evopipes
PART OF RADIUS GROUP

RIGID multi & RIGID mono

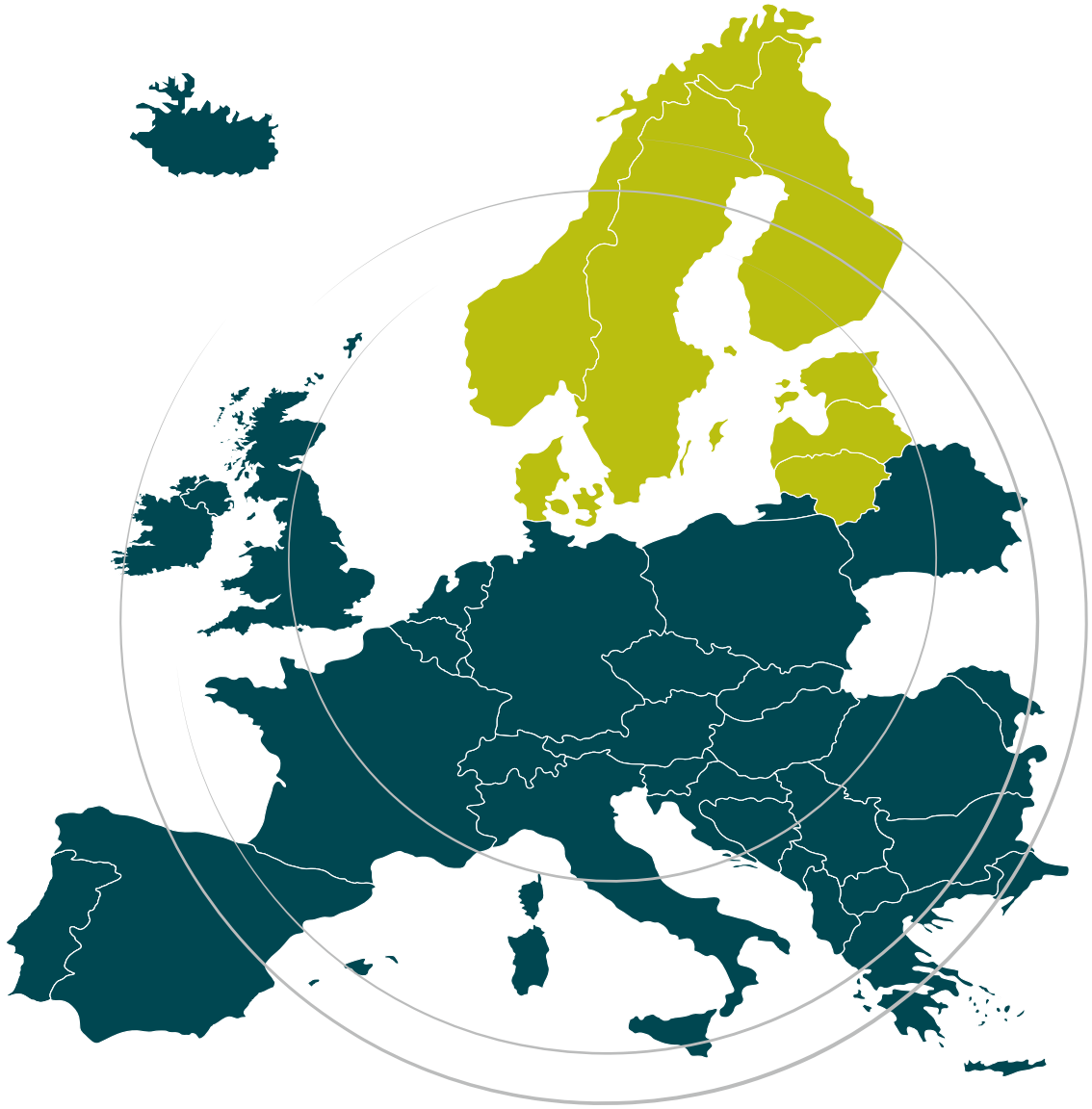
Gravity sewer systems

ID:BR.RIGID.EN-1.0V.19

FOREWORD

EVOPIPES product range is oriented towards the increase of client's work and cost efficiency, as well as reduction of operating costs during pipe lifetime. Pipes account for ~4% of total pipeline system construction costs, even though gravity system pipes and chambers are one of the most important elements of the system. Pipe and chamber quality, construction, as well as operating costs are major parameters to be considered by the owners of pipeline systems.

EVOPIPES has developed high-quality, safe, and efficient **RIGID MULTI PP, RIGID MONO PP** and **RIGID MONO PP-MD** gravity sewer infrastructure system. This system includes SN8 smooth-wall pipes, chambers, gullies, and different types of fittings that are necessary for effective system construction.



EVOPIPES is a high quality product manufacturer for internal and external utility network systems

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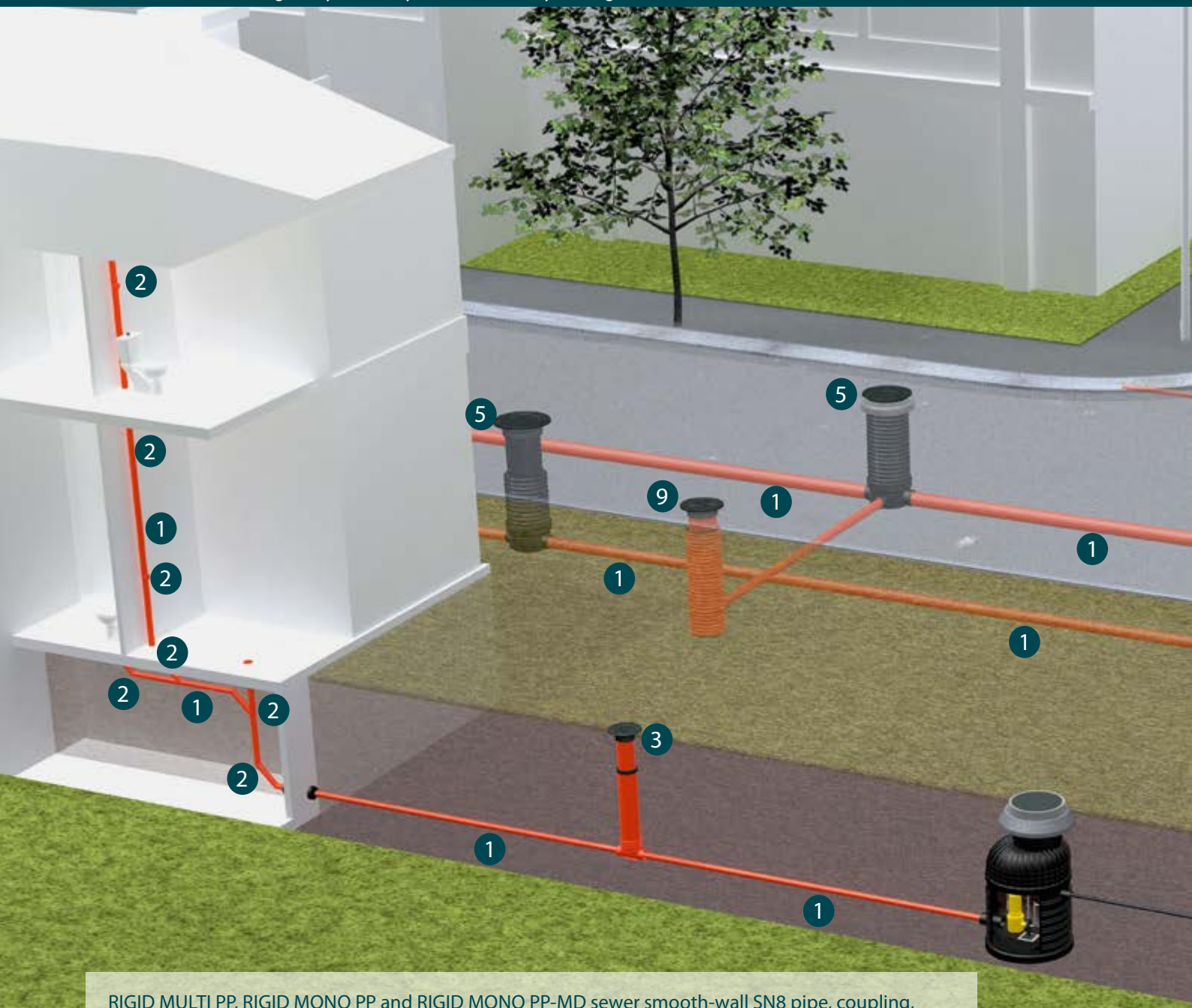

RIGID MULTI PP, RIGID MONO PP and RIGID MONO PP-MD sewer smooth-wall SN8 pipe, coupling, chamber and gully system application in gravity sewer network system

1	RIGID MULTI PP SN8, RIGID MONO PP SN8 and RIGID MONO PP-MD SN8 gravity sewer pipes pages 7 to 9
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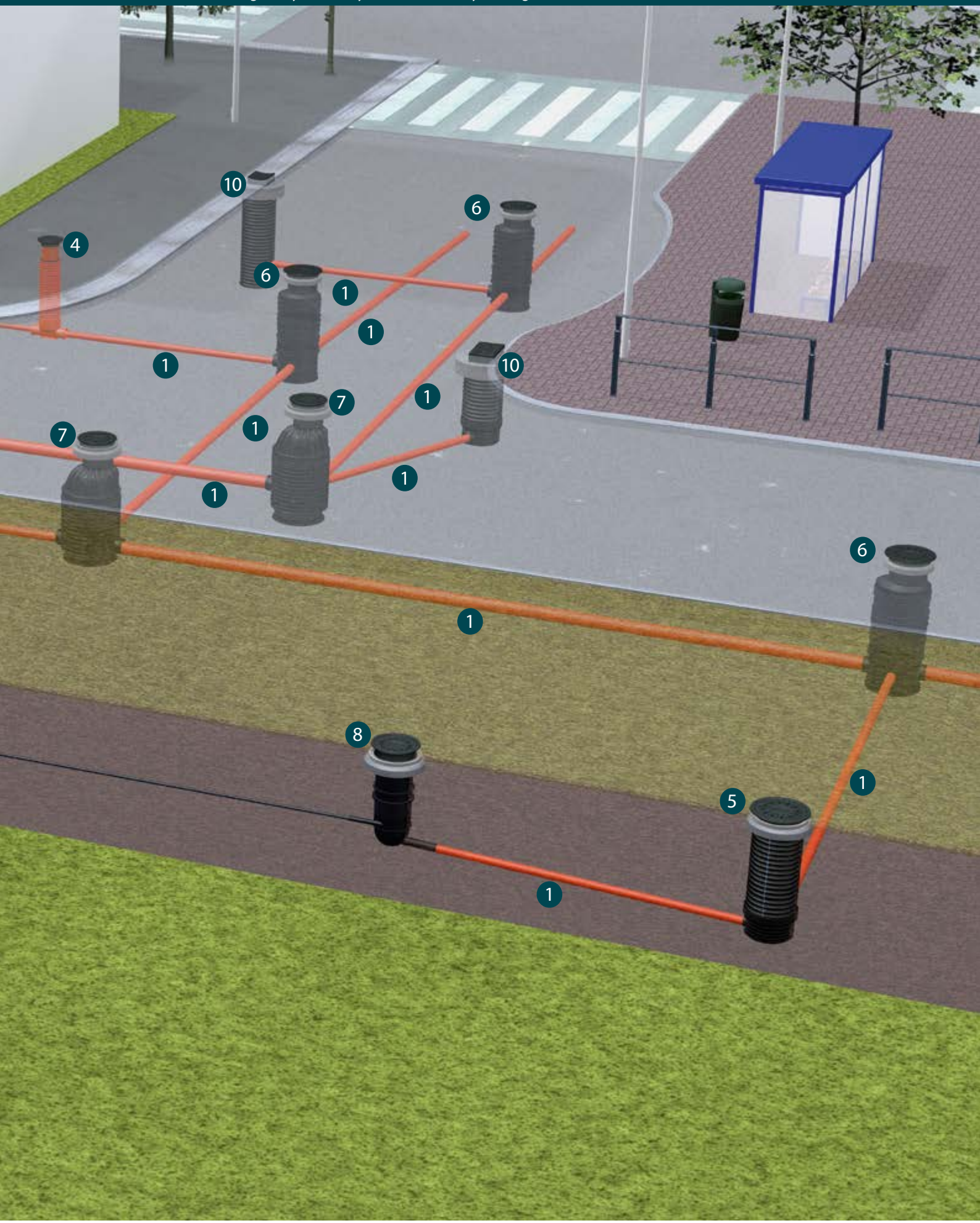
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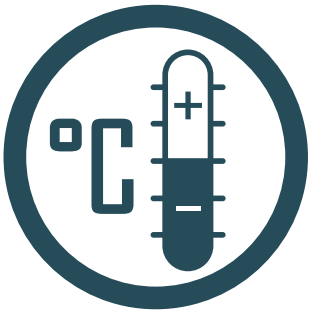
EVOPIPES gravity sewer smooth-wall pipe RIGID MULTI PP, RIGID MONO PP and RIGID MONO PP-MD characteristics

Mechanical

Good balance between product ring stiffness, ring flexibility and impact resistance.



Thermal

The products can be installed in low temperatures until -10 °C.

Chemical

Products are resistant to exposure to aggressive substances present in sewage and subsoil from pH2 (acidic medium) until pH12 (alkaline medium).

Ecologic

The products are environment-friendly and recyclable after several decades in operation.

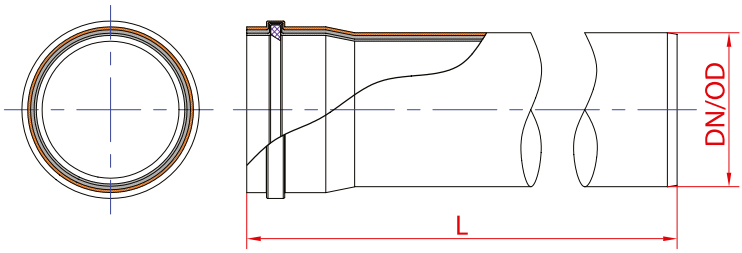
Product lifetime ≥ **50 years.**

RIGID MULTI PP SN8 EN 13476–2 smooth-wall pipes for gravity sewer network systems with integral socket and integrated sealing ring

RIGID multiPP

Modern choice for professionals!

Pipes are produced using three-layer technology, where external and internal layer is made of high flexural modulus polypropylene (PP) material but the intermediate layer consists of structured polypropylene (PP) material.



According to standard EN 13476-2

Construction nominal stiffness class SN8

DN/OD, mm	110	160	200	250	315	400
Pipe material	PP-B	PP-B	PP-B	PP-B	PP-B	PP-B
External surface colour	brown	brown	brown	brown	brown	brown
Internal surface colour	white	white	white	white	white	white
SN, kN/m²	SN8	SN8	SN8	SN8	SN8	SN8
L, m	2/3/6	2/3/6	2/3/6	2/3/6	2/3/6	2/3/6
Package, m/pcs.	(100/150/300)50	(56/84/168)28	(40/60/120)20	(16/24/48)8	(12/18/36)6	(6/9/18)3

DESCRIPTION:
DN/OD - nominal/external pipe diameter, mm;
SN – nominal pipe ring stiffness class, kN/m²;
L - pipe length, m.

Pipe quality:

Ring stiffness ≥ 8 kN/m² SN8	Ring flexibility 30% deflection of d_{em} RF30	Creep ratio PP: ≤ 4 at 2 years extrapolation	Impact resistance at -10 °C (staircase method) ❄ H50 ≥ 1000 mm
			
EN ISO 9969	**EN ISO 13968**	**EN ISO 9967**	**EN ISO 11173**

TESTING PROCESS STANDARDIZATION AND PRODUCT CERTIFICATION
RIGID MULTI PP product certification complies with EVOPIPES corporate quality concept ensuring client-oriented high-performance system, resulting from internal quality management system monitoring (within continuous production process monitoring and external quality control), which is certified by product quality compliance certificates from third-party audits, issued within verification process.

Pipe marking:

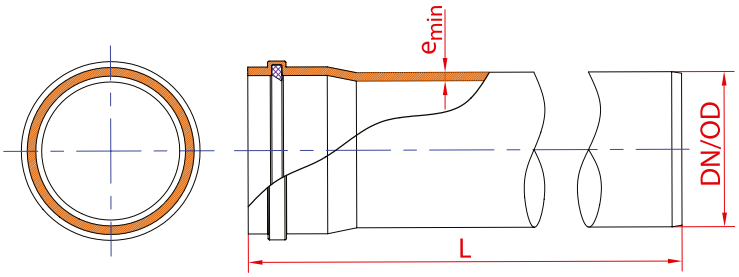
evopipes RIGID multi PP MULTILAYER EN13476-2 SN8 RF30 ❄ UD DN/OD 200 6m 19.09.2019 BATCH NO. 160118-009047

RIGID MONO PP SN8 EN 1852-1 smooth-wall pipes for gravity sewer network systems with integral socket and integrated sealing ring

RIGID MONO PP

Classic choice for professionals!

Solid-wall pipe designed from homogeneous flexural modulus polypropylene (PP) material.



According to standard EN 1852-1

Construction nominal stiffness class SN8

DN/OD, mm	110	160	200	250	315	400
e_{min}, mm	3,8	5,5	6,9	8,6	10,8	13,7
Pipe material	PP-B	PP-B	PP-B	PP-B	PP-B	PP-B
Pipe colour	light brown	light brown	light brown	light brown	light brown	light brown
SN, kN/m²	SN8	SN8	SN8	SN8	SN8	SN8
L, m	2/3/6	2/3/6	2/3/6	2/3/6	2/3/6	2/3/6
Package, m/pcs.	(100/150/300)50	(56/84/168)28	(40/60/120)20	(16/24/48)8	(12/18/36)6	(6/9/18)3

DESCRIPTION:
DN/OD - nominal/external pipe diameter, mm;
e_{min} - minimum pipe wall thickness, mm;
SN – nominal pipe ring stiffness class, kN/m²;
L - pipe length, m.

Pipe quality:

Ring stiffness ≥ 8 kN/m² SN8	Ring flexibility 30% deflection of d_{em} RF30	Creep ratio PP: ≤ 4 at 2 years extrapolation	Impact resistance at -10 °C (staircase method) ❄ H50 ≥ 1000 mm
			
EN ISO 9969	**EN ISO 13968**	**EN ISO 9967**	**EN ISO 11173**

TESTING PROCESS STANDARDIZATION AND PRODUCT CERTIFICATION
RIGID MONO PP product certification complies with EVOPIPES corporate quality concept ensuring client-oriented high-performance system, resulting from internal quality management system monitoring (within continuous production process monitoring and external quality control), which is certified by product quality compliance certificates from third-party audits, issued within verification process.

Pipe marking:

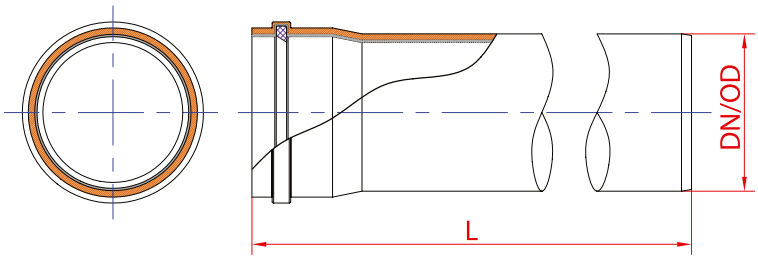
evopipes RIGID mono PP EN1852-1 SN8 RF30 ❄ UD DN/OD 200 S14 6m 19.09.2019 BATCH NO. 160118-009047

RIGID MONO PP-MD SN8 EN 14758–1 smooth-wall pipes for gravity sewer network systems with integral socket and integrated sealing ring

RIGID MONO PP-MD

Alternative choice for professionals!

Solid-wall pipe designed from homogenous flexural modulus polypropylene (PP) material, modified with mineral fillers (PP-MD).



According to standard EN 14758-1

Construction nominal stiffness class SN8

DN/OD, mm	110	160	200	250	315	400
Pipe material	PP-MD	PP-MD	PP-MD	PP-MD	PP-MD	PP-MD
External surface colour	● dark brown	● dark brown	● dark brown	● dark brown	● dark brown	● dark brown
Internal surface colour	○ white	○ white	○ white	○ white	○ white	○ white
*SN, kN/m²	SN8	SN8	SN8	SN8	SN8	SN8
L, m	2/3/6	2/3/6	2/3/6	2/3/6	2/3/6	2/3/6
Package, m/pcs.	(100/150/300)50	(56/84/168)28	(40/60/120)20	(16/24/48)8	(12/18/36)6	(6/9/18)3

DESCRIPTION:
DN/OD -nominal/external pipe diameter, mm;
SN – nominal pipe ring stiffness class, kN/m²;
L - pipe length, m.
** - pipes with higher nominal ring stiffness than SN8 are available at special request, i.e. SN10, SN12 etc.*

Pipe quality:

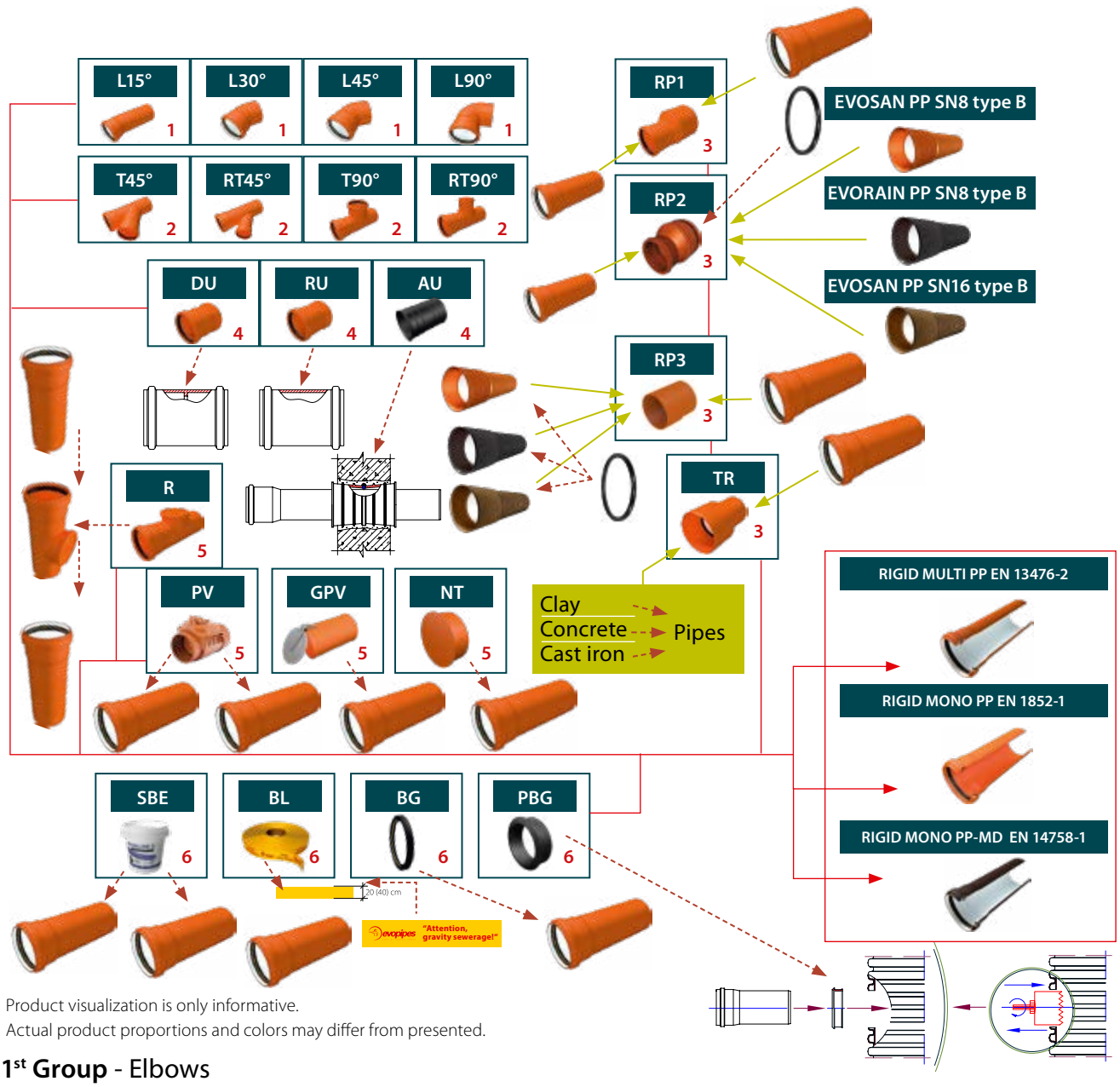
Ring stiffness ≥ 8 kN/m² SN8	Ring flexibility 30% deflection of d_{em} RF30	Creep ratio PP: ≤ 4 at 2 years extrapolation	Impact resistance at -10 °C (staircase method) ❄ H50 ≥ 1000 mm
			
EN ISO 9969	**EN ISO 13968**	**EN ISO 9967**	**EN ISO 11173**

TESTING PROCESS STANDARDIZATION AND PRODUCT CERTIFICATION
RIGID MONO PP-MD product certification complies with EVOPIPES corporate quality concept ensuring client-oriented high-performance system, resulting from internal quality management system monitoring (within continuous production process monitoring and external quality control), which is certified by product quality compliance certificates from third-party audits, issued within verification process.

Pipe marking:

evopipes RIGID mono PP-MD EN14758-1 SN8 RF30 ❄ UD DN/OD 200 6m 19.09.2019 BATCH NO. 160118-009047

DN/OD series **RIGID MULTI PP EN 13476–2, RIGID MONO PP EN 1852-1** and **RIGID MONO PP-MD EN 14758-1** gravity sewer system couplings and accessories



Product visualization is only informative.
Actual product proportions and colors may differ from presented.

1st Group - Elbows

Elbow - L15°	Elbow - L30°	Elbow - L45°	Elbow - L90°
Nominal size range DN, mm	Nominal size range DN, mm	Nominal size range DN, mm	Nominal size range DN, mm
110; 160; 200; 250; 315; 400	110; 160; 200; 250; 315; 400	110; 160; 200; 250; 315; 400	110; 160; 200; 250; 315; 400

2nd Group - T-pieces and reductions

T-piece - T45°	Reduction T-piece – RT45°	T-piece – T90°	Reduction T-piece – RT90°
Nominal size range DN/DN1, mm	Nominal size range DN/DN1, mm	Nominal size range DN/DN1, mm	Nominal size range DN/DN1, mm
110/110; 160/160; 200/200; 250/250; 315/315; 400/400	160/110; 200/110; 200/160; 250/160; 250/200; 315/160; 315/200; 315/250; 400/110; 400/160; 400/200; 400/250; 400/315	110/110; 160/160; 200/200; 250/250; 315/315; 400/400	160/110; 200/110; 200/160; 250/160; 250/200; 315/160; 315/200; 315/250; 400/110; 400/160; 400/200; 400/250; 400/315

3rd Group - Reductions and adapters

Reduction fittings – RP1	Reduction fittings – RP2	Reduction fittings – RP3	Shrink-on adapters – TR
Nominal size range DN/DN1, mm	Nominal size range DN/DN1, mm	Nominal size range DN/DN1, mm	Nominal size range DN/DN1, mm
110/160; 110/200; 160/200; 200/250; 200/315; 250/315; 250/400	110/160; 110/200; 160/200; 200/250; 200/315; 250/315; 250/400; 315/400	160/160; 200/200; 250/250; 315/315; 400/400	11/126; 160/180; 160/224; 200/300; 250/354; 315/416

4th Group - Double couplings, repair sleeves, and protective couplings

Double couplings - DU	Repair couplings - RU	[1] Protective coupling - AU
Nominal size range DN, mm	Nominal size range DN, mm	Nominal size range DN x (L – length), mm
110; 160; 200; 250; 315; 400	110; 160; 200; 250; 315; 400	110x110; 110x240; 160x110; 160x240; 200x110; 200x240; 250x110; 250x240; 315x110; 315x240; 400x110; 400x240

[1]- **Protective coupling** is intended for construction in reinforced concrete chambers and intersections. It protects the pipe by taking on reinforced concrete construction tension which may occur if aforementioned construction is offset on horizontal or vertical axis. It would also take on static and dynamic loads exerted on reinforced concrete construction after its assembly. To facilitate grip with reinforced concrete construction during assembly, external surface of the protective sleeve is abrasive.

5th Group - Safety group (branches, check valves (back-flow stoppers) and caps)

Branch - R	[2] Check valve - PV	End check valve - GPV	End plug - NT
Nominal size range DN, mm	Nominal size range DN, mm	Nominal size range DN, mm	Nominal size range DN, mm
110; 160; 200; 250; 315;	110; 160; 200; 250	110; 160; 200; 250; 315; 400	110; 160; 200; 250; 315; 400

[2] - **Check valve (one-direction valve)** is equipped with shutter mechanism to make it possible to close it. The shutter must be placed vertically against the one-direction valve (it must be placed up), and then it will be closed, if the shutter is placed back in initial position (horizontally against one-direction valve), it will open and work in the system as one-direction valve.

6th Group - Additional accessory group (lubricants, warning tapes, sealing rings and coupling seals)

[3] Lubricant for sealing - SBE	Warning tape - BL	Sealing rings - BG	[4] Coupling seal - PBG
Description	Description	Nominal size range DN, mm	Nominal size range DN, mm
EVOSLIDE lubricant, 1,0 l package 	Warning tape with printed text:  Tape size: • width 100 mm; • length in the package 250 m.	110; 160; 200; 250; 315; 400 	110; 160; 200; 250; 315 

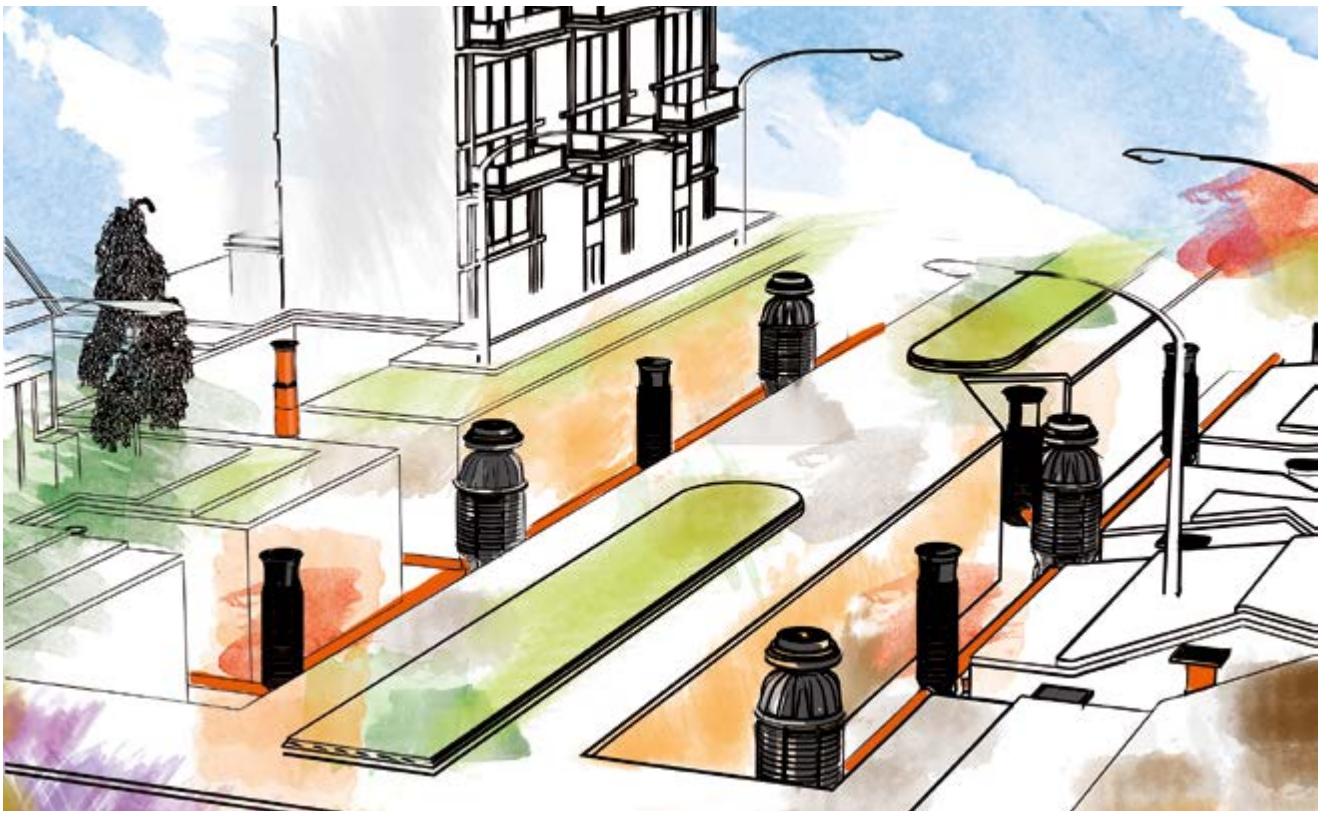
[3]- **Lubricant for sealing** is frost-resistant, silicon-based, paste-consistency, chemically neutral (pH ~7), creamy form in white color, odourless. Upon applying it on rubber sealing element, it makes the process of pipe coupling easier, prevents incorrect rubber sealing ring installation, as well as their damages in connection points. It does not lose the characteristics in damp environment and prevents rubber sealing ring from aging. Features good adhesion - sticking even in damp conditions.

Lubricant user's manual:
Remove dirt (sand, soil, mud etc.) from connection points. Spread the lubricant on cleaned surface evenly. It is recommended to use a brush to evenly spread it (to apply it to the surface).

Storage!
Store the lubricant in a place protected from direct sunlight, within the temperature range of +5 °C to + 25 °C.

[4]- **Coupling seal** is used when it is necessary to create additional connections at the construction site to chambers.

EVOPIPES professional solutions to gravity sewer chambers and gully systems



INCREASE YOUR EFFICIENCY WITH A CHOICE OF PROFESSIONAL SYSTEM SOLUTIONS

Accelerate construction, reduce operation costs with professional -
Evopipes polymer-material chamber and gully sewer system solutions!

PROFESSIONAL SOLUTIONS ARE EFFICIENT INVESTMENT IN YOUR FUTURE!

Reasons - why professionals choose polymer-material chamber and gully sewer system:

- Excellent durability and operational performance with a lifetime ≥ 50 years;
- Polymer-material chamber and gully weight is ≤ 5% of reinforced concrete chamber weight, that results in possible economy on equipment and labor cost during construction;
- High flexibility - reaction to any subsoil movements - NO CRACKS;
- Polymer-material chambers and gullies are resistant to material degradation issues caused by thermal changes;
- 100% waterproof, groundwater infiltration in sewer system – 0%, resulting in lower system operation costs;
- No corrosion, chamber ladders are made from reinforced polypropylene (PP) too;
- Low flow-resistance, chamber gutters > 100% of outlet pipe diameter;
- Chemical and biological inertia, from pH 2 to pH 12 (pH 2 - acidic environment and pH 12 alkaline environment);
- Wide variety of fittings- quick assembly;
- Chamber and gully body is not directly attached to the cover (or grating) frame – dynamic load and impacts do not reduce on manholes and gullies, which has an effect on operation and road surface quality;
- Environment-friendly material - 100% recyclable and reusable;
- Short construction time - higher performance;
- Efficient total costs.

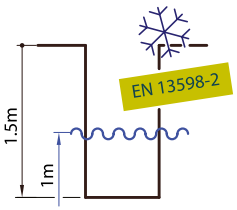
EVOPIPES DN200.160 CHAMBER SYSTEM

UTILITY SEWER STRAIGHT-FLOW CHAMBER CSR200.160

❄ - can be used for construction in cold climate

U - intended for construction in subsoil outside building constructions

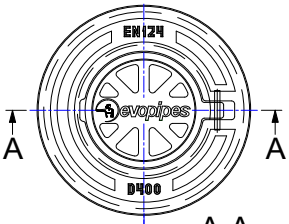
Note:
Construction work related to chamber cover and upper part of chamber shall be performed in accordance with road or territory manager's issued technical regulations and sewer system operator (water management service provider's) requirements



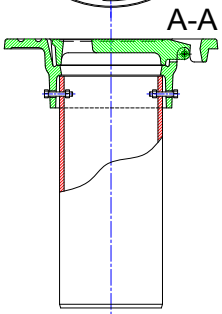
Chamber construction depth:
Hmin=0,7 m and Hmax=1,5 m
Chamber installation according to:
EN 1610, CEN/TR 1046
Chamber application area code: U

CSR200.160.D400

Construction class D400 (400kN=40t)
application according to class - 2nd and 4th group

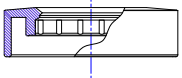


DN160 round cast iron chamber cover (frame with a cover):
- opening: Ø148 mm;
- weight: 12,7 kg;
- cover without ventilation openings;
- EN 124-2.

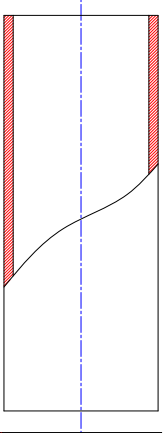


DN160 PP telescopic pipe ≥SN4,
EN 13476-2, EN 14802
or
DN160 HDPE telescopic pipe SDR33,
EN 12201-2+A1, EN 14802

Telescopic pipe length 0,6 m



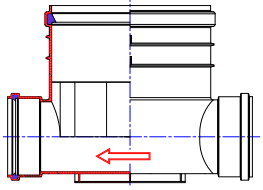
DN200/160 rubber cuff,
EN 681-1, EN 13259



DN200 PP smooth-wall height-adjustment shaft ≥SN4
EN 13476-2, EN 14802,
or
DN200 HDPE smooth-wall height-adjustment shaft SDR33
EN 12201-2+A1, EN 14802

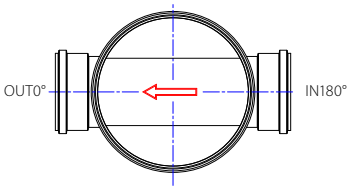
Shaft length from 0,5 to 1,0 m

Rubber sealing ring
EN 681-1, EN 13259

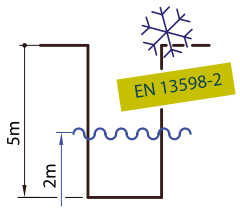


DN200 PP revision chamber straight-flow base, type CSR200.1S
EN 13598-2, EN 476

For PP DN/OD series smooth-wall pipes:
EN 13476-2, EN 1852-1, EN 14758-1



OUT°/IN180°
DN110, 160, 200 mm



Chamber construction depth:
Hmin=1,0 m and Hmax=5,0 m
Chamber installation according to:
EN 1610, CEN/TR 1046
Chamber application area code: U

EVOPIPES DN400.315 CHAMBER SYSTEM

SEWER STRAIGHT-FLOW CHAMBER CSS400.315 AND BRANCH CHAMBER CSB400.315

❄ - can be used for construction in cold climate

U - intended for construction in subsoil outside building constructions

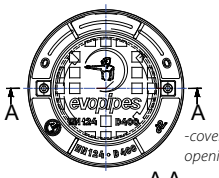
Note:
Construction work related to chamber cover and upper part of chamber shall be performed in accordance with road or territory manager's issued technical regulations and sewer system operator (water management service provider's) requirements.

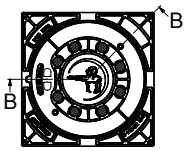
CSS400.315.D400 and CSB400.315.D400

Construction class D400 (400kN=40t) application according to class - 2nd and 4th group

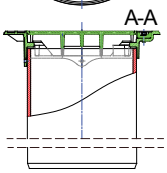
DN315 round cast iron chamber cover (frame with cover):
- opening: Ø273,5 mm;
- weight: 19,1 kg
- EN 124-2.

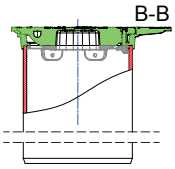
385x385 square cast iron chamber cover (frame with cover):
- opening: Ø290 mm;
- weight: 22 kg;
- EN 124-2.



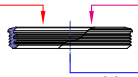


-covers without ventilation openings





DN315 PP ≥SN4 telescopic pipe
EN 13476-2, EN 14802
or
DN315 HDPE SDR33 telescopic pipe
EN 12201-2+A1, EN 14802
Telescopic pipe length 0,6 m

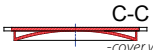


DN400/315 rubber cuff
EN 681-1, EN 13259

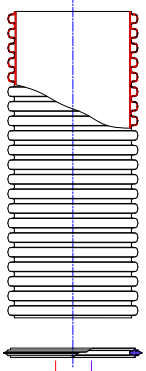
CSS400 and CSB400

Alternative solution intended for construction in places outside traffic load impact zones, for example, in green areas

DN 400 round PP cover:
- weight: 0,815 kg;
- EN 13476-3, EN 124-6.



-cover without ventilation openings

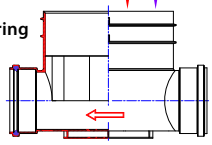


DN400 PP corrugated double-wall B type height-adjustable shaft with smooth inner surface
EN 13476-3, EN 14802

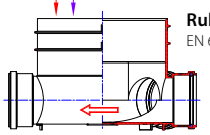
Shaft length from 0,5 to 4,5 m

DN400 rubber sealing ring
EN 681-1, EN 13259

Rubber sealing ring
EN 681-1, EN 13259

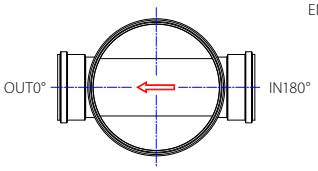


For PP DN/OD series smooth-wall pipes: EN 13476-2, EN 1852-1, EN 14758-1



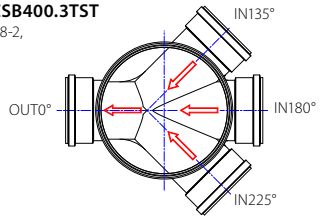
Rubber sealing ring
EN 681-1, EN 13259

DN400 PP straight-flow chamber base, type CSS400.1S
EN 13598-2,
EN 476



OUT0°/IN180°
DN110, 160, 200, 250, 315 mm

DN400 PP chamber branch base, type CSB400.3TST
EN 13598-2,
EN 476



OUT0°/IN135°/IN180°/IN225°
DN110, 160, 200, 250, 315 mm

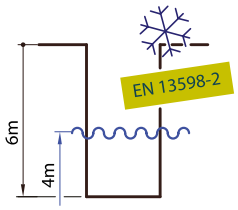
EVOPIPES ID600 CHAMBER SYSTEM

SEWER ACCESS CHAMBER CSL ID600

❄ - can be used for construction in cold climate

U - intended for construction in subsoil outside building constructions

Note:
Construction work related to chamber cover and upper part of chamber shall be performed in accordance with road or territory manager's issued technical regulations and sewer system operator (water management service provider's) requirements.



Chamber construction depth:
Hmin=1,4 m and Hmax=6 m
Chamber installation according to:
EN 1610, CEN/TR 1046
Chamber application area code: U

CSL ID600.OD500.D400

Construction class D400 (400kN=40t)
Application according to class - 2nd and 4th group

DN500 round cast iron chamber cover (frame with cover):
- opening: Ø452 mm;
- weight: 40kg;
- EN 124-2;
- cover without ventilation openings.

CSL ID600.D400

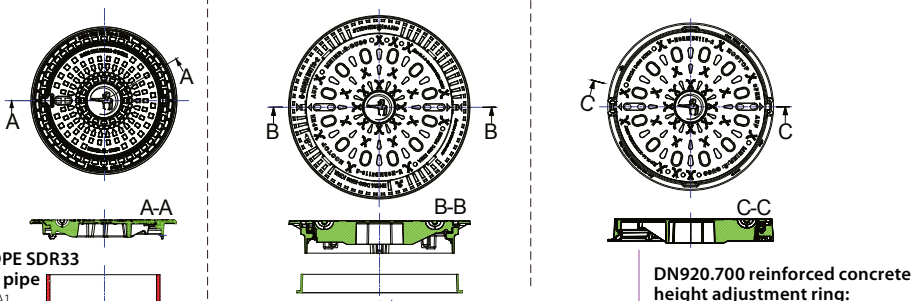
Construction class D400 (400kN=40t) Application according to class - 2nd and 4th group

DN700 self-leveling type cast iron chamber cover (frame with cover):
- opening: Ø610 mm;
- weight: 87kg;
- h=150 mm;
- EN 124-2, RAL-GZ 692;
- cover without ventilation openings.

** At request chamber cover is available with ventilation openings.*

DN760 stationary type cast iron chamber cover (frame with cover):
- opening: Ø610 mm;
- weight: 65,5 kg;
- h=110 mm;
- EN 124-2, RAL-GZ 692;
- cover without ventilation openings.

** At request chamber cover is available with ventilation openings.*



DN500 HDPE SDR33 telescopic pipe
EN 12201-2+A1, EN 14802

Telescopic pipe lenght 0,75m

ID600/OD500 rubber cuff
EN 681-1, EN 13259

DN700 cast iron shell ring adapter
- weight: 12,82kg;
- h=85 mm;
- EN 124-2, RAL-GZ-692.

DN920.700 reinforced concrete height adjustment ring:
- h=80 mm (adjustment height 60 mm);
- EN 206, EN 1917 and EN 1917/AC

** installed if necessary. No more than 4 pieces can be stacked.*

DN1060.700 reinforced concrete support ring for load distribution
- h=160 mm;
- EN 206, EN 1917 and EN 1917/AC

ID600 PP corrugated double-wall type B height-adjustment shaft with smooth inner surface
EN 13476-3, EN 14802

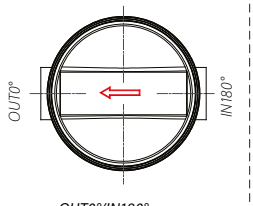
Shaft length from 0,5 to 4,5 m

ID600 rubber sealing ring, EN 681-1, EN 13259

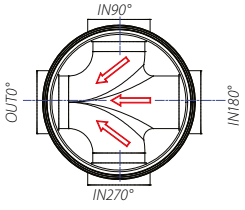
Adapter for ID/OD smooth wall pipe connection
EN 13476-2, EN 1852-1, EN 14758-1

D600 PP straight-flow chamber base, type CSL ID600.1S
EN 13598-2, EN 476

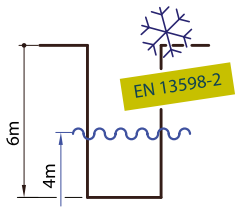
ID600 PP chamber branch base, type CSL ID600.3TST
EN 13598-2, EN 476



OUT0°/IN180°
DN/ID 150, 200, 250, 310 mm
DN/OD 160, 200, 250, 315 mm



OUT0°/IN90°/IN180°/IN270°
DN/ID 150, 200, 250, 310 mm
DN/OD 160, 200, 250, 315 mm



Chamber construction depth:
Hmin=1,4 m and Hmax=6,0 m
Chamber installation according to:
EN 1610, CEN/TR 1046
Chamber application area code: U

EVOPIPES ID800.600 CHAMBER SYSTEM

SEWER ACCESS CHAMBER CSL ID800.600

❄ - can be used for construction in cold climate
U - intended for construction in subsoil outside building constructions

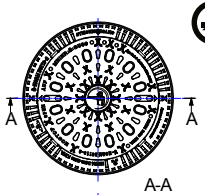
Note:
Construction work related to chamber cover and upper part of chamber shall be performed in accordance with road or territory manager's issued technical regulations and sewer system operator (water management service provider's) requirements.

CSL ID800.600.D400

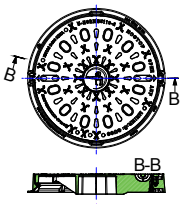
Construction class D400 (400kN=40t) application according to class- 2nd and 4th group

DN700 self-leveling type cast iron chamber cover (frame with cover):
- opening: Ø610 mm, h=150 mm;
- weight: 87 kg;
- EN 124-2, RAL-GZ 692;
- cover without ventilation openings.

**At request chamber cover is available with ventilation openings.*



DN760 stationary type cast iron chamber cover (frame with cover):
- opening: Ø610 mm, h=110 mm;
- weight: 65.5 kg;
- h=110 mm;
- EN 124-2, RAL-GZ 692;
- cover without ventilation openings.



**At request chamber cover is available with ventilation openings*

DN700 cast iron shell ring adapter:
- h=85 mm;
- weight: 12,82 kg;
- EN 124-2, RAL-GZ-692.

DN920.700 reinforced concrete height adjustment ring:
h=80mm (adjustment height 60mm), EN 206, EN 1917 and EN 1917/AC
** installed if necessary. No more than 4 pieces can be stacked.*

DN1060/700 reinforced concrete support ring for load distribution:
h=160 mm, EN 206, EN 1917 and EN 1917/AC

ID800.600 PP eccentric cone with integrated stationary ladder
Eccentric cone height: 280-580 mm
EN 14802

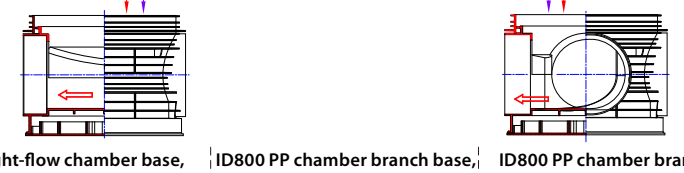
Integrated stationary ladder
EN 13101, EN 14396

ID800 rubber sealing ring
EN 681-1, EN 13259

ID800 PP ring type regulation shaft with integrated stationary ladder
EN 14802

Shaft ring height:
- 250 mm;
- 500 mm;
- 600 mm;
- 1000 mm.

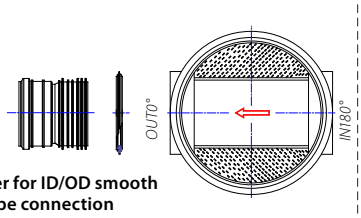
ID800 rubber sealing ring
EN 681-1, EN 13259



ID800 PP straight-flow chamber base, type CSL ID800.1S
EN 13598-2, EN 476

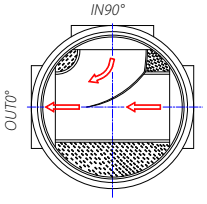
ID800 PP chamber branch base, type CSL ID800.2ST
EN 13598-2, EN 476

ID800 PP chamber branch base, type CSL ID800.3TST
EN 13598-2, EN 476

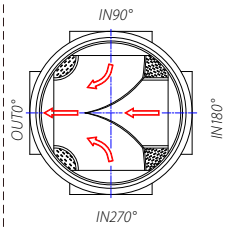


Adapter for ID/OD smooth wall pipe connection
EN 13476-2,
EN 1852-1,
EN 14758-1

OUT0°/IN180°
DN110, 160, 200, 250, 315, 400mm



OUT0°/ IN90° /IN180°
DN110, 160, 200, 250, 315, 400mm



OUT0°/IN90°/IN180°/IN270°
DN110, 160, 200, 250, 315, 400 mm

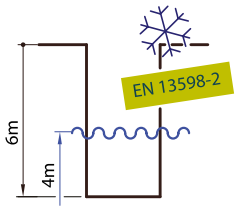
EVOPIPES DN1000.625 CHAMBER SYSTEM

SEWER ACCESS CHAMBER CSL1000.625

❄ - can be used for construction in cold climate

U - intended for construction in subsoil outside building constructions

Note:
Construction work related to chamber cover and upper part of chamber shall be performed in accordance with road or territory manager's issued technical regulations and sewer system operator (water management service provider's) requirements.



Chamber construction depth:
Hmin=1,25 m and Hmax=6 m
Chamber installation according to:
EN 1610, CEN/TR 1046
Chamber application area code: U

CSL1000.625.D400

Construction class D400 (400kN=40t), application according to class - 2nd and 4th group

DN700 self-leveling type cast iron chamber cover (frame with cover):
- opening: Ø610 mm, h=150 mm;
- weight: 87 kg;
- EN 124-2, RAL-GZ 692;
- cover without ventilation openings.

DN760 stationary type cast iron chamber cover (frame with cover):
- opening: Ø610 mm, h=150 mm;
- weight: 87 kg;
- EN 124-2, RAL-GZ 692;
- cover without ventilation openings.

DN700 cast iron shell ring adapter:
h=85 mm, weight 12.82 kg
EN 124-2, RAL-GZ-692

DN920.700 reinforced concrete height adjustment ring:
h=80 mm (adjustment height 60mm),
EN 206, EN 1917 and EN 1917/AC
** installed if necessary. No more than 4 pieces can be stacked.*

DN1060.700 reinforced concrete support ring for load distribution:
h=160 mm,
EN 206, EN 1917
and EN 1917/AC

DN1000.625 PP eccentric cone with integrated stationary ladder
Eccentric cone height: 500-750 mm
EN 14802

DN1000 rubber sealing ring
EN 681-1, EN 13259

DN1000 PP ring type regulation shaft with stationary ladder
EN 14802

Shaft ring height:
- 250 mm;
- 500 mm;
- 750 mm;
- 1000 mm.

DN1000 rubber sealing ring
EN 681-1, EN 13259

Integrated stationary ladder
EN 13101, EN 14396

Rubber sealing ring
EN 681-1, EN 13259
For PP DN/OD series smooth-wall pipes EN 13476-2, EN 1852-1, EN 14758-1

DN1000 PP straight-flow chamber base, type CSL1000.1
EN 13598-2, EN 476

OUT0°/IN180°
DN160, 200, 250, 315, 400 mm

DN1000 PP chamber branch base, type CSL1000.3TST
EN 13598-2, EN 476

OUT0°/IN90°/IN180°/IN270°
DN200, 250, 315mm

OUT0°/IN120°/IN180°/IN240°
DN200, 250, 315mm

DN1000 PP chamber base, type CSL1000.2ST
EN 13598-2, EN 476

OUT0°/IN90°/IN270°
DN200 mm,
DN250 mm,
DN315 mm.

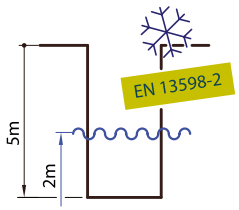
OUT0°/IN90°/IN180°
DN160 mm,
DN200 mm,
DN250 mm,
DN315 mm.

OUT0°/IN180°/IN270°
DN160 mm,
DN200 mm,
DN250 mm,
DN315 mm.

DN1000 PP chamber base, type CSL1000.1T
EN 13598-2, EN 476

OUT0°/IN(L)°
DN160, 200, 250, 315, 400mm

OUT0°/IN(R)°
DN160, 200, 250, 315, 400mm



Chamber construction depth:
Hmin=1,0 m and Hmax=5,0 m
Chamber installation according to:
EN 1610, CEN/TR 1046
Chamber application area code: U

EVOPIPES DN625 ENERGY-ABSORBING CHAMBER SYSTEM

ENERGY ABSORBING CHAMBER ECC 625

❄ - can be used for construction in cold climate

U - intended for construction in subsoil outside building constructions

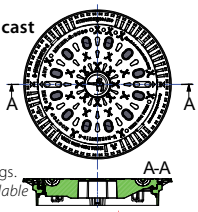
Note:
Construction work related to chamber cover and upper part of chamber shall be performed in accordance with road or territory manager's issued technical regulations and sewer system operator (water management service provider's) requirements.

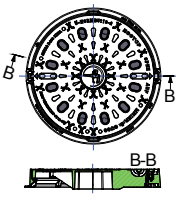
ECC 625.D400

Construction class D400 (400kN=40t), application according to class - 2nd and 4th group

DN700 self-leveling type cast iron chamber cover (frame with cover):
- opening: Ø610mm;
- weight: 87,5 kg;
- h=150 mm;
- EN 124-2, RAL-GZ 692;
- cover with ventilation openings.

**At request chamber cover is available without ventilation openings.*





DN760 stationary type cast iron chamber cover (frame with cover):
- opening: Ø610mm;
- weight: 65,5 kg;
- h=110 mm;
- EN 124-2, RAL-GZ 692;
- cover with ventilation openings.

**At request chamber cover is available without ventilation openings.*

DN700 cast iron shell ring adapter:
- h=85 mm;
- weight: 12,82 kg;
- EN 124-2, RAL-GZ-692.

DN920.700 reinforced concrete height adjustment ring:
- h=80 mm (adjustment height 60mm);
- EN 206, EN 1917 and EN 1917/AC.

**installed if necessary. No more than 4 pieces can be stacked.*

DN1060.700 reinforced concrete support ring for load distribution
- h=160 mm;
- EN 206, EN 1917 and EN 1917/AC.

DN625 PE ring type regulation shaft
- EN 14802;
- Shaft ring height: 100- 400 mm;
  300- 600 mm;
  600- 900 mm.

DN625 rubber sealing ring
EN 681-1, EN 13259

DN600 sewer air odour filter for cover (opening) with integrated activated carbon cassette (eliminates undesirable sewer odour)
- for openings Ø595÷645 mm;
- h=220mm, ATV-DVWK-A 157.

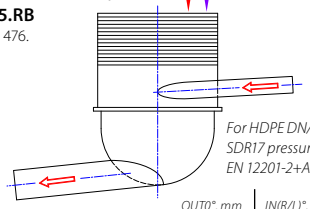
** installed in chamber cover frame assembly (if necessary).*

DN600 sewer odour filter characteristics:
- Sewer air odour filter frame is made from stainless steel and integrated activated carbon cassette frame from PE material.
Activated carbon characteristics:
- One gram of activated carbon internal surface is 700 ÷1200 m^2;
- Activated carbon structure consists of micropores (<1 nm), mesopores (1÷25 nm) and macropores (approx., 25 nm).

Sewer odour filter with integrated activated carbon cassette eliminates (activated carbon surface absorbs) the following gas substances:

Gas substance	Size, mm	Chemical property
C_4H_{10} (Butane)	0.41	Non-polar
C_6H_6 (Benzol)	0.67	Non-polar
H_2S (Hydrogen sulphide)	0.36	Polar
NH_3 (Ammonia)	0.38	Polar

DN625 PE tangential energy absorbing chamber base, type ECC625.RB
EN 13598-2, EN 476.



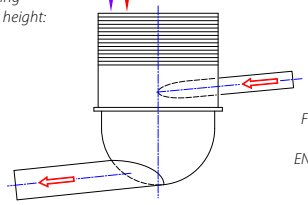
For HDPE DN/OD series SDR17 pressure pipes, EN 12201-2+A1, PAS 1075

For PP DN/OD series smooth-wall pipes EN 13476-2, EN 1852-1, EN 14758-1

OUT0°, mm	IN(R/L)°, mm
DN160	DN50, 63, 75, 90, 110
DN200	DN125, 140, 160

Energy absorbing chamber base height: 900 mm

DN625 PE tangential energy absorbing chamber base, type ECC625.RB
EN 13598-2, EN 476

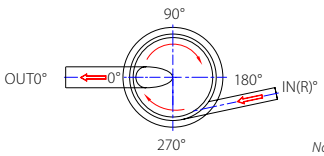


For HDPE DN/OD series SDR17 pressure pipes, EN 12201-2+A1, PAS 1075

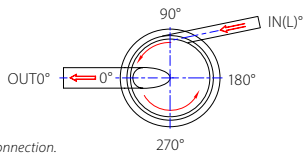
For PP DN/OD series smooth-wall pipes EN 13476-2, EN 1852-1, EN 14758-1

BY DEFAULT (standard construction)
Sewer inlet flow direction is clockwise IN(R)°

BY SPECIFICATION (on demand)
Sewer inlet flow direction is counterclockwise IN(L)°



Intended for utility sewerage and rainwater pressure systems:
- SDR17, PE80 class EN 12201-2+A1 pipes with nominal pressure class PN8 bar;
- SDR17, PE100 class EN 12201-2+A1 pipes with nominal pressure class PN10 bar;
- SDR17, PE100-RC class EN 12201-2+A1, PAS 1075 pipe types- 1, 2, 3 with nominal pressure class PN10 bar.



Note: On demand it is possible to manufacture inlet "IN(R/L)°" with flange connection.

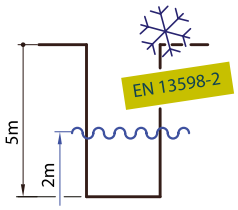
EVOPIPES DN800.625 ENERGY-ABSORBING CHAMBER SYSTEM

ENERGY ABSORBING CHAMBER ECC 800.625

❄ - can be used for construction in cold climate

U - intended for construction in subsoil outside building constructions

Note:
Construction work related to chamber cover and upper part of chamber shall be performed in accordance with road or territory manager's issued technical regulations and sewer system operator (water management service provider's) requirements.



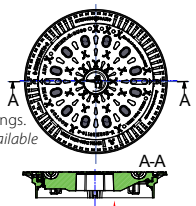
Chamber construction depth:
Hmin=1,25 m and Hmax=5,0 m
Chamber installation according to:
EN 1610, CEN/TR 1046
Chamber application area code: U

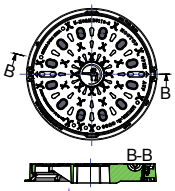
ECC 800.625.D400

Construction class D400 (400kN=40t), application according to class - 2nd and 4th group

DN700 self-leveling type cast iron chamber cover (frame with cover):
- opening: Ø610 mm;
- weight: 87,5 kg;
- h=150 mm;
- EN 124-2, RAL-GZ 692;
- cover with ventilation openings.

**At request chamber cover is available without ventilation openings.*





DN760 stationary type cast iron chamber cover (frame with cover):
- opening: Ø610 mm;
- weight: 65.5 kg;
- h=110 mm;
- EN 124-2, RAL-GZ 692;
- cover with ventilation openings.

**At request chamber cover is available without ventilation openings.*

DN700 cast iron shell ring adapter:
- h=85 mm;
- weight: 12,82 kg;
- EN 124-2, RAL-GZ-692.

DN920.700 reinforced concrete height adjustment ring:
- h=80 mm (adjustment height 60mm),
- EN 206, EN 1917 and EN 1917/AC

**installed if necessary. No more than 4 pieces can be stacked.*

DN1060.700 reinforced concrete support ring for load distribution
- h=160 mm;
- EN 206, EN 1917 and EN 1917/AC.

DN800.625 PE eccentric cone
- EN 14802
- Eccentric cone height: 500-750 mm; 750-1000 mm; 000-1250 mm; 1250-1500 mm.

DN800 rubber sealing ring
- EN 681-1, EN 13259

DN800 PE ring type regulation shaft
- EN 14802;
- Shaft ring height: 500 mm or 1000 mm.

DN800 rubber sealing ring
EN 681-1, EN 13259

DN600 sewer air odour filter for cover (opening) with integrated activated carbon cassette (eliminates undesirable sewer odour)
- for openings no Ø595÷645 mm;
- h=220 mm, ATV-DVWK-A 157.

**installed in chamber cover frame assembly (if necessary).*

DN600 sewer odour filter characteristics:
- *Sewer air odour filter frame is made from stainless steel and integrated activated carbon cassette frame from PE material.*

Activated carbon characteristics:
- *One gram of activated carbon internal surface is 700 ÷1200 m^2;*
- *Activated carbon structure consists of micropores (<1 nm), mesopores (1÷25 nm) and macropores (approx., 25 nm).*

Sewer odour filter with integrated activated carbon cassette eliminates (activated carbon surface absorbs) the following gas substances:

Gas substance	Size, mm	Chemical property
C_4H_{10} (Butane)	0.41	Non-polar
C_6H_6 (Benzol)	0.67	Non-polar
H_2S (Hydrogen sulfide)	0.36	Polar
NH_3 (Ammonia)	0.38	Polar

DN800 PE tangential energy absorbing chamber base type ECC800.RB
EN 13598-2, EN 476

Chamber base height:
- 650 mm;
- 800 mm.

For HDPE DN/OD series SDR17 pressure pipes, EN12201-2+A1, PAS 1075

For PP DN/OD series smooth-wall pipes: EN 13476-2, EN 1852-1, EN 14758-1

Chamber base height:
- 650 mm;
- 800 mm.

DN800 PE tangential energy absorbing chamber base type ECC800.RB
EN 13598-2, EN 476

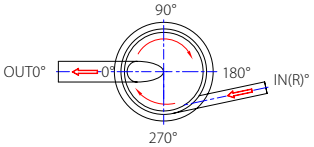
For HDPE DN/OD series SDR17 pressure pipes, EN12201-2+A1, PAS 1075

For PP DN/OD series smooth-wall pipes: EN 13476-2, EN 1852-1, EN 14758-1

OUT0°, mm	IN(R/L)°, mm
DN160	DN110
DN200	DN125, 140, 160
DN250	DN180, 200

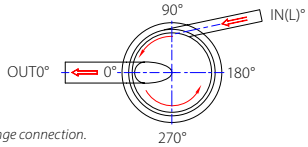
BY DEFAULT (standard construction)
Sewer inlet flow direction is clockwise IN(R)°

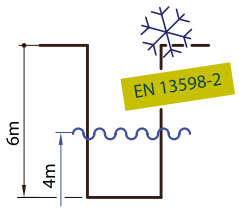
BY SPECIFICATION (on demand)
Sewer inlet flow direction is counterclockwise IN(L)°



Intended for utility sewerage and rainwater pressure systems:
- *SDR17, PE80 class EN 12201-2+A1 pipes with nominal pressure class PN8 bar;*
- *SDR17, PE100 class EN 12201-2+A1 pipes with nominal pressure class PN10 bar;*
- *DR17, PE100-RC class EN 12201-2+A1, PAS 1075 pipe types- 1, 2, 3 with nominal pressure class PN10 bar.*

Note: On demand it is possible to manufacture inlet "IN(R/L)°" with flange connection.





Chamber construction depth:
Hmin=1,2m and Hmax=6,0 m
Chamber installation according to:
EN 1610, CEN/TR 1046
Chamber application area code: U

EVOPIPES DN1000.625 ENERGY-ABSORBING CHAMBER SYSTEM

ENERGY ABSORBING CHAMBER ECC 1000.625

❄ - can be used for construction in cold climate
U - intended for construction in subsoil outside building constructions

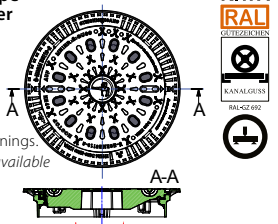
Note:
Construction work related to chamber cover and upper part of chamber shall be performed in accordance with road or territory manager's issued technical regulations and sewer system operator (water management service provider's) requirements.

ECC 1000.625.D400

Construction class D400 (400kN=40t), application according to class - 2nd and 4th group

DN700 self-leveling type cast iron chamber cover (frame with cover):
- opening: Ø610 mm;
- weight: 87,5 kg;
- h=150 mm;
- EN 124-2, RAL-GZ 692;
- cover with ventilation openings.

**At request chamber cover is available without ventilation openings.*



DN760 stationary type cast iron chamber cover (frame with cover):
- opening: Ø610 mm;
- weight: 65,5 kg;
- h=110 mm;
- EN 124-2, RAL-GZ 692;
- cover with ventilation openings.

**At request chamber cover is available without ventilation openings.*

DN600 sewer air odour filter for cover (opening) with integrated activated carbon cassette (eliminates undesirable sewer odour)
- for openings no Ø595÷645 mm;
- h=220mm, ATV-DVWK-A 157;
- installed in chamber cover frame assembly (if necessary).

DN600 sewer odour filter characteristics:
- *Sewer air odour filter frame is made from stainless steel and integrated activated carbon cassette frame from PE material.*

Activated carbon characteristics:
- *One gram of activated carbon internal surface is 700 ÷1200 m^2;*
- *Activated carbon structure consists of micropores (<1 nm), mesopores (1÷25 nm) and macropores (approx., 25 nm).*

Sewer odour filter with integrated activated carbon cassette eliminates (activated carbon surface absorbs) the following gas substances:

Gas substance	Size, mm	Chemical property
C_4H_{10} (Butane)	0.41	Non-polar
C_6H_6 (Benzol)	0.67	Non-polar
H_2S (Hydrogen sulfide)	0.36	Polar
NH_3 (Ammonia)	0.38	Polar

DN700 cast iron shell ring adapter:
- h=85mm;
- weight: 12,82 kg;
- EN 124-2, RAL-GZ-692.

DN920.700 reinforced concrete height adjustment ring:
- h=80mm (adjustment height 60 mm);
- EN 206, EN 1917 and EN 1917/AC.

** installed if necessary. No more than 4 pieces can be stacked.*

DN1060.700 reinforced concrete support ring for load distribution
- h=160mm,
- EN 206, EN 1917 and EN 1917/AC

DN1000.625 PE eccentric cone
- EN 14802
- ccentric cone height: 500-750 mm
  750- 1000 mm

DN1000 rubber sealing ring
EN 681-1, EN 13259

DN1000 PE ring type regulation shaft
EN 14802

Shaft ring height:
- 500mm
- 1000mm

For HDPE DN/OD SDR17 pressure pipes, EN 12201-2+A1, PAS 1075

DN1000 PE ring type regulation shaft
EN 14802

Shaft ring height:
- 500mm
- 1000mm

For HDPE DN/OD series SDR17 pressure pipes, EN 12201-2+A1, PAS 1075

BY DEFAULT (standard construction) Sewer inlet flow direction is clockwise IN(R)°

BY SPECIFICATION (on demand) Sewer inlet flow direction is counterclockwise IN(L)°

DN1000 rubber sealing ring
EN 681-1, EN 13259

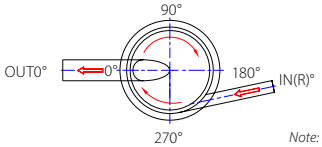
DN1000 PE tangential energy absorbing chamber base type ECC1000.RB
EN 13598-2, EN 476

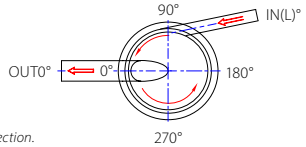
Chamber base height:
- 700 mm
- 1000 mm

OUT0°, mm	IN(R/L)°, mm
DN200	DN160
DN250	DN180, 200
DN315	DN225, 250, 280
DN400	DN315, 355

For PP DN/OD series smooth-wall pipes EN 13476-2, EN 1852-1, EN 14758-1

Intended for utility sewerage and rainwater pressure systems:
- SDR17, PE80 class EN 12201-2+A1 pipes with nominal pressure class PN8 bar;
- SDR17, PE100 class EN 12201-2+A1 pipes with nominal pressure class PN10 bar;
- SDR17, PE100-RC class EN 12201-2+A1, PAS 1075 pipe types- 1, 2, 3 with nominal pressure class PN10 bar.

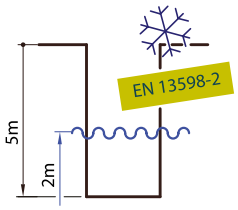




Note: On demand it is possible to manufacture inlet "IN(R/L)°" with flange connection.

EVOPIPES DN400.315 GULLY SYSTEM

RAINWATER GULLY CRS400.315 WITH SEDIMENT TRAP



Chamber construction depth:
Hmin=1,0 m and Hmax=5,0 m
Chamber installation according to:
EN 1610, CEN/TR 1046
Chamber application area code: U

❄ - can be used for construction in cold climate

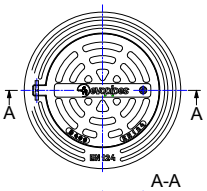
U - intended for construction in subsoil outside building constructions

Note:
Construction work related to chamber cover and upper part of chamber shall be performed in accordance with road or territory manager's issued technical regulations and sewer system operator (water management service provider's) requirements.

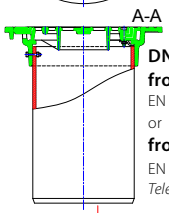
CRS400.315.D400

Construction class D400 (400kN=40t), application according to class - 2nd and 4th group

DN315 round cast iron chamber cover (frame with grate):
- opening: Ø295,4 mm;
- weight: 31,5 kg;
- EN 124-2.

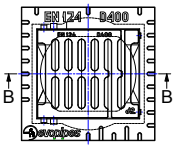


Inlet grate cross-section area: 697,45 cm²
water throughput 38% i.e. 19 l/s

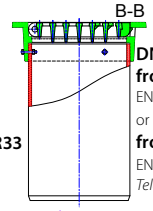


DN315 telescopic pipe from PP material ≥SN4
EN 13476-2, EN 14802
or
from HDPE material SDR33
EN 12201-2+A1, EN 14802
Telescopic pipe length 0,6 m

415x415 mm square cast iron chamber cover (frame with grate):
- opening: Ø296,7 mm;
- weight: 38,8 kg;
- EN 124-2.

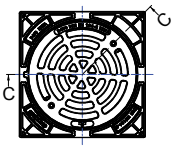


Inlet grate cross-section area: 615,75 cm²
water throughput 12% i.e. 5.6 l/s

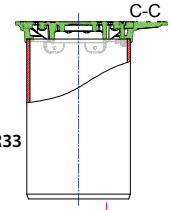


DN315 telescopic pipe from PP material ≥SN4
EN 13476-2, EN 14802
or
from HDPE material SDR33
EN 12201-2+A1, EN 14802
Telescopic pipe length 0,6 m

385x385 mm square cast iron chamber cover (frame with grate):
- opening: Ø290 mm;
- weight: 19 kg;
- EN 124-2.



Inlet grate cross-section area: 247 cm²
water throughput 35%, openning width 18 mm.
Inlet throughput at precipitation layer height:
h_n = 10 mm: 6,6 l/s;
h_n = 30 mm: 11,4 l/s;
h_n = 50 mm: 14,7 l/s.

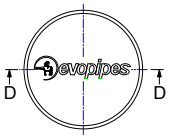


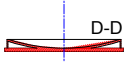
DN400/315 rubber cuff
EN 681-1, EN 13259

DN400 PP corrugated double-wall type B height adjustment shaft with smooth internal wall
EN 13476-3, EN 14802
Shaft length from 1,0 to 4,5 m

Note:
On demand sediment trap can be manufactured with specified height.

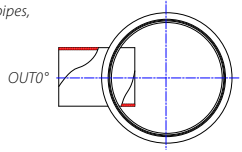
By default sediment trap height is 0,7 m, with functional volume of 67 l=67 dm³



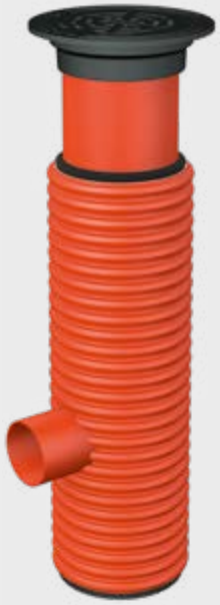


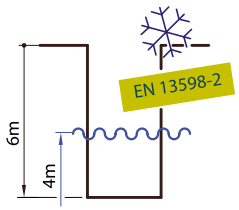
DN400 round PP gully base, type CRS400
EN 13476-3

For PP DN/OD series smooth-wall pipes, EN 13476-2, EN 1852-1, EN 14758-1



OUT0°
DN110, 160, 200, 250, 315 mm





Chamber construction depth:
Hmin=1,4 m and Hmax=6,0 m
Chamber installation according to:
EN 1610, CEN/TR 1046
Chamber application area code: U

EVOPIPES ID600 GULLY SYSTEM

RAINWATER SEWER GULLY CRS ID600 WITH OR WITHOUT SEDIMENT TRAP

❄ - can be used for construction in cold climate

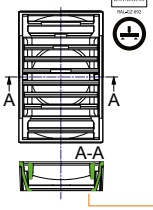
U - intended for construction in subsoil outside building constructions

Note:
Construction work related to chamber cover and upper part of chamber shall be performed in accordance with road or territory manager's issued technical regulations and sewer system operator (water management service provider's) requirements.

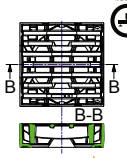
CRS ID600.D400

Construction class D400 (400kN=40t), application according to class - 2nd and 4th group

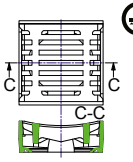
For construction alongside road curb 518x302 rectangle cast iron chamber cover (frame with grate)
- opening: Ø350 mm;
- h=150 mm;
- weight: 43 kg;
- EN 124-2; RAL-GZ 692;
- B_R=26 mm;
- A_R=586 cm², at
  h_n=10mm, Q_R=15,6 l/s
  h_n=50mm, Q_R=34,9 l/s



For construction alongside road curb 500x500 square cast iron chamber cover (frame with grate)
- opening: Ø350 mm;
- h=140 mm;
- weight: 74 kg; DIN 1229;
- EN 124-2; RAL-GZ 692
- B_R=31 mm;
- A_R=949 cm², at
  h_n=10mm, Q_R=25 l/s
  h_n=20mm, Q_R=35 l/s
  h_n=30mm, Q_R=43 l/s
  h_n=50mm, Q_R=56 l/s



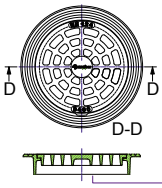
With reinforced concrete gutter 500x500 square cast iron chamber cover (frame with grate)
- opening: Ø350 mm;
- h=185/160 mm;
- weight: 121 kg; DIN 1229;
- EN 124-2; RAL-GZ 692
- B_R=30 mm;
- A_R=705 cm², at
  h_n=10mm, Q_R=18 l/s
  h_n=20mm, Q_R=26 l/s
  h_n=30mm, Q_R=32 l/s
  h_n=40mm, Q_R=40 l/s
  h_n=50mm, Q_R=41 l/s



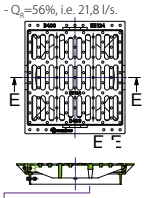
CRS ID600.OD500.D400

Construction class D400 (400kN=40t) application according to class - 2nd and 4th group

DN500 round cast iron chamber cover (frame with grate):
- opening: Ø456,7 mm;
- weight: 61,5 kg;
- AR=1385,4 cm²;
- QR=60%, i.e. 32 l/s.



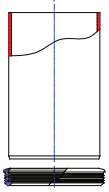
For construction alongside road curb 500x500 square cast iron chamber cover (frame with grate):
- opening: Ø480 mm;
- weight: 48kg;
- EN 124-2;
- B_R=31 mm;
- Q_R=56%, i.e. 21,8 l/s.



PE debris basket
- Ø405(320)/260 mm
- h=260 mm;
- weight: 1 kg;
- analogue DIN 4052-B1.

**installed if necessary.*

DN500 HDPE SDR33 telescopic pipe
- length 0,75 m;
- EN 12201-2+A1;
- EN 14802.

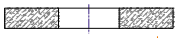


ID600 rubber cuff
EN 681-1, EN 13259

PE debris basket
- Ø405(320)/260 mm;
- h=260 mm;
- weight: 1 kg;
- analogue DIN 4052-B1.

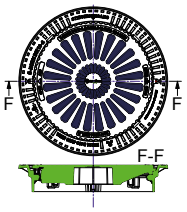
**installed if necessary.*

DN1000.360 reinforced concrete cover support
- h=1200 mm;
- EN 206, EN 1917 and EN 1917/AC



DN1000.700 reinforced concrete support ring
- h=160 mm;
- EN 206, EN 1917 and EN 1917/AC

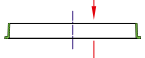
DN600 self-leveling type cast iron chamber cover (frame with grate):
- opening: Ø610 mm;
- h=150 mm;
- weight: 83,5 kg;
- EN 124-2, RAL-GZ 692;
- A_R 1028 cm², at
  h_n = 10 mm, Q_R =27 l/s;
  h_n = 20 mm, Q_R = 39 l/s;
  h_n = 30 mm, Q_R = 47 l/s;
  h_n = 40 mm, Q_R = 55 l/s;
  h_n = 50 mm, Q_R =61 l/s.



Galvanized steel debris bucket
- DN653/Ø590 mm;
- h=155/85 mm;
- weight: 8 kg;
- analogue DIN 1221.

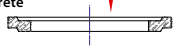
**installed if necessary.*

DN700 cast iron shell ring adapter
- h=85 mm;
- weight: 12,8 kg;
- EN 124-2, RAL-GZ-692

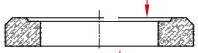


DN920.700 reinforced concrete height adjustment ring
- h=80 mm (adjustable 60 mm);
- EN 206, EN 1917 and EN 1917/AC.

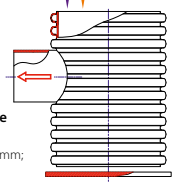
**installed if necessary. No more than 4 pieces can be stacked.*



DN1060.700 reinforced concrete support ring for load distribution
- h=160 mm;
- EN 206, EN 1917 and EN 1917/AC.

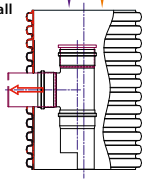


Gully base plate from PP
- Ø720 mm; h=20 mm;
- EN 13476-3.



ID600 PP corrugated double-wall type B height adjustment shaft with smooth internal wall
- EN 13476-3; EN 14802;
- length from 1,0 to 5,5 m;
- functional volume 166 l (-0,2m³);
- sediment trap height 0,6 m.

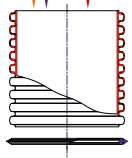
On demand sediment trap can be manufactured with specified height.



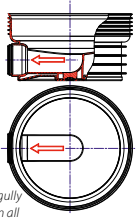
With integrated siphon.

ID600 PP corrugated double-wall type B height adjustment shaft with smooth internal wall
- EN 13476-3, EN 14802;
- height from 0,5 to 4,5 m;
- without sediment trap.

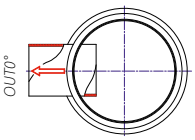
ID600 rubber sealing ring
- EN 681-1, EN 13259



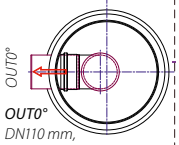
ID600 PP gully base without sediment trap type CRS ID600.1ES
- EN 13598-2, EN 476



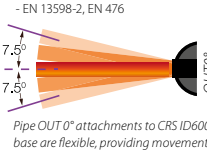
OUT0°
DN110 mm,
DN160 mm,
DN200 mm,
DN250 mm,
DN315 mm,
DN400 mm.



For PP DN/OD series smooth wall pipes:
EN 13476-2,
EN 1852-1,
EN 14758-1.



OUT0°
DN110 mm,
DN160 mm,
DN200 mm,
DN250 mm,
DN315 mm,
DN400 mm.



Pipe OUT 0° attachments to CRS ID600 gully base are flexible, providing movement in all directions ±7,5° (with maximum range 15°) Flexible coupling connection to the base facilitates and speeds up CRS ID600 gully assembly work in construction trench, as well as provides broader possibilities of its maneuvering - if changes occur during construction project.

OUT0°
DN160 mm,
DN200 mm,
DN250 mm,
DN315 mm.

Legend:
B_R - Grating inlet slot width [mm];
A_R - Grating inlet cross-section area [cm²];
h_n - Precipitation layer height [mm];
Q_R - Water throughput (through grating slots) [l/s].

DN/OD series RIGID MULTI and RIGID MONO system pipe resistance to various chemicals

ISO/TR 10358 technical report summary about EVOPIPES DN/OD series RIGID MULTI and RIGID MONO system pipe resistance to various chemicals. More detailed information, for example, regarding chemicals and their concentrate effect which is not included in the technical report summary below, can be found in ISO/TR 10358 technical report summary.

(for reference only- chemical effect and resistance characterization)

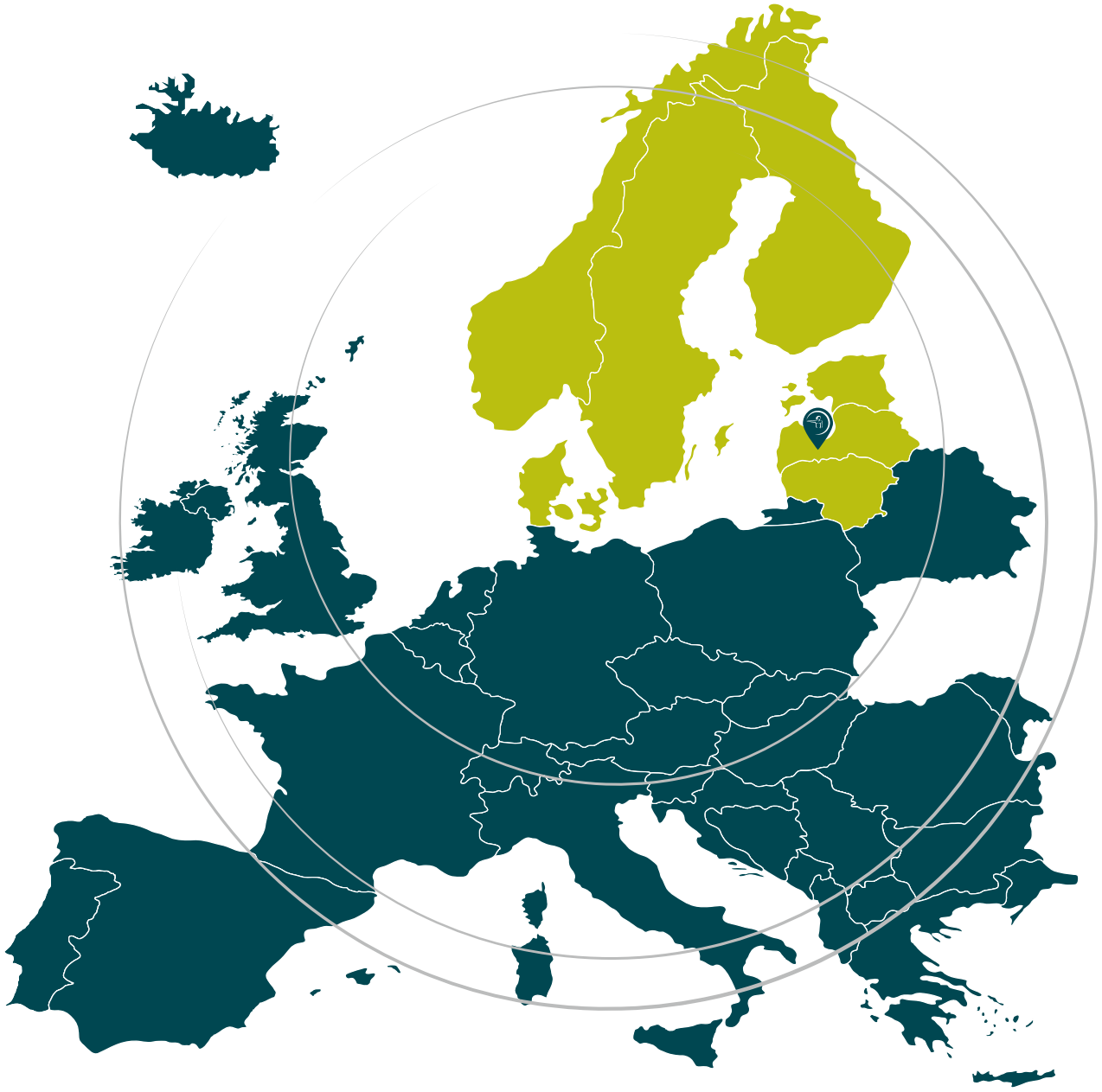
Chemical or product	Temperature	RIGID MULTI PP SN8 EN 13476-2 DN/OD: 110, 160, 200, 250, 315, 400 mm	RIGID MONO PP SN8 EN 1852-1 DN/OD: 110, 160, 200, 250, 315, 400 mm	RIGID MONO PP MD SN8 EN 14758-1 DN/OD: 110, 160, 200, 250, 315, 400mm	Chemical or product	Temperature	RIGID MULTI PP SN8 EN 13476-2 DN/OD: 110, 160, 200, 250, 315, 400 mm	RIGID MONO PP SN8 EN 1852-1 DN/OD: 110, 160, 200, 250, 315, 400 mm	RIGID MONO PP MD SN8 EN 14758-1 DN/OD: 110, 160, 200, 250, 315, 400mm
	°C	PP				°C	PP		
Acetaldehyde, in water (40%)	40	®			Glycerin, solution	60	®		
Acetic acid (<10%)	40	®			Hydrogen chloride acid, solution	40	®		
Acetic acid (10%-85%)	60	®			Hydrogen chloride acid, concentrate	60	®		
Acetic acid (85%-95%)	40	®			Hydrogen fluoride acid (40%)	20	®		
Acetic acid (>95%)	20	®			Hydrogen fluoride acid (60%)	20	®		
Acetone (little amount)	20	®			Hydrogen fluoride acid (100%)	20	®		
Ammonia, water solution (20%)	40	®			Hydrogen (100%)	60	®		
Ammonia, dry gas	60	®			Hydrogen peroxide (20%)	20	®		
Ammonium chloride (20%)	20	d			Hydrogen sulphide, dry or wet	60	®		
Ammonium fluoride (2%)	20	d			Hydrogen sulphide, solution	40	®		
Ammonium nitrate (20%)	20	d			Ketone	-	x		
Aniline (saturated solution)	60	x			Lactic acid (10%-90%)	40	®		
Arsenic orthoacid (<20%)	60	®			Methylated spirit, solution	40	®		
Beer	60	®			Mineral oil	20	®		
Benzol	20	d			Sodium chlorate, solution	20	®		
Bleach (13%)	40	®			Sodium hydroxide (<10%)	20	®		
Borax, saturated solution	60	®			Nitric acid (<30%)	40	®		
Bromine acid, solution (10%)	20	®			Nitric acid (30%-45%)	45	®		
Butane, gas	-	x			Nitric acid (50%-60%)	20	d		
Carbonic acid, dry	40	®			Nitrogen gases, dry or wet	60	d		
Carbonic acid, dry or wet	40	®			Oils and fats	60	®		
Carbon tetrachloride	20	x			Oxalic acid, solution (10%)	40	®		
Carbon disulphide	20	d			Oxalic acid, solution (concentrate)	60	®		
Caustic soda (<40%)	40	®			Oxygen	60	®		
Caustic soda (40%-60%)	60	®			Ozone	20	d		
Cement, dry	20	®			Perchloric acid (10%)	20	®		
Cement, mixture	20	®			Perchloric acid (70%)	60	d		
Chlorine, dry or wet gas	20	d			Permanganate (<6%)	20	®		
Chlorine, water solution	20	x			Gasoline	60	d		
Chlorinated hydrocarbon	-	x			Petroleum	20	®		
Chlorine sulphuric acid (100%)	20	d			Phenol (<90%)	45	d		
Chromic acid, water solution (<50%)	50	®			Orthophosphoric acid, solution (>30%)	40	®		
Chromic acid (20%)	-	d			Orthophosphoric acid, solution (>30%)	60	®		
Chlorine sulphuric acid (20%)	-	d			Potassium chloride	60	®		
Citric acid, saturated solution	60	®			Potassium nitrate	60	®		
Cresol, solution (<90%)	45	d			Propane, liquid	-	x		
Cupric sulphate, saturated solution	60	®			Salt liquid	40	®		
Cupric chloride, saturated solution	60	®			Sea water	40	®		
Diesel fuel	20	®			Sulphur dioxide (in all forms)	40	®		
Film developer	40	®			Sulphuric acid, solution (<40%)	40	®		
Dextrin (18%)	20	®			Sulphuric acid, solution (40%-80%)	60	®		
Ester	-	x			Sulphuric acid, solution (80%-90%)	40	®		
Ethanol (<40%)	40	®			Sulphuric acid, solution (90%-96%)	20	®		
Ethyl ether	20	d			Sodium chloride solution (weak)	40	®		
Butyric acid	20	d			Tartaric acid (10%)	60	®		
Butyric acid	40	®			Urine	40	®		
Fluorine chlorinated hydrocarbon	-	d			Water	60	®		
Formaldehyde, solution	30	®			Xylene (100%)	20	d		
Formic acid (<30%)	40	®			Zinc chloride, solution (all forms)	60	®		
Formic acid, concentrate	20	®			Zinc chloride, solution (weak)	60	®		

Legend:

® resistant to chemical effect
d partially resistant to chemical effect
x not resistant to chemical effect

RIGID multi & RIGID mono

Best in class - gravity sewer systems for utility sewage and rainwater



PRODUCTION AND OFFICE

SIA "EVOPIPES"
Address: Langervaldes street 2a,
Jelgava, LV-3002, Latvia
Phone: +371 630-943-00
info@evopipes.lv
www.evopipes.com

For technical support in construction and assembly, please contact EVOPIPES sales department or distribution partners.