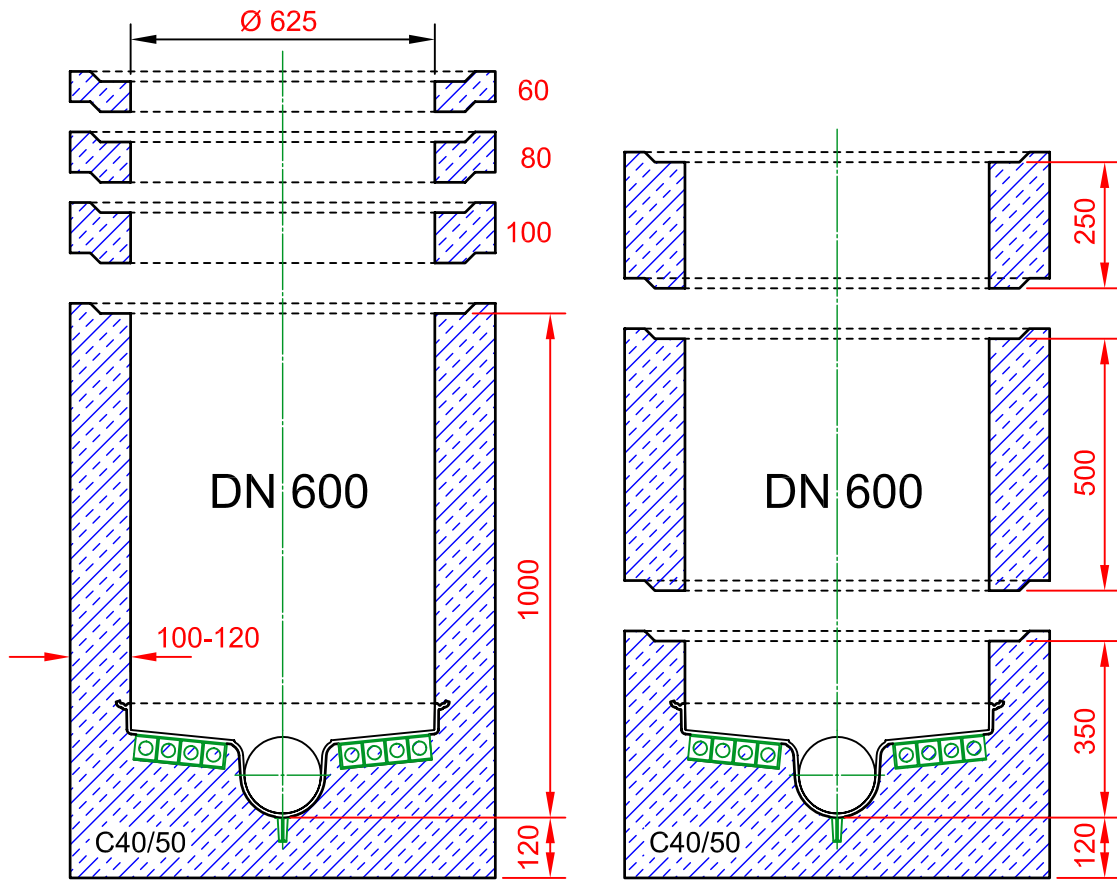
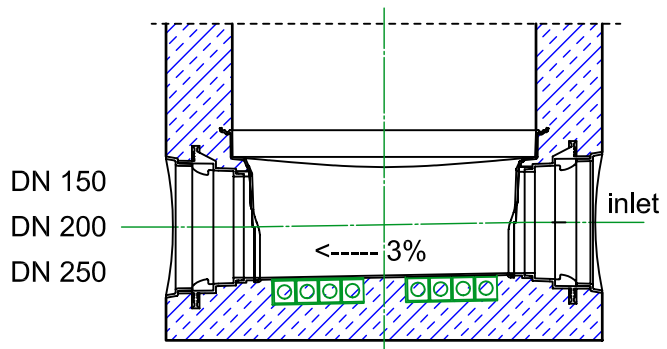


manhole rings according DIN V 4034/EN 1917



see type list for connections
 an channel drive for DN 150
 for DN 200 and DN 250 only
 type 1 (straith trough)



certification Z-42.2-332

changes possible



inspection chamber
 DN 600
 with PREDL® base liner

scale 1:15

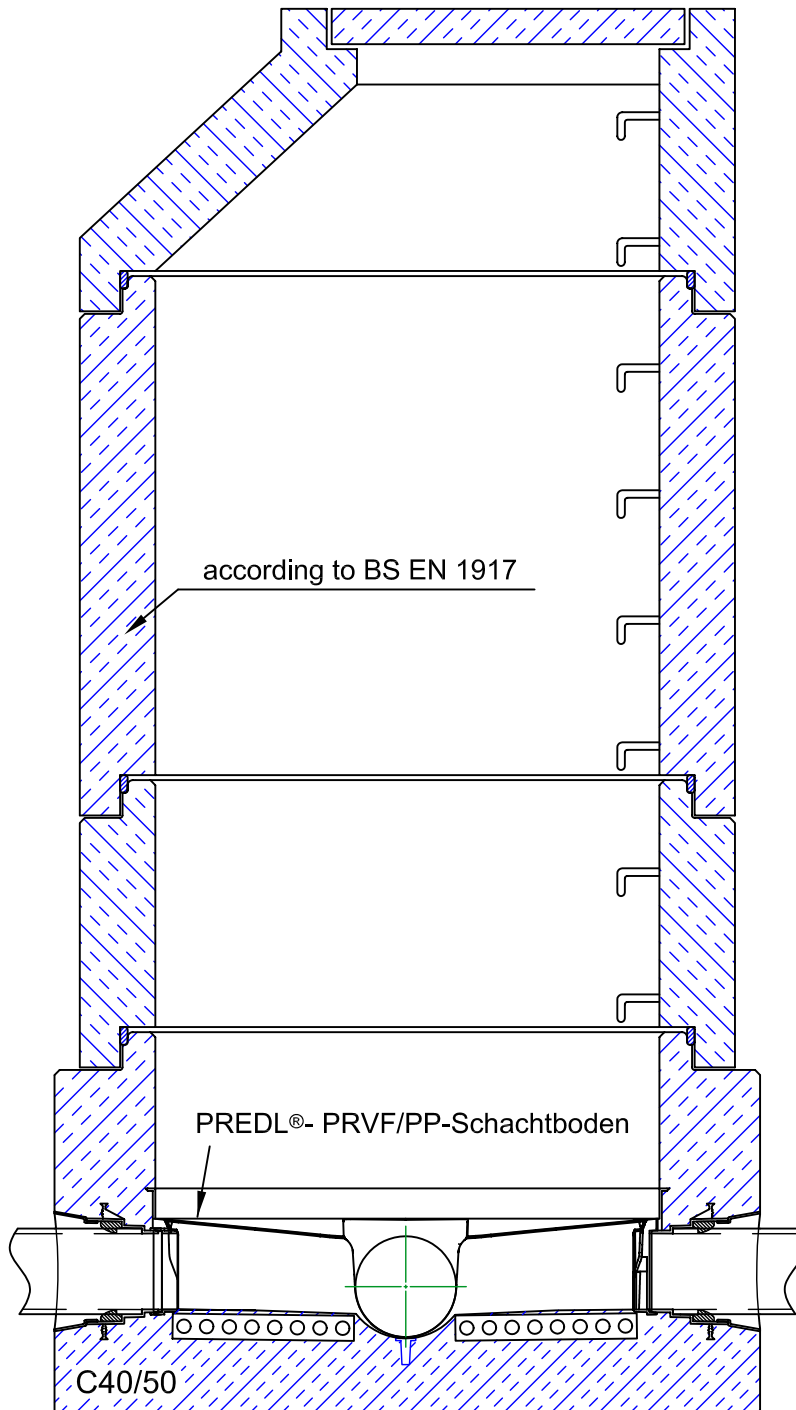
Downloads
<http://www.predl.eu>

file format
 Acrobat Reader 5.0

manhole

precast concrete conform to BS EN 1917

with PRVF/PP PREDL[®] base liner casted in factory
DN 1000/1200/1500 and 2000



concrete manhole base liner

conform to BS EN 1917
channel from DN 150 to DN 1400
adjusted to the benching height,
straight or curved

outlets and inlets

Available in any quantity and size.
Pipe connections for clay, PRGF,
ductile iron, U-PVC, various HD-PE,
fibrocement, Ultra-Rib, concrete BS
EN 1916 and more.

slope in the channel

standard construction:
from DN 150 to DN 400 = 10‰
DN 500 \geq 5 ‰, or without slope on
request.
on demand:
slope until 500 ‰
bell inclination adapted to the slope

diameter change

adjusted to the channel or to the
benching

inside and outside drops

Can be fitted on the inside as well
as on the outside of the manhole rings.

concrete rings

precast concrete elements conform
to the BS EN 1917

gaskets

gaskets according to the BS EN 1917

steps

steps, ladder, ...

certification Z-42.2-294

changes possible



manhole
conform to BS EN 1917
with PREDL[®] base liner

scale 1:15

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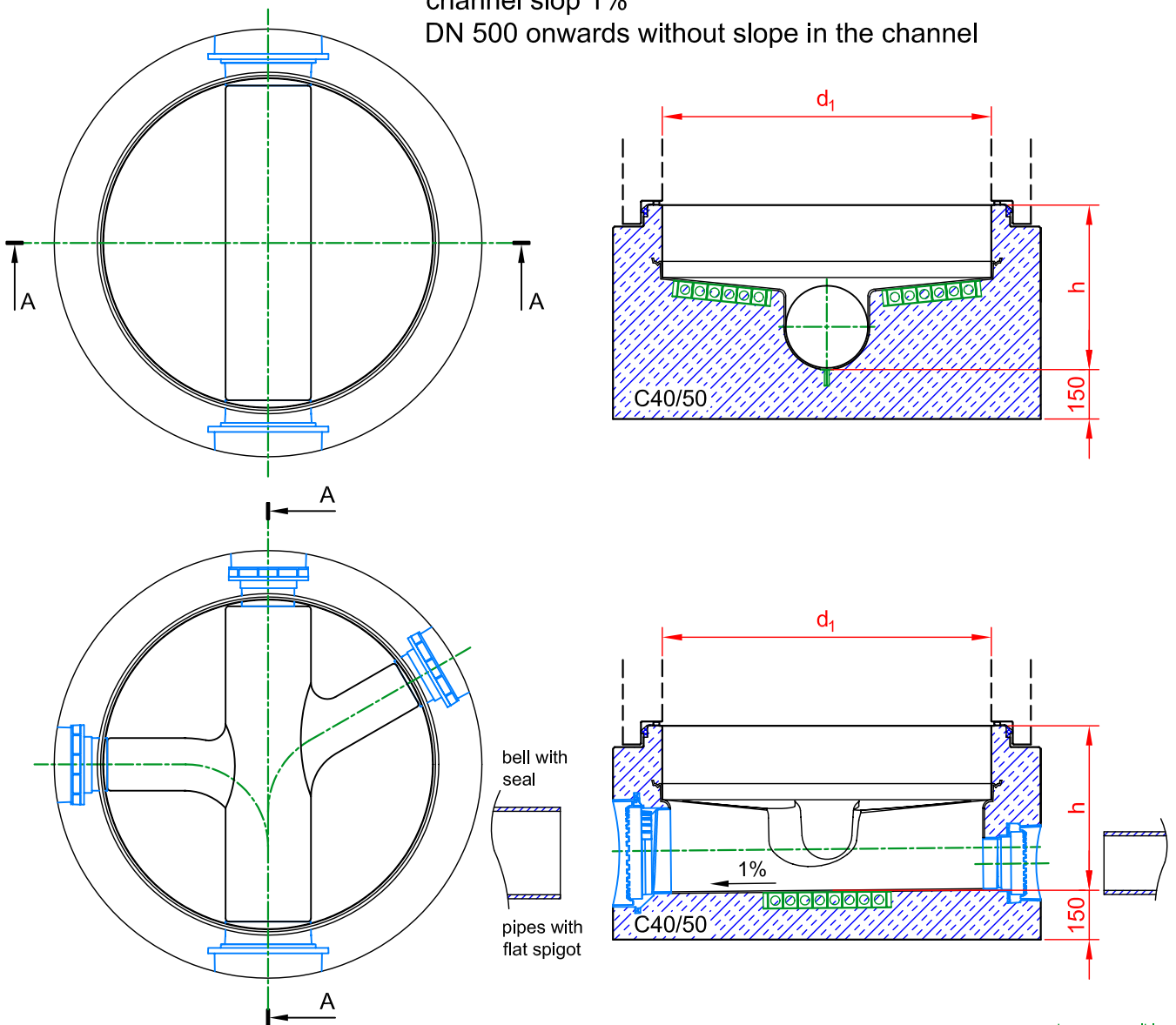
file format
Acrobat Reader 5.0

PREDL[®] manhole base according to DIN V 4034/EN 1917

out of concrete with step, channel and connection bell
all raw materials made out of sewage water resistant plastics

PREDL[®] base liner

all inlet branches leveled to benching top
smaller inlet branch in the main channel
channel slop 1%
DN 500 onwards without slope in the channel



PREDL[®] base liner
standard design

scale 1:20

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PREDL[®] manhole base according to DIN V 4034/EN 1917

out of concrete with step, channel and connection bell
all raw materials made out of sewage water resistant plastics

PREDL[®] base liner

extra charge S0/S1/S2

(adjusting the bell vertically)

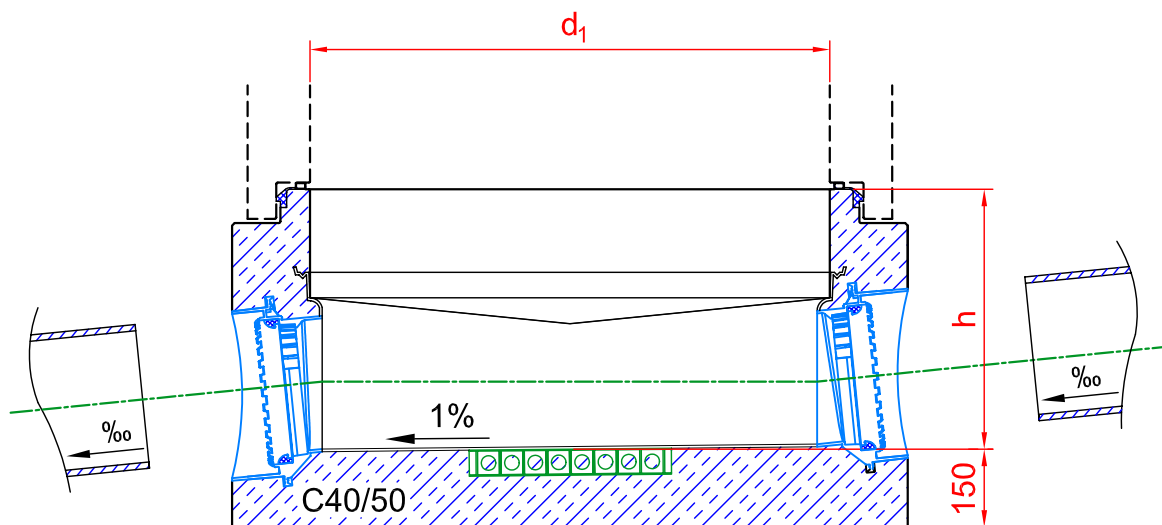
axis of bell of the incoming branches tilted according to demand

S0 bell diameter Ø150 - Ø200

S1 bell diameter Ø250 - Ø300

S2 bell diameter Ø350 - Ø800

PP base liner: maximum $\pm 5^\circ$ possible
special constructions on demand



changes possible



PREDL[®] base liner
special construction

scale 1:15

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PREDL[®] manhole base according to DIN V 4034/EN 1917

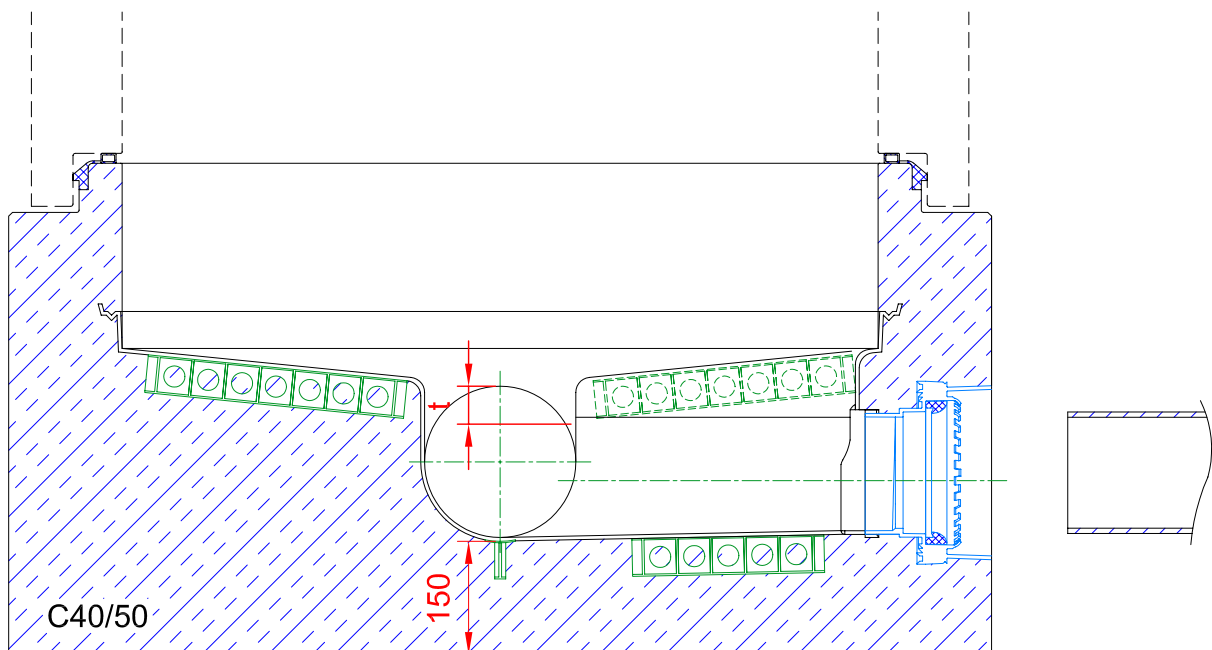
out of concrete with step, channel and connection bell
all raw materials made out of sewage water resistant plastics

PREDL[®] base liner

extra charge S3

incoming branch lower than benching top

S3 to 50 mm
S3a to 100 mm
S3b to 200 mm
S3c to 300 mm



changes possible

PREDL[®] base liner
special construction

scale 1:10

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file format
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PREDL[®] manhole base according to DIN V 4034/EN 1917

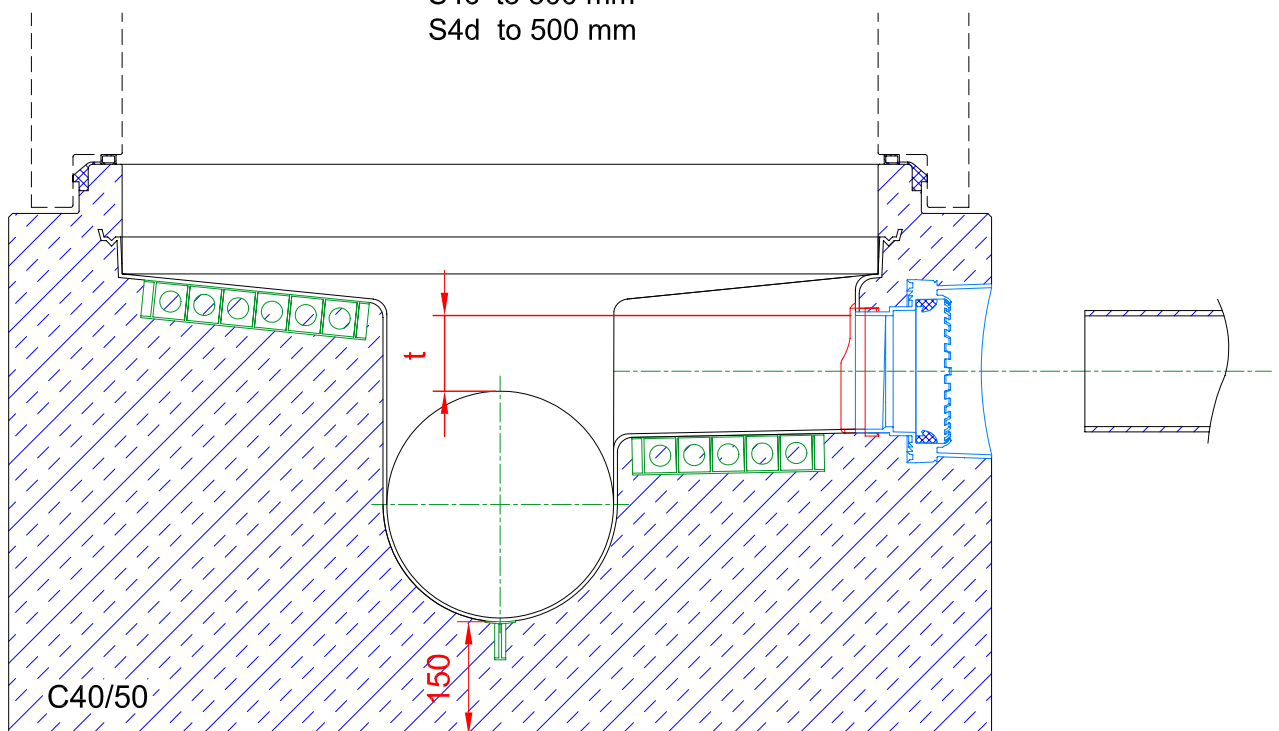
out of concrete with step, channel and connection bell
all raw materials made out of sewage water resistant plastics

PREDL[®] base liner

extra charge S4

incoming branch higher than benching top

- S4 to 50 mm
- S4a to 100 mm
- S4b to 200 mm
- S4c to 300 mm
- S4d to 500 mm



changes possible



PREDL[®] base liner
special construction

Downloads
<http://www.predl.eu>

file format
Acrobat Reader 5.0

scale 1:10

PREDL[®] manhole base according to DIN V 4034/EN 1917

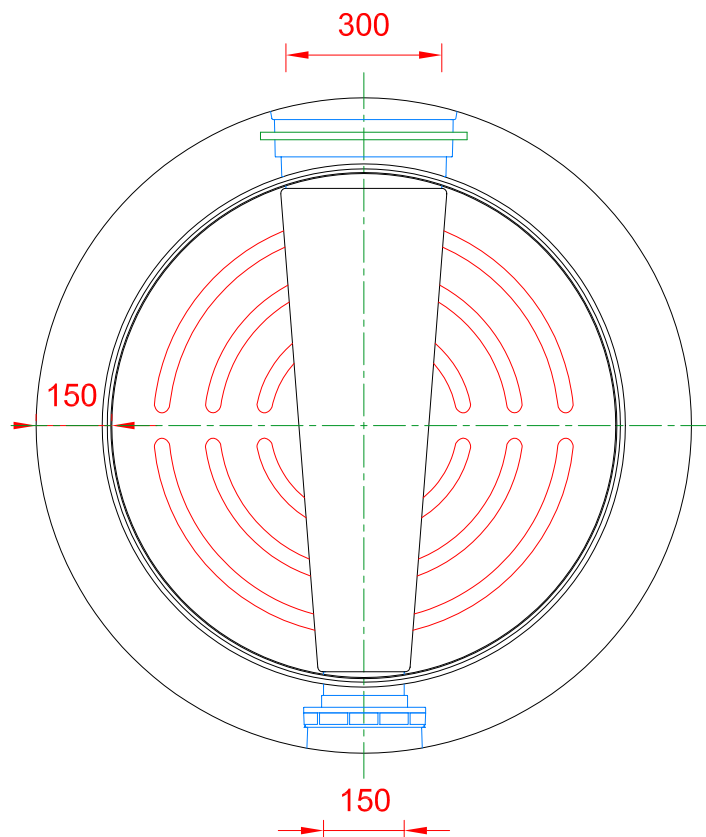
out of concrete with step, channel and connection bell
all raw materials made out of sewage water resistant plastics

PREDL[®] base liner

extra charge S5

channel reducing when dimension change
in main channel

S5 to Ø 300 mm
S5a Ø 350 - Ø 600 mm
S5b Ø 700 - Ø 800 mm



changes possible



PREDL[®] base liner
special construction

scale 1:15

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file format
Acrobat Reader 5.0

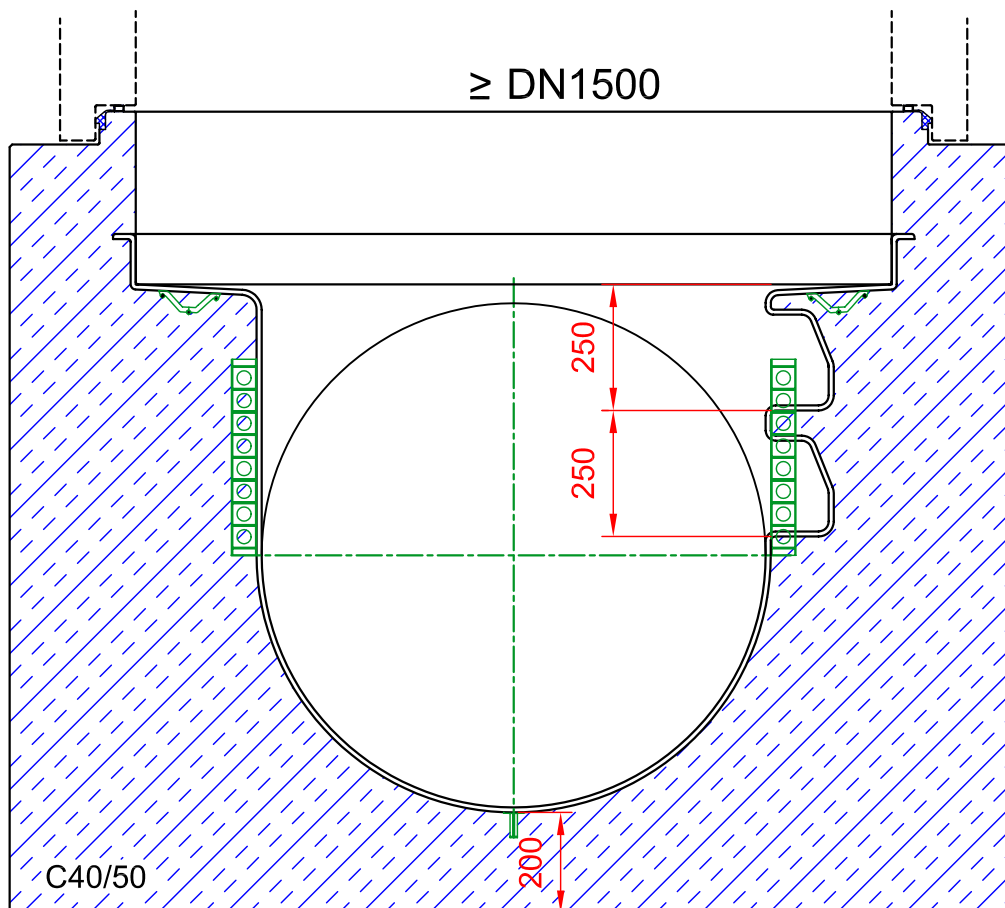
PREDL[®] manhole base according to DIN V 4034/EN 1917

out of concrete with step, channel and connection bell
all raw materials made out of sewage water resistant plastics

PREDL[®] base liner

extra charge S6

step integrated in channel



changes possible



PREDL[®] base liner
special construction

scale 1:15

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Acrobat Reader 5.0

PREDL[®] manhole base according to DIN V 4034/EN 1917

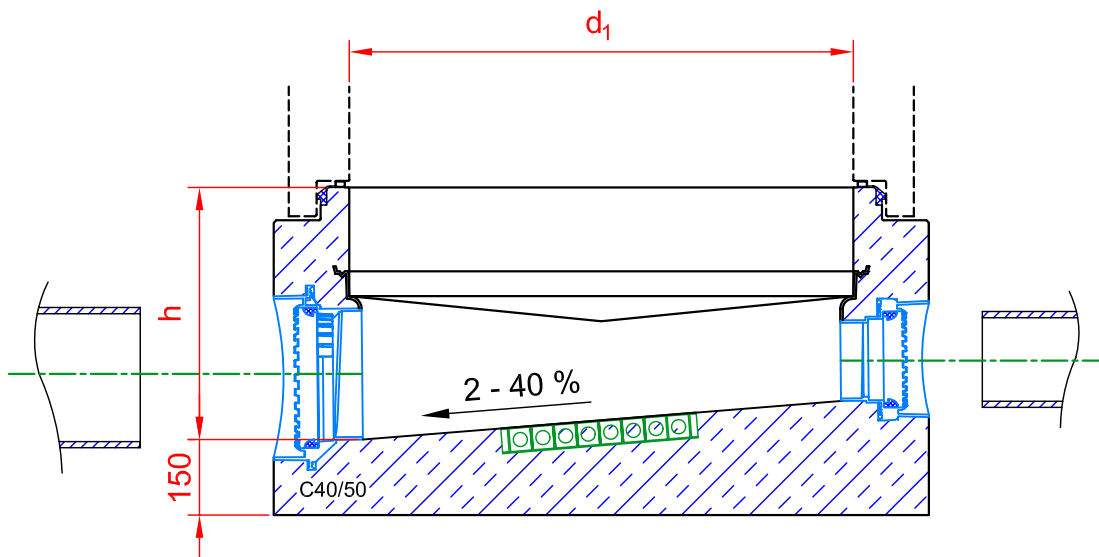
out of concrete with step, channel and connection bell
all raw materials made out of sewage water resistant plastics

PREDL[®] base liner

extra charge S7

slope in the channel

S7	2% to 10%
S7a	11% to 15%
S7b	16% to 20%
S7c	21% to 25%
S7d	26% to 40%



changes possible



PREDL[®] base liner
special construction

scale 1:15

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file format
Acrobat Reader 5.0

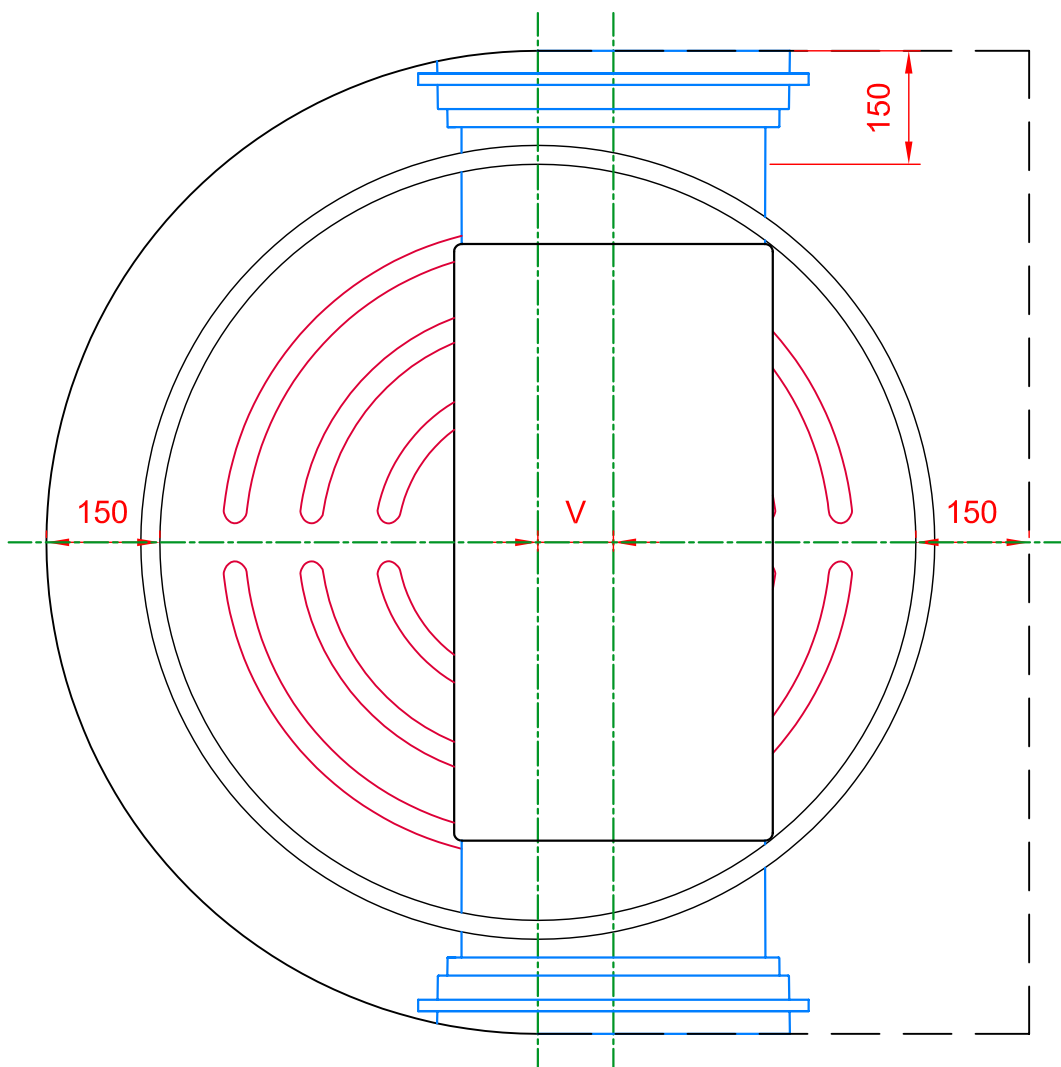
PREDL[®] manhole base according to DIN V 4034/EN 1917

out of concrete with step, channel and connection bell
all raw materials made out of sewage water resistant plastics

PREDL[®] base liner

extra charge S8

extra charge for asymmetric channel



changes possible



PREDL[®] base liner
special construction

scale 1:10

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file format
Acrobat Reader 5.0

PREDL[®] manhole base according to DIN V 4034/EN 1917

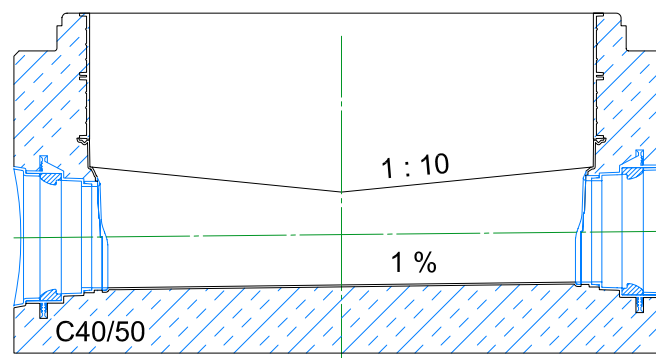
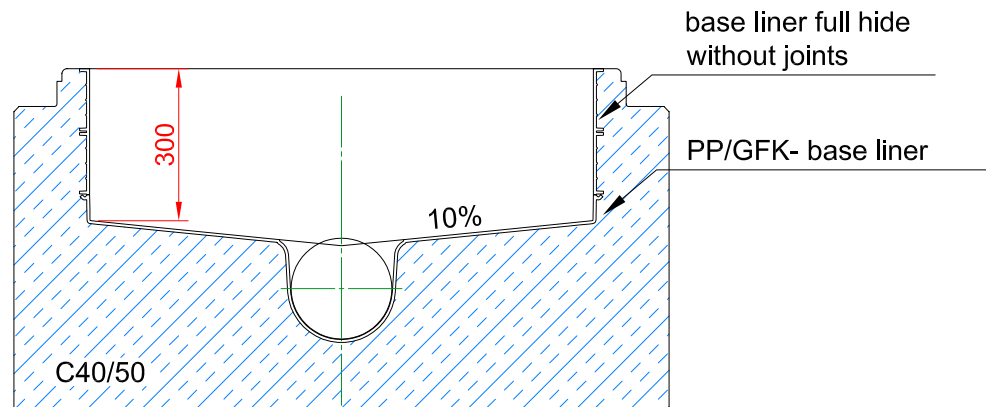
out of concrete with step, channel and connection bell
all raw materials made out of sewage water resistant plastics
DN 1000/1200/1500 and 2000

PREDL[®] base liner

extra charge S9

extra charge for inliner until first joint

maximum 250 mm above pipe top



certification Z-42.2-294

changes possible



PREDL[®] base liner
special construction

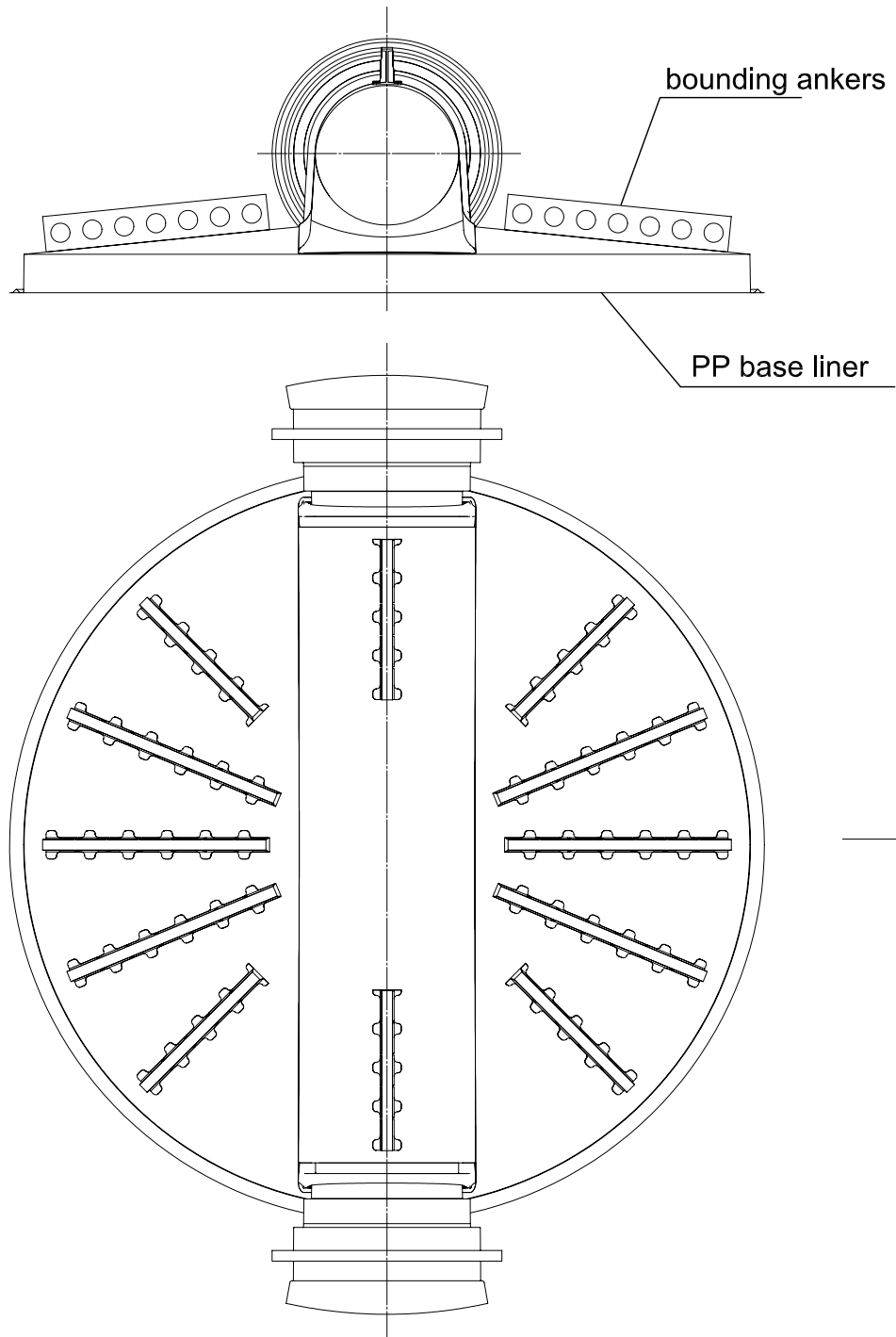
scale 1:15

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cross section A-A



changes possible



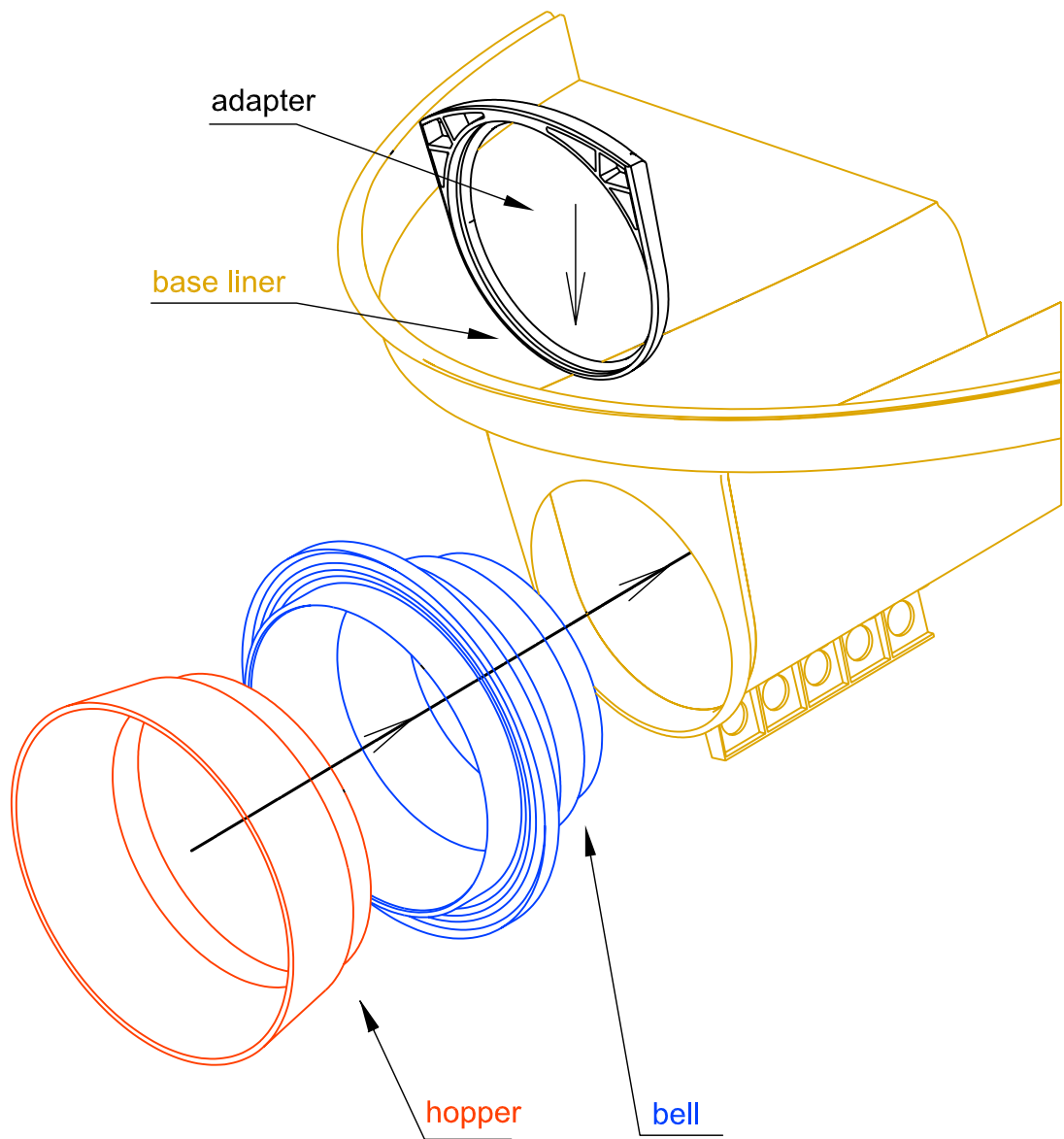
**base liners DN 200
complete assembly group
(simplified diagram)**

scale 1:10

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changes possible

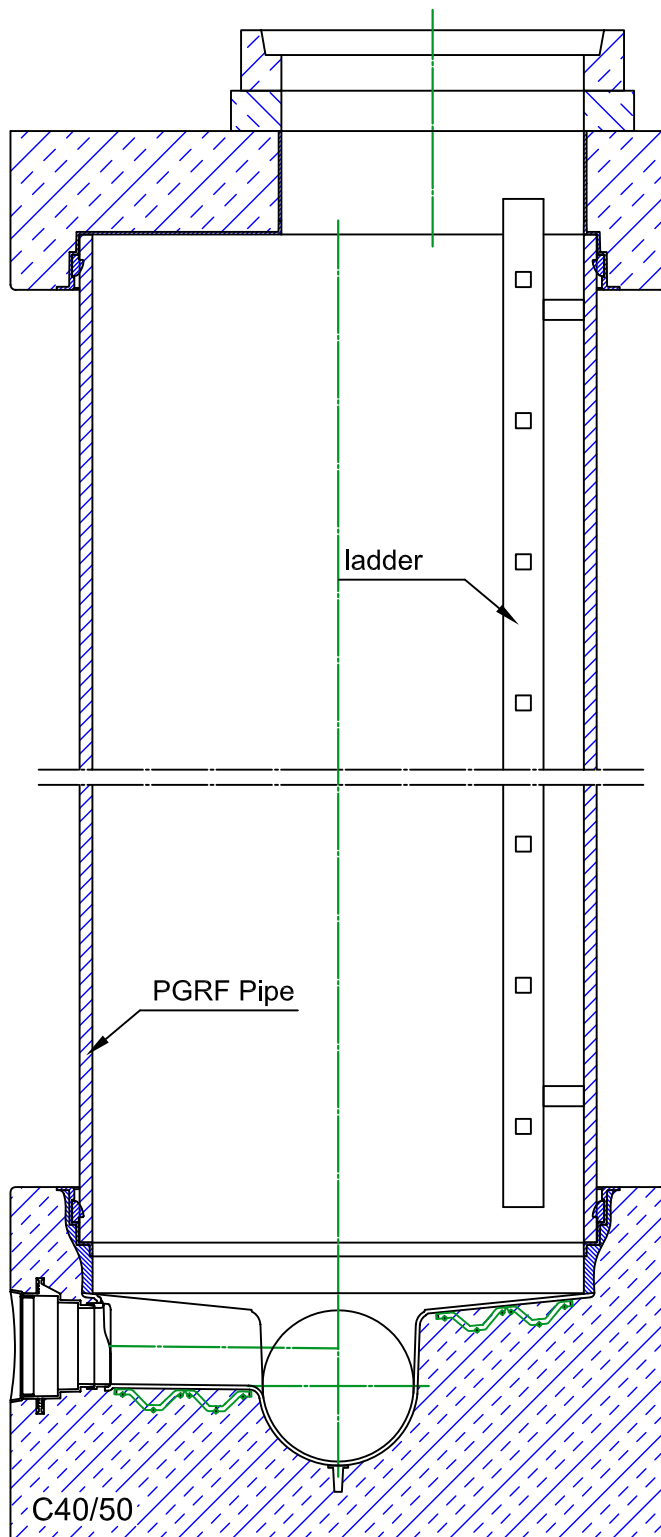


base liner isometry mounting

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universal PRGF manhole conform to DIN 19565
 with PRVF/PP PREDL[®] base liner casted in factory
 DN 1000/1200/1500 and 2000



concrete manhole base liner

with PRGF/PP bells and joints for PRGF manhole pipe conform to DIN 19565 channel from DN 150 to DN 1400 adjusted to the benching height, straight or curved

outlets and inlets

Available in any quantity and size. Pipe connections for clay, PRGF, ductile iron, U-PVC, various HD-PE, fibrocement, Ultra-Rib, concrete BS EN 1916 and more.

slope in the channel

standard construction:
 from DN 150 to DN 400 = 10‰
 DN 500 \geq 5 ‰, or without slope on request
 on demand:
 slope until 500 ‰
 bell inclination adapted to the slope

diameter change

adjusted to the channel or to the benching

inside and outside drops

Can be fitted on the inside as well as on the outside of the manhole rings.

concrete rings

manhole PRGF pipe conform to DIN 19565
 cover slab/reducing slab for heavy duty 60 T with access choice with inside liner with PRGF bells and joints for PRGF manhole pipe choice of precast concrete cone conform to the BS EN 1917

steps

steps, ladder

certification Z-42.2-294

changes possible



universal PRGF manhole
 conform to BS EN 1917
 with PREDL[®] base liner

scale 1:15

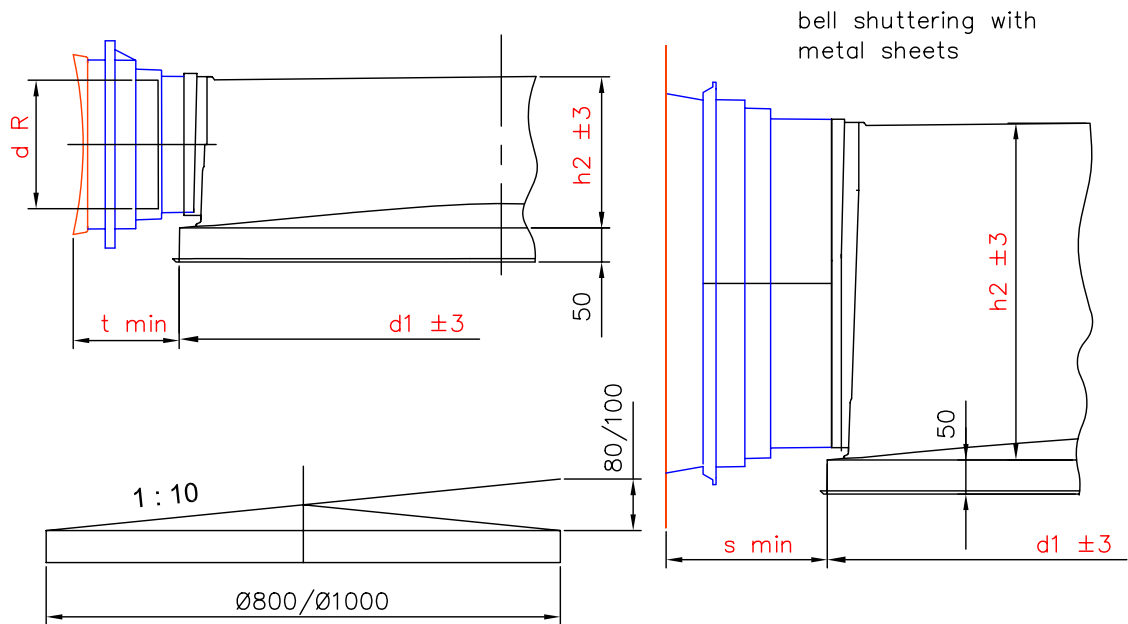
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manhole base liner - technical characteristics -

circular cut to outer jacket diameter
(minimum 1240 mm) until DN 300



nominal diameter of the manhole $d1$ (mm)	nominal diameter of the inlet $d R$ (mm)	$t \text{ min} / s \text{ min}$ (mm)	waterline depth of the outlet DN 800 / 1000 $h2$ (mm)	channel slope (%)	
DN 800 DN 1000	150	120 / 150	198 / 190	1 %	clay U-PVC Ultra-Rib PRGF various PE-HD ductile iron concrete BS EN 1916 fibrocement
	200	120 / 150	245 / 240		
	250	120 / 150	295 / 290		
	300	120 / 150	345 / 340		
DN 1000	350	150 / 200	380	no slope	clay PRGF various PE-HD ductile iron concrete BS EN 1916 fibrocement
	400	150 / 200	440		
	450	150 / 200	530		
	500	150 / 250	530		
	600	150 / 250	630		
DN 1200	700	150 / 300	730	no slope	clay PRGF various PE-HD ductile iron concrete BS EN 1916 fibrocement
	800	150 / 300	830		
DN 1500	900	150 / 350	930	no slope	clay PRGF various PE-HD ductile iron concrete BS EN 1916 fibrocement
	1000	150 / 350	1030		

changes possible



PREDL® base liner
-technical-
-characteristics-

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ORDER SHEET

Concrete plant

Date

Contractor

Contact person

Building site

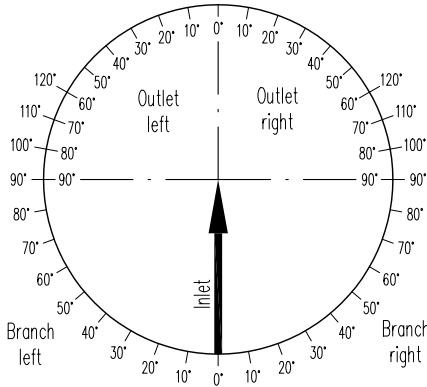
Other

Nominal diameter DN _____

Manhole number _____

Quantity _____

Other _____



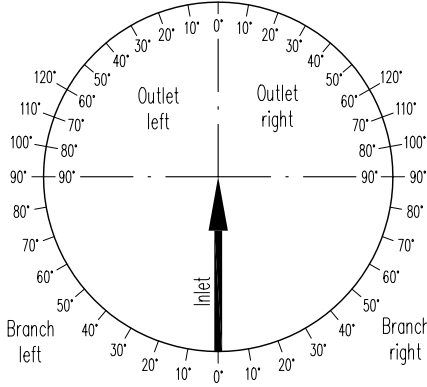
Inlet	Bell	inclination (%)
Outlet	Bell	angel (°) left/right inclination (%)
	Invert level <input type="checkbox"/>	soffit l. <input type="checkbox"/> Invert height _____
branch 1	Bell	angel (°) left/right inclination (%)
	Invert level <input type="checkbox"/>	soffit l. <input type="checkbox"/> Invert height _____
branch 2	Bell	angel (°) left/right inclination (%)
	Invert level <input type="checkbox"/>	soffit l. <input type="checkbox"/> Invert height _____

Nominal diameter DN _____

Manhole number _____

Quantity _____

Other _____



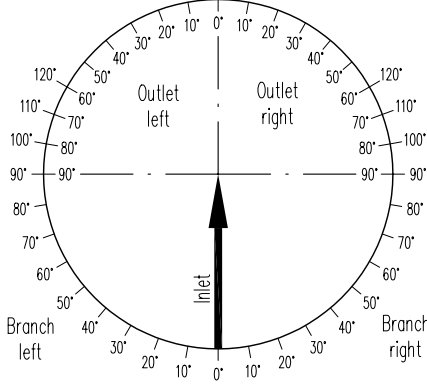
Inlet	Bell	inclination (%)
Outlet	Bell	angel (°) left/right inclination (%)
	Invert level <input type="checkbox"/>	soffit l. <input type="checkbox"/> Invert height _____
branch 1	Bell	angel (°) left/right inclination (%)
	Invert level <input type="checkbox"/>	soffit l. <input type="checkbox"/> Invert height _____
branch 2	Bell	angel (°) left/right inclination (%)
	Invert level <input type="checkbox"/>	soffit l. <input type="checkbox"/> Invert height _____

Nominal diameter DN _____

Manhole number _____

Quantity _____

Other _____



Inlet	Bell	inclination (%)
Outlet	Bell	angel (°) left/right inclination (%)
	Invert level <input type="checkbox"/>	soffit l. <input type="checkbox"/> Invert height _____
branch 1	Bell	angel (°) left/right inclination (%)
	Invert level <input type="checkbox"/>	soffit l. <input type="checkbox"/> Invert height _____
branch 2	Bell	angel (°) left/right inclination (%)
	Invert level <input type="checkbox"/>	soffit l. <input type="checkbox"/> Invert height _____

The FASZL base liners are delivered accordingly. Notification of defects - warranty - Responsibility are ONLY recognized if the FASZL® products are controlled at reception before casting in concrete.



PREDL® - base- liner

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File format:
 Acrobat Reader 5.0 or superior

**Amendment for tendering text
In accordance with LBSW05**

22.22 03 z Concrete manhole base with Plastic lining as a whole

Design feature : Concrete manhole base DN 1000 with FASZL PP / GRP liner factory-cast.

A 2,8mm thick polypropylene lining with flange-ends has to cover the inside wall of the manhole (up to the first spigot).

FASZL-CORPROTECT® System for example or equivalent.

22.22.03 z Concrete manhole with plastic liner DN 1000 AM DN..... ST

22.01.21 z Manhole ring DN 1000 in accordance with EN 1917/h=1000 with corprotect

Manhole ring DN 1000 in accordance with EN 1917/h=750 with corprotect

Manhole ring DN 1000 in accordance with EN 1917/h=500 with corprotect

Or equivalent.

22.01.21 z Manhole ring DN 1000 as a whole.....

22.01.21 z Manhole cone in accordance with EN 1917 with GRP lining (minimum thickness 2,8 mm)

Corprotect System as a standard configuration.

Manhole cone DN 1000 h=600 with Corprotect

Or equivalent

22.01.21 z Manhole cone DN 1000 as a whole ST

22.22 16 z Telescope adapter, as a whole

Telescopic element, adjustable in height and which can be pivoted, made out of GRP (minimum 300 mm high) including a lip- seal. Including the steel concrete rim for fixing the adapter to the cone.

The excavation, the delivery, bringing and packing the concrete (C25/30/B6/C3A free) with all the needed shattering as well as the supply of reinforcement and drilling the holes for the steps (at least 10 for every cone) have to be taken in account.

FASZL-CORPROTECT® or equivalent.

22.22 16 z Adapter with cast-in-place concrete for producing DN 600 ST

22.22.00 Seal with weight balancing elements

Seal for concrete manhole

Concrete manhole ring DN 1000 in accordance with EN 1917 with a factory mounted in a closed outer jacked pre-lubricated compression slide seal with wedge shaped cross section, made out of elastomer with dense structure and vulcanised circular load transfer element filled with fine quartz sand for a regular and non springy weight absorption between the different manhole elements provided with test certificate and with an at hand statistical calculation in accordance with the above mentioned norm.

22.22.00 Seal with weight balancing elements

ST
