

Pressure Drainage

VARIANT



WATER IS OUR ELEMENT

Kordes 

2023.230.0

Quality - Innovation - Reliability

Kordes is your reliable partner for wastewater technical products. The satisfaction of our customers is always our first priority, which is why we only use high-quality and durable components.

In the course of the company's history, now in its third generation, we have continuously optimized our products through innovative ideas, experience and a great attention to detail.

The know-how we have built up is the result of the engineering expertise of our employees and the practical experience of thousands of products supplied, which we subsequently look after for many years as part of maintenance contracts after successful completion of installation.

Active environmental protection with a perspective for the future is certainly one of the greatest challenges of our time. In the field of wastewater technology we contribute to keep our waters clean and to develop solutions for tomorrow.

We will be pleased to accompany you from planning to successful commissioning. An individual drawing especially for your project in 3D view, visualizes the product even before the start of production. Together we will find the ideal solution for your project and we are looking forward to a successful cooperation.

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 **MADE IN GERMANY**
 **SINCE 1935**



Pressure drainage VARIANT

Pressure drainage is an ideal wastewater discharge option for single and multi-family homes in rural areas. Through a VARIANT pump station, all the wastewater is pumped unnoticed along the fastest route to the nearest wastewater treatment plant.

Cutting wheel pumps are the first choice for pumping small amounts of wastewater containing fecal matter. The cutting wheels shred all the larger components of the wastewater during operation, allowing the use of smaller pipe cross-sections. The pipeline network thus remains optimally protected against deposits and blockages.

The wastewater only remains in the closed pipeline network for a short time, so that rotting processes and odor emissions cannot occur. Pressure drainage is ideal, especially for longer distances and difficult topographical conditions. Following the course of the terrain, differences in altitude can be overcome without any problems.

The investment and operating costs of pressure drainage are often significantly more economical compared to gravity sewer systems.

VARIANT pump stations are equipped with the non-return ball valves and reliably protect your property against backwater from the public network.



Ibbenbüren
2.000 systems

Gifhorn
1.400 systems

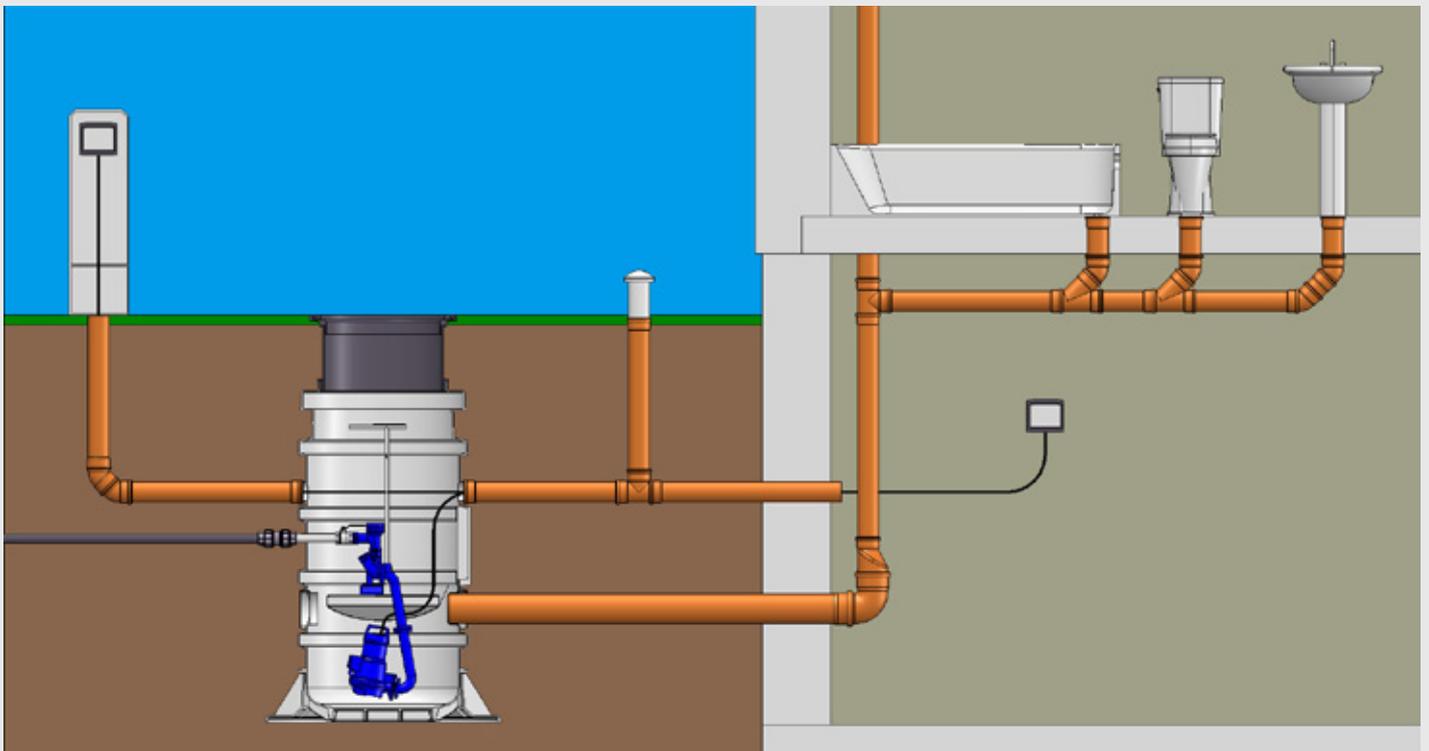
Lotte
800 systems

VARIANT pump station for one- and two-family houses

- Robust polyethylene LDPE shaft
- Covers up to class D (truck passable)
- Pumps with traverse suspension
- Single or double unit
- Armatures in DN 40
- Armatures cast iron or stainless steel
- Possible with buoyancy control
- Fully electronic control unit
- External column or building installation of the control unit
- Flushing connection (optional)
- Vacuum breaker (optional)



Installation proposal of VARIANT pump station



LDPE pump station

- Inlet depth: 1.26 - 1.96 m
- Installation depth: 1.78 - 2.48 m
- shaft diameter: 800 mm
- storage volume up to inlet: approx. 300 liters
- Inlet connection: 2 x KG DN 150
- Connection technology, ventilation: 2 x KG DN 100
- Telescopic dome for exact height adjustment
- Cover variants



Plastic up to 200 kg Ø 600 mm
Plastic up to 600 kg Ø 600 mm



BEGU Class B (car passable) Ø 610 mm

BEGU class D (truck passable) Ø 610 mm
with load distribution plate included

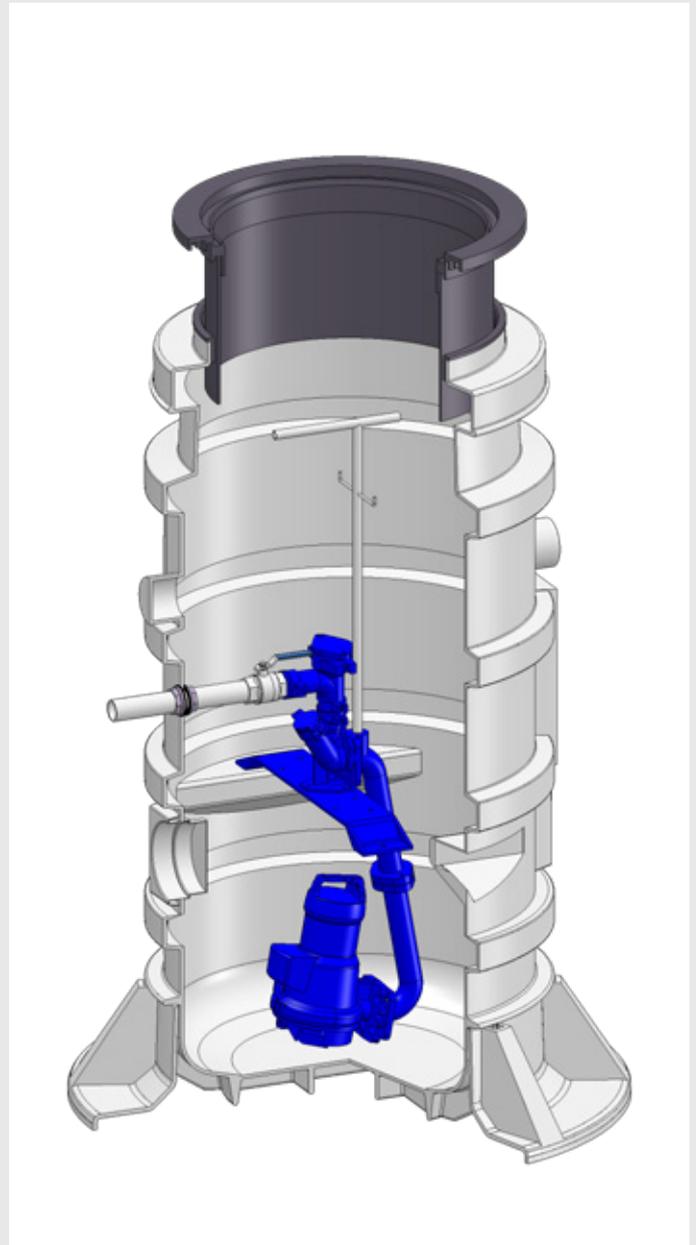
■ Ventilation



■ Buoyancy Control:



Required from a ground water level of 50%.



Cast iron armatures in DN 40 with traverse suspension

Single plant



Double plant



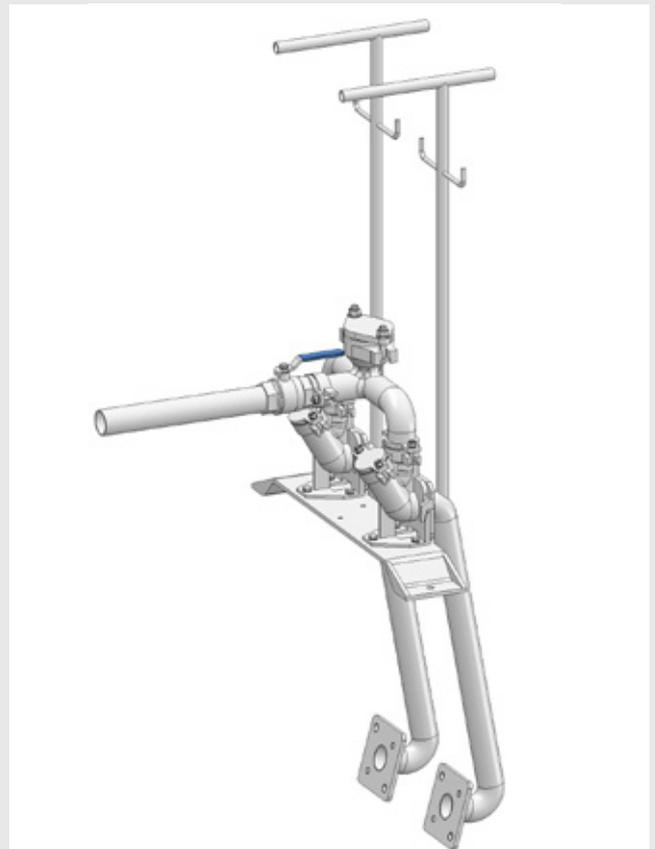
- Armatures made of spheroidal cast iron with powder coating
- Piping made of stainless steel
- The coupling foot is located on the traverse
- The pumps can be easily inserted into the coupling from above without entering the shaft
- Pump removal is possible at any time even without shutting off the slide valve
- The non-return ball valve prevents the backflow into the pump station
- The pipeline can be closed by a gate valve for repair purposes
- Flushing connection, vacuum breaker (optional)

Stainless steel armatures in DN 40 with traverse suspension

Single plant



Double plant

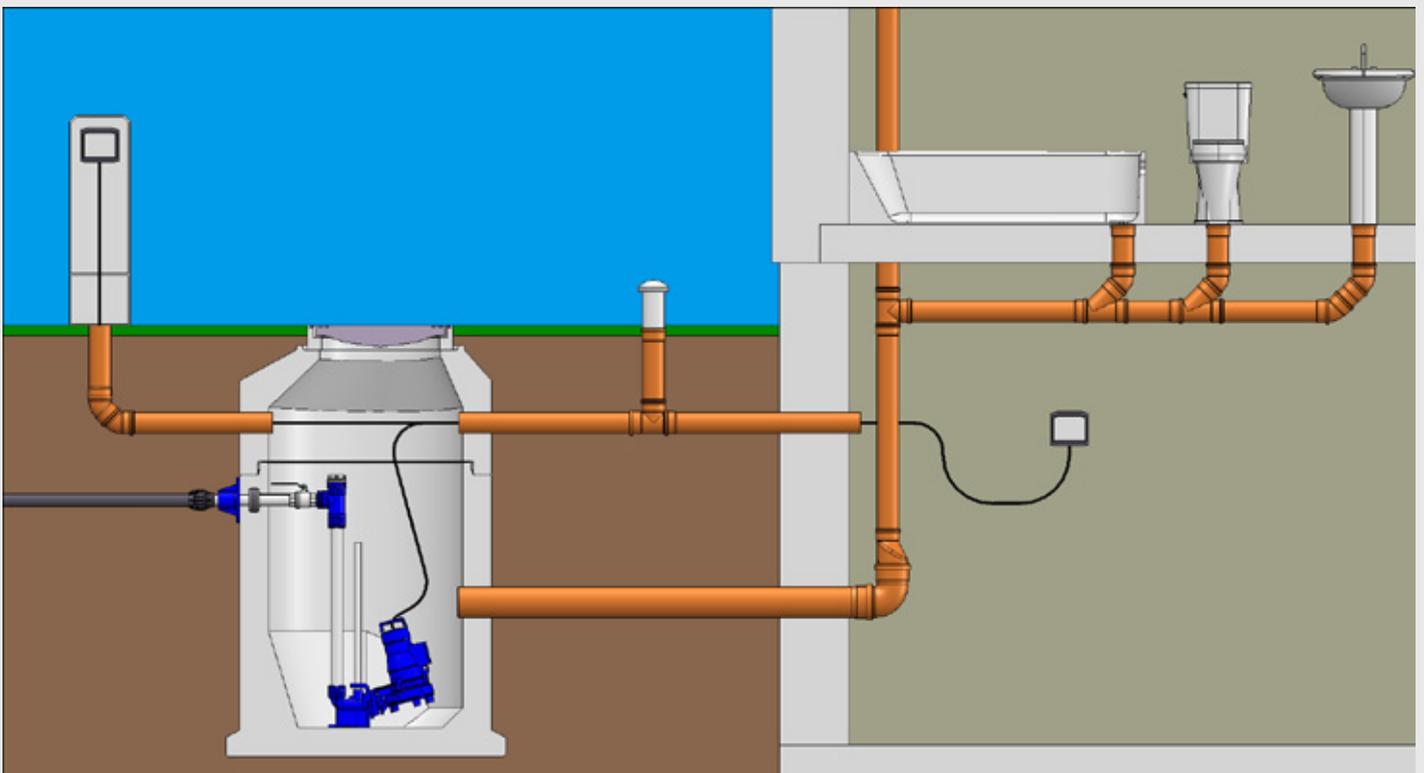


- Corrosion-resistant armatures and piping made of 100 % stainless steel
- The coupling foot is located on the traverse
- The pumps can be easily inserted into the coupling from above without entering the shaft
- Pump removal is possible at any time even without shutting off the slide valve
- The non-return ball valve prevents the backflow into the pump station
- The pipeline can be closed by a gate valve for repair purposes
- Flushing connection, vacuum breaker (optional)

Pump station for greater inlet depths

- Robust reinforced concrete shaft
- Covers up to class D (truck passable)
- Pumps with foot installation
- Single or double unit
- Armatures in DN 40 or DN 50
- Armatures in cast iron or stainless steel
- Inklusive buoyancy control
- Fully electronic control unit
- Outdoor column or building installation of the control unit
- Flushing connection (optional)
- Vacuum breaker (optional)

Installation proposal of VARIANT pump station



Pump station in concrete construction

- Inlet depth: 0.90 - 9.00 m
- Installation depth: 1.68 - 10.00 m
- Shaft diameter: Inside 1.000 mm
Outside 1.300 mm
- Storage volume up to inlet variable from 300 liters
- Pipe connections individually adaptable
- Cone or flat cover
- Covering variants:



BEGU class B (car passable) Ø 610 / 800 mm
BEGU class D (truck passable) Ø 610 mm



Cast iron class B (car passable) Ø 610 / 800 mm
Cast iron class D (truck passable) Ø 610 / 800 mm

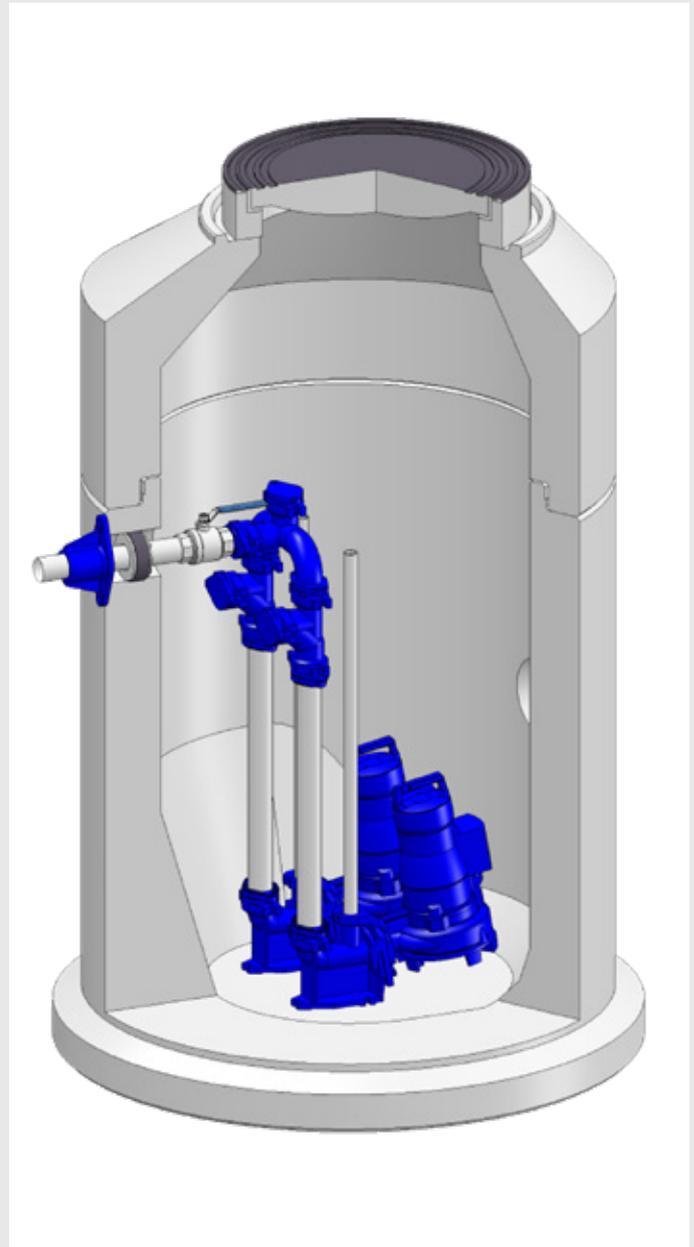


Stainless steel class A (accessible) Ø 610 / 800 mm

- Ventilation



- Ladder

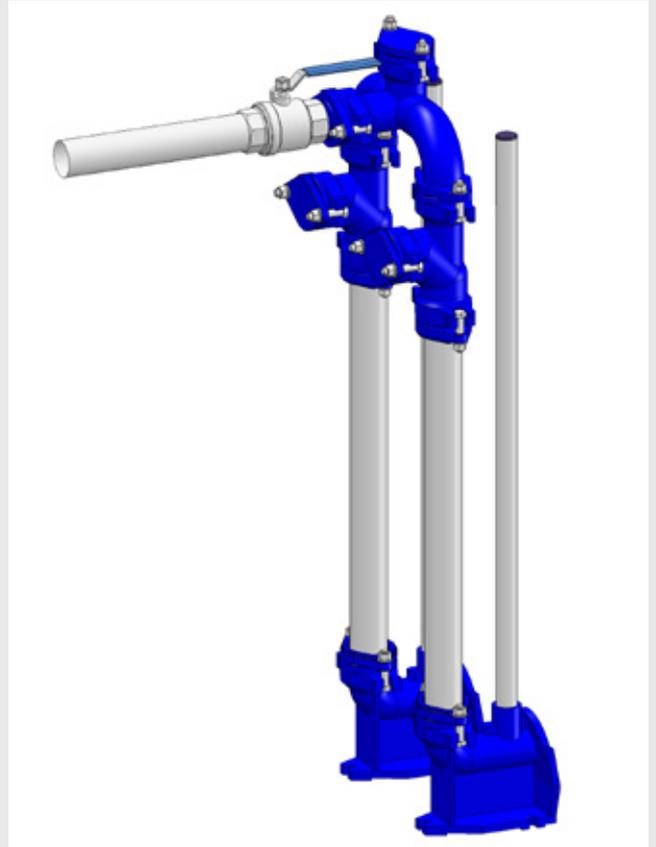


Cast iron armatures in DN 50 with foot installation

Single plant



Double plant



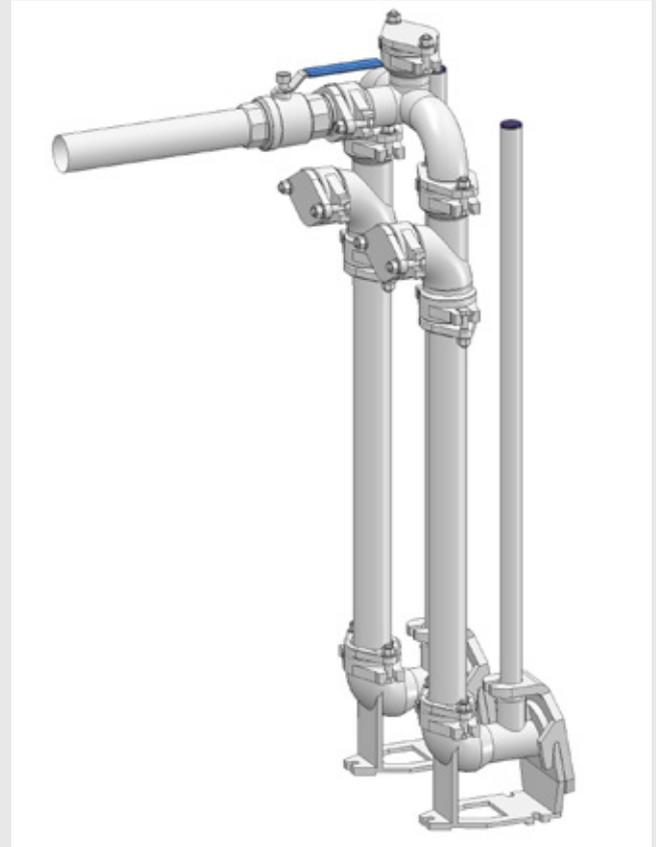
- Armatures made of spheroidal cast iron with powder coating
- Pipe lines made of stainless steel
- Depending on the shaft depth, the pipelines can be extended as required
- The pumps can be easily inserted into the coupling from above without entering the shaft
- Pump removal is possible at any time even without shutting off the slide valve
- The non-return ball valve prevents the backflow into the pump station
- The pipeline can be closed by a gate valve for repairs
- Flushing connection, vacuum breaker (optional)

Stainless steel armatures in DN 40/50 with foot installation

Single plant



Double plant

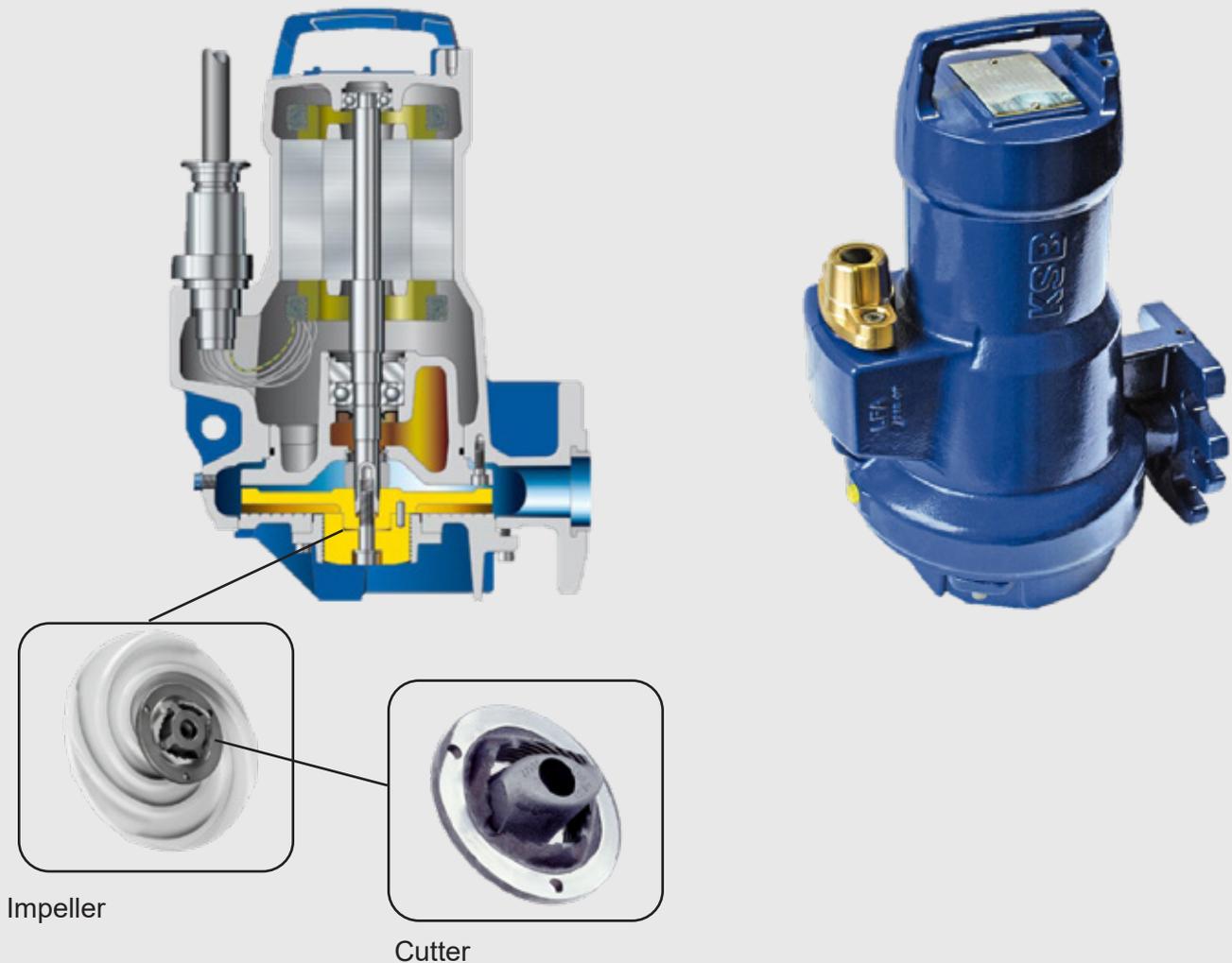


- Corrosion-resistant armatures and piping made of 100 % stainless steel
- Depending on the shaft depth, the pipelines can be extended as required
- The pumps can be easily inserted into the coupling from above without entering the shaft
- Pump removal is possible at any time even without shutting off the slide valve
- The non-return ball valve prevents the backflow into the pump station
- The pipeline can be closed by a gate valve for repairs
- Flushing connection, vacuum breaker (optional)

Pumps

For optimum flow rate and flow velocity, armatures, pressure lines and pumps must be precisely matched to the requirements of your construction site. Our product range extends from pumps with cutting impeller system for small wastewater volumes with admixtures, to pumps with free-flow impeller system. Both variants are available with and without explosion protection. For certain types of wastewater, pumps with special resistance to corrosive substances are also required.

Do not leave the right selection of your pump to chance and let us support you in the correct design. So that we can offer you the pump that is best suited for your construction site, we work together with the leading manufacturers of wastewater pumps. Our valve system can be combined with almost all common pumps with DIN flange.



Control technology

Our control units reliably switch and monitor your VARIANT pump station. The control unit can be installed inside by wall mounting or outside in an outdoor column. According to your application, we offer you a coordinated concept consisting of control unit, level measurement, armatures, pumps and shaft.

- Operating hours recording, current measurement, thermal monitoring of pumps
- Messages: Overcurrent, overheating, high water, runtime monitoring
- Air bubbling for dynamic pressure measurement optional
- Power failure monitoring optional by accumulator
- Optical and acoustic alarm message

Control unit CEB / CDB



- Connection up to 5,5 kW / 9 A
- Dimensions: W/H/D = 265 x 270 x 145 mm
- Level measurement: dynamic pressure, float switch, pressure probe
- Touch color display illuminated
- Error memory with full text display
- Manual - 0 - Automatic setting
- 3 potential free contacts
- GSM modem with qualified messages (optional)
- Motor protection switch
- Main switch
- External blocking of pumps possible

Control unit BEN / BDN



- Connection up to 5,5 kW / 9 A
- Dimensions: W/H/D = 200 x 220 x 110 mm
- level measurement: dynamic pressure, float switch
- Text display with illuminated digits
- LED error display on front cover
- Manual operation with push button
- 1 potential free contact
- GSM modem with a general error message (optional)
- Electronic engine protection

Service

Spare parts

You need a spare part? Due to our extensive component archive and with corresponding stock-keeping, we will find the right spare part for you, so that your system is quickly ready to work again.



Installation and commissioning

After you have received the delivery and the on-site preparations have been completed, we will be pleased to come to the technical assembly. After a successfully completed test run, everything is ready for commissioning. As a preparation for professional operation management, you will receive a detailed technical briefing from us.



Maintenance

Your Kordes system has been running trouble-free so far and you are satisfied with the product. To keep it that way, we recommend regular and qualified maintenance. As part of the maintenance contract, we check the entire systems technology and adjust everything to the current conditions. We then document the status of the system, including the measures carried out, and provide you with a clear report. A permanently reliable operation of your treatment plant is thus guaranteed.

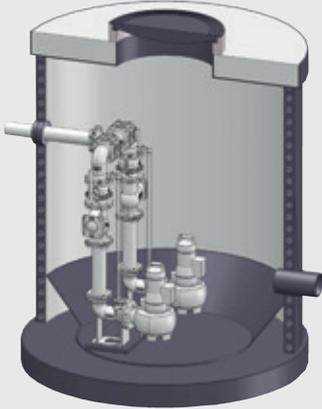


Contact

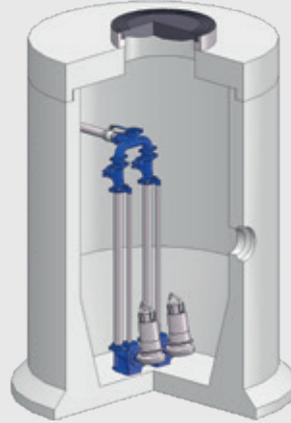
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Products

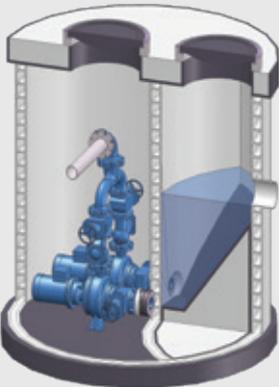
DORANT with PE-HD tank



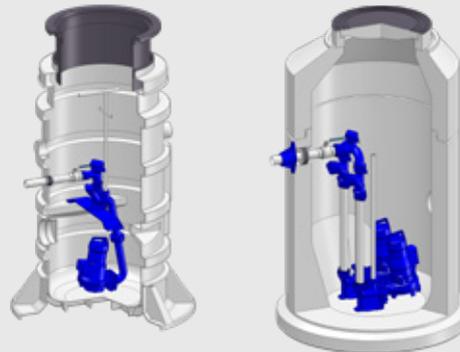
GARANT with reinforced concrete tank



HEKANT with dry-installed pumps



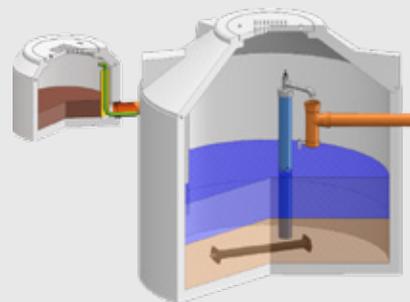
VARIANT Pressure drainage



BIOclear vario wastewater treatment plant
up to 5,000 Pe



Small wastewater treatment plants up
to 50 Pe



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