DN/OD	plain pipe	others, clay pipe, concrete	falling	angular degrees [°]	centesimal degrees [gon]	bed drop [cm]	pipe gradient [%]
outlet				----	0°	0 gon	----	
inlet 1							o no bed drop o + _____	
inlet 2							o no bed drop o + _____	
inlet 3							o no bed drop o + _____	

company: _____

contact person: _____

tel. / fax: _____

E-mail: _____

stamp

_____
date, signature

PROJECT QUESTIONNAIRE

ROMOLD House control manhole DN 800 for inserted and welded pipe systems

☐ order ☐ request for information

Romold GmbH
Sägewerkstraße 5
D-83416 Surheim
Tel: +49-8654-4768-0
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E-mail: verkauf@romold.de

project: _____

desired delivery date: _____

manhole no.: _____

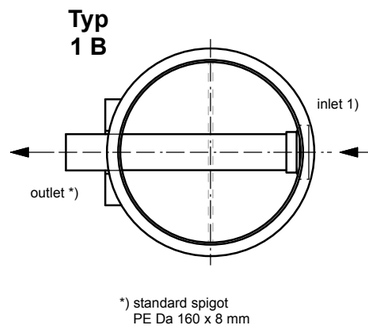
* for multiple orders, please indicate installation order

depth H [m]: _____
surface to channel

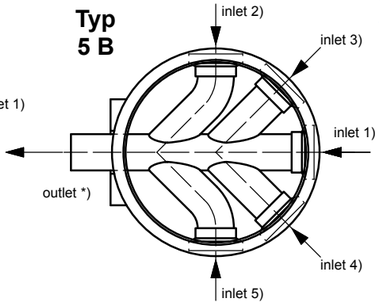
ground water level [m]: _____
ground water depth relative to surface

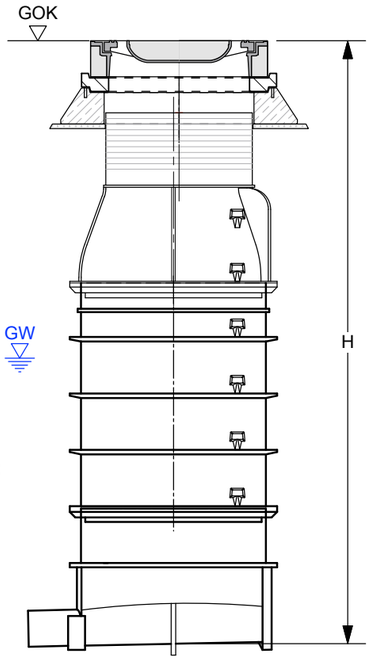
commercial cover
class: o B125 o D400
please indicate

seal to cone: o yes o no
please indicate



*) standard spigot
PE Da 160 x 8 mm





Typ		PE-pipe Da ..... mm x .... mm max OD 180	others, clay pipe, concrete max DN 160	falling	angular degrees [°]	centesimal degrees [gon]	bed drop [cm]	pipe gradient [%]
1B/5B	outlet			----	0°	0 gon	----	
1B/5B	inlet 1)				180°	200 gon	no bed drop	
5B	inlet 2)				90°	100 gon	+ 8 cm	
5B	inlet 3)				135°	150 gon	+ 8 cm	
5B	inlet 4)				225°	250 gon	+ 8 cm	
5B	inlet 5)				270°	300 gon	+ 8 cm	

company: _____

contact person: _____

tel. / fax: _____

E-mail: _____

stamp

_____
date, signature

PROJECT QUESTIONNAIRE

Romold GmbH
Sägewerkstraße 5
D-83416 Surheim
Tel: +49-8654-4768-0
Fax: +49-8654-4768-47
E-mail: verkauf@romold.de

ROMOLD PE-manhole DN 625

☐ order ☐ request for information

project: _____

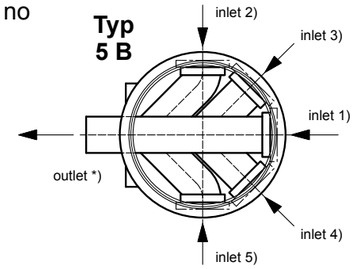
manhole no.: _____

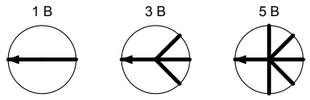
depth H [m]: _____
surface to channel

ground water level [m]: _____
ground water depth relative to surface

commercial cover
class: o B125 o D400
please indicate

seal between chamber and load distribution ring:
o yes o no
please indicate

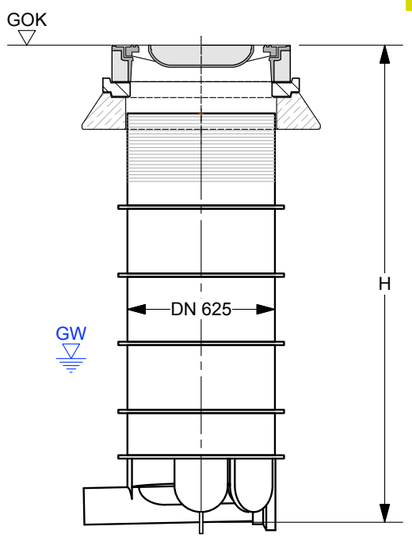




*) channel DN/OD 160

desired delivery date: _____

* for multiple orders, please indicate installation order



Typ		PE-pipe Da ..... mm x .... mm max OD 180	others, clay pipe, concrete max DN 160	falling	angular degrees [°]	centesimal degrees [gon]	bed drop [cm]	pipe gradient [%]
1 B / 5 B	outlet			----	0°	0 gon	----	
1 B / 5 B	inlet 1)				180°	200 gon	no bed drop	
5 B	inlet 2)				90°	100 gon	+ 8 cm	
3 B / 5 B	inlet 3)				135°	150 gon	+ 8 cm	
5 B	inlet 4)				225°	250 gon	+ 8 cm	
3 B / 5 B	inlet 5)				270°	300 gon	+ 8 cm	

company: _____

contact person: _____

tel. / fax: _____

E-mail: _____

stamp

_____
date, signature

PROJECT QUESTIONNAIRE

Romold GmbH
Sägewerkstraße 5
D-83416 Surheim
Tel: +49-8654-4768-0
Fax: +49-8654-4768-47
E-mail: verkauf@romold.de

ROMOLD PP-manhole DN 600

☐ order ☐ request for information

project: _____

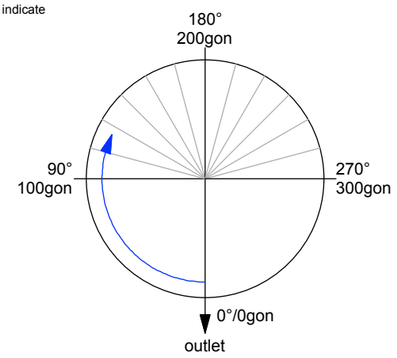
manhole no.: _____

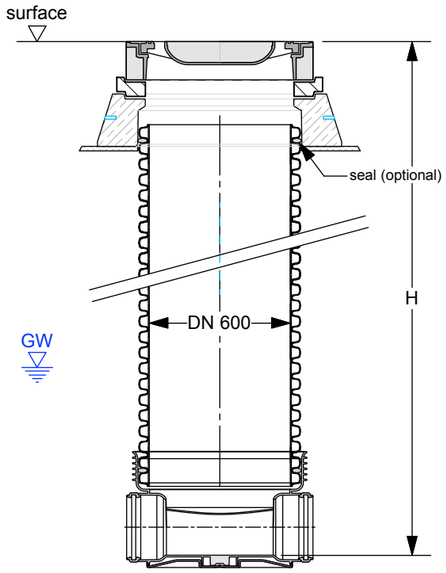
depth H [m]: _____
surface to channel

ground water level [m]: _____
ground water depth relative to surface

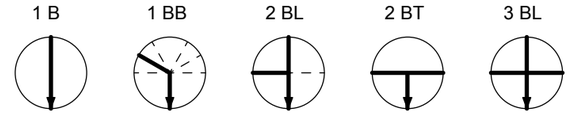
commercial cover
class: o B125 o D400
please indicate

seal between riser pipe and load distrubition ring:
o yes o no
please indicate





available channels: DN 160, 200, 250, 315, 400 (only 1B)



	DN/OD	plain pipe	others, clay pipe, concrete	falling	angular degrees [°]	centesimal degrees [gon]	pipe gradient [%]
outlet				----	0°	0 gon	
inlet 1							
inlet 2							
inlet 3							

company: _____

contact person: _____

tel. / fax: _____

E-mail: _____

stamp

_____
date, signature

PROJECT QUESTIONNAIRE

ROMOLD PE-manhole DN 500

☐ order ☐ request for information

Romold GmbH
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D-83416 Surheim
Tel: +49-8654-4768-0
Fax: +49-8654-4768-47
E-mail: verkauf@romold.de

project: _____

desired delivery date: _____

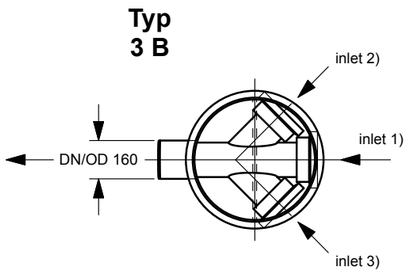
manhole no.: _____

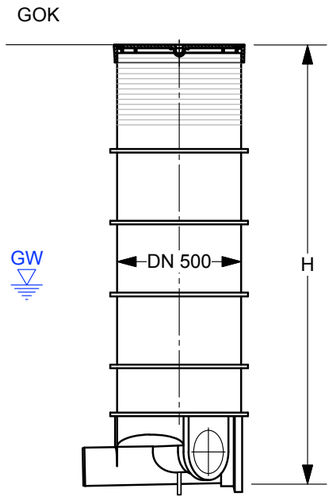
* for multiple orders, please indicate installation order

depth H [m]: _____
surface to channel

ground water level [m]: _____
ground water depth relative to surface

cover
class: o B125 o D400
please indicate





Typ		PE-pipe OD ..... mm x .... mm	others, clay pipe, concrete	falling	angular degrees [°]	centesimal degrees [gon]	bed drop [cm]	pipe gradient [%]
3B	outlet			----	0°	0 gon		
3B	inlet 1)				180°	200 gon	no bed drop	
3B	inlet 2)				135°	150 gon	+ 5 cm	
3B	inlet 3)				225°	250 gon	+ 5 cm	

company: _____

contact person: _____

tel. / fax: _____

E-mail: _____

stamp

_____
date, signature

PROJECT QUESTIONNAIRE

ROMOLD PP / PE- road gully without sand trap

☐ order ☐ request for information

Romold GmbH
Sägewerkstraße 5
D-83416 Surheim
Tel: +49-8654-4768-0
Fax: +49-8654-4768-47
E-mail: verkauf@romold.de

project: _____

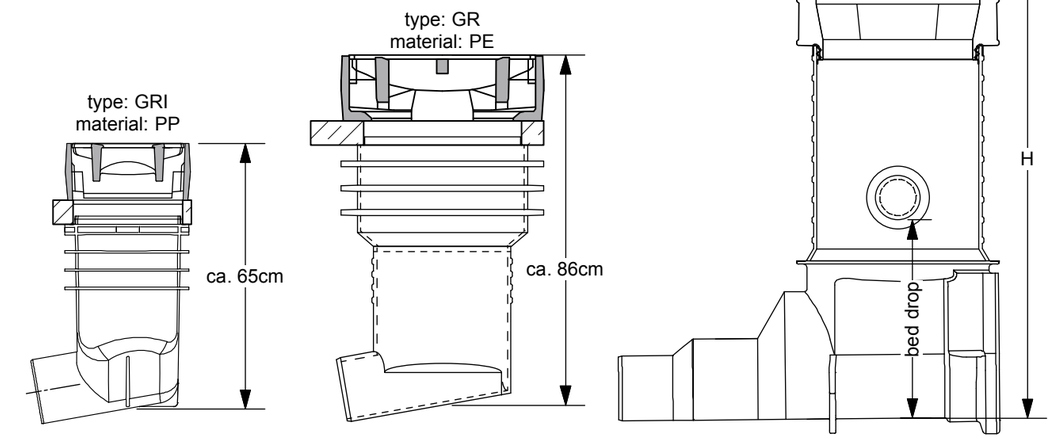
gully no.: _____

grating: *) ☐ 500 x 300mm ☐ 500 x 500mm
please indicate

support ring 10a/10b: ☐ plastic ☐ concrete *)

special feature: _____

*) not delivered by ROMOLD



type	height	outlet	drainage DN (optional)	bed drop [cm]	number	notes
GRI	ca. 65cm	DN/OD 160	---	---		for shallow sand traps
GR	o ca. 65cm o ca. 86cm (please indicate)	DN/OD 160				for shallow sand traps for tall sand traps for welded pipelines
GRT	H = _____cm	o DN/OD 160 o DN/OD 200 (please indicate)				for shallow sand traps for tall sand traps for welded pipelines

company: _____

contact person: _____

tel. / fax: _____

E-mail: _____

stamp

_____
date, signature

PROJECT QUESTIONNAIRE

ROMOLD PE- road gully with sand trap

☐ order ☐ request for information

Romold GmbH
Sägewerkstraße 5
D-83416 Surheim
Tel: +49-8654-4768-0
Fax: +49-8654-4768-47
E-mail: verkauf@romold.de

project: _____

gully no.: _____

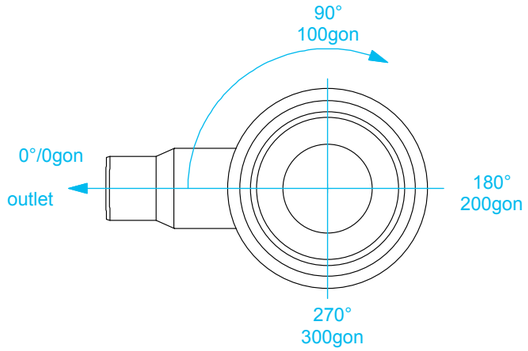
depth H [m]: _____
surface to channel

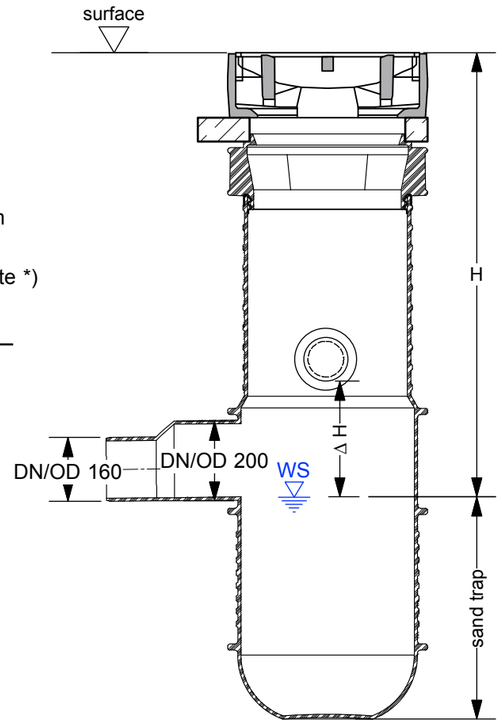
grating: *) ☐ 500 x 300mm ☐ 500 x 500mm
please indicate

support ring 10a/10b: ☐ plastic ☐ concrete *)

special feature: _____

*) not delivered by ROMOLD





	plain pipe DN/OD 160 - DN/OD 200	others, PE, clay pipe, concrete	drainage (optional)	angular degrees [°]	centesimal degrees [gon]	Δ H [cm]	note
outlet			----	0°	0 gon	----	
inlet 1							
drainage 1							
drainage 2							

company: _____

contact person: _____

tel. / fax: _____

E-mail: _____

stamp

_____
date, signature

PROJECT QUESTIONNAIRE

ROMOLD PE- road gully with mud trap

☐ order ☐ request for information

Romold GmbH
Sägewerkstraße 5
D-83416 Surheim
Tel: +49-8654-4768-0
Fax: +49-8654-4768-47
E-mail: verkauf@romold.de

project: _____

manhole no.: _____

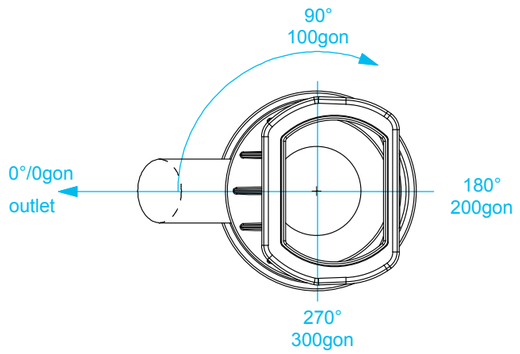
depth H [m]: _____
surface to channel

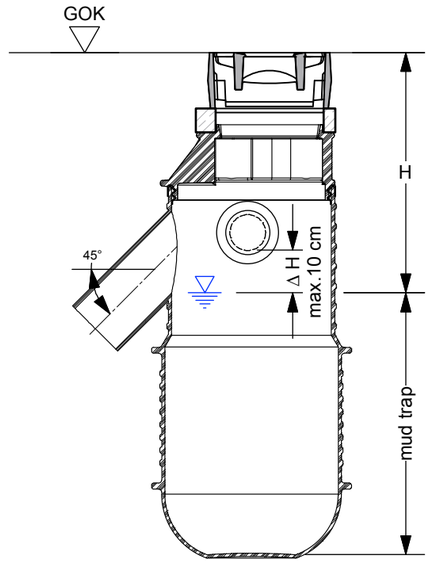
grating: *) ☐ 500 x 300mm ☐ 500 x 500mm
please indicate

support ring 10a/10b: ☐ plastic ☐ concrete *)

special feature: _____

*) not delivered by ROMOLD





	KG DN/OD 160 to DN/OD 200	others, clay pipe, concrete	drainage	angular degrees [°]	centesimal degrees [gon]	bed drop [cm]	note
outlet			----	0°	0 gon	----	
inlet 1)							
drainage 1							
drainage 2							

company: _____

contact person: _____

tel. / fax: _____

E-mail: _____

stamp

_____
date, signature

PROJECT QUESTIONNAIRE

ROMOLD PE-gully for longitudinal drainage

☐ order ☐ request for information

Romold GmbH
Sägewerkstraße 5
D-83416 Surheim
Tel: +49-8654-4768-0
Fax: +49-8654-4768-47
E-mail: verkauf@romold.de

project: _____

gully no.: _____

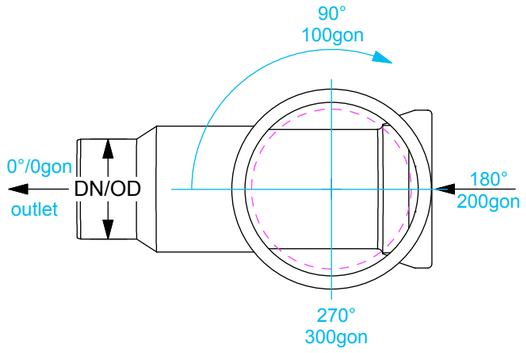
depth H [m]: _____
surface to channel bottom

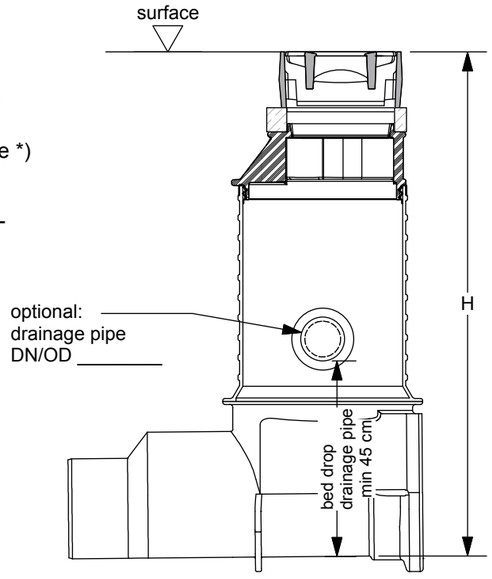
grating: *) ☐ 500 x 300mm ☐ 500 x 500mm
please indicate

support ring 10a/10b: ☐ plastic ☐ concrete *)

special feature: _____

*) not delivered by ROMOLD





	plain pipe DN/OD 160 - DN/OD 315	others, PE, clay pipe, concrete	drainage (optional)	angular degrees [°]	centesimal degrees [gon]	bed drop [cm]	note
outlet			----	0°	0 gon	----	
inlet 1							
drainage 1							
drainage 2							

company: _____

contact person: _____

tel. / fax: _____

E-mail: _____

stamp

_____
date, signature

PROJECT QUESTIONNAIRE

ROMOLD PE-gully for longitudinal drainage

☐ order ☐ request for information

Romold GmbH
Sägewerkstraße 5
D-83416 Surheim
Tel: +49-8654-4768-0
Fax: +49-8654-4768-47
E-mail: verkauf@romold.de

project: _____

gully no.: _____

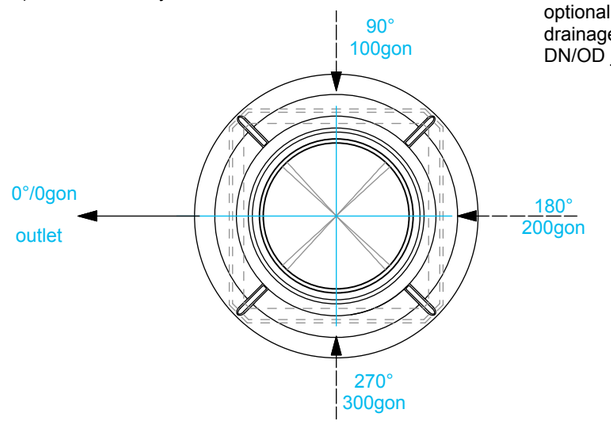
depth H [m]: _____
surface to channel

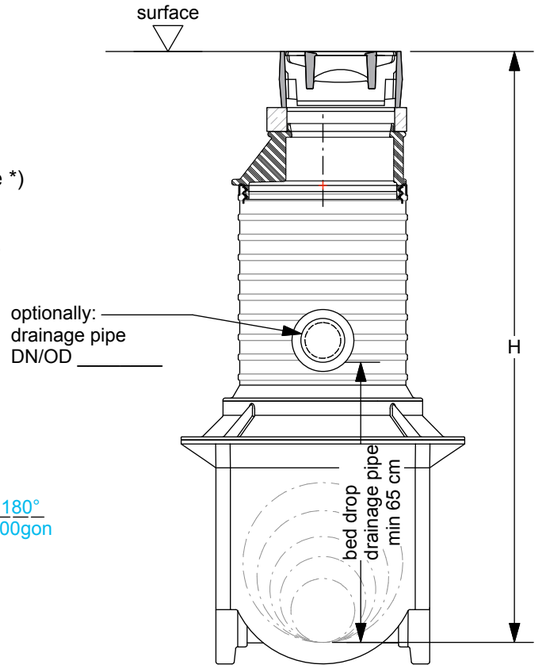
grating: *) ☐ 500 x 300mm ☐ 500 x 500mm
please indicate

support ring 10a/10b: ☐ plastic ☐ concrete *)

special feature: _____

*) not delivered by ROMOLD





	plain pipe DN/OD 160 - DN/OD 400	others, PE, clay pipe, concrete	drainage (optional)	angular degrees [°]	centesimal degrees [gon]	bed drop [cm]	note
outlet			----	0°	0 gon	----	
inlet 1				90°	100 gon		
inlet 2				180°	200 gon		
inlet 3				270°	300 gon		

company: _____

contact person: _____

tel. / fax: _____

E-mail: _____

stamp

_____
date, signature

PROJECT QUESTIONNAIRE

ROMOLD PE-road gully with siphon

☐ order ☐ request for information

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Tel: +49-8654-4768-0
Fax: +49-8654-4768-47
E-mail: verkauf@romold.de

project: _____

gully no.: _____

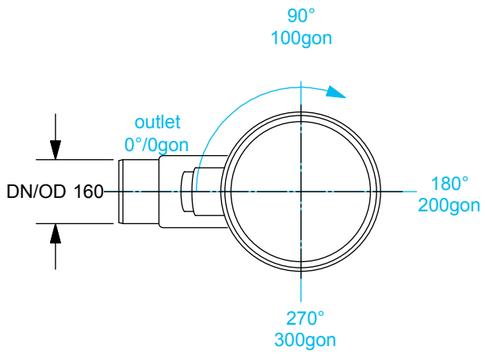
depth H [m]: _____
surface to channel

grating: *) ☐ 500 x 300mm ☐ 500 x 500mm
please indicate

support ring 10a/10b: ☐ plastic ☐ concrete *)

special feature: _____

*) not delivered by ROMOLD



	KG PE	others, Stzg StB	angular degrees [°]	centesimal degrees [gon]	gon	Δ H [cm]	note
outlet	DN/OD 160		----	0°	0 gon	----	
inlet 1							
inlet 2							

When planning the height, please note that the plug can still be operated (HG = H -15cm)

company: _____

contact person: _____

tel. / fax: _____

E-mail: _____

stamp

_____
date, signature

PROJECT QUESTIONNAIRE

ROMOLD - energy compensating chamber DN 1000

☐ order ☐ request for information

Romold GmbH
Sägewerkstraße 5
D-83416 Surheim
Tel: +49-8654-4768-0
Fax: +49-8654-4768-47
E-mail: verkauf@romold.de

project: _____

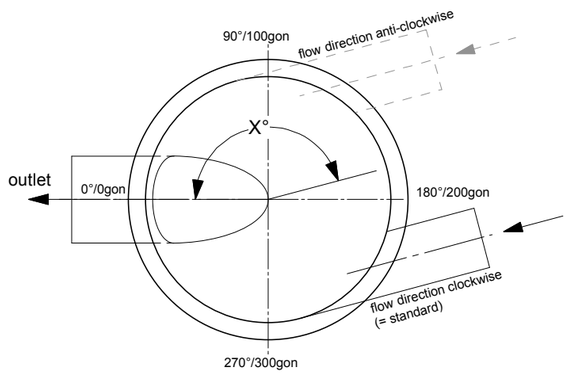
manhole no.: _____

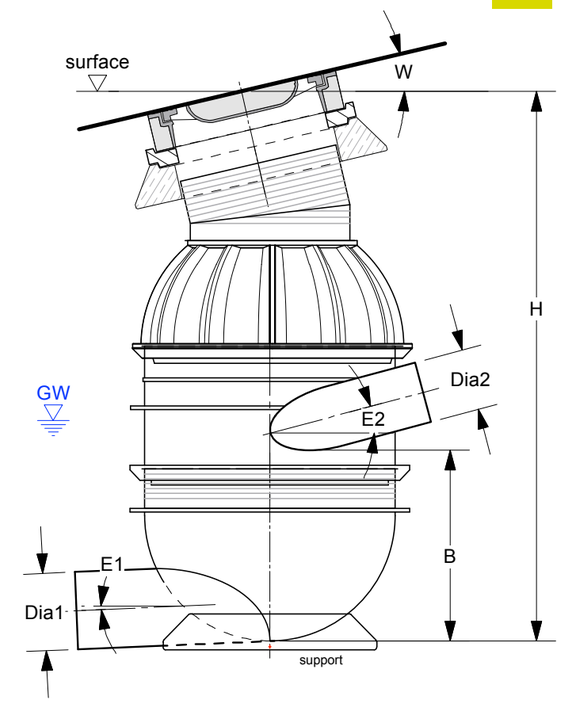
depth H [m]: _____
surface to channel

ground water level [m]: _____
ground water depth relative to surface

commercial cover
class: o B125 o D400
please indicate

cone inclination W [%]: _____





recommended pipe dimensions for EC manhole DN 1000:
inlet max. DN/OD 400
outlet max. DN/OD 600

PE - round bottom manhole DN 800 and 1000 with or without steps in accordance with national safety requirements.

	DN/OD PVC, PP	PE Dia [mm] x e [mm]	others, clay pipe, concrete	bed drop B	horizontal angle [°]	pipe gradient E1, E2 [%]	water quantity [l/s] required information	special design, please check! anti-clockwise	
outlet Dia 1				----	0°				
inlet Dia 2									
inlet Dia 3									

company: _____

contact person: _____

tel. / fax: _____

mailto: _____

stamp

_____
date, signature

PROJECT QUESTIONNAIRE

ROMOLD - energy compensating chamber DN 800

☐ order ☐ request for information

Romold GmbH
Sägewerkstraße 5
D-83416 Surheim
Tel: +49-8654-4768-0
Fax: +49-8654-4768-47
E-mail: verkauf@romold.de

project: _____

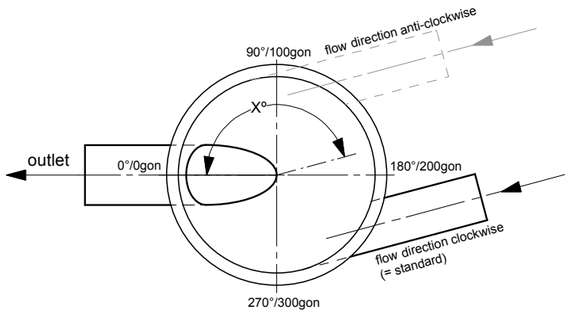
manhole no.: _____

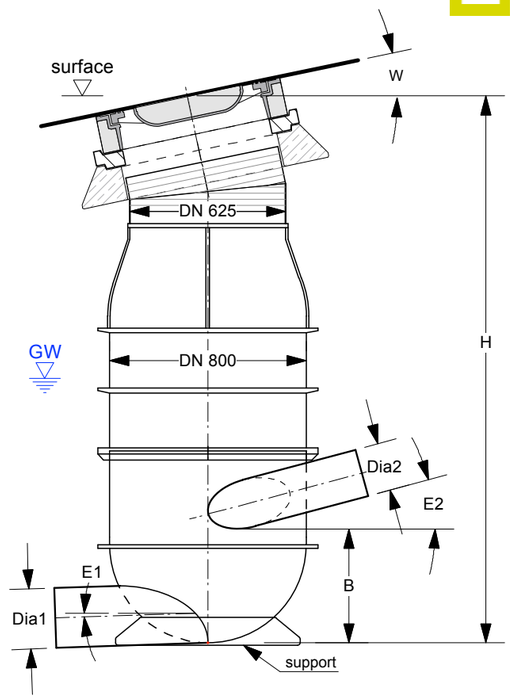
depth H [m]: _____
surface to channel

ground water level [m]: _____
ground water depth relative to surface

commercial cover
class: o B125 o D400
please indicate

cone inclination W [%]: _____





recommended pipe dimensions for EC manhole DN 800:
inlet max. DN/OD 250 (with larger sized pipe connections
outlet max. DN/OD 400 if necessary, use manhole DN 1000)

PE - round bottom manhole DN 800 and 1000 with or without steps in accordance with national safety requirements.

	DN/OD PVC, PP	PE Dia [mm] x e [mm]	others, clay pipe, concrete	bed drop B	horizontal angle [°]	pipe gradient E1, E2 [%]	water quantity [l/s] required information	special design, please check!	
								anti-clockwise	
outlet Dia 1				----	0°				
inlet Dia 2									
inlet Dia 3									

company: _____

contact person: _____

tel. / fax: _____

E-mail: _____

stamp

_____
date, signature

PROJECT QUESTIONNAIRE

ROMOLD - energy compensating chamber DN 625

☐ order ☐ request for information

Romold GmbH
Sägewerkstraße 5
D-83416 Surheim
Tel: +49-8654-4768-0
Fax: +49-8654-4768-47
E-mail: verkauf@romold.de

project: _____

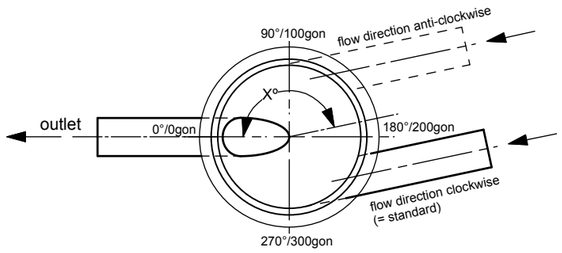
manhole no.: _____

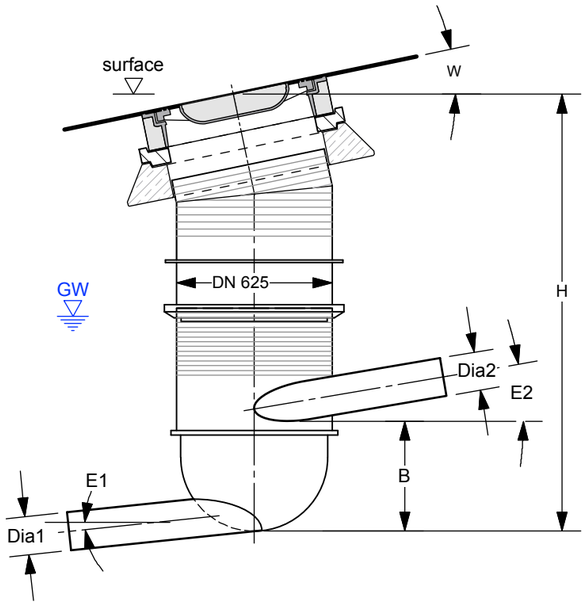
depth H [m]: _____
surface to channel

ground water level [m]: _____
ground water depth relative to surface

commercial cover
class: o B125 o D400
please indicate

cone inclination W [%]: _____





recommended pipe dimensions for EC manhole DN 625:
inlet max. DN/OD 200 (with larger sized pipe connections
outlet max. DN/OD 300 if necessary, use manhole DN 800 or 1000)

	DN/OD PVC, PP	PE Dia [mm] x e [mm]	others, clay pipe, concrete	bed drop B	horizontal angle [°]	pipe gradient E1, E2 [%]	water quantity [l/s] required information	special design, please check!	
								anti-clockwise	
outlet Dia 1				----	0°				
inlet Dia 2									
inlet Dia 3									

company: _____

contact person: _____

tel. / fax: _____

E-mail: _____

stamp

_____
date, signature

PROJECT QUESTIONNAIRE

pressure pipe end chamber DN 1000 - type ROMOLD

☐ order ☐ request for information

Romold GmbH
Sägewerkstraße 5
D-83416 Surheim
Tel: +49-8654-4768-0
Fax: +49-8654-4768-47
E-mail: verkauf@romold.de

project: _____

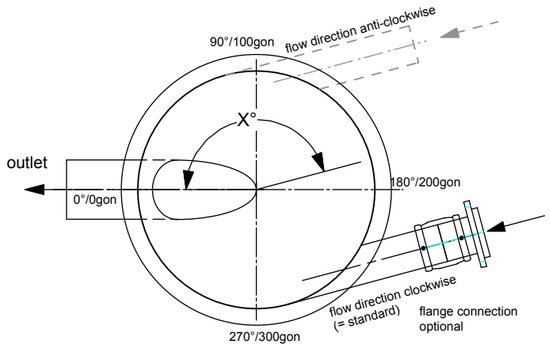
manhole no.: _____

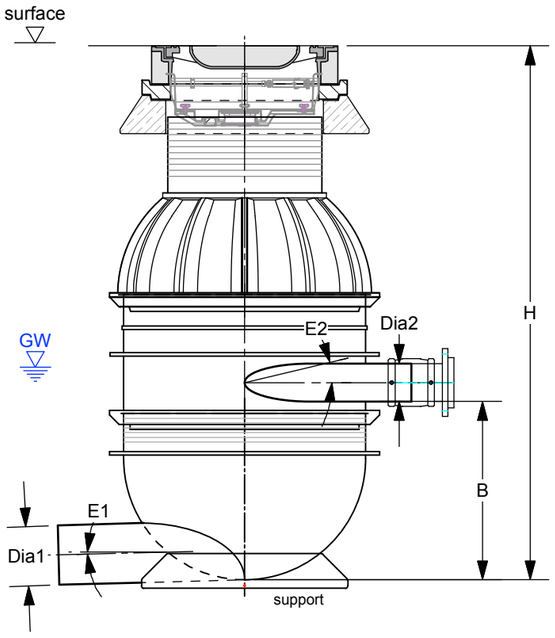
depth H [m]: _____
surface to channel

ground water level [m]: _____
ground water depth relative to surface

commercial cover
class: o B125 o D400
please indicate

active carbon filter : ☐
size and design after technical clarification





PE - round bottom manhole DN 800 and 1000 with or without steps
according national safety requirements.

	DN/OD PVC, PP	PE Dia [mm] x e [mm]	others, clay pipe, concrete	bed drop B	horizontal angle [°]	pipe gradient E1, E2 [%]	water quantity [l/s] required information	special design, please check! anti-clockwise	special design, please check! flange connection
outlet Dia 1				----	0°				
inlet Dia 2									
inlet Dia 3									

company: _____

contact person: _____

tel. / fax: _____

E-mail: _____

stamp

_____
date, signature

PROJECT QUESTIONNAIRE

pressure pipe end chamber DN 800 - type ROMOLD

☐ order ☐ request for information

Romold GmbH
Sägewerkstraße 5
D-83416 Surheim
Tel: +49-8654-4768-0
Fax: +49-8654-4768-47
E-mail: verkauf@romold.de

project: _____

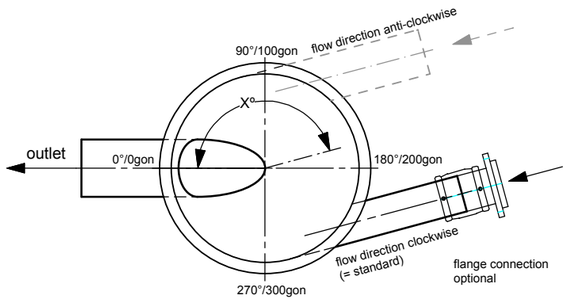
manhole no.: _____

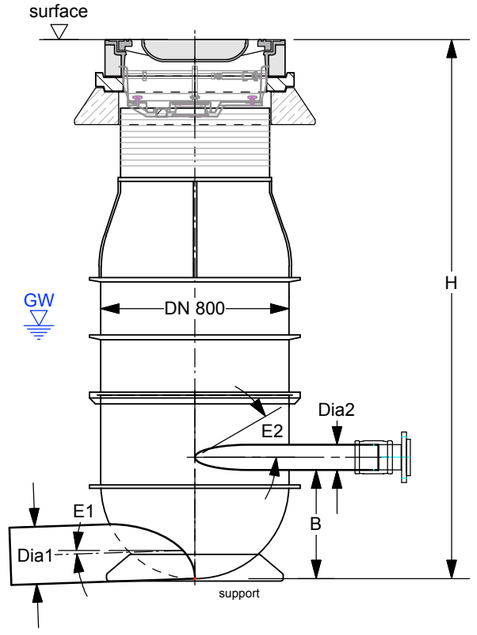
depth H [m]: _____
surface to channel

ground water level [m]: _____
ground water depth relative to surface

commercial cover
class: o B125 o D400
please indicate

active carbon filter : ☐
size and design after technical clarification





PE - round bottom manhole DN 800 and 1000 with or without steps
in accordance with national safety requirements.

	DN/OD PVC, PP	PE Dia [mm] x e [mm]	others, clay pipe, concrete	bed drop B	horizontal angle [°]	pipe gradient E1, E2 [%]	water quantity [l/s] required information	special design, please check! anti-clockwise	special design, please check! flange connection
outlet Dia 1				----	0°				
inlet Dia 2									
inlet Dia 3									

company: _____

contact person: _____

tel. / fax: _____

E-mail: _____

stamp

_____
date, signature

PROJECT QUESTIONNAIRE

pressure pipe end chamber DN 625 - type ROMOLD

☐ order ☐ request for information

Romold GmbH
Sägewerkstraße 5
D-83416 Surheim
Tel: +49-8654-4768-0
Fax: +49-8654-4768-47
E-mail: verkauf@romold.de

project: _____

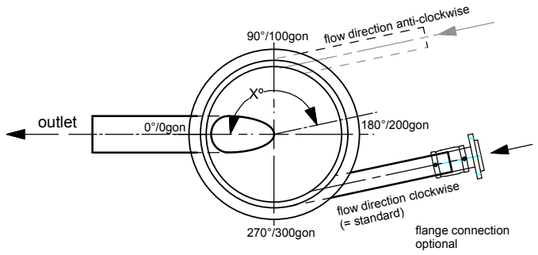
manhole no.: _____

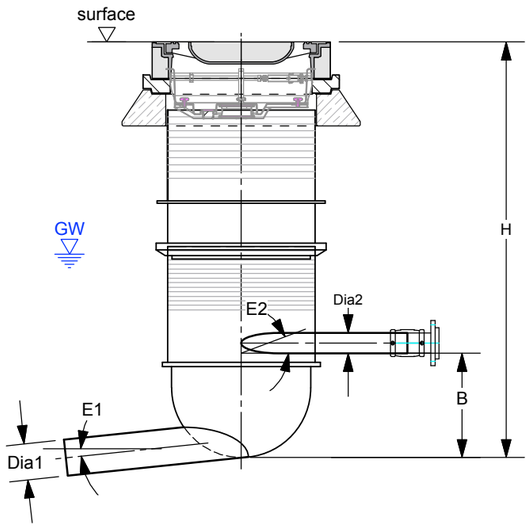
depth H [m]: _____
surface to channel

ground water level [m]: _____
ground water depth relative to surface

commercial cover
class: o B125 o D400
please indicate

active carbon filter : ☐
size and design after technical clarification





	DN/OD PVC, PP	PE Dia [mm] x e [mm]	others, clay pipe, concrete	bed drop B	horizontal angle [°]	pipe gradient E1, E2 [%]	water quantity [l/s] required information	special design, please check! anti-clockwise	special design, please check! flange connection
outlet Dia 1				----	0°				
inlet Dia 2									
inlet Dia 3									

company: _____

contact person: _____

tel. / fax: _____

E-mail: _____

stamp

_____
date, signature

PROJECT QUESTIONNAIRE

ROMOLD - pressure pipe end chamber DN 1000 acc. to ATV-A 157

☐ order ☐ request for information

Romold GmbH
Sägewerkstraße 5
D-83416 Surheim
Tel: +49-8654-4768-0
Fax: +49-8654-4768-47
E-mail: verkauf@romold.de

project: _____

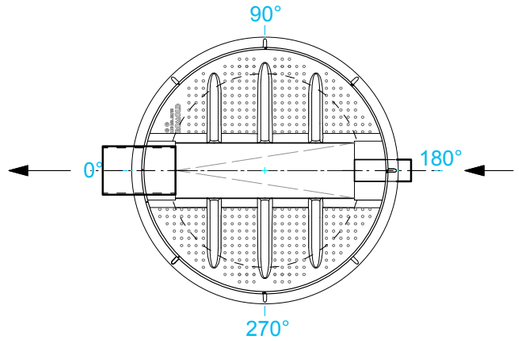
manhole no.: _____

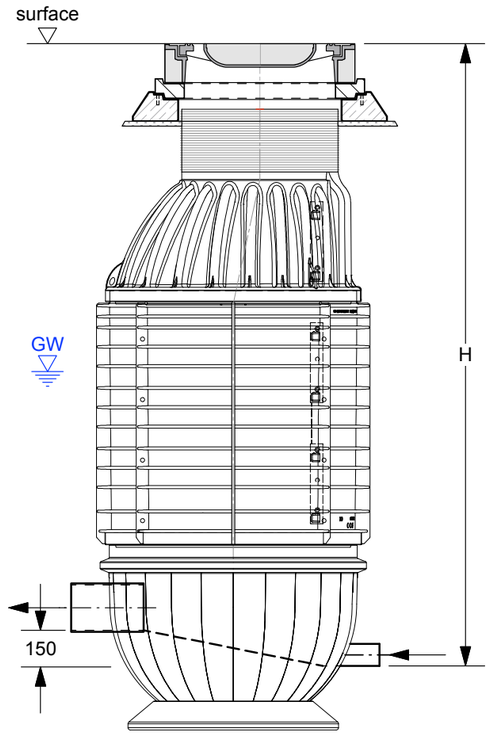
depth H [m]: _____
surface to channel

ground water level [m]: _____
ground water depth relative to surface

commercial cover
class: o B125 o D400
please indicate

seal to cone: o yes ☐no
please indicate





	PE-pipe Dia ..... mm x .... mm	plain pipe (PVC, PP)	others, clay pipe, concrete	pipeline gradient [%]	bed drop	note
inlet pressure pipe *)					----	
outlet**)					+ 15 cm	

*) pipe connection inlet: max. OD 180
**) pipe connection outlet: max. OD 250
(larger pipe diameters on request)

company: _____

contact person: _____

tel. / fax: _____

E-mail: _____

stamp

_____
date, signature

ROMOLD

GERMANY

ROMOLD GmbH

Sägewerkstraße 5

83416 Surheim

Germany

Phone: +49 (0) 86 54 / 47 68-0

Fax: +49 (0) 86 54 /47 68-47

Email: info@romold.de

www.romold.de

A directory of our field representatives is available at:

www.romold.de, menu contact.