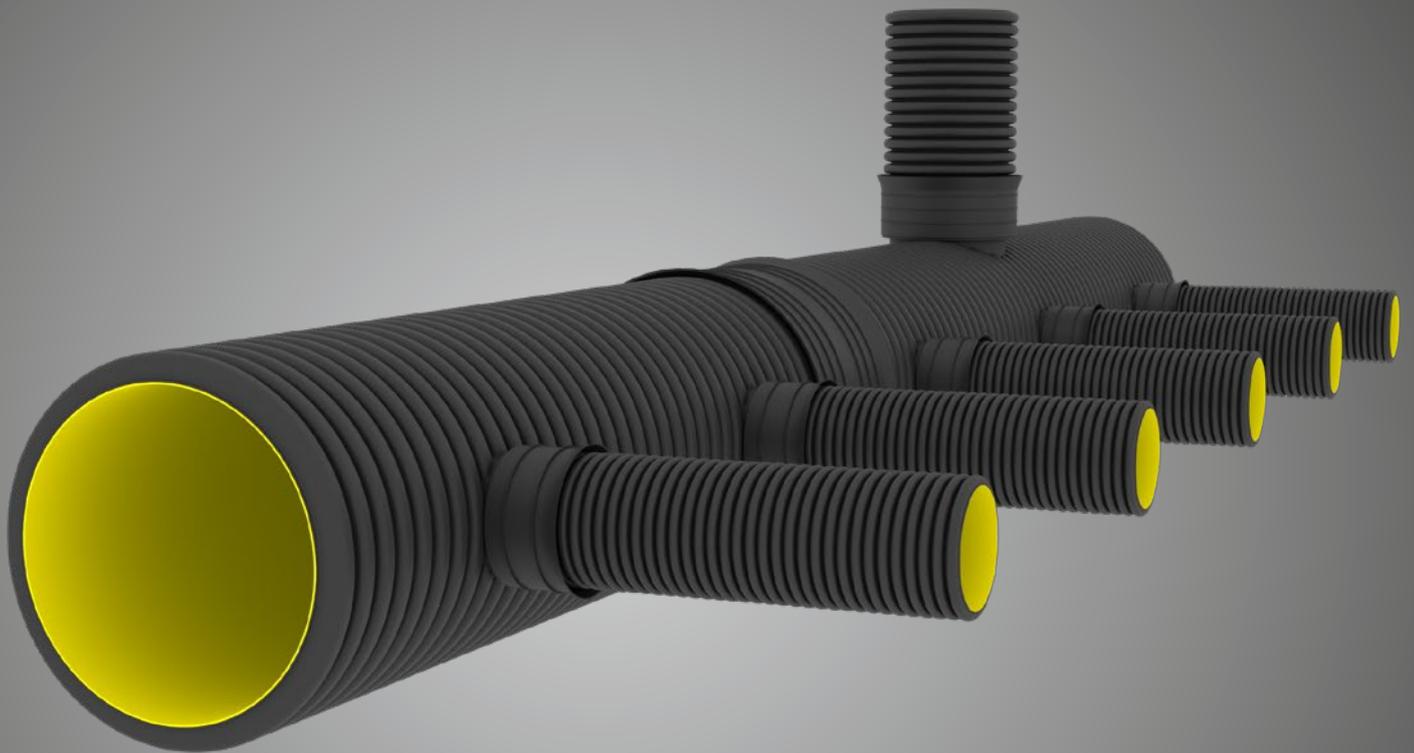


Product brochure

Distribution shaft / distribution pipe system



Distribution structures for SediPipe® and SediSubstrator® multi-systems



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Information about or assessments of the use and installation of our products and systems is exclusively provided on the basis of the information submitted. We do not assume any liability for damage caused by incomplete information. If the actual situation deviates from the planned situation or if a new situation occurs or if different or new installation techniques are applied, these must be agreed upon with FRÄNKISCHE, since these situations or techniques may lead to different conclusions. Notwithstanding the above, the customer is solely responsible for verifying the suitability of our products and systems for the intended purpose. In addition, we do not assume any liability or responsibility for system characteristics and system functionalities when third-party products or accessories are used in combination with FRÄNKISCHE systems. We only assume liability if original FRÄNKISCHE products are used. For use in other countries than Germany, country-specific standards and regulations must also be observed.

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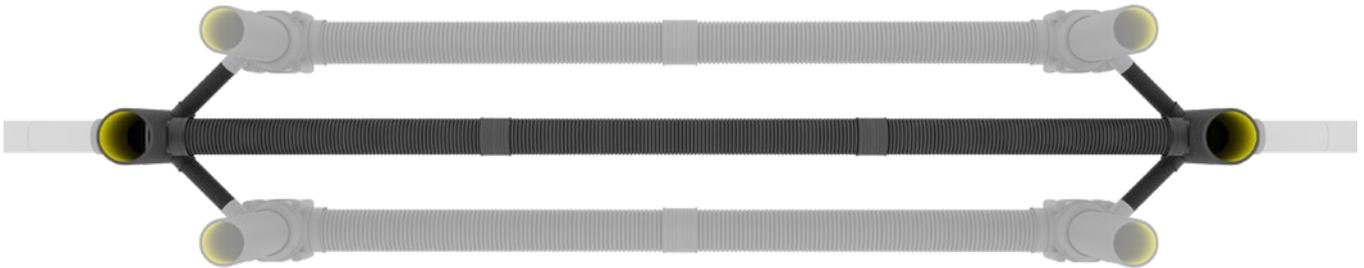
Distribution structures – SediPipe® / SediSubstrator® multi-systems

Special demands, complex local conditions and confined space require professional, efficient and adaptable systems for the treatment of polluted stormwater for small to very large collection areas. Semi-central stormwater treatment turns into central stormwater treatment.

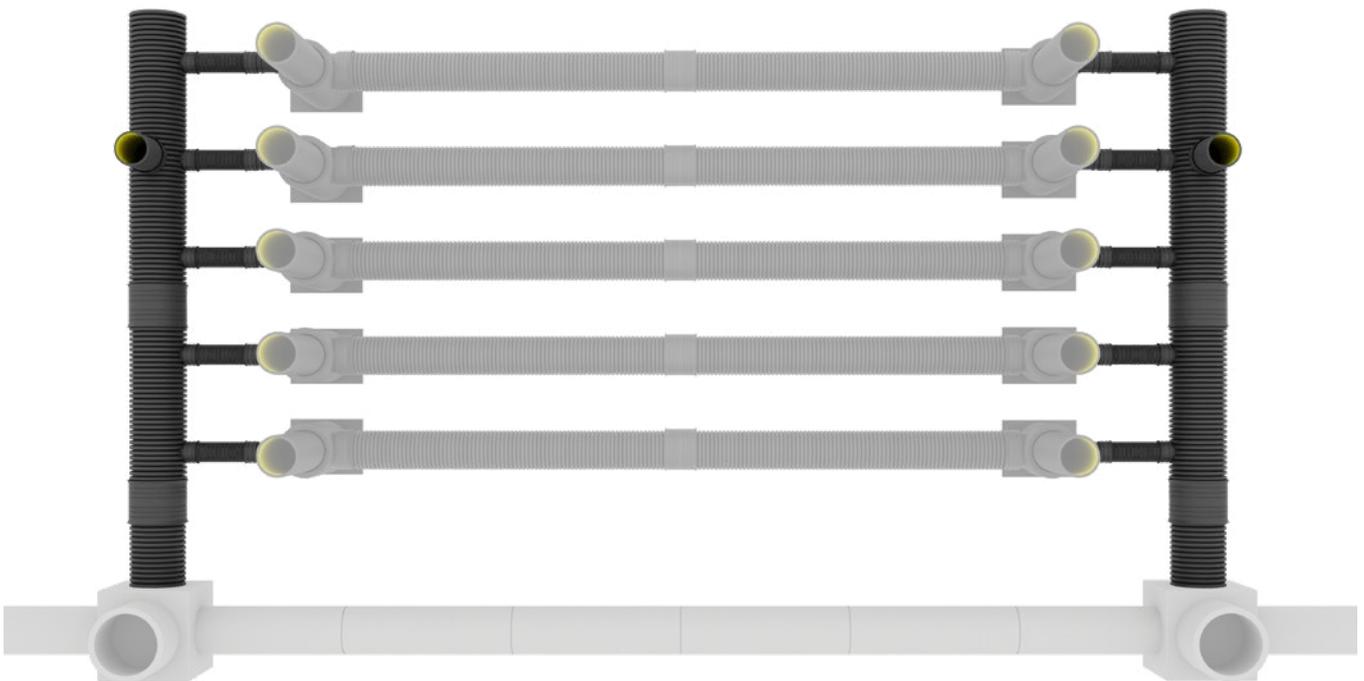
The new distribution structures – distribution shaft and distribution pipe system – complement the tried and tested SediPipe and SediSubstrator treatment systems by FRÄNKISCHE.

They facilitate the inlet and outlet situation of multi-systems and thus create perfect initial conditions for ideal utilisation and function, irrespective of whether two or multiple treatment systems are connected.

The distribution shaft – compact design, optimised for 2 SediPipe® level systems



The distribution pipe system – modular, flexible, unlimited applications



Distribution structures – semi-central turns into central

Legal provisions and regulations redefine requirements, make them more comprehensive and stricter – from property drainage to urban drainage and motorway drainage or especially critical areas such as filling and service areas. Due to the connection of larger collection areas, there is a consistently growing demand for larger highly efficient treatment systems.

The demand for space-saving underground solutions is growing continuously especially in areas where space is scarce. With the plastic distribution structures, FRÄNKISCHE offers flexible, modular and pre-assembled solutions with perfectly matched components.

The distribution shaft and the distribution pipe system allow connecting SediPipe and SediSubstrator treatment systems in parallel and ensure a continuous supply regarding hydraulics and pollution loads (AFS63), also in case of larger water volumes.

Advantages of FRÄNKISCHE distribution structures

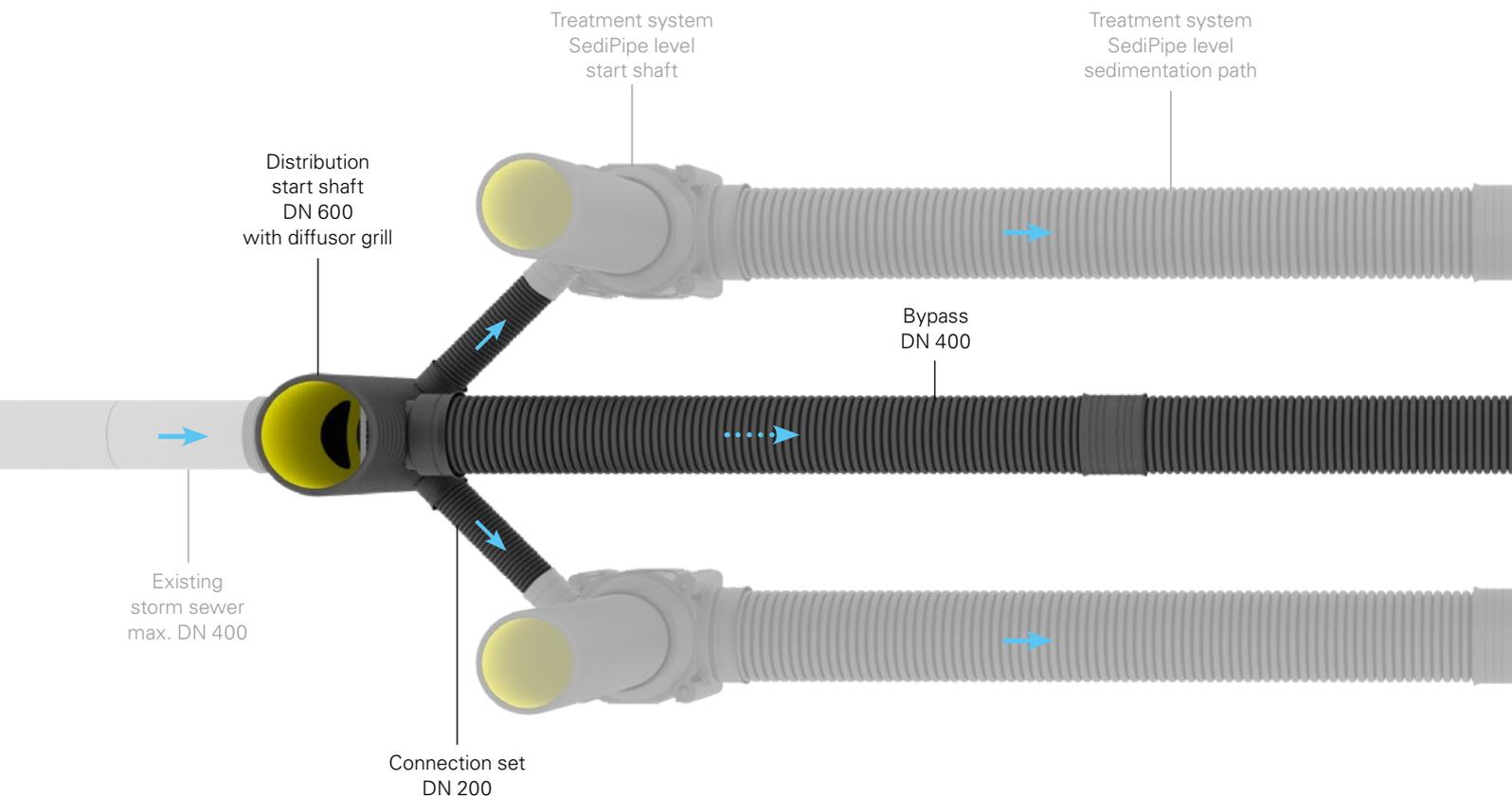
- Pre-assembled, simple and modular system
- In stock at FRÄNKISCHE and thus quickly available
- Matched product components, also for complex local conditions
- The size of the system and the installation location can be planned and selected to perfectly suit your needs.
- Can be easily integrated into existing sewer networks
- For small to very large collection areas
- Lightweight yet highly durable components
- Simple and quick installation, therefore, short construction time
- No space on the surface required (completely underground installation)
- Installation under traffic areas possible
- Simple inspection and high maintenance comfort thanks to the use of standard sewer, pressure cleaning and inspection technology

Distribution shaft – for 2 SediPipe® level systems

The compact distribution shaft DN 600 is used as start shaft and target shaft with ideally arranged connection geometry when two treatment systems of the SediPipe level type are installed in parallel. The shafts are generally identical.

The diffuser grill, which can only be inserted into the distribution start shaft, does not only retain coarse particles but also calms down the inflowing water and thus provides for a consistent supply of the outlets and the connected treatment systems. After stormwater treatment, the distribution target shaft ensures the connection to the continuing pipe. The integrated bypass between distribution start shaft and distribution target shaft serves as overflow option in case of larger water volumes.

Pre-assembled connection sets with different pipe lengths complement the range of products and allow the proper connection between the distribution shafts and the treatment systems.



Exemplary representation: integration of 2 SediPipe level treatment systems connected in parallel into an existing storm sewer

Distribution shaft – for 2 SediPipe® level systems



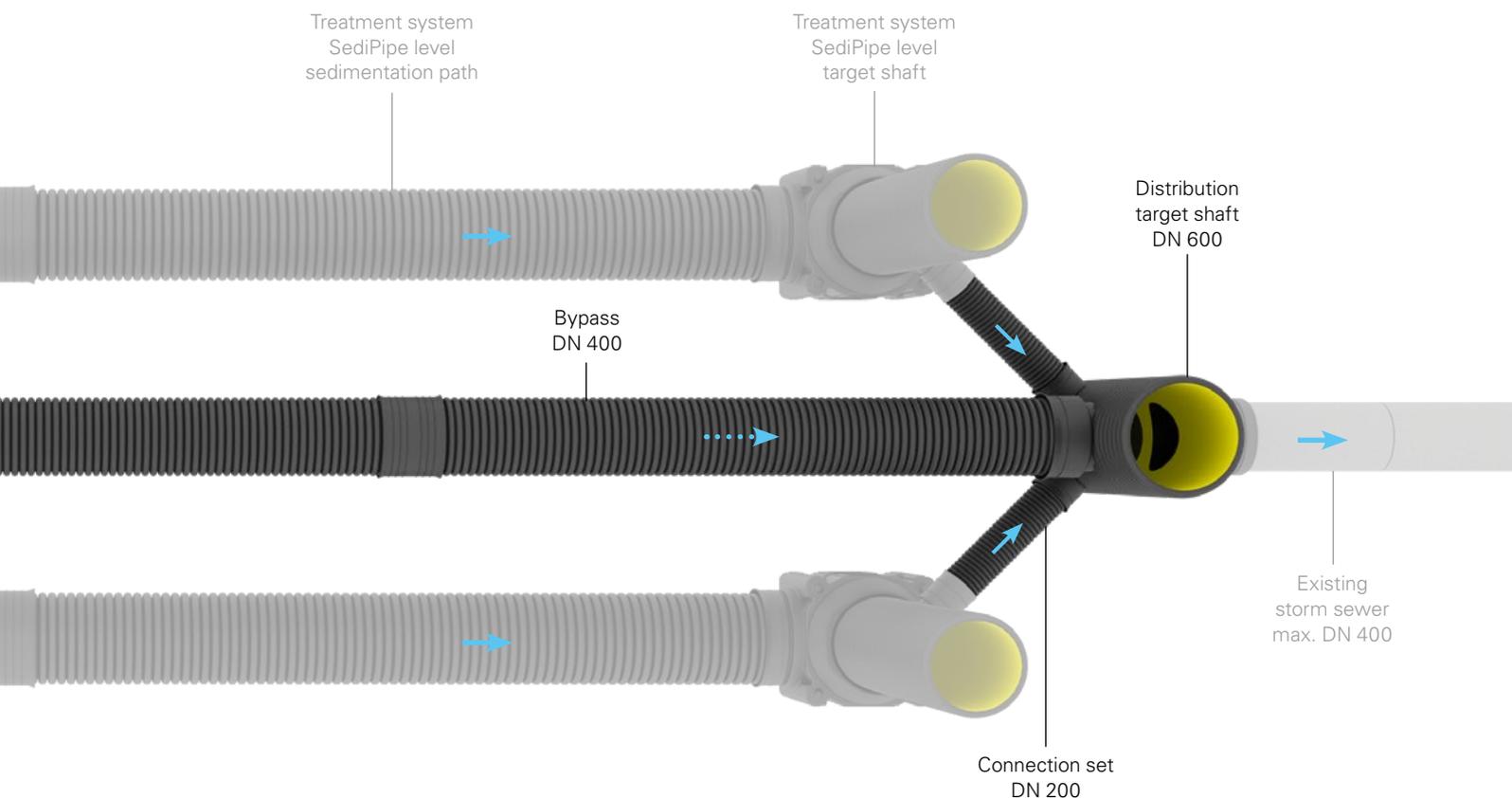
The distribution shaft DN 600 has only one design and can thus be used as start shaft and target shaft.

The shaft consists of a base shaft with the following connections:

- 1 connection DN 400 KG inlet and/or outlet
- 2 connections DN 200 inlet and/or outlet treatment systems
- 1 connection DN 400 bypass

You can extend the shaft using the shaft extension DN 600 and coupling.

- Diffusor grill for distribution start shaft

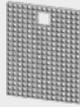


Distribution shaft – system components



①

Distribution
start shaft
DN 600

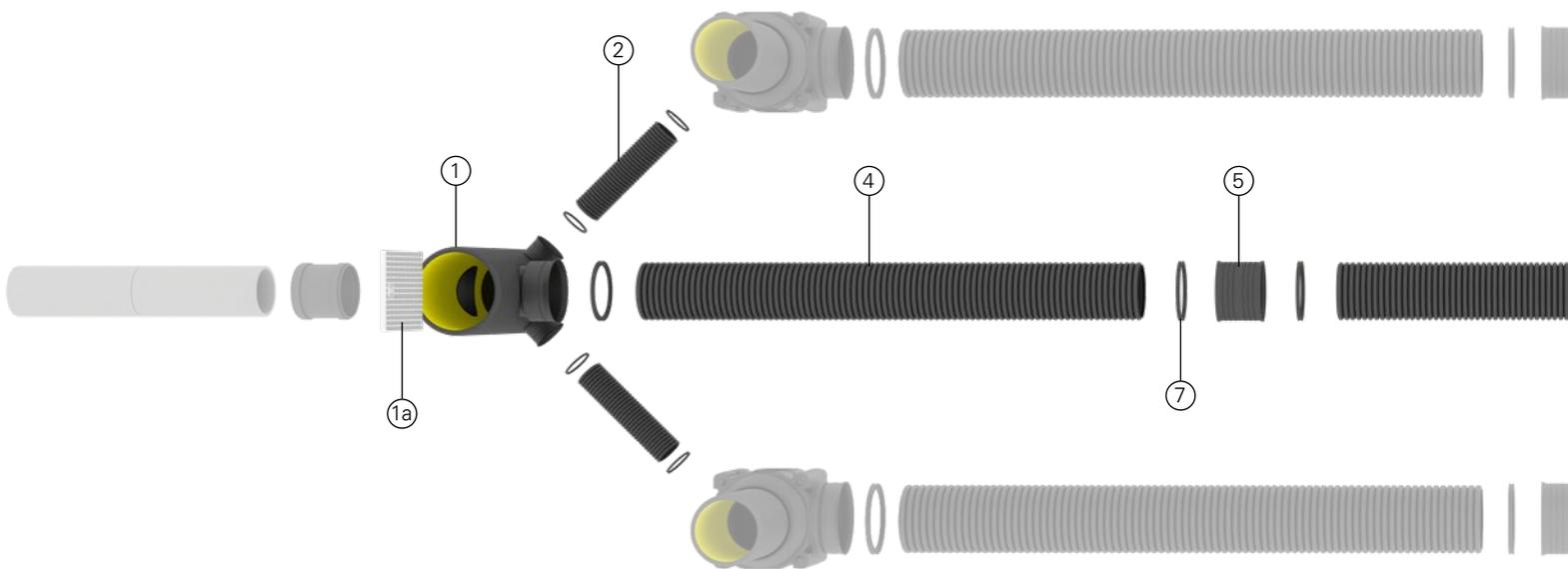


①a

Diffusor grill
for distribution
start shaft



Shaft extension
for start and target shaft
1 m, 2 m, 3 m, 6 m
DN 600



Exemplary representation: integration of 2 SediPipe level treatment systems connected in parallel into an existing storm sewer



④

Bypass
1 m, 3 m, 6 m
DN 400



⑤

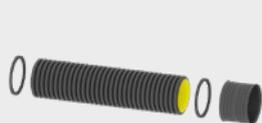
Coupling
for bypass
DN 400



⑥

Slide-on coupling
for bypass
DN 400

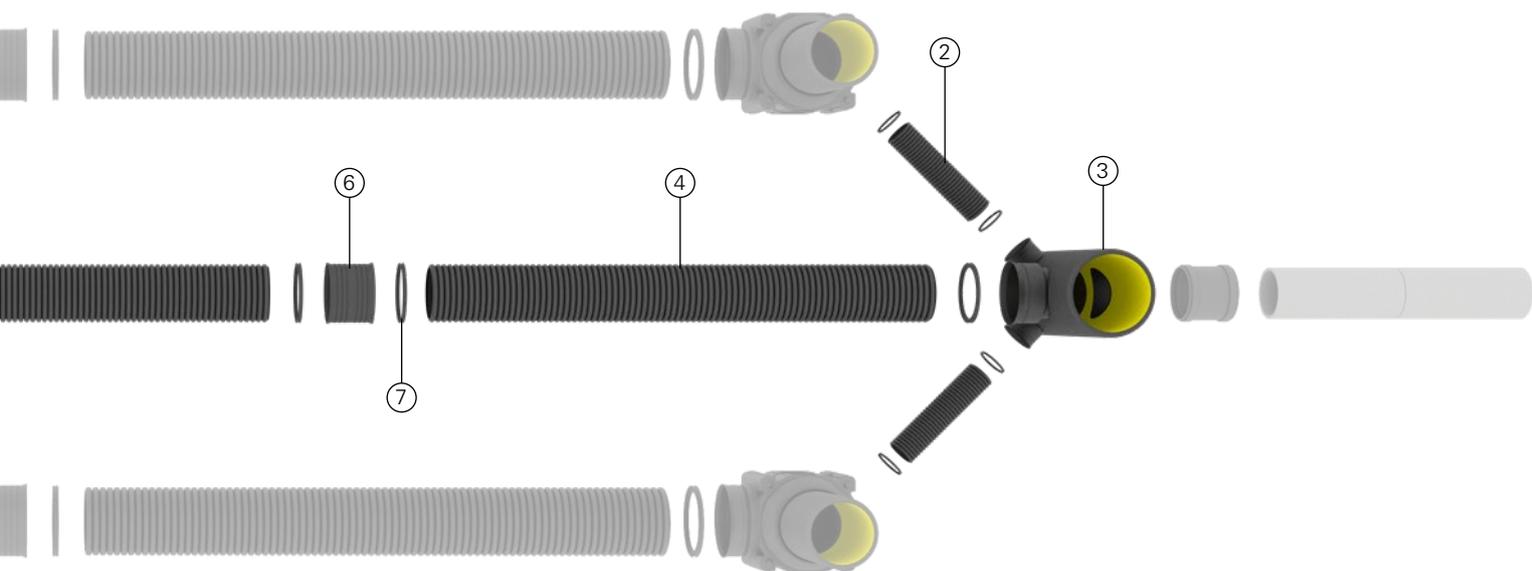
Distribution shaft – system components



②
 Connection set
 1 m, 3 m, 6 m
DN 200



③
 Distribution
 target shaft
DN 600



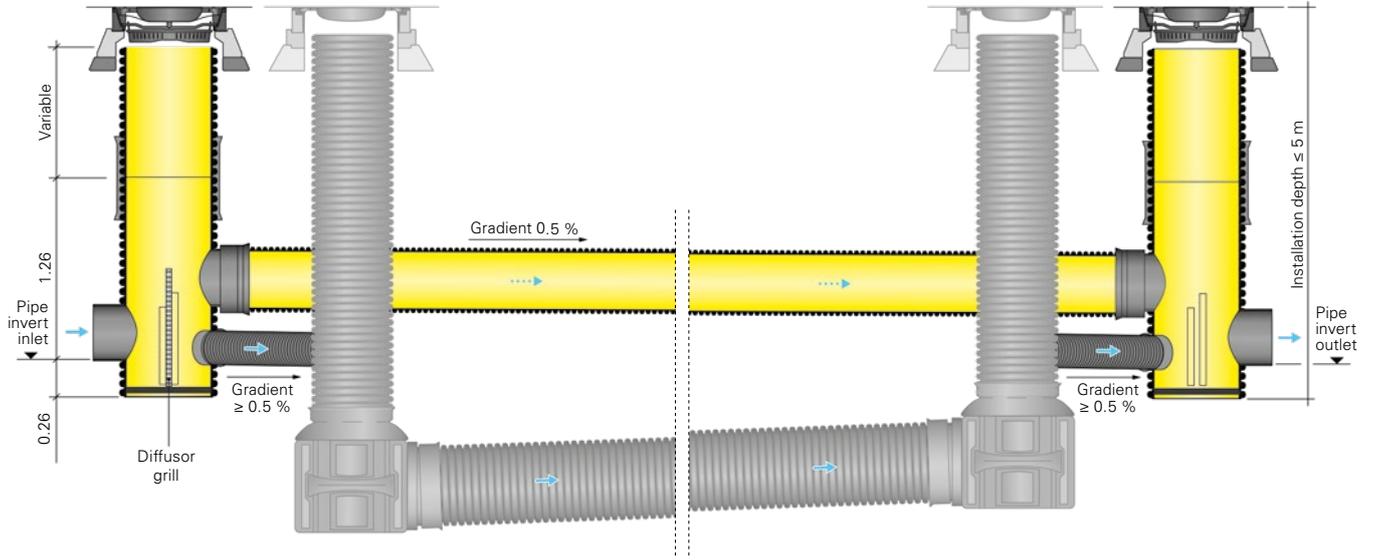
⑦
 Sealing ring
 for bypass
DN 400

NB

Please see page 22 for a product overview
 of all FRÄNKISCHE treatment systems.

Distribution shaft

View

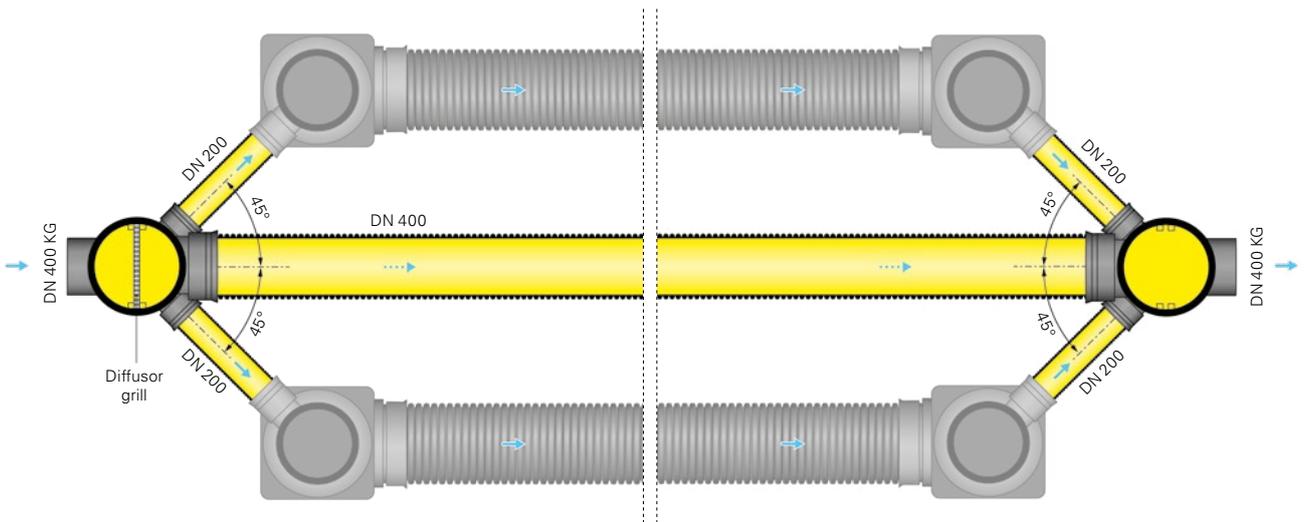


NB

Please see page 22 for a product overview of all FRÄNKISCHE treatment systems.

Exemplary representation

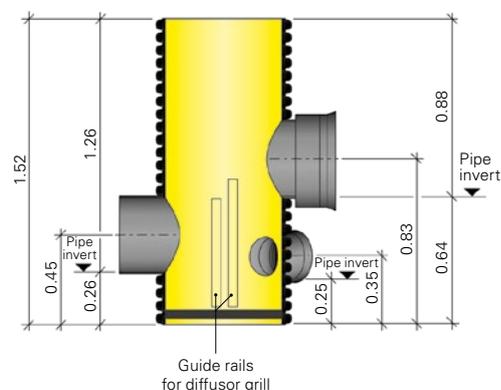
Plan



Distribution shaft

Technical specifications

	Technical specifications
Height base shaft [m]	1.52
Inside diameter [mm]	600
Material	PP
Inlet / outlet connection	1 x DN 400 KG
Treatment systems connections	2 x DN 200
Max. flow rate [l/s]	300
Treatment systems connection angle [°]	45
Emergency overflow / bypass connection	1 x DN 400
Max. installation depth from the top edge of terrain to the shaft bottom [m]	5



NB

The distribution shaft has been designed for the connection of 2 SediPipe level treatment systems. The shaft's maximum hydraulic capacity is 300 l/s.

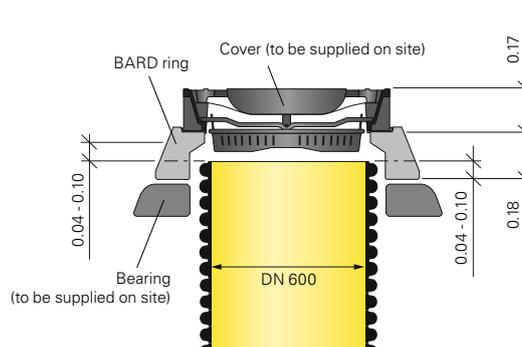
Shaft cover CW 610 (on site) and FRÄNKISCHE BARD ring

The distribution shaft has been designed for commercially available 625 mm standard covers according to DIN 124 (to be supplied on site, not included in the scope of delivery).

Use the BARD ring (class D concrete support ring) as a bearing for the cover. This transfers the possible traffic loads into the ground.

NB

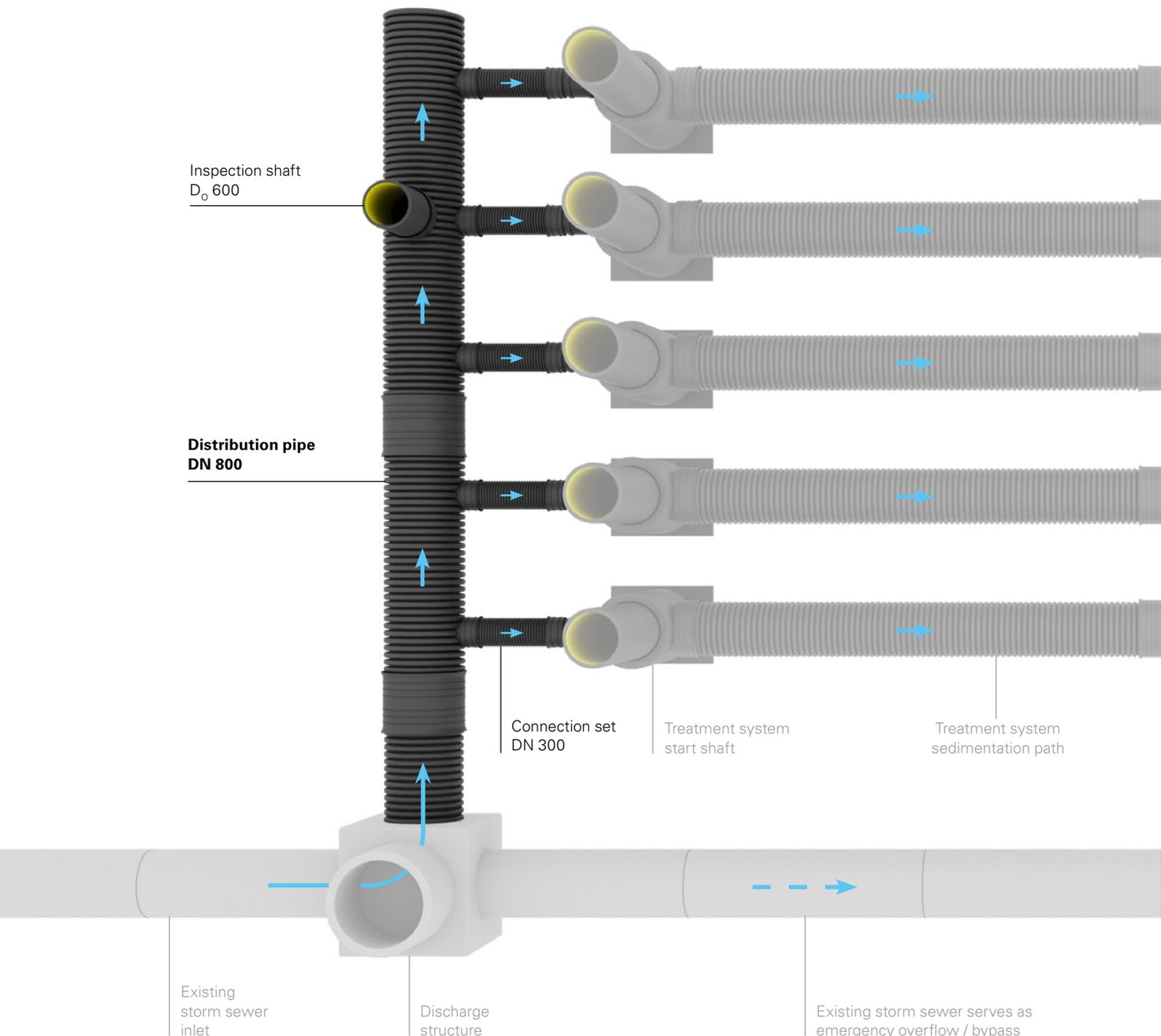
Please observe the installation manual.



Distribution pipe system – modular, flexible, unlimited applications

The outlet situation can be implemented ideally thanks to the distribution pipe system DN 800 starting from 2 SediPipe/SediSubstrator treatment systems planned in parallel. This system's modular structure and hydraulic efficiency allow – depending on the characteristics of the collection area – the connection of multiple treatment systems.

The distribution pipe is installed horizontally with a gradient of 0 %. The cuffs DN 300 for the treatment systems installed at equal distances of 1.65 m are arranged centrally on the distribution pipe, not same level. The backwater thus created in the inlet initially calms down and distributes the inflowing storm-water consistently in the distribution pipe until it is discharged into the connected treatment systems. This provides a consistent supply regarding hydraulics and pollution loads (AFS63).



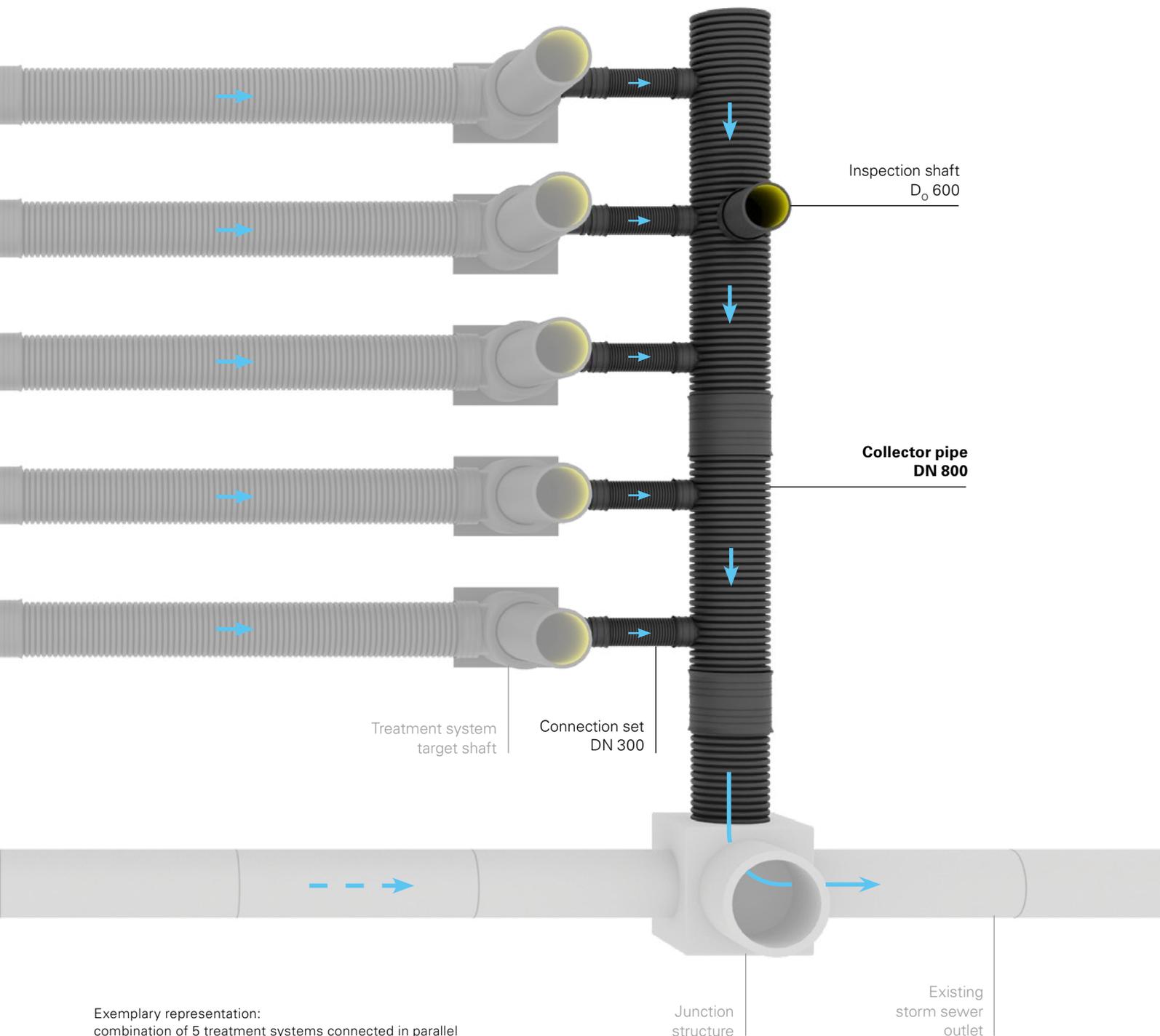
Distribution pipe system – modular, flexible, unlimited applications

The collector pipe is installed with a gradient of 1 % in the direction of the junction structure. The treated stormwater thus flows back into the storm sewer and can be discharged.

The inspection shaft integrated into the distribution pipe and/or collector pipe additionally ensures the trouble-free inspection and maintenance of the system.

Connection sets in different pipe lengths complement the range of products and allow trouble-free and proper connections between distribution pipe/collector pipe and treatment systems.

The storm sewer between the discharge structure and junction structure serves as bypass and/or overflow for large water volumes.



Distribution pipe system components

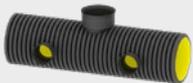
The distribution pipe system DN 800 consists of a modular number of pipe components with 2 or 3 lateral connections each, main pipes and various accessories. Pipe segments closed on one side are used for the end of the distribution pipe and/or collector pipe. Pipe segments with inspection openings allow inspection and maintenance of the system using extension pipes.



① Main distribution pipe – short
DN 800



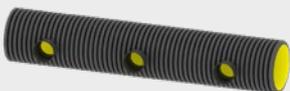
② Distribution pipe 2-fold
DN 800



Distribution pipe 2-fold
with inspection opening
DN 800



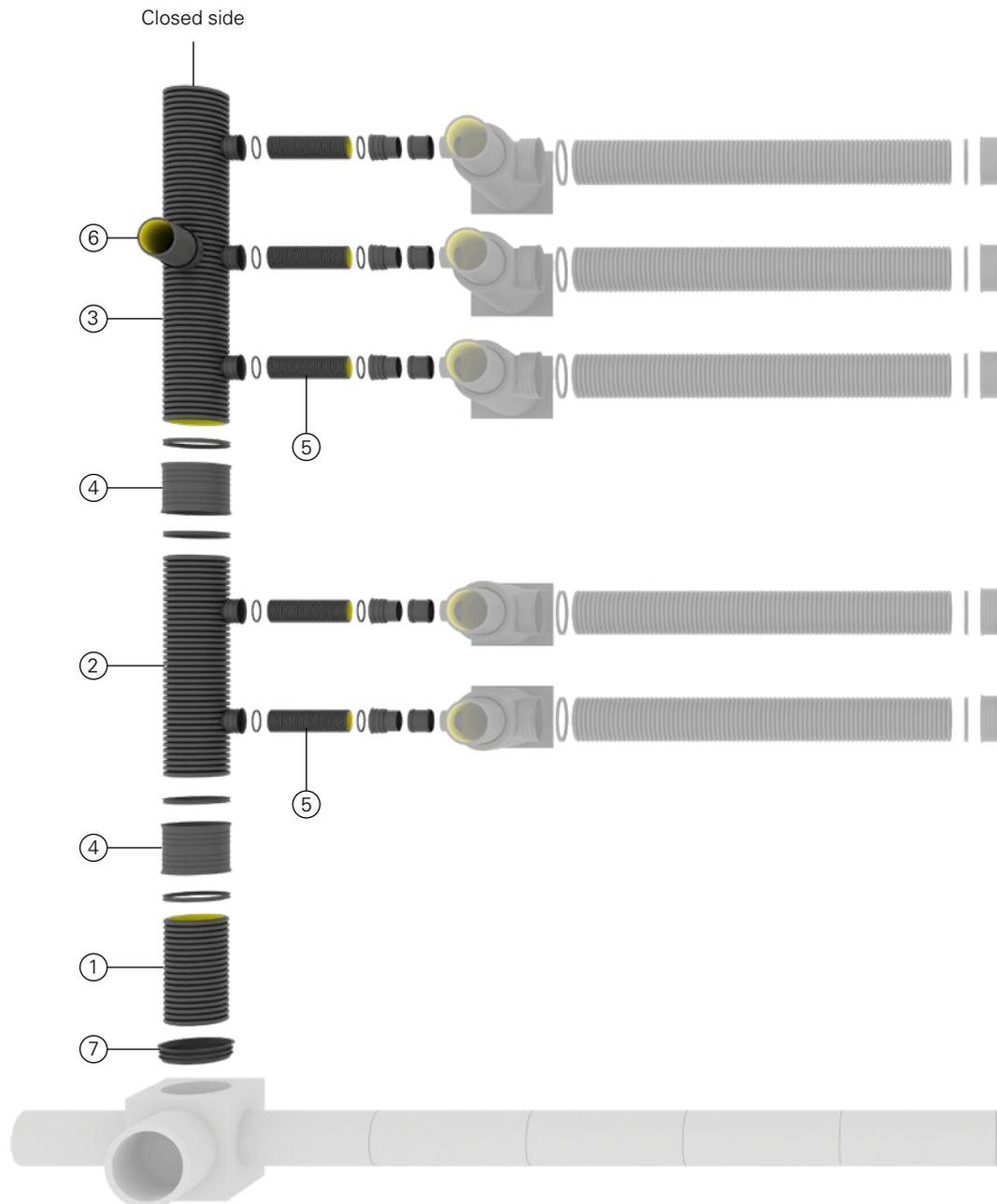
Main distribution pipe – long
DN 800



Distribution pipe 3-fold
DN 800



③ Distribution pipe 3-fold
with inspection opening
DN 800

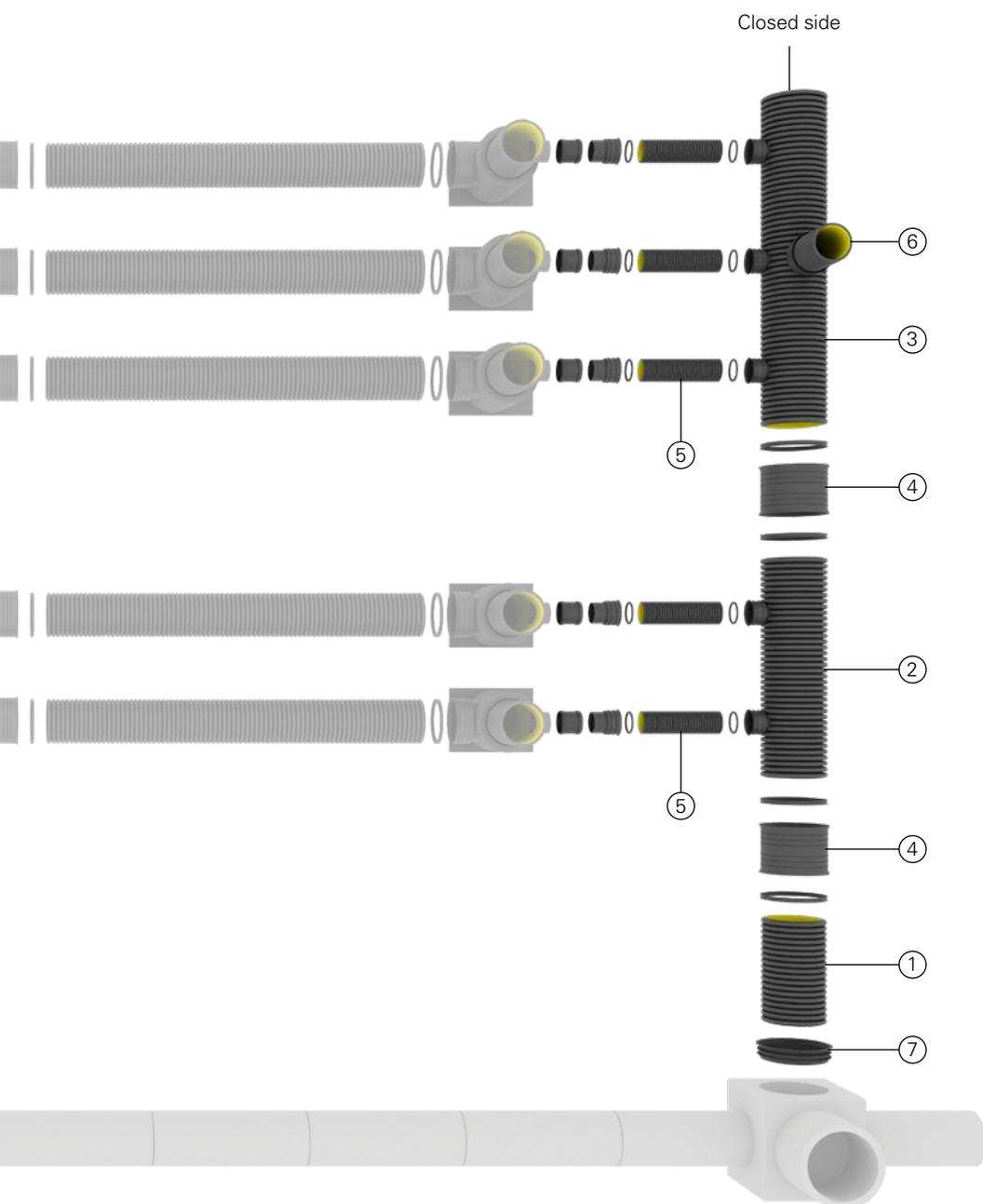


Exemplary representation

Distribution pipe system components

NB

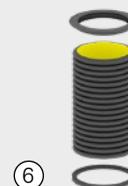
The axial spacing of the lateral connections arranged in parallel is 1.65 m. This ensures that proper compaction using appropriate compacting equipment can take place between the system components of the treatment system.



Coupling
DN 800



KG connection set
1 m, 3 m, 6 m
DN 300



Inspection shaft
extension pipe
D_o 600



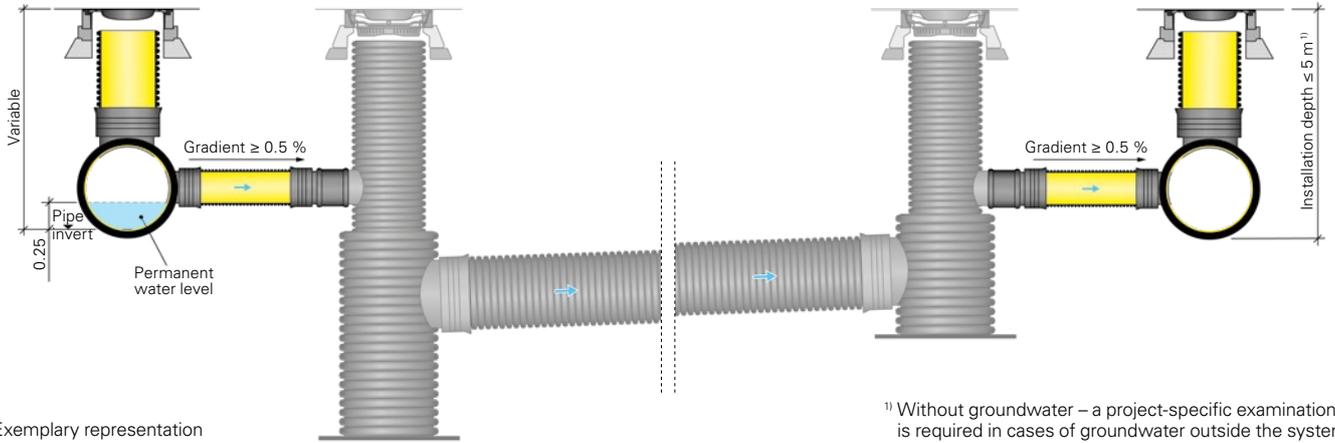
Shaft lining
DN 800

NB

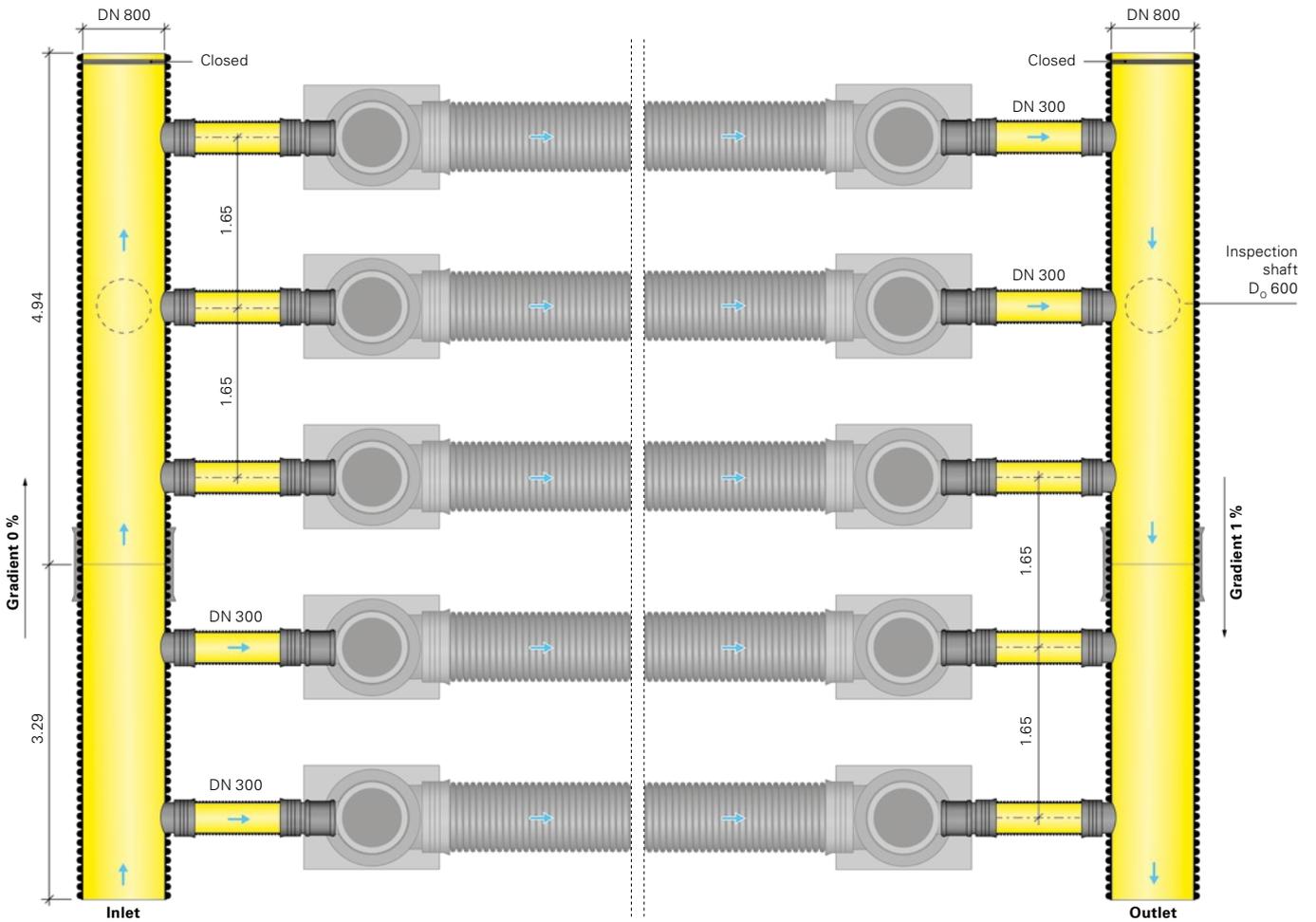
Please see page 22 for a product overview of all FRÄNKISCHE treatment systems.

Distribution pipe system

View



Plan

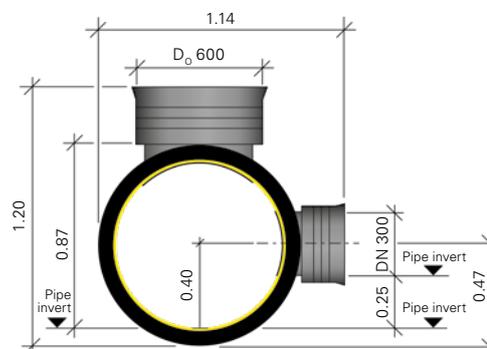


Distribution pipe system

Technical specifications

	Technical specifications
Length 3 connections [m]	4.94
Length 2 connections [m]	3.29
Inside diameter [mm]	800
Material	PP
Max. inflow into distribution pipe [l/s]	160
Connections	DN 300
Axial spacing of connections [m]	1.65
Connection for inspection shaft	1x D _o 600
Max. installation depth from top edge of terrain [m] ¹⁾	5

¹⁾ Without groundwater – a project-specific examination is required in cases of groundwater outside the system



Connectable SediPipe®/SediSubstrator® types

Product	Compatible with distribution pipe
SediPipe level	■
SediPipe L	■
SediPipe L plus	■
SediSubstrator L	■
SediPipe XL	■
SediPipe XL plus	■
SediSubstrator XL	■

NB

Please observe the maximum inflow of 160 l/s into the distribution pipe.

Please see page 22 for a product overview of all FRÄNKISCHE treatment systems.

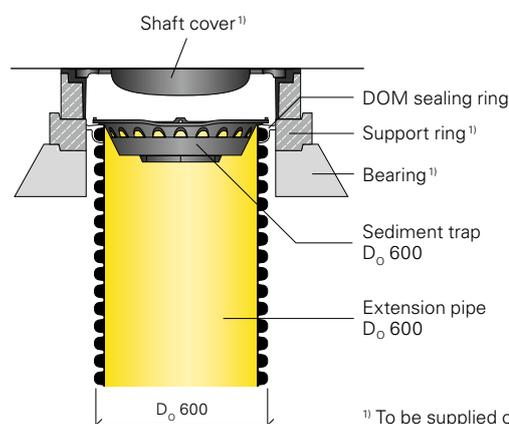
Shaft cover inspection shaft CW 610 (to be supplied on site)

The inspection shaft has been designed for commercially available 625 mm standard covers according to DIN EN 124 (to be supplied on site, not included in the scope of delivery).

A commercially available concrete support ring according to DIN 4034 serves as bearing for the covers. This transfers the possible traffic loads into the ground.

NB

Please observe the installation manual.



¹⁾ To be supplied on site

Distribution shaft product range overview

System consisting of

- Distribution start shaft and target shaft
- Diffusor grill for distribution start shaft
- Inlet/outlet connection sets for the treatment systems
- Bypass between start shaft and target shaft
- Optional shaft extension for start shaft and target shaft

Application

To connect 2 SediPipe level stormwater treatment systems in parallel.



Product	Technical specifications	Cat. no.
Distribution shaft base shaft start/target	Distribution shaft DN 600; 1.52 m total height; 1 x DN 400 KG inlet / outlet; 2 x DN 200 treatment systems connections; 1 x DN 400 bypass connection; incl. BARD ring and temporary construction site cover	51598600
Diffusor grill for distribution start shaft	Dirt filter, coarse; for distribution start shaft	51598605
Shaft extension	1 m pipe length; DN 600; incl. coupling and sealing rings	51598601
	2 m pipe length; DN 600; incl. coupling and sealing rings	51598602
	3 m pipe length; DN 600; incl. coupling and sealing rings	51598603
	6 m pipe length; DN 600; incl. coupling and sealing rings	51598604
Connection set	1 m pipe length; DN 200; incl. slide-on coupling and sealing rings	51598201
	3 m pipe length; DN 200; incl. slide-on coupling and sealing rings	51598203
	6 m pipe length; DN 200; incl. slide-on coupling and sealing rings	51598206
Bypass pipe	1 m pipe length; DN 400	51598401
	3 m pipe length; DN 400	51598403
	6 m pipe length; DN 400	51598406
Coupling	DN 400 for bypass	51598412
Slide-on coupling	DN 400 for bypass	51598411
Profile sealing ring	DN 400 for bypass	51598410
Shaft covers acc. to DIN EN 124	Class B or D; CW 610 with ventilation openings	To be ordered/ supplied on site
Support ring acc. to DIN 4034, Part 1	Height as required $D_1 = 625 \text{ mm}$	To be ordered/ supplied on site

Distribution pipe system product range overview

System consisting of

- Distribution pipes and collector pipes in two lengths and different connection variants
- Inlet/outlet connection sets for the treatment systems
- Extension pipe for inspection shaft

Application

For the connection of multiple SediPipe / SediSubstrator stormwater treatment systems in parallel.

Product	Technical specifications	Cat. no.
 Main distribution pipe, short	Distribution pipe / collector pipe DN 800; open on both sides; length: 3.29 m	51599820
 Distribution pipe 2-fold open on both sides	Distribution pipe / collector pipe DN 800; 2 x DN 300 treatment systems connections; open on both sides	51599823
 Distribution pipe 2-fold open on one side	Distribution pipe / collector pipe DN 800; 2 x DN 300 treatment systems connections; open on one side	51599824
 Distribution pipe 2-fold open on the left with inspection opening	Distribution pipe / collector pipe DN 800; 2 x DN 300 treatment systems connections; open on the left side; incl. inspection opening D _o 600	51599825
 Distribution pipe 2-fold open on the right side with inspection opening	Distribution pipe / collector pipe DN 800; 2 x DN 300 treatment systems connections; open on the right side; incl. inspection opening D _o 600	51599826
 Main distribution pipe, long	Distribution pipe / collector pipe DN 800; open on both sides; length: 4.94 m	51599830
 Distribution pipe 3-fold open on both sides	Distribution pipe / collector pipe DN 800; 3 x DN 300 treatment systems connections; open on both sides	51599833
 Distribution pipe 3-fold open on one side	Distribution pipe / collector pipe DN 800; 3 x DN 300 treatment systems connections; open on one side	51599834
 Distribution pipe 3-fold open on the left with inspection opening	Distribution pipe / collector pipe DN 800; 3 x DN 300 treatment systems connections; open on the left side; incl. inspection opening D _o 600	51599835
 Distribution pipe 3-fold open on the right side with inspection opening	Distribution pipe / collector pipe DN 800; 3 x DN 300 treatment systems connections; open on the right side; incl. inspection opening D _o 600	51599836

Distribution pipe system product range overview

Product	Technical specifications	Cat. no.
 Shaft lining for concrete shafts	DN 800; material: GRP; incl. sealing ring DN 800	51599840
 Coupling for distribution pipe	DN 800; incl. 2 sealing rings	51599850
 Extension pipe for inspection shaft	1 m pipe length; D _o 600; incl. profile sealing ring and DOM sealing ring	51599501
	2 m pipe length; D _o 600; incl. profile sealing ring and DOM sealing ring	51599502
	3 m pipe length; D _o 600; incl. profile sealing ring and DOM sealing ring	51599503
	6 m pipe length; D _o 600; incl. profile sealing ring and DOM sealing ring	51599506
 Connection set	1 m pipe length; DN 300; incl. slide-on coupling and sealing rings	51599301
	3 m pipe length; DN 300; incl. slide-on coupling and sealing rings	51599303
	6 m pipe length; DN 300; incl. slide-on coupling and sealing rings	51599306
 KG connection set	1 m pipe length; DN 300; slide-on coupling and sealing rings; KG adapter; KG coupling	51599311
	3 m pipe length; DN 300; slide-on coupling and sealing rings; KG adapter; KG coupling	51599313
	6 m pipe length; DN 300; slide-on coupling and sealing rings; KG adapter; KG coupling	51599316
 Sediment trap D _o 600	Suitable for installation under CW 610 shaft covers	51599500
Support ring acc. to DIN 4034, Part 1	Height: 100 mm D _i = 625	To be ordered/ supplied on site
Shaft covers acc. to DIN EN 124	Class B or D; CW 610 with ventilation openings	To be ordered/ supplied on site

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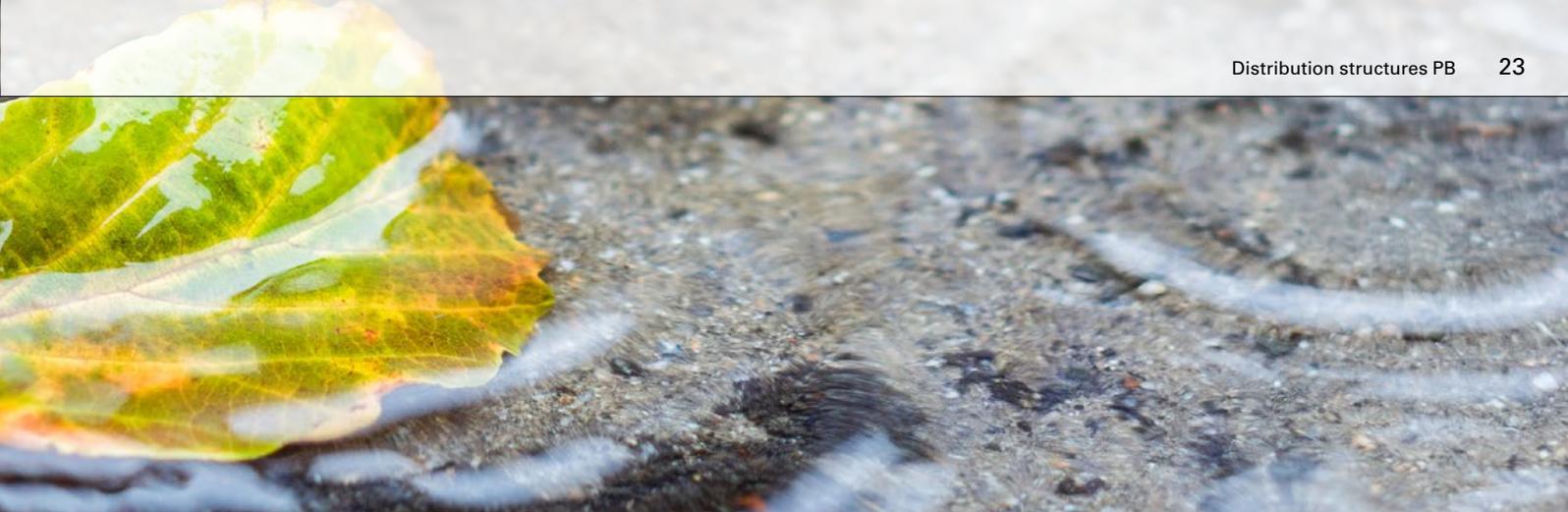




Product overview – treatment systems

1 2 3 4

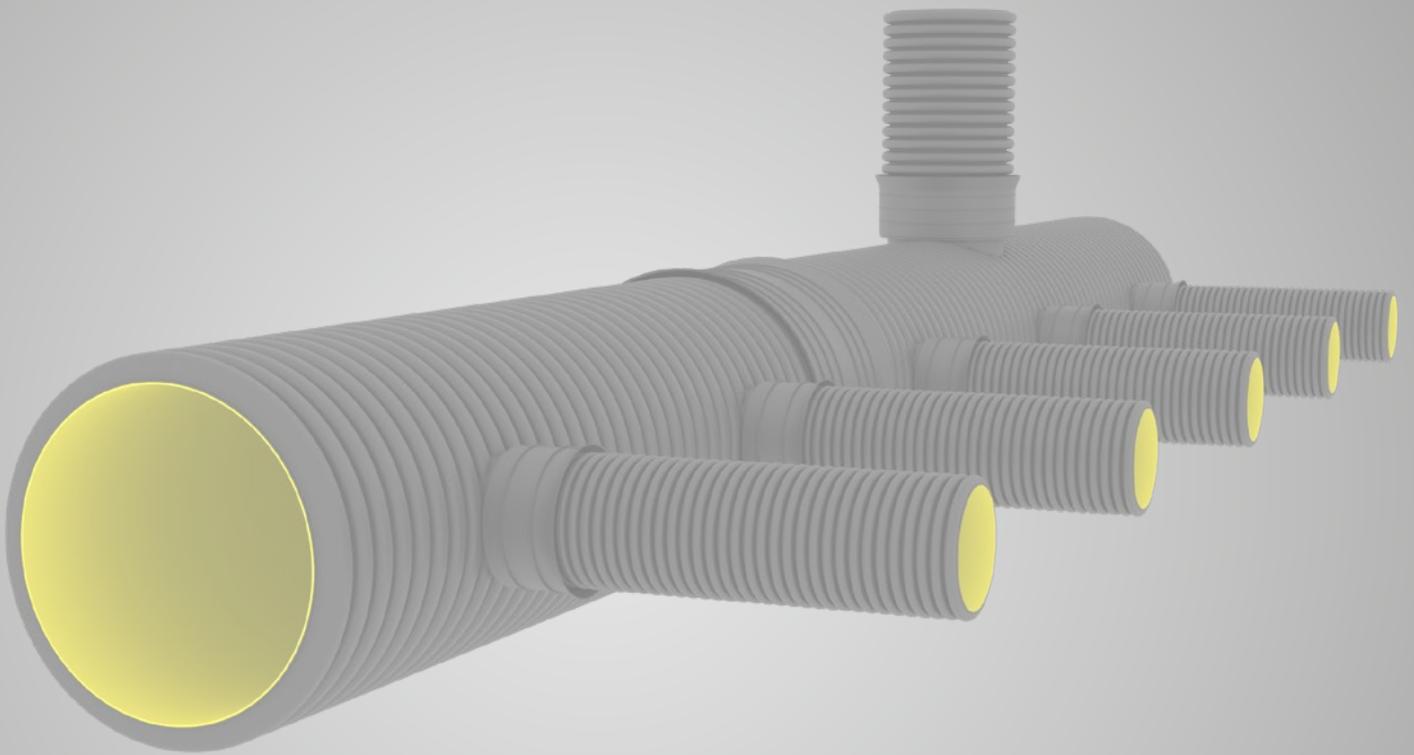
	Shafts		Tubular systems		
Product	RigoClean with strainer	SediPoint with flow separator	SediPipe level with 1 flow separator	SediPipe L with 1 flow separator	SediPipe XL with 1 flow separator
Illustration					
Treatment performance					
Operating principle	Filtering	Sedimentation	Sedimentation	Sedimentation	Sedimentation
Application					
Degree of pollution	☹☹☹	☹☹☹	☹☹☹	☹☹☹	☹☹☹
Typical characteristics	Protects storage/ infiltration systems against pollution	Flow separator operating principle for confined spaces	Bottom-aligned connections	Freely adjustable angles and installation depths	1000' shafts pre-assembled customer-specifically
Max. area	1,000 m ²	3,650 m ²	23,350 m ²	44,450 m ²	44,450 m ²
Approvals			Proof of equality as compared to storm- water sedimentation tanks (NRW)	Proof of equality as compared to storm- water sedimentation tanks (NRW)	Proof of equality as compared to storm- water sedimentation tanks (NRW)
Proof		<ul style="list-style-type: none"> ■ LGA Würzburg ■ IKT Gelsenkirchen 	<ul style="list-style-type: none"> ■ HTWK Leipzig ■ ifs Hannover ■ LGA Würzburg ■ IKT Gelsenkirchen ■ TAUW / TU Delft 	<ul style="list-style-type: none"> ■ HTWK Leipzig ■ ifs Hannover ■ LGA Würzburg ■ IKT Gelsenkirchen ■ TAUW / TU Delft 	<ul style="list-style-type: none"> ■ HTWK Leipzig ■ ifs Hannover ■ LGA Würzburg ■ IKT Gelsenkirchen ■ TAUW / TU Delft 



Product overview – treatment systems

1 **2** 3 4

Tubular systems		Tubular systems with substrate step		
SediPipe L plus with 2 flow separators	SediPipe XL plus with 2 flow separators	SediSubstrator basic with 1 flow separator and substrate filter unit	SediSubstrator L with 1 flow separator and substrate filter unit	SediSubstrator XL with 1 flow separator and substrate filter unit
Sedimentation, oil separation	Sedimentation, oil separation	Sedimentation, oil separation, adsorption	Sedimentation, oil separation, adsorption	Sedimentation, oil separation, adsorption
Oil separation performance in case of spills during rain	Oil separation performance in case of spills during rain	Outlet can be integrated in the storage/infiltration system	DIBt-approved stormwater treatment	DIBt-approved stormwater treatment
44,450 m ²	44,450 m ²	940 m ²	3,000 m ²	3,000 m ²
Proof of equality as compared to stormwater sedimentation tanks (NRW)	Proof of equality as compared to stormwater sedimentation tanks (NRW)		DIBt-approved	DIBt-approved
<ul style="list-style-type: none"> ■ HTWK Leipzig ■ ifs Hannover ■ LGA Würzburg ■ IKT Gelsenkirchen ■ TAUW / TU Delft 	<ul style="list-style-type: none"> ■ HTWK Leipzig ■ ifs Hannover ■ LGA Würzburg ■ IKT Gelsenkirchen ■ TAUW / TU Delft 	<ul style="list-style-type: none"> ■ ifs Hannover 	<ul style="list-style-type: none"> ■ LGA Würzburg 	<ul style="list-style-type: none"> ■ LGA Würzburg



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EN.1535/1.04.20 | Subject to change without notice | Cat. no. 59999123 | 04/2020

