

magna*plast*

CATALOGUE



DR

**DRAINAGE
SYSTEMS**

TABLE OF CONTENTS:

INTRODUCTION	4
ADVANTAGES OF THE SYSTEM	4
DOCUMENTS	5
QUALITY CONTROL	5
DIMENSIONS	5
PRODUCT CATALOGUE	6
DRAINAGE CHAMBER WITH A CATCH BASIN – DESIGN	7
DRAINAGE CHAMBER WITH A CATCH BASIN – DIMENSIONS	8
APPLICATION	8
INSTALLING DRAINAGE AROUND THE BUILDING	9





**DRAINAGE
SYSTEMS**

DR

INTRODUCTION

Magnaplast drainage pipes are a comprehensive answer to all the issues related to the excess water in the soil. The full range of products includes the pipe system and drainage fittings, as well as inspection chambers necessary for the assembly process. High quality of the complete system is confirmed by material durability tests and a guarantee for the entire installation at a single manufacturer.



Hydrogeological conditions in a given area may change as a result of climate change or increased precipitation. Therefore, the fact that we are not currently affected by the drainage problem does not mean that we will not be affected in the future. A suitable subsurface drainage system not only can buy you peace of mind but it is also a long-term investment.

ADVANTAGES OF THE SYSTEM

- State-of-the-art production technology,
- High availability,
- Production in accordance with the European standard,
- Three versions of pipes: with holes, with holes in the lagging, without holes,
- Compatibility with Magnaplast inspection chambers,
- A wide range of fittings, including connectors for the system of smooth-walled PP or PVC-U pipes.

DOCUMENTS

MAGNAPLAST drainage pipes and fittings are made in compliance with the following standards:

PN-C-89221

Plastic pipes – Corrugated drainage pipes made of unplasticised polyvinyl chloride (PVC-U)

IBDiM-KOT-2019/0272

Pipes and fittings made of unplasticised polyvinyl chloride (PCV-U), polypropylene (PP) and polyethylene (PE) for drainage, ducts and cable cover MAGNAPLAST pipes and fittings

QUALITY CONTROL

All Magnaplast products, including drainage systems, must pass strict quality inspections and comply with all mandatory standards. The first-class quality of the products is also certified by the ISO 9001 quality management system maintained at Magnaplast.

DIMENSIONS

Nominal diameter (mm)	50	80	100	125	160
Outer diameter (mm)	50±0,5	80±0,5	100±0,5	125 ±1,0	160±1,0
Number of rows of holes	6	6	6	6	6
Hole width (mm)	1,2	1,2	1,2	1,5	1,5
Number of holes per 1 m	500	400	400	300	300
Area of holes per cm ² /m	30,0	24,0	24,0	31,5	31,5
Weight (g/m)	160	280	370	570	860
Ring stiffness	SN ≥ 8 kN/m ²	SN ≥ 4 kN/m ²	SN ≥ 4 kN/m ²	SN≥4kN/m ²	SN ≥ 4 kN/m ²

PRODUCT CATALOGUE

DR - PVC-U drainage pipes

Index (product code)	Symbol and dimension	Unit of measure [m]
30055	DR 50/50	50
30085	DR 80/50	50
30150	DR 100/50	50
30160	DR 125/50	50
30170	DR 160/50	50

DR - PVC-U drainage pipes in PP lagging

Index (product code)	Symbol and dimension	Unit of measure [m]
30056	DR 50/50	50
30086	DR 80/50	50
30151	DR 100/50	50
30161	DR 125/50	50
30171	DR 160/50	50

DR - PVC-U drainage pipes without holes

Index (product code)	Symbol and dimension	Unit of measure [m]
30057	DR 50/50	50
30087	DR 80/50	50
30152	DR 100/50	50
30162	DR 125/50	50
30172	DR 160/50	50

DREA - Branches

Index (product code)	Symbol and dimension	Carton/pcs.
30410	DREA 50/50	1
30420	DREA 80/80	1
30430	DREA 100/100	1
30450	DREA 160/160	1

DRU - Muffs

Index (product code)	Symbol and dimension	Carton/pcs.
30510	DRU 50	1
30520	DRU 80	1
30530	DRU 100	1
30540	DRU 125	1
30550	DRU 160	1

DR/KG - Connectors for KG PVC-U smooth-walled pipes

Index (product code)	Symbol and dimension	Carton/pcs.
30620	DR/KG 80/110	1
30630	DR/KG 100/110	1

DRB - Bends

Index (product code)	Symbol and dimension	Carton/pcs.
30720	DRB 80	1
30730	DRB 100	1



DRAINAGE CHAMBER WITH A CATCH BASIN – DESIGN

RCP 315 RCP 425

CONCRETE CONE WITH CONCRETE COVER OR CAST IRON TELESCOPIC COVER CAN BE ALSO USED

PP COVER 33400 35400

DRAINAGE PIPE

	WITHOUT LAGGING	IN LAGGING
80/50	30085	80/50 30086
100/50	30150	100/50 30151

80/110 30620
CONNECTOR 100/110 30630

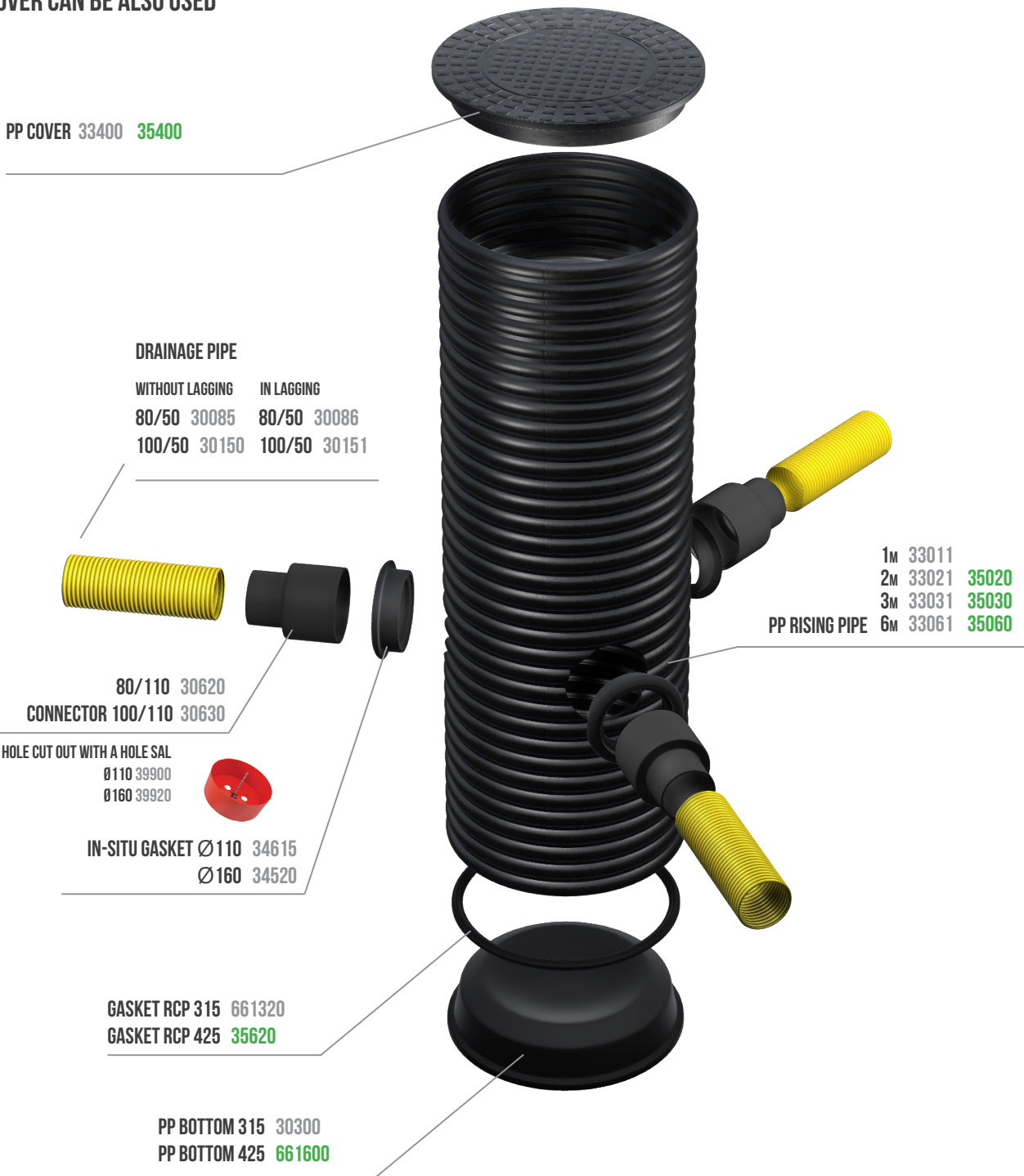
* HOLE CUT OUT WITH A HOLE SAL
Ø110 39900
Ø160 39920

IN-SITU GASKET Ø110 34615
Ø160 34520

GASKET RCP 315 661320
GASKET RCP 425 35620

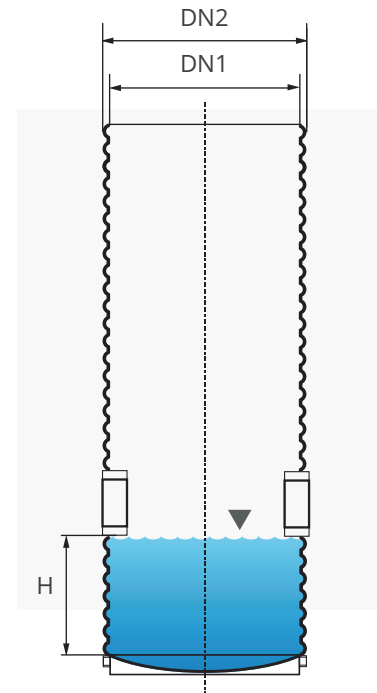
PP BOTTOM 315 30300
PP BOTTOM 425 661600

1M 33011
2M 33021 35020
3M 33031 35030
PP RISING PIPE 6M 33061 35060



DRAINAGE CHAMBER WITH A CATCH BASIN – DIMENSIONS

	DN1 [mm]	DN2 [mm]	H [cm]	V [dm ³]
Type 315	300	338	50	35
	300	338	100	70
Type 425	400	451	30	35
	400	451	55	70



APPLICATION

Perforated drainage pipes

They are used wherever a too high level of groundwater is a problem. Possible applications include:

- agricultural drainage,
- protection of buildings against dampness,
- road and road shoulder drainage,
- parking lot drainage,
- drainage of recreational areas, outdoor sports facilities and industrial areas,
- landfill drainage.

Drainage pipes in factory-applied PP geotextile lagging

The most important purpose of the geotextile lagging is to prevent small particles of soil from penetrating into the pipe interior. Geotextile lagging prevents soil leaching and ensures efficiency of the entire drainage system by preventing the silting-up of drainage pipes as well as guarantees long-term and efficient filtration. In addition, soil particles settle near the geotextile and form a natural soil filter at the geotextile surface.

Drainage pipes in PP geotextile lagging will be particularly useful in green areas and agricultural areas, in peat or clay soils.

Non-perforated drainage pipes

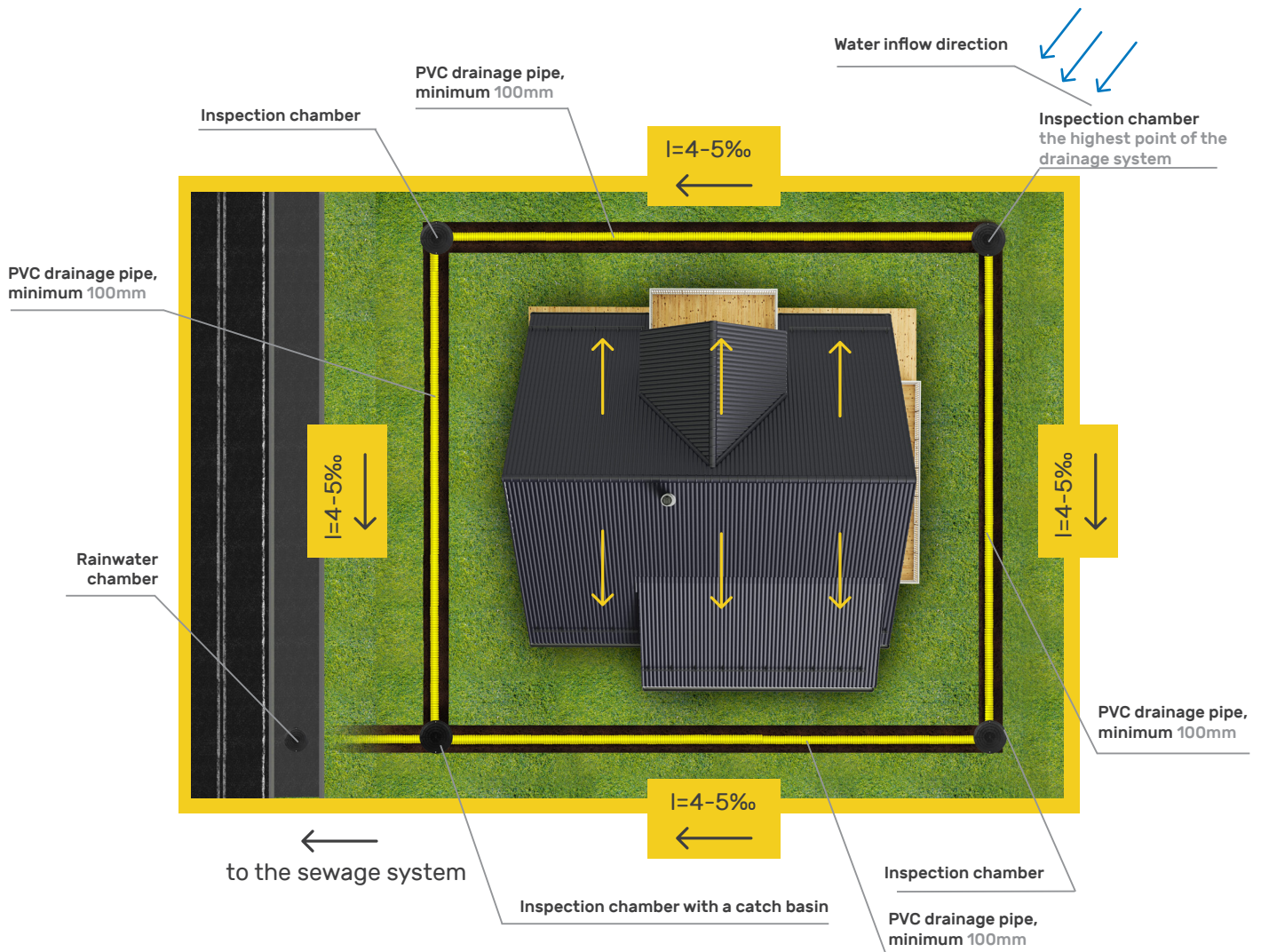
Non-perforated drainage pipes (without holes) can be used for draining water to tanks.

INSTALLING DRAINAGE AROUND THE BUILDING

If drainage was to be provided during the construction work, it is laid next to the foundation walls. If, on the other hand, drainage is installed next to an existing building, a distance of 2-3 m from the walls must be maintained (so-called offset drainage). However, bear in mind that a geotechnical evaluation should be carried out before any drainage work.

Perimeter drain is needed wherever:

1. There is a high level of groundwater,
2. Groundwater appears during excavations for foundations,
3. There is a heterogeneous soil around the building, e.g. impermeable layers (clay, silt), which, due to the lack of outflow of groundwater, will cause the walls to get damp.



It is very important to drain the house when the house is located on a slope or near it. The water that flows down the slope stops along the foundations. This causes the soil to soften, which in turn can cause the walls of the building to collapse. In this case, drainage is necessary regardless of the type of subsoil, but it is carried out on the elevated side.

Performing a perimeter drain around the foundations serves to collect excess rainwater flowing deep into the ground and lower the level of groundwater around the buildings. Perimeter drain should be laid with a slope of 4-5‰ so that the water that flows inside the pipe can be drained through the holes around the entire pipe circumference to a safe distance from the building. To protect the holes against clogging, make a filtration gravel pack with a thickness of approx. 100-150 mm around the pipe using gravel with a particle size of approx. 16-32 mm. A gravel apron is made next to the walls and around the house so that rainwater can flow freely into the drainage.



The figure shows the perimeter drain cross-section:

1. Damp-proof course (DPC)
2. Extruded film
3. Foundation wall
4. Thermal insulation
5. Geotextile
6. Ground-supported floor
7. Strip foundation
8. Drainage pipe
9. Filtration gravel (or aggregate) pack
10. Fill material, for example, mechanically compacted sand

In each corner of the building, inspection chambers should be placed; they will be used to flush the pipes and thus remove sediments. The highest point of the system is the corner where the flowing water arrives first. One inspection chamber should be located there. At the lowest point of the drainage system there is a collecting chamber connected to the system with a sewage pipe. Collected water is discharged to storm water drainage system, combined sewer system or holding tanks.



SOLUTIONS TO LAST

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HT PLUS PP LOW-NOISE INDOOR SEWAGE SYSTEM



ULTRA dB PP SOUNDPROOF INDOOR SEWAGE SYSTEM



SKOLAN SAFE PREMIUM PP THICK-WALLED SOUNDPROOF SEWAGE SYSTEM



KG PVC-U OUTDOOR SEWAGE SYSTEM



MAGNACOR PP OUTDOOR SEWAGE SYSTEM



KG 2000 PP SN 10 / SN 16 OUTDOOR SEWAGE SYSTEM



SC PP SEWAGE CHAMBERS



PE PIPES AND PE-HD FITTINGS



PVC-U SUBSOIL DRAINPIPES AND FITTINGS