Our pumps and systems for heating, air-conditioning and cooling, water supply, special applications, drainage, sewage and industrial processes.
Innovative details and solutions that make our pump systems and services even more efficient. Wilo understands the everyday needs and challenges of those who work with building services technology, especially pump systems. That’s why the experts at Wilo are always collaborating with customers and partners to develop solutions that help them work more effectively. Regardless of whether they are creating complex designs or installing and maintaining pumps and systems, Wilo is focused on the future because Wilo is shaping the future every day. Wilo is going beyond pumps.

Achieve more together – that’s innovative.

Wilo-Stratos, the diverse one

→ Energy savings thanks to higher system efficiency provided by Q-Limit function (volume flow restriction)
→ Higher energy efficiency, e.g., starting at EEI ≤ 0.20 for all individual pumps
→ Display is easier to read
→ Space-saving installation thanks to compact design and variable-orientation LC display
→ Modular design for connection with any standard bus system (e.g., Modbus, BACnet, CAN, LON, PUR)
→ Proven quality and reliability

Wilo-EMUport CORE, the clogging-free one

→ Solids separation system with maximum operational reliability through pre-filtering of sewage
→ Can be installed in the building or in small shafts from diameters of 150 cm
→ Durable and corrosion resistant through the use of PE and PUR material
→ Easy maintenance thanks to dry well installation and easy access from the outside
→ Retrofit system for the economic refurbishing of old pumping stations

Maximum operating security with minimum maintenance effort.

The solids separation system for sewage disposal. Long-term operating security, durability and easy maintenance combined in a complete system: The solids separation system filters the sewage beforehand, this means that larger solids do not have to pass the pump, but are pushed into the discharge pipe directly from the solids separation reservoir. Wilo’s benchmark for efficiency and comfort. Wilo is going beyond pumps.
General overview
at a glance:

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Wilo
Cutting-edge technology and strong customer loyalty

Founded in 1872 as Kupfer- und Messingwarenfabrik in Dortmund, Wilo has evolved from being a local specialist to a global player. As the majority shareholder with a stake of approximately 90 percent, the Wilo-Foundation ensures the company’s continuity and independence. An uncompromising customer-driven mind-set, immediate market proximity and, in particular, our culture of innovation have made us who we are: one of the worldwide leading manufacturers of high-tech pumps and pump systems. With 16 production sites, more than 60 subsidiaries and approx. 7,500 employees in 50 countries.

Wilo is a premium supplier in the field of building services, water management and industry. Everyone working at Wilo aspires to provide the ultimate in service. Ever smaller, more efficient, quieter, more intelligent, more durable and simpler are the key factors when it comes to the development, production and operation of our pumps and systems. We offer an extensive range of products, covering everything from decentralised pump systems for single-family houses right up to large cooling water pumps for power stations. This leading position drives us to maintain our superiority. For our customers, we make complex technologies user-friendly, simple to operate, energy-efficient and powerful. The main focus of our activities is therefore on the people. We offer them outstanding products, system solutions and services. In this spirit, our brand promise “Pioneering for You” stands for maximum quality of life.
“It’s not just the technology that is highly efficient at Wilo, the support is too.”
Wilo consulting support

Modern information and consulting applications that efficiently support you in your work.
Wilo consulting support
Our software applications for your efficiency.

At Wilo, we want you to be able to concentrate from the very start on what’s important, namely your work. This is why we design our pumps and pump systems so that you can integrate them as easily as possible. We also offer a selection of software applications aimed at effectively supporting you in your day-to-day work.

In addition to this, online aids, such as the Wilo-Select for pump dimensioning, the Wilo-LCC-Check for identifying saving potential, the Wilo Online Catalogue, the Wilo-CAD catalogue and the Wilo Assistant app for smartphones and tablets, quickly and reliably provide you with important information, useful tips and hints for your design work. This makes time-consuming searching and unnecessary work steps a thing of the past.

1 The pump selection software Wilo-Select 4 online: At www.wilo-select.com, you can find the right pump for your application in seconds along with all the important information.

2 The online product catalogue: At productfinder.wilo.com, you can access all product information with corresponding fields of application and technical details.
The online CAD catalogue:
You can download exact 2D and 3D drawings quickly and easily at cad.wilo.com.

The Wilo Assistant app:
Here you find important information and functions during onsite customer consultation directly on your smartphone or tablet. 95% of all functions do not require an Internet connection, thereby ensuring quick and reliable consultation – even in the deepest of cellars.

As Web App for all other operating systems
app.wilo.com
“Intelligent pumps like the Wilo-Stratos save energy – even as soon as the design stage.”
Heating, air-conditioning, cooling

Pumps and systems for heating, air-conditioning, cooling, domestic hot water, solar and geothermal energy applications.
Intelligent temperature control
Wilo heating, air-conditioning and cooling technology.

The right temperature and an optimal room climate are decisive factors when it comes to providing people with that all-round feeling of comfort within a building. For this purpose, we offer intelligent pumps and systems that allow water to be distributed both reliably and extremely economically.

In 2001, we developed the Wilo-Stratos, the world’s first high-efficiency pump for heating, air-conditioning and cooling, and have continued to optimise our products ever since. The result: systems that can be optimally incorporated into building automation, that consume up to 90 % less energy compared to uncontrolled heating pumps and that already meet the regulations of the ErP Directive 2009/125/EC which are to come into effect over the coming years.

After all, we want you to be able to specifically plan for the future with us and want you to be certain that investing in our products will quickly pay off.
Hamburg Department for Urban Development and Environment, Germany

**Task:** A strict observation of the concept of sustainability and climate protection was paramount for this new building.

Specific targets: A primary energy demand of 70 kWh/m$^2$·a and a thermal heating demand of 15 kWh/m$^2$·a corresponding to the passive house standards.

**Solution:** Heating and cooling of a total of 2,950 rooms with 22,000 m$^2$ of thermoactive ceilings that are supplied by Wilo pumps.

The circulation in the three separate heating circuits of the Northern wing, the West wing and the highrise building is provided by Wilo-Stratos high-efficiency pumps. In total, 42 such pumps are in use in the building.
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**Equipment/function**

- EC motor
- Control modes: Δρ–c, Δρ–v, Δρ–T
- Volume flow limitation (via IR-Stick)
- Automatic setback operation
- Dual pump management
- Rotatable, graphical pump display
- Remote control via infrared interface (IR-Stick/IR-Monitor)
- Integrated motor protection
- System expansion by means of retrofittable interface modules for communication: Modbus, BACnet, CAN, LON, PLC etc.
- Pump housing with cataphoretic coating
- Combination flanges PN 6/PN 10 (for DN 32 to DN 85)

**Special features**

- Energy savings through greater system efficiency with the Q-Limit function
- Improved Energy Efficiency Index (EEI) ≤0.20 for all single pumps.
- Optimised display for better readability
- Space–saving installation due to compact design and location–dependent LC display
- Modular concept for connection of all conventional bus systems (e.g. Modbus, BACnet, CAN, LON and PLC)
- Tried and tested quality and reliability
- LED display for indication of set delivery head and fault codes
- Quick setting when replacing an uncontrolled standard pump with pre–set speed stages, e.g. TOP–S
- Electrical connection with Wilo plug
- Collective fault signal ensures system availability
- Pump housing with cataphoretic (KTL) coating protects against corrosion due to condensation

**Information**

- Online catalogue: productfinder.wilo.com
- Building Services catalogue: Heating, air-conditioning, cooling
- Online catalogue: productfinder.wilo.com
- Building Services catalogue: Heating, air-conditioning, cooling
- Online catalogue: productfinder.wilo.com
- Building Services catalogue: Heating, air-conditioning, cooling

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**General Overview – Delivery range – Edition 2016 – 50 Hz – Subject to change without prior notice.**
Product range

Glanded high-efficiency pumps in monobloc design.

Wilo–Stratos GIGA B

Field of application

Heating, air-conditioning, cooling, industrial process

Duty chart

- Design
  - High-efficiency monobloc pump with EC motor and electronic power adjustment in glanded pump design, with flange connection and mechanical shaft seal.

Application

- Pumping of heating water (in accordance with VDI 2035), cold water and water-glycol mixtures without abrasive substances in heating, cold water and cooling systems

Volume flow Q max.

- 120 m³/h

Delivery head H max.

- 52 m

Technical data

- Fluid temperature: -20 °C to +120 °C
- Mains connection: 3~380 V – 3~480 V (± 10 %), 50/60 Hz
- Minimum efficiency index (MEI) = 0.7
- Protection class IP 55
- Max. operating pressure 16 bar up to +120 °C; 13 bar up to +140 °C

Equipment/function

- Operating modes: Δp-c, PID control, n=constant
- Manual functions: E.g. differential pressure setpoint setting, manual control mode, error acknowledgement
- External control functions: E.g. Overriding OF, external pump cycling, analogue input 0–10 V/0–20 mA for manual control mode (DDC)
- Infrared interface for wireless data exchange with IR-Monitor/IR-Stick, plug-in position for IF-Modules for connection to building automation
- Safety functions: E.g. full motor protection, access disable

Special features

- Innovative high-efficiency pump with principal dimensions in accordance with EN 733
- High-efficiency EC motor (efficiency above IE4 limit values)
- Highly efficient hydraulics, optimally adapted to the EC motor technology, with optimised efficiency, minimum efficiency index (MEI) = 0.7 according to ErP Directive 2009/125/EC
- Control range is up to three times higher than that of conventional electronically controlled pumps

Information

Online catalogue: productfinder.wilo.com
Building Services catalogue: Heating, air-conditioning, cooling

Glanded energy-saving pumps in in-line design

Wilo–VerolLine-IP-E
Wilo–VeroTwin-DP-E

Field of application

Heating, air-conditioning, cooling, industrial process

Duty chart


Application

- Pumping of heating water (in accordance with VDI 2035), cold water and water-glycol mixtures without abrasive substances in heating, cold water and cooling systems

Volume flow Q max.

- 170 m³/h

Delivery head H max.

- 30 m

Technical data

- Fluid temperature: -20 °C to +120 °C
- Mains connection: 3–440 V ± 10 %, 50/60 Hz
- Minimum efficiency index (MEI) = 0.4
- Protection class IP 55
- Nominal diameter DN 32 to DN 80
- Max. operating pressure 16 bar

Equipment/function

- Operating modes: Δp-c, Δp-v, PID control, n=constant
- Manual functions: E.g. differential pressure setpoint setting, manual control mode, error acknowledgement
- External control functions: E.g. Overriding OFF, external pump cycling (effective only in double pump operation mode), analogue input 0–10 V/0–20 mA for manual control mode (DDC)
- Infrared interface for wireless data exchange with IR-Monitor/IR-Stick, plug-in position for IF-Modules for connection to building automation
- Safety functions: E.g. full motor protection, access disable

Special features

- Energy savings due to integrated electronic control
- Optional interfaces for bus communication using plug-in IF-Modules
- Simple operation with red-button technology and display
- Integrated dual pump management
- Integrated full motor protection with trip electronics
- Motors with efficiency class IE4

Information

Online catalogue: productfinder.wilo.com
Building Services catalogue: Heating, air-conditioning, cooling

Glanded energy-saving pumps in in-line design

Wilo–CronoLine-IL-E
Wilo–CronoTwin-DL-E

Field of application

Heating, air-conditioning, cooling, industrial process

Duty chart


Application

- Pumping of heating water (in accordance with VDI 2035), cold water and water-glycol mixtures without abrasive substances in heating, cold water and cooling systems

Volume flow Q max.

- 800 m³/h

Delivery head H max.

- 65 m

Technical data

- Fluid temperature: -20 °C to +140 °C
- Mains connection: 3~400 V ± 10 %, 50/60 Hz
- Minimum efficiency index (MEI) ≥ 0.4
- Protection class IP 55
- Nominal diameter DN 40 to DN 80
- Max. operating pressure 16 bar

Equipment/function

- Operating modes: Δp-c, Δp-v, PID control, n=constant
- Manual functions: E.g. differential pressure setpoint setting, manual control mode, error acknowledgement
- External control functions: E.g. Overriding OFF, external pump cycling (effective only in double pump operation mode), analogue input 0–10 V/0–20 mA for manual control mode (DDC)
- Infrared interface for wireless data exchange with IR-Monitor/IR-Stick, plug-in position for IF-Modules for connection to building automation
- Safety functions: E.g. full motor protection, access disable

Special features

- Energy savings due to integrated electronic control
- Optional interfaces for bus communication using plug-in IF-Modules
- Simple operation with red-button technology and display
- Integrated dual pump management
- Integrated full motor protection with trip electronics
- 2-pole pumps: Motors with efficiency class IE4; 4-pole pumps: Motors with efficiency class IE4 for motors from 11 kW up to 22 kW

Information

Online catalogue: productfinder.wilo.com
Building Services catalogue: Heating, air-conditioning, cooling
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<tr>
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**Information**

- Online catalogue: productfinder.wilo.com
- Building Services catalogue: Heating, air-conditioning, cooling

**General Overview – Delivery range – Edition 2016 – 50 Hz – Subject to change without prior notice.**
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<td>Heating, air-conditioning, cooling, industrial process</td>
<td>Heating, air-conditioning, cooling, industrial process</td>
</tr>
<tr>
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<td><img src="image" alt="Duty chart for Wilo–VeroLine-IPH-W" /></td>
<td><img src="image" alt="Duty chart for Wilo–VeroLine-IPS" /></td>
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<td><strong>Design</strong></td>
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<td>Glanded pump in in-line design with screwed connection or flange connection</td>
<td>Glanded pump in monobloc design with flange connection</td>
</tr>
<tr>
<td><strong>Application</strong></td>
<td>IPH-W: For pumping hot water without abrasive substances in closed industrial circulation systems, district heating, closed heating systems, etc. IPH-O: For pumping heat transfer oil in closed industrial circulation systems</td>
<td>For pumping cold and hot water (in accordance with VDI 2035) without abrasive substances in heating, cold water and cooling water systems</td>
<td>Pumping of heating water (in accordance with VDI 2035), cold water and water–glycol mixtures without abrasive substances in heating, cold water and cooling systems</td>
</tr>
<tr>
<td><strong>Volume flow Q max.</strong></td>
<td>80 m³/h</td>
<td>13 m³/h</td>
<td>377 m³/h</td>
</tr>
<tr>
<td><strong>Delivery head H max.</strong></td>
<td>38 m</td>
<td>3 m</td>
<td>105 m</td>
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<tr>
<td><strong>Technical data</strong></td>
<td>Fluid temperature IPH-W: –10 °C to +210 °C (at max. 23 bar) Fluid temperature IPH-O: –10 °C to +350 °C (at max. 9 bar) Mains connection 3–400 V, 50 Hz Protection class IP 55 Nominal diameter DN 20 to DN 80</td>
<td>Fluid temperature –10 °C to +140 °C Mains connection 3–230 V, 3–400 V, 50 Hz Minimum efficiency index (MEI) ≥ 0.4 Protection class IP 55 Nominal diameter Rp 1, DN 40 and DN 50 Max. operating pressure 10 bar, or 6 bar for flange connection</td>
<td>Fluid temperature –20 °C to +140 °C Mains connection 3–400 V, 50 Hz Minimum efficiency index (MEI) ≥ 0.4 Protection class IP 55 Nominal diameter DN 32 to DN 150 Max. operating pressure 16 bar (25 bar on request)</td>
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<tr>
<td><strong>Equipment/function</strong></td>
<td>Single-stage, low-pressure centrifugal pump in in-line design with Mechanical seal Flange connection Lantern Motor with special shaft</td>
<td>Single-stage, low-pressure centrifugal pump in in-line design with Mechanical seal or stuffing box packing Screwed or flange connection with pressure measuring connection R ¾ Standard motor</td>
<td>Single-stage low-pressure centrifugal pump in monobloc design, with axial suction port and radially arranged pressure port with Mechanical seal Flange connection with pressure measuring connection R ¾ Lantern Coupling Motors with efficiency class IE3 for motors ≥ 0.75 kW</td>
</tr>
<tr>
<td><strong>Special features</strong></td>
<td>Self-cooled mechanical seal, independent of direction of rotation Great variety of applications due to a wide fluid temperature range without additional wearing parts</td>
<td>Worldwide availability of the standard motors used Bidirectional force-flushed mechanical seal</td>
<td>Reduced life-cycle costs through optimised efficiency levels High corrosion protection through cataphoresis coating of the cast iron components Standard condensate drainage holes in the motor housings High worldwide availability of standard motors (according to Wilo specifications) and mechanical seals Meets user requirements due to performance and main dimensions in accordance with EN 733 (DIN for norm pumps)</td>
</tr>
<tr>
<td><strong>Information</strong></td>
<td>Online catalogue: productfinder.wilo.com</td>
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</tr>
</tbody>
</table>
# General Overview – Delivery range – Edition 2016 – 50 Hz – Subject to change without prior notice.

## Series

### Glanded monobloc pumps

- **Series**: Wilo-BAC
- **Field of application**: Heating, air-conditioning, cooling, industrial process
- **Duty chart**:
  - **Volume flow Q max.**: 87 m³/h
  - **Delivery head H max.**: 26 m

### Standard glanded pumps

#### Wilo-CronoNorm-NLG

- **Application**:
  - For pumping of cooling water, cold water, water-glycol mixtures and other fluids without abrasive substances
  - Pumping of heating water (in accordance with VDI 2035), cold water and water-glycol mixtures without abrasive substances in heating, cold water and cooling systems
  - Applications in municipal water supply, irrigation, building services, general industry, power stations, etc.

- **Volume flow Q max.**: 650 m³/h
- **Delivery head H max.**: 150 m
- **Technical data**:
  - Fluid temperature: -15 °C to +60 °C
  - Mains connection: 3~400 V, 50 Hz
  - Minimum efficiency index (MEI): ≥ 0.4
  - Protection class IP 55
  - Nominal diameter on suction side DN 50 to DN 500
  - Nominal diameter on pressure side DN 32 to DN 500
  - Max. operating pressure: varies according to type and application – up to 16 bar

- **Equipment/function**:
  - Single-stage low-pressure centrifugal pump with bearing bracket and exchangeable casing wear rings in process design
  - Shaft sealing with mechanical seals in accordance with EN 12756 or packing stuffing box
  - Spiral housing with cast pump bases
  - Shaft coupling with spacer coupling
  - Motors with efficiency class IE3 for motors ≥ 0.75 kW

- **Special features**:
  - Reduced life cycle costs through optimised efficiency levels
  - Pump housing in plastic design
  - Version with Victaulic or threaded connection (BAC 70/135... only with Victaulic connection)

#### Wilo-VeroNorm-NPG

- **Application**:
  - Pumping of heating water (in accordance with VDI 2035), cold water and water-glycol mixtures without abrasive substances in heating, cold water and cooling systems
  - Applications in municipal water supply, irrigation, building services, general industry, power stations, etc.

- **Volume flow Q max.**: 2,800 m³/h
- **Delivery head H max.**: 140 m
- **Technical data**:
  - Fluid temperature: -20 °C to +120 °C (depending on type)
  - Mains connection: 3~400 V, 50 Hz
  - Minimum efficiency index (MEI): ≥ 0.4
  - Protection class IP 55
  - Nominal diameters: DN 150 to DN 500 (depending on type)
  - Max. operating pressure: varies according to type and application – up to 16 bar

- **Equipment/function**:
  - Single-stage horizontal spiral housing pump with bearing bracket and exchangeable casing wear rings in process design
  - Shaft sealing with mechanical seals in accordance with EN 12756 or packing stuffing box
  - Spiral housing with cast pump bases
  - Greased grooved ball bearings for bearing of pump shaft
  - Motors with efficiency class IE3

- **Special features**:
  - Reduced life cycle costs through optimised efficiency levels
  - Mechanical seal independent of the direction of rotation
  - Interchangeable casing wear ring
  - Permanently lubricated, generously dimensioned roller bearings
  - Suitable for temperatures up to 140 °C
  - Back-pull-out version
  - Extension of the DIN EN 733 product range

**Information**

- Online catalogue: productfinder.wilo.com
### Product range

**Series**
- Wilo-SCP

**Field of application**
- Cooling, air-conditioning, water distribution/boosting, industrial process
- Heating, air-conditioning, cooling, industrial process
- Heating, air-conditioning, cooling

**Duty chart**

**Design**
- Low-pressure centrifugal pump with axially split housing mounted on a baseplate
- Highly efficient, fully automatic, ready for connection multi-pump system for high volume flows in heating, cold water and cooling water systems, 3 to 4 electronically controlled glanded in-line pumps switched in parallel
- Automatic condensate lifting unit

**Application**
- Pumping heating water in accordance with VDI 2035, water-glycol mixtures and cooling and cold water without abrasive substances in heating, cold water and cooling water systems
- For pumping heating water (in accordance with VDI 2035), water-glycol mixtures and cooling and cold water without abrasive substances in heating, cold water and cooling water systems
- For pumping condensate out of Heat generators with condensing boiler technology

**Volume flow Q max.**
- 3,400 m³/h
- 490 m³/h
- 0.6 m³/h

**Delivery head H max.**
- 245 m
- 55 m
- 5.4 m

**Technical data**
- Fluid temperature: -8 °C to +120 °C
- Mains connection 3~400 V, 50 Hz
- Protection class IP 55
- Nominal diameters – Suction side: DN 65 to DN 500
- Pressure side: DN 50 to DN 400
- Max. operating pressure: 16 or 25 bar, depending on type
- Pump type: VeroLine-IP-E or CronoLine-IL-E
- Mains connection: 3–230/400 V, 50 Hz ±10 %
- Fluid temperature: 0 °C to +120 °C
- Pipe connections: DN 125 to DN 300
- Flanges: PN 16, according EN 1092-2
- Max. permissible operating pressure: 10 bar (IP-E), 16 bar (IL-E)
- Mains connection 1–230 V, 50 Hz
- Operating mode S3
- Max. fluid temperature 50 °C
- Protection class IP 2D
- Pressure connection 10 mm
- Inlet connections 19/30 mm
- Gross tank volume 1.2 l
- Ready-to-plug system
- Level control with float switch
- Alarm signal via potential-free contact (NC/NO contact)
- Integrated non-return valve
- Fixation material
- 5 m pressure hose

**Equipment/function**
- 1– or 2-stage, low-pressure centrifugal pump in monobloc design
- Shaft sealing with mechanical seal or stuffing box packing
- 4–pole and 6–pole motors
- Materials: Pump housing: EN-GJL-250
- Impeller: G-CuSn5 ZnPb
- Shaft: X12Cr13
- Number of pumps: 2+1 or 3+1 (2 or 3 pumps in operation, 1 standby pump each)
- Automatic pump control via Wilo-SCe
- Parts that come in contact with the fluid are corrosion-resistant
- Base frame made of galvanised steel, with height-adjustable vibration absorbers for insulation against structure-borne noise
- Distributor steel, with corrosion-resistant coating
- Shut-off valves, non-return valve, pressure gauge and premounted seals
- Differential pressure sensor
- Compact design, good accessibility to all components

**Special features**
- Higher capacities up to 17,000 m³/h on request
- Special motors and other materials on request
- Quick and easy installation
- Energy-saving; Operation in partial load area according to current needs
- Reliable system thanks to optimally matched components
- Compact design, good accessibility to all components
- Low-noise operation (≤ 43 dB[A])
- Standard alarm contact (NC/NO contact)
- Motor unit reversible by 180°
- Variable inlets/drains
- Suitable for condensates with a pH value ≤ 2.4

**Information**
- Online catalogue: productfinder.wilo.com
- Building Services catalogue: Heating, air-conditioning, cooling
# Product range

**Particle separator systems for closed HVAC loops**

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**Field of application**
- Heating, air-conditioning, cooling
- Heating, air-conditioning, cooling
- Heating, air-conditioning, cooling

**Duty chart**
- no illustration
- no illustration
- no illustration

**Design**
- Compact particle separator kit, consisting of mechanical and hydraulic components. Manual emptying of the system.
- Fully-automatic, compact particle separator, provided as “Plug & Play” version, consisting of mechanical and hydraulic components. The system is drained automatically.
- Switchgear for controlling 1 to 6 pumps

**Application**
- SiClean removes magnetic and non-magnetic particles from heating systems via natural physical phenomena. Installation in commercial properties and heating/air-conditioning systems for district heating.
- SiClean Comfort removes particles from heating systems using natural physical phenomena. For installation in commercial properties and heating/air-conditioning systems for district heating.
- Switchgear for controlling 1 to 6 pumps

**Volume flow Q max.**
- 4 m³/h
- 67 m³/h
- –

**Delivery head H max.**
- –
- –
- –

**Technical data**
- Fluid temperature 0 °C to +95 °C
- Mains connection: 1~230 V, 50 Hz
- Fluid temperature 0 °C to +95 °C
- Mains connection: 3~400 V, 50 Hz
- Wilo-CC-HVAC system
- Comfort control system for 1 to 6 pumps switched in parallel, with fixed speed
- Wilo-CCe-HVAC system
- Comfort control system for 1 to 6 pumps with integrated electronics/speed control or external frequency converter control
- Wilo-VR-HVAC system
- Vario controller for 1 to 4 pumps switched in parallel, with integrated speed control
- Wilo-SC-HVAC system
- Smart controller for 1 to 4 pumps switched in parallel
- SC and SC-FC versions for standard pumps with fixed speed
- SCe version for infinitely variable, electronically controlled pumps or pumps with integrated frequency converter

**Equipment/function**
- Anti-corrosive, hydraulic components
- Fabric-reinforced hoses connected to inlet and outlet of the particle separator
- Pre-assembled venting unit for expulsion of microbubbles
- Movable magnetic rods for separation of iron oxide particles
- Volume flow limiter
- Manual purge valve for draining of collected particles
- Switchbox for monitoring the circulation pump
- Corrosion-resistant, hydraulic components
- Fabric-reinforced hoses connected to inlet and outlet of the particle separator
- Pre-assembled flushing device including electronic drain valve and additional safety valve
- Automatic draining of the particle collection chamber
- SC switchgear
- Separator for removing magnetic and non-magnetic particles
- Wilo-CC-HVAC system
- Comfort control system for 1 to 6 pumps switched in parallel, with fixed speed
- Wilo-CCe-HVAC system
- Comfort control system for 1 to 6 pumps with integrated electronics/speed control or external frequency converter control
- Wilo-VR-HVAC system
- Vario controller for 1 to 4 pumps switched in parallel, with integrated speed control
- Wilo-SC-HVAC system
- Smart controller for 1 to 4 pumps switched in parallel
- SC and SC-FC versions for standard pumps with fixed speed
- SCe version for infinitely variable, electronically controlled pumps or pumps with integrated frequency converter

**Special features**
- Removal of magnetic and non-magnetic particles from the medium, venting of micro bubbles
- High cleaning efficiency due to physical effects (gravity, filtration...)
- Easy to use due to ease of installation, maintenance, and simplified settings
- Corrosion-resistant thanks to stainless steel particle separator
- High efficiency via combination of physical effects
- Fully automated operation
- "Plug & Play" design
- Fully automated and adjustable disposal of collected particles in the desludging tank
- Highly functional thanks to removal of all magnetic and non-magnetic particles, free air and micro bubbles in the fluid and support for the degasification process
- Special versions on request

**Information**
- Online catalogue: productfinder.wilo.com
- Online catalogue: productfinder.wilo.com
- Online catalogue: productfinder.wilo.com
- Building Services catalogue: Heating, air-conditioning, cooling
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<tr>
<td><strong>Duty chart</strong></td>
<td>no illustration</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Design</strong></td>
<td>Glandless circulation pump with screwed connection, EC motor and automatic power adjustment</td>
<td></td>
<td>Submersible pump, multistage</td>
</tr>
<tr>
<td><strong>Application</strong></td>
<td>Wilo-Control products for connecting pumps to building automation</td>
<td>Circulation in solar thermal and geothermal energy systems</td>
<td>Water supply from boreholes, wells and rainwater storage for geothermal applications</td>
</tr>
<tr>
<td><strong>Volume flow Q max.</strong></td>
<td>–</td>
<td>4.5 m³/h</td>
<td>6 m³/h</td>
</tr>
<tr>
<td><strong>Delivery head H max.</strong></td>
<td>–</td>
<td>13 m</td>
<td>33 m</td>
</tr>
<tr>
<td><strong>Technical data</strong></td>
<td>–</td>
<td>Fluid temperature 0 °C to +110 °C</td>
<td>Mains connection: 3~400 V, 50 Hz</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mains connection 1~230 V, 50 Hz</td>
<td>Fluid temperature: 3~30 °C</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Energy Efficiency Index (EEI) ≤ 0.23</td>
<td>Minimum flow rate at motor: 0.08 m/s</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Protection class IP X4D</td>
<td>Max. sand content: 50 g/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Screwed connection Rp ½, Rp 1 and Rp 1¼</td>
<td>Up to 20 starts per hour</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Max. operating pressure 10 bar</td>
<td>Max. immersion depth: 200 m</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Minimum efficiency index MEI: ≥ 0.7</td>
</tr>
<tr>
<td><strong>Equipment/function</strong></td>
<td>Wilo-IR-Stick/IR-Monitor</td>
<td>Control modes: Δp-v, manual control mode (n = constant), external speed control with PWM 1 or PWM 2 signal</td>
<td>Multistage submersible pump with radial or semi-axial impellers</td>
</tr>
<tr>
<td></td>
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<tr>
<td></td>
<td>Wilo-IF-Modules Stratos/IF-Modules</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Plug-in modules for BA connection of Stratos, Stratos GIGA, Stratos GIGA B, IP-E, DP-E, IL-E, DL-E, BL-E, MHE, MVIE, Helix VE...</td>
<td>Quick electrical connection with Wilo-Connector</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Discontinued line: (applies to Protect-Module C)</td>
<td>Blocking-current proof motor</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Wilo-Protect-Module C</td>
<td>Automatic deblocking function</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Plug-in module for BA connection of uncontrolled TOP-Z pumps</td>
<td>Pump housing with cataphoretic coating</td>
<td></td>
</tr>
<tr>
<td><strong>Special features</strong></td>
<td>–</td>
<td>Red button for setting the control mode Δp-v or the fixed speed</td>
<td>Performance-optimised motors for geothermal applications</td>
</tr>
<tr>
<td></td>
<td></td>
<td>External speed control via integrated interface PWM 1 (geothermal) and PWM 2 (solar)</td>
<td>Parts in contact with the fluid are corrosion-resistant</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Flexible connection cable with Wilo-Connector</td>
<td>Integrated non-return valve</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Pump housing with cataphoretic coating protects against corrosion due to condensation formation</td>
<td>Low wear due to floating impellers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Operation and fault display via ring LED</td>
<td></td>
</tr>
<tr>
<td><strong>Information</strong></td>
<td>Online catalogue: productfinder.wilo.com</td>
<td>Online catalogue: productfinder.wilo.com</td>
<td>Online catalogue: productfinder.wilo.com</td>
</tr>
<tr>
<td>Product range</td>
<td>Glandless high-efficiency pumps</td>
<td>Glandless high-efficiency pumps</td>
<td>Glandless high-efficiency pumps</td>
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<td>-------------------------------</td>
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</tr>
<tr>
<td>Series</td>
<td>Wilo-Stratos-Z NOVA</td>
<td>Wilo-Stratos PICO-Z</td>
<td>Wilo-Stratos-Z</td>
</tr>
<tr>
<td>Field of application</td>
<td>Domestic hot water</td>
<td>Domestic hot water</td>
<td>Domestic hot water</td>
</tr>
<tr>
<td>Duty chart</td>
<td>![Duty chart for Wilo-Stratos-Z NOVA](Image 130x682 to 200x771)</td>
<td>![Duty chart for Wilo-Stratos PICO-Z](Image 274x676 to 363x782)</td>
<td>![Duty chart for Wilo-Stratos-ZD](Image 230x537 to 320x642)</td>
</tr>
<tr>
<td>Design</td>
<td>Glandless circulation pump with screwed connection and blocking—current proof synchronous motor</td>
<td>Glandless circulation pump with screwed connection, EC motor and automatic power adjustment</td>
<td>Glandless circulation pump with screwed connection or flange connection, EC motor and automatic power adjustment</td>
</tr>
<tr>
<td>Application</td>
<td>Domestic hot water circulation systems in industry and in building services</td>
<td>Domestic hot water circulation systems in industry and in building services</td>
<td>Domestic hot water circulation systems and similar systems in industry and in building services</td>
</tr>
<tr>
<td>Volume flow Q max.</td>
<td>0.4 m³/h</td>
<td>3.5 m³/h</td>
<td>4.1 m³/h</td>
</tr>
<tr>
<td>Delivery head H max.</td>
<td>1.2 m</td>
<td>6 m</td>
<td>12 m</td>
</tr>
<tr>
<td>Technical data</td>
<td>Fluid temperature: domestic hot water up to water hardness 3.56 mmol/l (20 °dH) max. +65 °C, in short-term duty (2 h) up to +75 °C</td>
<td>Fluid temperature: domestic hot water up to water hardness 3.57 mmol/l (20 °dH) max. +70 °C</td>
<td>Fluid temperature: domestic hot water up to a water hardness of 3.56 mmol/l (20 °dH) max. +80 °C</td>
</tr>
<tr>
<td></td>
<td>Mains connection 1–230 V, 50 Hz</td>
<td>Mains connection 1–230 V, 50 Hz</td>
<td>Mains connection 1–230 V, 50 Hz</td>
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<tr>
<td></td>
<td>Protection class IP 42</td>
<td>Protection class IP X4D</td>
<td>Energy Efficiency Index (EEI) ≤ 0.20</td>
</tr>
<tr>
<td></td>
<td>Protection class IP X4D</td>
<td>Screw connection Rp 1/2</td>
<td>Nominal diameter Rp 1 to DN 50</td>
</tr>
<tr>
<td></td>
<td>Quick electrical connection with Wilo-Connector</td>
<td>Blocking—current proof motor</td>
<td>Max. operating pressure 10 bar</td>
</tr>
<tr>
<td>Equipment/function</td>
<td>Quick electrical connection with Wilo-Connector</td>
<td>Control mode: Δp—c, temperature—controlled mode</td>
<td>Control modes: Δp—c, Δp—v, Δp—T</td>
</tr>
<tr>
<td></td>
<td>Blocking—current proof motor</td>
<td>Temperature control for maintaining the return temperature constant in drinking water circulation systems</td>
<td>Volume flow limitation with Q–Limit function (via IR-Stick)</td>
</tr>
<tr>
<td></td>
<td>Integrated ball shut-off valve on the suction side (Star-Z NOVA A, Star-Z–NOVA C only)</td>
<td>Thermal disinfection routine (detection and support of the thermal disinfection of the domestic hot water tank)</td>
<td>Volume flow limitation with Q–Limit function</td>
</tr>
<tr>
<td></td>
<td>Integrated non—return valve on the pressure side (Star—Z NOVA A, Star—Z–NOVA C only)</td>
<td>Reset function for resetting the electricity counter or to factory settings</td>
<td>Automatic setback operation</td>
</tr>
<tr>
<td></td>
<td>Including plug—in time switch (Star—Z NOVA C only)</td>
<td>“Hold” function (key lock) for locking the settings</td>
<td>Dual pump management</td>
</tr>
<tr>
<td></td>
<td>Including 1.8 m connection cable with shockproof plug (Star—Z NOVA C only)</td>
<td>Quick electrical connection with Wilo—Connector</td>
<td>Rotatable, graphical pump display</td>
</tr>
<tr>
<td></td>
<td>Including thermal insulation</td>
<td>Blocking—current proof motor</td>
<td>Remote control via infrared interface (IR-Stick/IR-Monitor)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Automatic deblocking function</td>
<td>Integrated motor protection</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Thermal insulation</td>
<td>System expansion with retrofit communication modules LON, CAN, PLR, etc.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Combination flanges PN 6/PN 10 (for DN 40 and DN 50)</td>
</tr>
<tr>
<td>Special features</td>
<td>Low power consumption of only 3 to 4.5 W thanks to synchronous motor</td>
<td>Manual and temperature—controlled mode for optimum operation</td>
<td>Energy savings through greater system efficiency with the Q—Limit function</td>
</tr>
<tr>
<td></td>
<td>Extended field of application in calcareous water: up to 3.57 mmol/l (20 °dH)</td>
<td>Identification of the thermal disinfection of the domestic hot water tank</td>
<td>Optimised display for better readability</td>
</tr>
<tr>
<td></td>
<td>Wilo—Connector</td>
<td>Display of the current consumption in Watts and the cumulative kilowatt hours or of the current flow and the temperature</td>
<td>Space—saving installation due to compact design and location—dependent LC display</td>
</tr>
<tr>
<td></td>
<td>Safe protection against bacteria and corrosion due to the use of high—quality materials for a long service life</td>
<td>Stainless steel pump housing protects against bacteria and corrosion</td>
<td>Modular concept for connection of all conventional bus systems (e.g. Modbus, BACnet, CAN, LON and PLR)</td>
</tr>
<tr>
<td></td>
<td>Flexible service motor; quick replacement of all conventional pump types</td>
<td>Wilo—Connector</td>
<td>Corrosion—resistant pump housing in red brass for systems where oxygen entry is possible</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Tried and tested quality and reliability</td>
</tr>
</tbody>
</table>

# Wilo-Star-Z

**Series**
- Wilo-Star-Z
- Wilo-Star-ZD

**Field of application**
- Domestic hot water

### Duty chart

<table>
<thead>
<tr>
<th>Q/m³/h</th>
<th>H/m</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1</td>
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<tr>
<td>3</td>
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<td>4</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>5</td>
</tr>
</tbody>
</table>

**Design**
- Glandless circulation pump with screwed connection

**Application**
- Domestic hot water circulation systems in industry and in building services

### Volume flow Q max.
- 4.8 m³/h
- 65 m³/h
- 5 m³/h

### Delivery head H max.
- 6.0 m
- 9 m
- 4.5 m

### Technical data
- Fluid temperature: domestic hot water up to a water hardness of 3.56 mmol/l (20 °dH) max. +80 °C
- Mains connection:
  - 1–230 V, 50 Hz
  - 3–400 V, 50 Hz
- Protection class IP 44
- Nominal diameter Rp 1
- Max. operating pressure 10 bar

### Equipment/function
- Pre-selectable speed stages
- Thermal insulation as standard
- All plastic parts that come into contact with the fluid fulfill KTW recommendations
- Combination flange PN 6/PN 10
  - DN 40 to DN 65
- Extendible motor protection, signal and display functions
- Full motor protection
- Cable inlet into terminal box possible on both sides (starting from P1 ≥ 250 W) with integrated strain relief

### Special features
- All plastic parts that come into contact with the fluid fulfill KTW recommendations
- Collective fault signal as potential-free contact (depending on type)
- Rotation control lamp indicates the correct direction of rotation (only for 3-
- Thermal insulation as standard

### Information
- Online catalogue: productfinder.wilo.com
- Building Services catalogue: Heating, air-conditioning, cooling

---

# Wilo-TOP-Z

**Series**
- Wilo-TOP-Z

**Field of application**
- Domestic hot water

### Duty chart

<table>
<thead>
<tr>
<th>Q/m³/h</th>
<th>H/m</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1</td>
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<td>2</td>
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<tr>
<td>3</td>
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<tr>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>5</td>
</tr>
</tbody>
</table>

**Design**
- Glandless circulation pump with screwed connection or flange connection

**Application**
- Domestic hot water circulation systems in industry and in building services

### Volume flow Q max.
- 4.8 m³/h

### Delivery head H max.
- 9 m

### Technical data
- Fluid temperature: domestic hot water up to a water hardness of 3.56 mmol/l (20 °dH) max. +80 °C
- Mains connection:
  - 1–230 V, 50 Hz
  - 3–400 V, 50 Hz
- Protection class IP 44
- Nominal diameter Rp 1
- Max. operating pressure 10 bar

### Equipment/function
- Pre-selectable speed stages
- Thermal insulation as standard
- All plastic parts that come into contact with the fluid fulfill KTW recommendations
- Combination flange PN 6/PN 10
  - DN 40 to DN 65
- Extendible motor protection, signal and display functions
- Full motor protection
- Cable inlet into terminal box possible on both sides (starting from P1 ≥ 250 W) with integrated strain relief

### Special features
- All plastic parts that come into contact with the fluid fulfill KTW recommendations
- Collective fault signal as potential-free contact (depending on type)
- Rotation control lamp indicates the correct direction of rotation (only for 3-
- Thermal insulation as standard

### Information
- Online catalogue: productfinder.wilo.com
- Building Services catalogue: Heating, air-conditioning, cooling

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# Wilo-VeroLine-IP-Z

**Series**
- Wilo-VeroLine-IP-Z

**Field of application**
- Domestic hot water

### Duty chart

<table>
<thead>
<tr>
<th>Q/m³/h</th>
<th>H/m</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
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<tr>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>5</td>
</tr>
</tbody>
</table>

**Design**
- Glanded circulation pump in in-line design with screwed connection

**Application**
- For pumping drinking water, cold and hot water (in accordance with VDI 2035) without abrasive substances, in heating, cold water and cooling water systems

### Volume flow Q max.
- 4.8 m³/h

### Delivery head H max.
- 4.5 m

### Technical data
- Fluid temperature: domestic hot water up to a water hardness of 4.99 mmol/l (28 °dH) max. +65 °C
- In short-term duty (2 h) up to +110 °C
- Heating water –8 °C to +80 °C
- Mains connection 1–230 V, 50 Hz, 3–400 V, 50 Hz
- Protection class IP 44
- Nominal diameter Rp 1
- Max. operating pressure 10 bar

### Equipment/function
- Single-stage, low-pressure centrifugal pump in in-line design with
- Mechanical seal
- Screwed connection
- Motor with one-piece shaft

### Special features
- High resistance to corrosive fluids due to stainless steel housing and Noryl impeller
- Wide range of applications due to suitability for water hardness up to 5 mmol/l (28 °dH)
- All plastic parts that come into contact with the fluid fulfill KTW recommendations

### Information
- Online catalogue: productfinder.wilo.com
- Building Services catalogue: Heating, air-conditioning, cooling
Standard glandless circulation pumps for non-EU markets

**Inside the EU**
According to the ErP Directive (2009/125/EG) with ordinances (EG) 641/2009 and (EG) 622/2012, uncontrolled standard glandless circulation pumps are no longer allowed to be sold in the EU from 1 January 2013 on.

Exceptions to this rule are products like for example glandless circulation pumps which are integrated in heat generators. These exceptions apply until the Directive prescribes also the replacement of newly installed heat generators or solar stations from August 2015 on.

**Outside the EU**
Pumps of the following series are allowed to be further distributed outside the EU, however in compliance with the legislation in force in these countries.

- Star-RS/RSD
- TOP-S/SD
- TOP-RL
- Star-STG

**Note**
An energy efficiency evaluation and a CE conformity declaration (CE mark) do no longer exist for these products.

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*Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Great Britain

+ Croatia (EU member from 2013 on), + Turkey (candidate country), + Serbia (candidate country)

+ 4 countries of the EFTA (European Free Trade Association) Iceland, Norway, Liechtenstein, Switzerland
### Product range

**Series**
- Wilo-Star-RS
- Wilo-Star-RSD
- Wilo-TOP-S
- Wilo-TOP-SD
- Wilo-TOP-RL

**Field of application**
- Heating, air-conditioning, cooling

**Duty chart**
- [Graphs showing delivery head (m) vs. volume flow (m³/h)]

**Design**
- Glandless circulation pump with screwed connection
- Glandless circulation pump with screwed or flanged connection
- Glandless circulation pump with screwed or flanged connection

**Application**
- Hot-water heating systems of all kinds, industrial circulation systems, cold water and air-conditioning systems
- Hot-water heating systems of all kinds, industrial circulation systems, cold water and air-conditioning systems
- Hot-water heating systems of all kinds, industrial circulation systems, cold water and air-conditioning systems

### Technical data

<table>
<thead>
<tr>
<th>Product range</th>
<th>Standard glandless pumps</th>
<th>Standard glandless pumps</th>
<th>Standard glandless pumps</th>
</tr>
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<tbody>
<tr>
<td><strong>Series</strong></td>
<td>Wilo-Star-RS</td>
<td>Wilo-TOP-S</td>
<td>Wilo-TOP-RL</td>
</tr>
<tr>
<td><strong>Field of application</strong></td>
<td>Heating, air-conditioning, cooling</td>
<td>Heating, air-conditioning, cooling</td>
<td>Heating, air-conditioning, cooling</td>
</tr>
<tr>
<td><strong>Duty chart</strong></td>
<td>[Graphs showing delivery head (m) vs. volume flow (m³/h)]</td>
<td>[Graphs showing delivery head (m) vs. volume flow (m³/h)]</td>
<td>[Graphs showing delivery head (m) vs. volume flow (m³/h)]</td>
</tr>
<tr>
<td><strong>Design</strong></td>
<td>Glandless circulation pump with screwed connection</td>
<td>Glandless circulation pump with screwed or flanged connection</td>
<td>Glandless circulation pump with screwed or flanged connection</td>
</tr>
<tr>
<td><strong>Application</strong></td>
<td>Hot-water heating systems of all kinds, industrial circulation systems, cold water and air-conditioning systems</td>
<td>Hot-water heating systems of all kinds, industrial circulation systems, cold water and air-conditioning systems</td>
<td>Hot-water heating systems of all kinds, industrial circulation systems, cold water and air-conditioning systems</td>
</tr>
</tbody>
</table>

#### Volume flow Q max.
- **Standard glandless pumps**
  - 6.0 m³/h
  - 77 m³/h
  - 10 m³/h

#### Delivery head H max.
- **Standard glandless pumps**
  - 8.0 m
  - 19 m
  - 7.0 m

#### Technical data

- Fluid temperature: -10 °C to +110 °C
- Mains connection: 1–230 V, 50 Hz
- Protection class: IP 44
- Screw connection: Rp ½, Rp 1 or Rp 3½
- Max. operating pressure: 10 bar
- Fluid temperature: -20 °C to +130 °C, briefly (2 h) to +140 °C
- Mains connection:
  - 1–230 V, 50 Hz (depending on type)
  - 3–400 V, 50 Hz
  - 3–230 V, 50 Hz (with optional switching plug)
- Protection class: IP X4D
- Nominal diameter: Rp 1 to DN 100
- Max. operating pressure
- Screw-end pumps: 10 bar
- Flange-end pumps: 6/10 bar or 6 bar (optional: 10 bar)
- Fluid temperature: -20 °C to +130 °C
- Mains connection: 1–230 V, 50 Hz, 3–400 V, 50 Hz
- Protection class: IP X4D
- Nominal diameter: Rp 1 to DN 40
- Max. operating pressure
- Screw-end pumps: 10 bar
- Flange-end pumps: 6/10 bar or 6 bar (optional: 10 bar or 16 bar)

#### Equipment/function

- 3 manually selectable speed stages
- Wrench attachment point on pump body
- Blocking–current proof motor, motor protection not needed
- Cable inlet possible from both sides
- For easy installation
- Quick connection with spring clips
- RSD version as double pump
- Preselectable speed stages for performance adaptation
- Combination flanges: PN 6/PN 10 (DN 40 to DN 65)
- Pump housing is KTL–coated
- Thermal insulation shells for heating applications as standard
- Extendable motor protection, signal and display functions
- Cable inlet possible from both sides
- For easy installation
- Preselectable speed stages for performance adaptation
- Combination flange: PN 6/PN 10 (DN 40)

#### Special features

- Suitable for any installation position with horizontal shaft; terminal box in 3–6–9–12 o’clock position
- Three pre-selectable speed stages for load adaptation
- Easy and safe installation with practical wrench attachment point on the pump housing
- Simplified electrical connection thanks to a terminal box where the threaded cable connection can be taken out and used from both sides
- Quick connection with spring clips
- Rotation control lamp indicates the correct direction of rotation (only for 3–)Manual power adjustment with 3 speed stages
- Pump housing with cataphoretic (KTL) coating protects against corrosion due to condensation formation
- Collective fault signal as potential-free contact (depending on type)
- Pump housing with cataphoretic (KTL) coating protects against corrosion due to condensation formation

#### Information

- Online catalogue: [www.wilo.com](http://www.wilo.com)
- Catalogue Building Services
  - Heating, Air-Conditioning, Cooling
- Online catalogue: [www.wilo.com](http://www.wilo.com)
- Catalogue Building Services
  - Heating, Air-Conditioning, Cooling
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- Catalogue Building Services
  - Heating, Air-Conditioning, Cooling

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<table>
<thead>
<tr>
<th>Product range</th>
<th>Standard glandless pumps</th>
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<tbody>
<tr>
<td>Series</td>
<td>Wilo-Star-STG</td>
</tr>
<tr>
<td>Field of application</td>
<td>Solar thermal and geothermal energy</td>
</tr>
<tr>
<td>Duty chart</td>
<td><img src="image" alt="Graph" /></td>
</tr>
</tbody>
</table>

### Design
- Glandless circulation pump with screwed connection

### Application
- Circulation in solar thermal and geothermal energy systems

### Volume flow Q max.
- 3.8 m³/h

### Delivery head H max.
- 11 m

### Technical data
- Fluid temperature: −10 °C to +110 °C, in short-term duty (2 h) +120 °C
- Mains connection: 1~230 V, 50 Hz
- Protection class: IP 44
- Screwed connection: Rp ½, Rp 1
- Max. operating pressure: 10 bar

### Equipment/function
- 3 manually selectable speed stages
- Wrench attachment point on pump housing
- Blocking-current proof motor, motor protection not required
- Cable inlet on both sides for simple installation
- Quick connection with spring clips for easy electrical connection
- Pump housing with cataphoretic coating for external corrosion protection

### Special features
- Special hydraulics for use in solar thermal and geothermal energy systems
- Pump housing with wrench attachment point
- Pump housing with cataphoretic (KTL) coating to avoid corrosion when condensate builds up

### Information
- Online catalogue: productfinder.wilo.com
- Building Services catalogue: Heating, air-conditioning, cooling

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Non EU product

“When it comes to water supply, Wilo is the obvious choice.”
Water supply

Pumps and systems for rainwater utilisation, water supply and pressure boosting, fire fighting, clean water treatment, raw water intake, desalination and professional irrigation/agriculture.

Wilo-SiBoost Smart Helix EXCEL, the constant pressure one
Using water efficiently
Wilo solutions for water supply.

Fresh water is becoming increasingly scarce worldwide. That is why we see it as our task to develop pumps and systems that you and your customers can use to obtain and use this precious resource in the most efficient way possible – now and in the future.

The task is not easy: on the one hand, the pumps must be able to handle water with many different kinds of contents, while on the other hand they must be powerful and durable, and at the same time economical and environmentally friendly.

We meet these challenges with intelligent solutions such as our Wilo-Helix series: this high-efficiency pump for water supply fulfils not only the stringent requirements of the Korean KEMCO certification, but also the regulations of the European ErP Directive 2009/125/EC.

Moreover, as you’ll discover, we offer you the right solution for any application – at high standards of safety and low costs.
# General Overview – Delivery range – Edition 2016 – 50 Hz – Subject to change without prior notice.

## Water supply

**Information**
- Online catalogue: productfinder.wilo.com
- Building Services catalogue: Water supply

## Special features
- **Equipment/function**
  - Low-noise, due to multistage pump and complete encapsulation of the system (AF Comfort)
  - Meets the requirements of DIN 1988 and EN 1717
  - Demand-oriented fresh water replenishment
  - Flow- and noise-optimised replenishment reservoir
  - All parts that come in contact with the fluid are corrosion-free
  - For AF Comfort: automatic support function for evacuation of air from the suction line
- **Design**
  - Ready-to-plug rainwater utilisation system with 1 MultiCargo MC self-priming centrifugal pump
  - Automatic rainwater utilisation system with 2 MultiCargo MC self-priming centrifugal pumps
  - Automatic rainwater utilisation system with run-down tank and 2 MultiPress MP non self-priming centrifugal pumps
- **Application**
  - Rainwater utilisation for saving drinking water in conjunction with rainwater storage tanks or reservoirs
  - Rainwater utilisation in multi-family houses and small businesses for saving drinking water in conjunction with rainwater storage tanks or reservoirs
  - Hybrid system for commercial and industrial rainwater utilisation for saving drinking water in conjunction with rainwater storage tanks or reservoirs

## Duty chart

<table>
<thead>
<tr>
<th>Series</th>
<th>Rainwater utilisation systems</th>
<th>Rainwater utilisation systems</th>
<th>Rainwater utilisation systems</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Field of application</strong></td>
<td>Rainwater utilisation</td>
<td>Rainwater utilisation</td>
<td>Rainwater utilisation</td>
</tr>
<tr>
<td><strong>Duty chart</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Technical data</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Equipment/function</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Special features</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Information</strong></td>
<td>Online catalogue: productfinder.wilo.com</td>
<td>Online catalogue: productfinder.wilo.com</td>
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</tbody>
</table>

## Building Services catalogue: Water supply

- Online catalogue: productfinder.wilo.com
- Building Services catalogue: Water supply

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### Product range

<table>
<thead>
<tr>
<th>Self-priming multistage pumps and pump systems</th>
<th>Self-priming multistage pumps and pump systems</th>
<th>Non self-priming multistage pumps and pump systems</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Series</strong></td>
<td><strong>Series</strong></td>
<td><strong>Series</strong></td>
</tr>
<tr>
<td>Wilo-Jet WJ</td>
<td>Wilo-MultiCargo MC</td>
<td>Wilo-MultiPress MP</td>
</tr>
<tr>
<td>Wilo-Jet HWJ</td>
<td>Wilo-MultiCargo HMC</td>
<td>Wilo-MultiPress HMP</td>
</tr>
<tr>
<td>Wilo-Jet FWJ</td>
<td>Wilo-MultiCargo FMC</td>
<td>Wilo-MultiPress FMP</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Field of application</th>
<th>Field of application</th>
<th>Field of application</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rainwater utilisation, water distribution/boosting, raw water intake</td>
<td>Rainwater utilisation, water distribution/boosting, raw water intake</td>
<td>Rainwater utilisation, water distribution/boosting, raw water intake</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Duty chart</th>
<th>Duty chart</th>
<th>Duty chart</th>
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<tbody>
<tr>
<td><img src="image" alt="Duty chart" /></td>
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<td><img src="image" alt="Duty chart" /></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Design</th>
<th>Design</th>
<th>Design</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-priming single-stage centrifugal pumps</td>
<td>Self-priming multistage centrifugal pumps</td>
<td>Non self-priming multistage centrifugal pumps</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Application</th>
<th>Application</th>
<th>Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>For pumping water from wells for filling, pumping empty, transferring by pumping, irrigation and sprinkling. As emergency pump for overflows</td>
<td>For domestic water supply, sprinkling, irrigation, spraying and rainwater utilisation</td>
<td>For domestic water supply, sprinkling, irrigation, spraying and rainwater utilisation</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>5 m³/h</td>
<td>7 m³/h</td>
<td>8 m³/h</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Delivery head H max.</th>
<th>Delivery head H max.</th>
<th>Delivery head H max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>50 m</td>
<td>57 m</td>
<td>57 m</td>
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</table>

<table>
<thead>
<tr>
<th>Technical data</th>
<th>Technical data</th>
<th>Technical data</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Mains connection 1–230 V, 50 Hz / 3–400 V, 50 Hz</td>
<td>• Mains connection 1–230 V, 50 Hz / 3–400 V, 50 Hz</td>
<td>• Mains connection 1–230 V, 50 Hz / 3–400 V, 50 Hz</td>
</tr>
<tr>
<td>• Inlet pressure max. 1 bar</td>
<td>• Inlet pressure max. 4 bar</td>
<td>• Inlet pressure max. 6 bar</td>
</tr>
<tr>
<td>• Fluid temperature max. 5 °C to -35 °C</td>
<td>• Fluid temperature max. 5 °C to +35 °C</td>
<td>• Fluid temperature max. +5 °C to +35 °C</td>
</tr>
<tr>
<td>• Max. operating pressure 6 bar</td>
<td>• Ambient temperature max. +40 °C</td>
<td>• Ambient temperature max. +40 °C</td>
</tr>
<tr>
<td>• Protection class IP 4/4</td>
<td>• Max. operating pressure 8 bar</td>
<td>• Max. operating pressure 10 bar</td>
</tr>
<tr>
<td>• Suction/pressure side connections:</td>
<td>• Protection class IP 5/4</td>
<td>• Suction/pressure side connections:</td>
</tr>
<tr>
<td>- WJ: G 1/R 1</td>
<td>- MC: Rp 1/Rp 1</td>
<td>- MP 3.. Rp 1/Rp 1</td>
</tr>
<tr>
<td>- FWJ: G 1/R 1</td>
<td>- FMC: Rp 1/R 1</td>
<td>- MP 6.. Rp 1¼/Rp 1</td>
</tr>
<tr>
<td>- HWJ: G 1/Rp 1</td>
<td>- HMC: Rp 1/Rp 1</td>
<td>- FMP 3.. Rp 1½/Rp 1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- HMP 3.. Rp 1/Rp 1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Equipment/function</th>
<th>Equipment/function</th>
<th>Equipment/function</th>
</tr>
</thead>
<tbody>
<tr>
<td>• With or without carrying frame, depending on the version (WJ, FWJ)</td>
<td>• Directly flanged motor</td>
<td>• Directly flanged motor</td>
</tr>
<tr>
<td>• For single-phase AC motor (1–230 V)</td>
<td>• Thermal motor protection switch for single-phase AC motor (1–230 V)</td>
<td>• Thermal motor protection switch for 1–230 V version</td>
</tr>
<tr>
<td>- Connection cable with plug</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- On/Off switch</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Thermal motor protection switch</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Special features</th>
<th>Special features</th>
<th>Special features</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Ideal for portable outdoor applications (hobby, garden)</td>
<td>• Low-noise</td>
<td>• Low-noise</td>
</tr>
<tr>
<td>• HWJ version with diaphragm pressure vessel and pressure switch</td>
<td>• Ideal as a base-load pump for rainwater utilisation</td>
<td>• Ideal as a base-load pump for rainwater utilisation</td>
</tr>
<tr>
<td>• FWJ version with fluid control for system control</td>
<td>• HMC version with diaphragm pressure vessel and pressure switch</td>
<td>• HMP version with diaphragm pressure vessel and pressure switch</td>
</tr>
<tr>
<td></td>
<td>• FMC version with fluid control for system control</td>
<td>• FMP version with fluid control for system control</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Information</th>
<th>Information</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Online catalogue: productfinder.wilo.com</td>
<td>Online catalogue: productfinder.wilo.com</td>
<td>Online catalogue: productfinder.wilo.com</td>
</tr>
<tr>
<td>Building Services catalogue: Water supply</td>
<td>Building Services catalogue: Water supply</td>
<td>Building Services catalogue: Water supply</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Product range</th>
<th>Self- and non self-priming multistage pumps and pump systems</th>
<th>Non self-priming peripheral pump</th>
<th>Non self-priming water-supply unit with frequency converter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Series</td>
<td>Wilo–HiMulti 3 (P) Wilo–HiMulti 3 C (P) Wilo–HiMulti 3 H (P)</td>
<td>Wilo–HiPeri 1</td>
<td>Wilo–EMHIL</td>
</tr>
<tr>
<td>Field of application</td>
<td>Rainwater utilisation, water distribution/boosting, raw water intake</td>
<td>Water distribution/boosting, raw water intake, rainwater utilisation</td>
<td>Rainwater utilisation, water distribution/boosting, raw water intake</td>
</tr>
<tr>
<td>Duty chart</td>
<td><img src="image" alt="Duty chart" /></td>
<td><img src="image" alt="Duty chart" /></td>
<td><img src="image" alt="Duty chart" /></td>
</tr>
<tr>
<td>Design</td>
<td>Self–priming (version P) and non self-priming multistage pumps and pump systems</td>
<td>Non self–priming peripheral pump</td>
<td>Non self–priming water-supply unit with frequency converter</td>
</tr>
<tr>
<td>Application</td>
<td>For domestic water supply, sprinkling, irrigation, spraying and rainwater utilisation</td>
<td>For water distribution/boosting, raw water intake, sprinkling and spraying, rainwater utilisation</td>
<td>Water supply Rainwater utilisation Irrigation and spraying</td>
</tr>
<tr>
<td>Volume flow Q max.</td>
<td>7 m³/h</td>
<td>3 m³/h</td>
<td>55 m³/h</td>
</tr>
<tr>
<td>Delivery head H max.</td>
<td>55 m</td>
<td>8 m</td>
<td>8 m</td>
</tr>
<tr>
<td>Technical data</td>
<td>Mains connection: 1–230 V, 50 Hz Inlet pressure max. 3 bar Fluid temperature max. 0 °C to +40 °C (±5 °C for max. 10 minutes) Operating pressure max. 8 bar Protection class IP X4, IP 54 Suction/pressure side connections: – HiMulti 3 (P): G1/G1 – HiMulti 3 C (P): G1/G1 – HiMulti 3 H (P): G1/Rp1 (adapter with male thread on both sides is enclosed)</td>
<td>Mains connection: 1–230 V, 50 Hz Inlet pressure max. 1.5 bar Fluid temperature max. +5 °C to +60 °C Max. operating pressure 6.5 bar Protection class IP X4 Suction/pressure side connections: Rp 1&quot;</td>
<td>Max. operating pressure: 10 bar Max. fluid temperature: 40 °C Min. fluid temperature: 0 °C Max. ambient temperature: 50 °C Mains connection: 1–230 V, 50/60 Hz</td>
</tr>
<tr>
<td>Special features</td>
<td>Easy: Wilo–Connector (electrical quick connector), On/Off switch, cap for filling and draining, enlarged foot fastening Efficient and economical: highly efficient hydraulics, low energy consumption, extremely compact due to optimised motor Low–noise operation Version HiMulti 3 (P): Version as pump for domestic water supply Version HiMulti 3 C (P): Automatic and dry–running protection, 360° rotatable automation for easier installation Version HiMulti 3 H (P): Automation and water hammer protection due to pressure switch and diaphragm pressure vessel</td>
<td>Simple handling thanks to low weight, perfectly suited for permanent operation Brass impeller for fluids up to 60 °C and ambient temperatures up to 40 °C Efficient thanks to low power consumption at a high maximum delivery head and high maximum volume flow Expandable with the electronic pump control Wilo–FluidControl/ HiControl 1</td>
<td>Heavy–duty multistage pump with stainless steel hydraulics Easy operation and adjustment: – Large display screen – LEDs for status display – Plug &amp; Pump Functions: PID, frost protection, restart after a fault Float switch can be connected as an option</td>
</tr>
</tbody>
</table>
### Product range

<table>
<thead>
<tr>
<th>Series</th>
<th>Cistern pumps</th>
<th>Non self-priming water-supply unit</th>
<th>Vertical, multistage centrifugal pumps</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wire–Sub TWI 5–SE PnP</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Field of application

- Rainwater utilisation, water distribution/boosting, raw water intake
- Water distribution/boosting
- Water distribution/boosting

### Duty chart

- Volume flow Q max.
  - Cistern pumps: 16 m³/h
  - Non self-priming water-supply unit: 14 m³/h
  - Vertical, multistage centrifugal pumps: 58 m³/h
- Delivery head H max.
  - Cistern pumps: 88 m
  - Non self-priming water-supply unit: 68 m
  - Vertical, multistage centrifugal pumps: 243 m

### Technical data

- Connection cable, 20 m
- TWI 5 version with standard intake strainer
- Variants:
  - SE: with lateral inlet connecting piece
  - FS: with built-in float switch
- Thermal motor protection for EM version (1–230 V)
- Intake and outflow collector pipes
- Ball shut-off valves on the suction side and pressure side
- Non-return valve on the pressure side
- 1 manometer
- 2 pressure switches
- BC switchgear
- Impellers, guide vane apparatuses and stage housings made of corrosion-resistant material
- Versions in special stainless steel for aggressive media
- Versions
  - Helix EXCEL 2 – 16, PN 16 with oval flanges, PN 25/Max. 30 bar with round flanges
  - Helix EXCEL 22 – 36, PN 16 and PN 25/Max: 30 bar with round flanges
- Fluid temperature: –20 to +120 °C with EPDM (–10 to +90 °C with FKM)
- Max. operating pressure: 16/25 bar
- Protection class IP 55
- Minimum efficiency index MEI ≥ 0.7

### Design

- Submersible pumps
- Pressure boosting system with two parallel submersible pumps
- Non self-priming, highly efficient, fully stainless steel high-pressure multistage centrifugal pump with EC motor with integrated high-efficiency drive

### Application

- For domestic water supply from wells, rainwater storage tanks, and reservoirs. For irrigation, sprinkling, rainwater utilisation or for pumping out water
- Pressure boosting and water supply in residential applications and for small commercial installations that require compact construction and a low noise level
- Water supply and pressure boosting
- Industrial circulation systems
- Process water
- Cooling water circulation systems
- Washing systems
- Irrigation

### Equipment/function

- Ready-to-plug in EM version (1–230 V)
- Pump (housing, stages, impellers) made entirely of stainless steel 1.4301 (AISI 304)
- Self-cooling motor enables installation outside water
- Pumps in the TWI 5 series with low noise due to water-cooled motor, between 51 dB (A) and 61 dB (A)
- 2-pump pressure boosting system in compact design due to vertical pump layout
- Economical system, based on the basic functions of the BC switchgear
- Long service life due to the stainless steel construction of the pumps and the piping
- Highly efficient EC motor (better than IE4 efficiency value)
- Integrated electronic control “High Efficiency Drive”
- Easy operation thanks to proven red-button technology and clear display
- User-friendly cartridge mechanical seal “X-Seal” and spacer coupling (from 5.5 kW)
- Flexible connection to building automation
- WRAS/KTW/ACS approval for all parts that come in contact with the fluid (EPDM version)

### Information

- Online catalogue: productfinder.wilo.com
- Building Services catalogue: Water supply
### General Overview – Delivery range – Edition 2016 – 50 Hz – Subject to change without prior notice.

**Product range**

<table>
<thead>
<tr>
<th>Vertical, multistage centrifugal pumps</th>
<th>Vertical, multistage centrifugal pumps</th>
<th>Vertical, multistage centrifugal pumps</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Series</strong></td>
<td><strong>Series</strong></td>
<td><strong>Series</strong></td>
</tr>
<tr>
<td>Wilo-Helix VE</td>
<td>Wilo-Helix V</td>
<td>Wilo-Helix FIRST V</td>
</tr>
<tr>
<td><strong>Field of application</strong></td>
<td><strong>Field of application</strong></td>
<td><strong>Field of application</strong></td>
</tr>
<tr>
<td>Water distribution/boosting</td>
<td>Water distribution/boosting, professional irrigation/agriculture</td>
<td>Water distribution/boosting, professional irrigation/agriculture</td>
</tr>
<tr>
<td><strong>Duty chart</strong></td>
<td><strong>Duty chart</strong></td>
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<tr>
<td><strong>Design</strong></td>
<td><strong>Design</strong></td>
<td><strong>Design</strong></td>
</tr>
<tr>
<td>Non self-priming multistage pump with integrated frequency converter</td>
<td>Non self-priming multistage pump</td>
<td>Non self-priming multistage pump</td>
</tr>
<tr>
<td><strong>Application</strong></td>
<td><strong>Application</strong></td>
<td><strong>Application</strong></td>
</tr>
<tr>
<td>➤ Water supply and pressure boosting</td>
<td>➤ Water supply and pressure boosting</td>
<td>➤ Water supply and pressure boosting</td>
</tr>
<tr>
<td>➤ Industrial circulation systems</td>
<td>➤ Industrial circulation systems</td>
<td>➤ Industrial circulation systems</td>
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<tr>
<td>➤ Process water</td>
<td>➤ Process water</td>
<td>➤ Process water</td>
</tr>
<tr>
<td>➤ Cooling water circulation systems</td>
<td>➤ Cooling water circulation systems</td>
<td>➤ Cooling water circulation systems</td>
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<tr>
<td>➤ Washing systems</td>
<td>➤ Fire extinguishing systems</td>
<td>➤ Fire extinguishing systems</td>
</tr>
<tr>
<td>➤ Irrigation</td>
<td>➤ Washing systems</td>
<td>➤ Irrigation</td>
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<tr>
<td>➤ Irrigation</td>
<td>➤ Irrigation</td>
<td>➤ Irrigation</td>
</tr>
<tr>
<td><strong>Volume flow Q max.</strong></td>
<td><strong>Volume flow Q max.</strong></td>
<td><strong>Volume flow Q max.</strong></td>
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<tr>
<td>80 m³/h</td>
<td>80 m³/h</td>
<td>80 m³/h</td>
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<tr>
<td><strong>Delivery head H max.</strong></td>
<td><strong>Delivery head H max.</strong></td>
<td><strong>Delivery head H max.</strong></td>
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<tr>
<td>240 m</td>
<td>280 m</td>
<td>280 m</td>
</tr>
<tr>
<td><strong>Technical data</strong></td>
<td><strong>Technical data</strong></td>
<td><strong>Technical data</strong></td>
</tr>
<tr>
<td>➤ Fluid temperature –30 to +120 °C</td>
<td>➤ Fluid temperature –30 to +120 °C</td>
<td>➤ Fluid temperature range: –20 to 120 °C</td>
</tr>
<tr>
<td>➤ Max. operating pressure 16/25 bar</td>
<td>➤ Max. operating pressure 16/25 bar</td>
<td>➤ Max. operating pressure: 16/25/30 bar</td>
</tr>
<tr>
<td>➤ Max. inlet pressure 10 bar</td>
<td>➤ Protection class IP 55</td>
<td>➤ Protection class: IP 55</td>
</tr>
<tr>
<td>➤ Protection class IP 55</td>
<td>➤ Minimum efficiency index MEI ≥ 0.7</td>
<td>➤ Round flange in accordance with ISO 2531 and ISO 7005</td>
</tr>
<tr>
<td>➤ Minimum efficiency index MEI ≥ 0.7 (Helix V 16: MEI ≥ 0.5)</td>
<td>➤ Minimum efficiency index MEI ≥ 0.7 (Helix FIRST V 16: MEI ≥ 0.7)</td>
<td></td>
</tr>
<tr>
<td><strong>Equipment/function</strong></td>
<td><strong>Equipment/function</strong></td>
<td><strong>Equipment/function</strong></td>
</tr>
<tr>
<td>➤ Impellers, stage chambers and pump housing made of stainless steel 1.4301/1.4404 (AISI 304L/AISI 316L)</td>
<td>➤ Impellers, stage chambers and pump housing made of stainless steel 1.4301/1.4404 (AISI 304L/AISI 316L)</td>
<td>➤ Corrosion-resistant impellers, guide vane apparatuses and stage housings</td>
</tr>
<tr>
<td>➤ Versions in special stainless steel for aggressive media</td>
<td>➤ Versions in special stainless steel for aggressive media</td>
<td>➤</td>
</tr>
<tr>
<td>➤ PN 16 and PN 25/30 max: 30 bar with round flanges in accordance with ISO 2531 and ISO 7005</td>
<td>➤ Versions</td>
<td>➤ Efficiency-optimised, laser-welded, optimised 2D/3D hydraulics</td>
</tr>
<tr>
<td>➤ IEC standard three-phase AC motor</td>
<td>➤ Helix V 2 – 16, PN 16 with oval flanges, PN 25 with round flanges</td>
<td>➤ Economic and low acquisition costs</td>
</tr>
<tr>
<td>➤ Integrated frequency converter</td>
<td>➤ Helix V 22 – 52, PN 16 and PN 25 with round flanges</td>
<td>thanks to compact installation</td>
</tr>
<tr>
<td><strong>Special features</strong></td>
<td><strong>Special features</strong></td>
<td><strong>Special features</strong></td>
</tr>
<tr>
<td>➤ Easy pump replacement without pipe modification, thanks to the modular pump housing</td>
<td>➤ Easy pump replacement without pipe modification, thanks to the modular pump housing</td>
<td>➤ Compatible connections allow installation into existing pipework with Helix V pumps</td>
</tr>
<tr>
<td>➤ WRAS/KTW/ACS approval for all parts that come in contact with the fluid (EPDM version)</td>
<td>➤ WRAS/KTW/ACS approval for all parts that come in contact with the fluid (EPDM version)</td>
<td>➤ Special, firmly attached transport eyelets allow a safe pump transport</td>
</tr>
<tr>
<td><strong>Information</strong></td>
<td><strong>Information</strong></td>
<td><strong>Information</strong></td>
</tr>
<tr>
<td>Online catalogue: productfinder.wilo.com</td>
<td>Online catalogue: productfinder.wilo.com</td>
<td>Online catalogue: productfinder.wilo.com</td>
</tr>
<tr>
<td>Building Services catalogue: Water supply</td>
<td>Building Services catalogue: Water supply</td>
<td>Building Services catalogue: Water supply</td>
</tr>
<tr>
<td><strong>Product range</strong></td>
<td><strong>Vertical and horizontal, multistage centrifugal pumps</strong></td>
<td><strong>Vertical, multistage centrifugal pumps</strong></td>
</tr>
<tr>
<td>-------------------</td>
<td>------------------------------------------------------</td>
<td>-----------------------------------</td>
</tr>
<tr>
<td><strong>Series</strong></td>
<td>Wilo–Zeo FIRST H</td>
<td>Wilo–Multivert MVIE</td>
</tr>
<tr>
<td><strong>Field of application</strong></td>
<td>Rainwater utilisation, water distribution/boosting, raw water intake</td>
<td>Water distribution/boosting, professional irrigation/agriculture</td>
</tr>
<tr>
<td><strong>Duty chart</strong></td>
<td><img src="image1" alt="Wilo-Zeo FIRST H Duty Chart" /></td>
<td><img src="image2" alt="Wilo–Multivert MVIE Duty Chart" /></td>
</tr>
<tr>
<td><strong>Design</strong></td>
<td>Non-self-priming, high-efficiency multistage high-pressure centrifugal pump in vertical or horizontal design with off-line connections</td>
<td>Non self-priming multistage pump with integrated frequency converter</td>
</tr>
<tr>
<td><strong>Application</strong></td>
<td>For domestic water supply, sprinkling, irrigation, spraying and rainwater utilisation</td>
<td>→ Water supply and pressure boosting → Industrial circulation systems → Process engineering → Cooling water circulation systems → Washing and sprinkling systems</td>
</tr>
<tr>
<td><strong>Volume flow Q max.</strong></td>
<td>280 m³/h</td>
<td>145 m³/h</td>
</tr>
<tr>
<td><strong>Delivery head H max.</strong></td>
<td>495 m</td>
<td>100 m</td>
</tr>
<tr>
<td><strong>Technical data</strong></td>
<td>→ Permitted temperature range of the fluid: -5°C to +90°C → Max. suction pressure: - Zeox FIRST ... V.. H: 6/16 bar → Max. operating pressure: - Zeox FIRST V: 27 bar - Zeox FIRST H (DN65 to DN100): 50 bar; Zeox FIRST H (DN150): 60 bar → Protection class: IP 55 → Minimum efficiency index MEI ≥ 0.4 (for Zeox FIRST V up to 100 m³/h)</td>
<td>→ Fluid temperature -15 to +120°C → Max. operating pressure 16 bar/25 bar → Max. inlet pressure 10 bar → Protection class IP 54 or IP 55 → Minimum efficiency index MEI ≥ 0.1 (for the series)</td>
</tr>
<tr>
<td><strong>Equipment/function</strong></td>
<td>→ IE3 high-efficiency motor as standard → Flushing by-pass device to ensure a long service life → Packing gland on request, exchangeable without disassembling the pump</td>
<td>→ Stainless steel pump in in-line design → Integrated frequency converter → IEC standard motor, 2-pole, AC motor with thermal motor protection → Protection against low water level</td>
</tr>
<tr>
<td><strong>Special features</strong></td>
<td>→ High-efficiency hydraulics and high-efficiency IE3 motor → Standard rinsing device for the sealing system → Additional flange alignments and stuffing box packing on request → Bronze impeller on request</td>
<td>→ Large control range → Stainless steel or with pump housing made of cast phosphor – coated cast iron → All relevant components have KTW and WRAS approval</td>
</tr>
<tr>
<td><strong>Information</strong></td>
<td>Online catalogue: productfinder.wilo.com</td>
<td>Online catalogue: productfinder.wilo.com</td>
</tr>
</tbody>
</table>

Breaking down the text:

**Product range**

- **Series**: Wilo–Zeo FIRST H, Wilo–Zeo FIRST V

**Field of application**

- Rainwater utilisation, water distribution/boosting, raw water intake
- Water distribution/boosting, professional irrigation/agriculture
- Water distribution/boosting, raw water intake

**Design**

- Non-self-priming, high-efficiency multistage high-pressure centrifugal pump in vertical or horizontal design with off-line connections
- Non self-priming multistage pump with integrated frequency converter
- Non self-priming multistage pump

**Application**

- Domestic water supply, sprinkling, irrigation, spraying and rainwater utilisation
- Water supply and pressure boosting, industrial circulation systems, process engineering, cooling water circulation systems, washing and sprinkling systems
- Water supply and pressure boosting, fire extinguishing systems, boiler feed, industrial circulation systems, process engineering, cooling water circulation systems, washing and sprinkling systems

**Volume flow Q max.**

- 280 m³/h
- 145 m³/h
- 155 m³/h

**Delivery head H max.**

- 495 m
- 100 m
- 240 m

**Technical data**

- Permitted temperature range of the fluid: -5°C to +90°C
- Max. suction pressure:
  - Zeox FIRST ... V.. H: 6/16 bar
- Max. operating pressure:
  - Zeox FIRST V: 27 bar
  - Zeox FIRST H (DN65 to DN100): 50 bar; Zeox FIRST H (DN150): 60 bar
- Protection class: IP 55
- Minimum efficiency index MEI ≥ 0.4 (for Zeox FIRST V up to 100 m³/h)

**Equipment/function**

- IE3 high-efficiency motor as standard
- Flushing by-pass device to ensure a long service life
- Packing gland on request, exchangeable without disassembling the pump

**Special features**

- High-efficiency hydraulics and high-efficiency IE3 motor
- Standard rinsing device for the sealing system
- Additional flange alignments and stuffing box packing on request
- Bronze impeller on request

**Information**

- Online catalogue: productfinder.wilo.com
- Building Services catalogue: Water supply

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Product range | Vertical, multistage centrifugal pumps | Vertical, multistage centrifugal pumps | Horizontal, multistage centrifugal pumps
---|---|---|---
Series | Wilo–Multivert MVISE | Wilo–Multivert MVIS | Wilo–Economy MHIE
Field of application | Water distribution/boosting | Water distribution/boosting | Water distribution/boosting
Duty chart | | | 
Design | Non self–priming multistage pump with glandless pump motor and integrated frequency converter | Non self–priming multistage pump with glandless pump motor | Non self–priming multistage pump with integrated frequency converter
Application | Water supply and pressure boosting | Water supply and pressure boosting | Water supply and pressure boosting
Volume flow Q max. | 14 m³/h | 14 m³/h | 32 m³/h
Delivery head H max. | 110 m | 110 m | 88 m
Technical data | Fluid temperature –15 to +50 °C | Fluid temperature –15 to +50 °C | Fluid temperature –15 to +110 °C
| Operating pressure 16 bar | Operating pressure 16 bar | Max. operating pressure 10 bar
| Inlet pressure 6 bar | Inlet pressure 6 bar | Inlet pressure max. 6 bar
| Protection class IP 44 | Protection class IP 44 | Protection class IP 54
Equipment/function | Stainless steel pump in in–line design | Stainless steel pump in in–line design | Stainless steel in monobloc design
| Self–venting | Three–phase AC motor in glandless pump design | Threaded connection
| Hydraulics in 1.4301 | | Integrated frequency converter
| Oval flange, round flange | | Single–phase or three–phase AC motor
| Three–phase AC motor with integrated frequency converter and LC display | Three–phase version with LCD display for status indication | Compact design
| Integrated thermal motor protection | Integrated thermal motor protection | Integrated frequency converter
| Protection against low water level | | Safety against low water level
Special features | Easy commissioning | Low–noise (up to 20 dB(A) quieter than conventional pumps) | Easy commissioning
| Glandless pump technology | All parts that come in contact with the fluid are made of stainless steel | All parts that come in contact with the fluid are made of stainless steel
| Low–noise (up to 20 dB(A) quieter than conventional pumps) | | Glandless pump technology
| Integrated frequency converter | All relevant components have KTW and WRAS approval | Integrated frequency converter
| All components that come in contact with the fluid are made of stainless steel | | Full motor protection
| All relevant components have KTW and WRAS approval | | WRAS/KTW/ACS approval for all parts that come in contact with the fluid (EPDM version)
Information | Online catalogue: productfinder.wilo.com | Online catalogue: productfinder.wilo.com | Online catalogue: productfinder.wilo.com
Building Services catalogue: Water supply
### General Overview

- **Delivery range**
- **Edition 2016**
- **50 Hz**

**Subject to change without prior notice.**

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### Product range

<table>
<thead>
<tr>
<th><strong>Horizontal, multistage centrifugal pumps</strong></th>
<th><strong>Vertical, multistage centrifugal pumps</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Series</strong></td>
<td>Wilo-Economy MHI</td>
</tr>
<tr>
<td><strong>Field of application</strong></td>
<td>Water distribution/boosting</td>
</tr>
<tr>
<td><strong>Duty chart</strong></td>
<td><img src="image1.png" alt="Graph 1" /></td>
</tr>
</tbody>
</table>

### Design

- Non self-priming multistage pump

### Application

- Water supply and pressure boosting
- Commerce and industry
- Cooling water circulation systems
- Washing and sprinkling systems

### Volume flow Q max.

- **25 m³/h**
- **13 m³/h**
- **13 m³/h**

### Delivery head H max.

- **70 m**
- **68 m**
- **135 m**
- **135 m**

### Technical data

- Fluid temperature -15 to +110 °C
- Max. operating pressure 10 bar
- Inlet pressure max. 6 bar
- Protection class IP 54

- Fluid temperature -15 to +90 °C
- Max. operating pressure 10 bar
- Inlet pressure max. 6 bar
- Protection class IP 54

- Fluid temperature -15 to +90 °C
- Max. operating pressure of 10 bar
- Max. inlet pressure 6 bar
- Protection class IP 54
- Minimum efficiency index MEI ≥ 0.1 (for the series)

### Equipment/function

- Stainless steel pump in monobloc design
- Threaded connection
- Single-phase or three-phase AC motor
- Single-phase AC motor with integrated thermal motor protection

- Pump in monobloc design
- Threaded connection
- Single-phase or three-phase AC motor
- Single-phase AC motor with integrated thermal motor protection

- Pump in in-line design
- Oval flange
- Single-phase or three-phase AC motor
- Single-phase AC motor with integrated thermal motor protection

### Special features

- All parts that come in contact with the fluid are made of stainless steel
- Compact design
- WRAS/KTW/ACS approval for all parts that come in contact with the fluid (EPDM version)
- Impellers and stage chambers made of 1.4301 stainless steel (AISI 304)
- Pump housing made of grey cast iron EN-GJL-250, with cataphoretic coating

### Information

- Online catalogue: productfinder.wilo.com
- Building Services catalogue: Water supply
### Product range

<table>
<thead>
<tr>
<th>Single-pump pressure boosting systems with speed-controlled pump</th>
<th>Single-pump pressure boosting systems</th>
<th>Single-pump pressure boosting system with system separation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Series</strong></td>
<td>Wilo-Comfort-N-Vario-COR-1 MVISE ...</td>
<td>Wilo-Economy CO-1 MVISE ... /ER</td>
</tr>
<tr>
<td><strong>Field of application</strong></td>
<td>Water distribution/boosting</td>
<td>Water distribution/boosting</td>
</tr>
<tr>
<td><strong>Duty chart</strong></td>
<td><img src="image" alt="Single-pump systems speed controlled" /></td>
<td><img src="image" alt="Single-pump systems" /></td>
</tr>
<tr>
<td><strong>Design</strong></td>
<td>Water-supply units with a non-self-priming, high-pressure multistage centrifugal pump with integrated speed control of the series MVISE, MVIE, Helix VE or MHIIE</td>
<td>Water supply systems with a non-self-priming, high-pressure multistage centrifugal pump of the series MVIS, MVI or Helix V</td>
</tr>
</tbody>
</table>
| **Application** | For fully automatic water supply in inlet mode from the public water supply network or from a reservoir.  
- For pumping drinking water, process water, cooling water, water for fire-fighting or other service water | For fully automatic water supply in inlet mode from the public water supply network or from a reservoir.  
- For pumping drinking water, process water, cooling water, water for fire-fighting or other service water | For fully automatic water supply in inlet mode from the public water supply network.  
- For pumping drinking water and process water, cooling water, water for fire-fighting or other service water |
| **Volume flow Q max.** | 165 m³/h | 135 m³/h | 8 m³/h |
| **Delivery head H max.** | 160 m | 160 m | 110 m |
| **Technical data** |  
- Mains connection 3–400 V, 50 Hz  
- Max. fluid temperature 50 °C  
- Operating pressure 10/16 bar  
- Inlet pressure 6/10 bar  
- Protection class IP 4/4P 54 |  
- Mains connection 3–230 V / 400 V, 50 Hz  
- Max. fluid temperature 50 °C  
- Operating pressure 10/16 bar  
- Inlet pressure 6/10 bar  
- Switching pressure stages 6 / 10 / 16 bar  
- Protection class IP 6/1P 54 |  
- Mains connection 3–230 V / 400 V, 50 Hz (other versions on request)  
- Max. fluid temperature 50 °C  
- Operating pressure 16 bar  
- Inlet pressure 6 bar  
- Protection class IP 4/1 |
| **Equipment/function** |  
- All parts that come in contact with the fluid are corrosion-resistant  
- Pipework made of stainless steel 1.4571  
- Shut-off device, on the pressure side  
- Non-return valve, on the pressure side  
- Diaphragm pressure vessel 8 l, PN 16 |  
- Components that come in contact with fluid are corrosion-resistant  
- Base frame made of stainless steel 1.4301 with height-adjustable vibration absorbers for insulation against structure-borne noise  
- Pipework made of stainless steel 1.4571  
- Shut-off device, on the pressure side  
- Non-return valve, on the pressure side  
- Diaphragm pressure vessel 8 l, PN 16, on pressure side |  
- PE break tank, atmospherically ventilated [120 l]  
- Components that come in contact with fluid are corrosion-resistant  
- Pipework made of stainless steel 1.4571  
- Shut-off device, on the pressure side  
- Non-return valve, on the pressure side  
- Break tank including float valve and float switch  
- Diaphragm pressure vessel 8 l, PN 16, on pressure side  
- Low-water cut-out switchgear |
| **Special features** | For systems with MVISE pump  
- Up to 20 dB(A) quieter than comparable systems  
For systems with Helix VE pump  
- Optimised hydraulics  
- Cartridge mechanical seal  
- IE4 standard motor | For systems with MVIS pump  
- Up to 20 dB(A) quieter than comparable systems | Compact system, ready for connection, for all applications that require system separation |
| **Information** | Online catalogue: productfinder.wilo.com  
Building Services catalogue:  
Water supply | Online catalogue: productfinder.wilo.com  
Building Services catalogue:  
Water supply | Online catalogue: productfinder.wilo.com  
Building Services catalogue:  
Water supply |
Multi-pump pressure boosting systems with speed-controlled pumps or base-load pump

Series
- Wilo-SiBoost Smart Helix V
- Wilo-SiBoost Smart Helix VE
- Wilo-SiBoost Smart Helix EXCEL

Field of application
Water distribution/boosting

Design
Highly efficient pressure boosting system with 2 to 4 stainless steel, non self-priming, high-pressure multi-stage centrifugal pumps (Helix V, VE or EXCEL) switched in parallel.

Application
- For fully automatic water supply and pressure boosting in residential and office buildings and in industrial systems
- For pumping drinking water and process water, cooling water, water for fire-fighting or other service water

Volume flow Q max.
- 360 m³/h
- 650 m³/h
- 800 m³/h

Delivery head H max.
- 158 m
- 159 m
- 160 m

Technical data
- Mains connection with Helix V: 3–230 V/400 V, 50 Hz
- Mains connection with Helix VE and EXCEL: 3–400 V, 50 Hz
- Max. fluid temperature 50 ºC (70 ºC optional)
- Operating pressure 16 bar (25 bar optional)
- Inlet pressure 10 bar
- Nominal connection diameters R 1½"–DN 100
- Protection class IP 54 (SC control device)

Equipment/function
- Automatic pump control via Smart Controller SC. Smart FC version also includes a frequency converter in the switchbox
- Components that come in contact with fluid are corrosion-resistant
- Shut-off device on the suction and pressure sides of each pump
- Non-return valve, on the pressure side
- Pressure sensor, pressure side
- Pressure gauge, pressure side
- Continuous auto control due to pumps with integrated frequency converters
- Components that come in contact with fluid are corrosion-resistant
- Pipework made of stainless steel 1.4571
- Shut-off device at each pump, on the suction and pressure sides
- Non-return valve, on the pressure side
- Diaphragm pressure vessel 8 l, PN 16, on pressure side
- Pressure sensor, on the discharge side

Special features
- High-efficiency pump hydraulics
- IE3 standard motors (IE3 motors from 7.5 kW and higher, option for lower motor output), Helix VE with IE4, Helix EXCEL with high-efficiency EC motor (efficiencies > IE4 acc. to IEC TS 60034–31 Ed.1)
- Hydraulics of entire system are pressure-loss optimised
- Integrated dry-running detection and low water cut-out switch
- Compact system due to high-pressure, multistage centrifugal pumps with integrated frequency converters
- Integrated full motor protection via PTC
- Integrated dry-running detection and low water cut-out switch
- For systems with MVISE pumps
- Up to 20 dB(A) quieter than comparable systems

Information
Online catalogue: productfinder.wilo.com
Building Services catalogue: Water supply

Series extension
Series modification
**Product range**

<table>
<thead>
<tr>
<th>Multi-pump pressure boosting systems</th>
<th>Modular pressure boosting system according to EN1717, EN 806, DIN 1988–500</th>
<th>Fire-fighting systems for wall hydrant installations according to DIN 14462</th>
</tr>
</thead>
<tbody>
<tr>
<td>Series</td>
<td>Wilo–Economy CO 2–4 MHI ... /ER</td>
<td>Wilo–FLA</td>
</tr>
<tr>
<td></td>
<td>Wilo–Comfort–N–CO 2–8 MVIS ... /KC</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Wilo–Comfort–CO 2–6 MVI ... /CC</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Wilo–Comfort–CO 2–6 Helix V ... /CC</td>
<td></td>
</tr>
<tr>
<td>Field of application</td>
<td>Water distribution/boosting</td>
<td>Firefighting</td>
</tr>
</tbody>
</table>

**Duty chart**

<table>
<thead>
<tr>
<th>H/m</th>
<th>Multi-pump systems</th>
</tr>
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<tbody>
<tr>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>200</td>
<td>120</td>
</tr>
<tr>
<td>400</td>
<td>140</td>
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<tr>
<td>600</td>
<td>160</td>
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<td>180</td>
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<td>1000</td>
<td>200</td>
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<tr>
<td>1200</td>
<td>220</td>
</tr>
<tr>
<td>1400</td>
<td>240</td>
</tr>
<tr>
<td>1600</td>
<td>260</td>
</tr>
</tbody>
</table>

**Design**

- Pressure boosting system with 2 to 4 respectively 2 to 6 non self-priming, stainless steel, high-pressure, multistage centrifugal pumps switched in parallel
- Pressure boosting system for drinking water supply applications with 1 to 12 multistage centrifugal pumps with/without break tank, with/without housing
- Pressure boosting system for fire extinguishing applications with 1 to 2 autonomously operating, non self-priming, stainless steel, high-pressure, multistage centrifugal pumps

**Application**

- For fully automatic water supply and pressure boosting in residential and office buildings and in industrial systems
- For pumping drinking water and process water, cooling water, water for fire-fighting or other service water
- For drinking water supply taking into account requirements according to the guidelines of the Council of the European Union, regulation for drinking water hygiene and hospital hygiene, EN 1717, EN 806, DIN 1988–500
- For supply of fire extinguishing water from fire hose reels in accordance with DIN 14462 from DN4/2009

**Volume flow Q max.**

- 800 m³/h
- 5 to 1000 m³/h
- 100 m³/h

**Delivery head H max.**

- 160 m
- 160 m, up to 450 m on request
- 159 m

**Technical data**

- Mains connection 3–230 V / 400 V, 50 Hz
- Max. fluid temperature 50 °C
- Operating pressure 10/16 bar
- Inlet pressure 6/10 bar
- Protection class IP 54
- Modular compact system
- Hygienic safety due to optional free outlet (EN 1717)
- Optional stainless steel run–down tank
- Automatic function test of all measurement and control devices up to redundancy stage 3
- Small installation surface – 0.64 m² or more

**Equipment/function**

- Components that come in contact with fluid are corrosion-resistant
- Pipework made of stainless steel 1.4571
- Shut-off device at each pump, on the suction and pressure sides
- Non-return valve, on the pressure side
- Diaphragm pressure vessel 8 l, PN 16, on pressure side
- Pressure sensor, on the discharge side
- Secure drinking water quality due to monitoring of water temperature and stagnation in the stainless steel run–down tank; water is changed out if necessary
- Drainage or pump emergency drainage (EN12056) for total volume flow
- Installation possible below backflow level
- Effective maintenance management and permanent information on the operation via smartphone, tablet or PC
- Components that come in contact with fluid are corrosion-resistant
- Pipework made of stainless steel 1.4301
- Shut-off device at each pump, on the suction and pressure sides
- Non-return valve, on the pressure side
- Diaphragm pressure vessel 8 l, PN 16, on pressure side
- Pressure switch, on the discharge side

**Special features**

- Compact system in accordance of DIN 1988 (EN 806)
- For systems with MVIS pumps
- Up to 20 dB(A) quieter than comparable systems
- Isolation of the run–down tank in order to prevent formation of condensate and temperature loading
- Split version for installation and transport
- Pressure single pumping or pilot pump as an option
- Complete unit casing
- Monitoring of the switchgear and the equipment environment temperature
- Automatic energy optimisation
- Compact system in accordance of DIN 14462
- Variants
  - Single-pump system
  - Double-pump system with redundant single-pump systems in a base frame
  - Comes as standard with pump protection by means of minimum volume discharge via bypass circuit without auxiliary energy

**Information**

- Online catalogue: productfinder.wilo.com
- Building Services catalogue: Water supply
- Documentation on request
- Online catalogue: productfinder.wilo.com
- Building Services catalogue: Water supply

### General Overview

Delivery range – Edition 2016 – 50 Hz – Subject to change without prior notice.

Online catalogue: productfinder.wilo.com

Information


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<table>
<thead>
<tr>
<th>Product range</th>
<th>Fire fighting systems for wall hydrant installations according to DIN 14462</th>
<th>Fire fighting systems for sprinkler systems according to EN 12845</th>
<th>Certified fire fighting systems for hydrant and sprinkler systems according to EN 1717, EN 12056, DIN 14462 or EN 12845</th>
</tr>
</thead>
<tbody>
<tr>
<td>Series</td>
<td>Wilo-FLA Compact</td>
<td>Wilo-SiFire EN</td>
<td>Wilo-GEF Fire</td>
</tr>
<tr>
<td>Field of application</td>
<td>Fire fighting</td>
<td>Fire fighting</td>
<td>Fire fighting</td>
</tr>
</tbody>
</table>

### Design

- Pressure boosting system for fire fighting applications with 1 to 2 autonomously operating, non self-priming, stainless steel, high-pressure, multistage centrifugal pumps with break tank
- Pressure boosting system for the supply of fire-fighting water with 1 or 2 pumps on horizontal base frame – EN 733 – with spacer coupling, electro- or diesel motor and a multistage, electrical, vertical jockey pump
- Pressure boosting system for fire fighting applications with 1 to 12 multistage centrifugal pumps with/without break tank, with/without housing

### Application

- For supply of fire-fighting water from fire hose reels in accordance with DIN 14462 from 04/2009
- Fully automatic water supply of fire-fighting systems with sprinkler system in accordance with EN 12845
- For the supply of fire-fighting water with exterior hydrants and fire hose reels particularly for high-rise buildings and large properties – without using valves for pressure reduction – as well as for sprinkler and water spray systems

### Technical data

- Mains connection 3~400 V, 50 Hz
- Fluid temperature max. 50 °C
- Operating pressure up to 16 bar
- Inlet pressure from break tank: 1 bar
- Nominal connection diameter R 2"/DN 50
- Protection class of operating device IP 54
- Round break tank (540 l)

### Equipment/function

- Components in contact with the fluid are corrosion-resistant
- Pipework made of stainless steel 1.4301
- Ball shut-off valve on pressure side
- Gate valve between pump and break tank with free outlet according to EN 13077, type AB according to DIN EN 1717
- Non-return valve, on pressure side
- Diaphragm pressure vessel 8L, PN 16, arranged on the pressure side
- Pressure switch, on pressure side
- A circuit with double pressure switch, pressure gauge, non-return valve, valve for the main and standby pump for an automatic start
- Pipework in steel; painted with epoxy resin. Distributor with flanges
- Shutting gate with safety lock on the pressure side of the pump
- Non-return valve on the pressure side of every pump
- DN2" connection for the break tank of the pumps
- Pressure measuring on pressure side

### Special features

- Compact system with break tank in accordance with DIN 14462
- Variants
  - Single-pump system
  - Double-pump system with two redundant single-pump systems on a base frame
- Comes as standard with pump protection by means of minimum volume discharge via bypass circuit without auxiliary energy
- Compact system (just one base frame) in accordance with EN 12845
- Jockey pump for maintaining the required pressure in the system: with automatic start/stop function
- Sized diaphragm at the pump outlet for a minimum bypass line so that the pump is protected at a low volume flow
- The cables are hidden in the construction and are thus protected from shocks or cuts

### Information

- Online catalogue: productfinder.wilo.com
- Building Services catalogue: Water supply

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NEW: Wilo-SiFire Easy
### Product range

<table>
<thead>
<tr>
<th>Submersible pumps</th>
<th>Submersible pumps</th>
<th>Submersible pump system</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Series</strong></td>
<td>Wilo-Sub TWU 3</td>
<td>Wilo-Sub TWU 3 ... Plug &amp; Pump</td>
</tr>
<tr>
<td></td>
<td>Wilo-Sub TWU 3 ...HS</td>
<td>Wilo-Sub TWU 4 ...QC</td>
</tr>
<tr>
<td></td>
<td>Wilo-Sub TWU 4 ...</td>
<td>Wilo-Sub TWU 4 ...GT</td>
</tr>
<tr>
<td><strong>Field of application</strong></td>
<td>Rainwater utilisation, raw water intake</td>
<td>Rainwater utilisation, raw water intake</td>
</tr>
<tr>
<td><strong>Duty chart</strong></td>
<td><img src="image" alt="Duty chart TWU3/HS" /></td>
<td><img src="image" alt="Duty chart TWU4/7, TWU-HT, QC" /></td>
</tr>
<tr>
<td><strong>Design</strong></td>
<td>Submersible pump, multistage</td>
<td>Submersible pump, multistage</td>
</tr>
<tr>
<td><strong>Application</strong></td>
<td>Water supply from boreholes, wells and rainwater storage tanks; domestic water supply, sprinkling and irrigation; pumping of water without long-fibre or abrasive components</td>
<td>Water supply from boreholes, wells and rainwater storage tanks; sprinkling, irrigation and pressure boosting; lowering the ground water level; pumping of water without long-fibre or abrasive components: geothermal applications</td>
</tr>
<tr>
<td><strong>Volume flow Q max.</strong></td>
<td>6.5 m³/h</td>
<td>22 m³/h</td>
</tr>
<tr>
<td><strong>Delivery head H max.</strong></td>
<td>130 m</td>
<td>322 m</td>
</tr>
<tr>
<td><strong>Technical data</strong></td>
<td><img src="image" alt="Technical data TWU3/HS" /></td>
<td><img src="image" alt="Technical data TWU4/7, TWU-HT, QC" /></td>
</tr>
<tr>
<td></td>
<td>Mains connection: 1-230 V, 50 Hz or 3-400 V, 50 Hz</td>
<td>Mains connection: 1-230 V, 50 Hz or 3-400 V, 50 Hz</td>
</tr>
<tr>
<td></td>
<td>Fluid temperature: 3-35 °C</td>
<td>Fluid temperature: 3-30 °C</td>
</tr>
<tr>
<td></td>
<td>Minimum flow rate at motor: 0.08 m/s</td>
<td>Minimum flow rate at motor: 0.08 m/s</td>
</tr>
<tr>
<td></td>
<td>Max. sand content: 50 g/m³</td>
<td>Max. sand content: 50 g/m³</td>
</tr>
<tr>
<td></td>
<td>Max. number of starts: 30/h</td>
<td>Up to 20 starts per hour</td>
</tr>
<tr>
<td></td>
<td>Max. immersion depth: 150 m</td>
<td>Max. immersion depth: 200 m</td>
</tr>
<tr>
<td></td>
<td>Pressure connection: Rp 1</td>
<td>Minimum efficiency index MEI: ≥ 0.7</td>
</tr>
<tr>
<td><strong>Equipment/function</strong></td>
<td>Multistage submersible pump with radial impellers</td>
<td>Multistage submersible pump with radial or semi-axial impellers</td>
</tr>
<tr>
<td></td>
<td>Integrated non-return valve</td>
<td>Integrated non-return valve</td>
</tr>
<tr>
<td></td>
<td>NEMA coupling</td>
<td>NEMA coupling</td>
</tr>
<tr>
<td></td>
<td>Single-phase or three-phase AC motor</td>
<td>Single-phase or three-phase AC motor</td>
</tr>
<tr>
<td></td>
<td>Thermal motor protection for single-phase motor</td>
<td>Integrated thermal motor protection for single-phase motor</td>
</tr>
<tr>
<td></td>
<td>HS variant including external or internal frequency converter</td>
<td>Hermetically sealed motors</td>
</tr>
<tr>
<td><strong>Special features</strong></td>
<td>Parts in contact with the fluid are corrosion-resistant</td>
<td>Parts in contact with the fluid are corrosion-resistant</td>
</tr>
<tr>
<td></td>
<td>Integrated non-return valve</td>
<td>Integrated non-return valve</td>
</tr>
<tr>
<td></td>
<td>Supply security with constant pressure thanks to extended pump performance due to a higher speed of up to 8,400 rpm (TWU 3/HS)</td>
<td>Low wear due to floating impellers</td>
</tr>
<tr>
<td></td>
<td>Frequency converter with integrated and menu-guided control (TWU 3/HS)</td>
<td>Maintenance-friendly motor</td>
</tr>
<tr>
<td><strong>Information</strong></td>
<td>Online catalogue: productfinder.wilo.com</td>
<td>Online catalogue: productfinder.wilo.com</td>
</tr>
<tr>
<td></td>
<td>Building Services catalogue: Water supply</td>
<td>Building Services catalogue: Water supply</td>
</tr>
</tbody>
</table>


**Product range**

<table>
<thead>
<tr>
<th>Submersible pumps</th>
<th>Sprinklers with VdS approval</th>
<th>Submersible pumps</th>
</tr>
</thead>
<tbody>
<tr>
<td>Series</td>
<td>Series</td>
<td>Series</td>
</tr>
<tr>
<td>Wilo-Sub TWI 4/6/8/10...</td>
<td>Wilo-EMU sprinkler pumps</td>
<td>Wilo-EMU 6” series</td>
</tr>
<tr>
<td>Field of application</td>
<td>Fire fighting</td>
<td>Wilo-EMU 8” series</td>
</tr>
<tr>
<td>Rainwater utilisation, water distribution/boosting, clean water treatment, raw water intake, desalination, professional irrigation/agriculture</td>
<td></td>
<td>Wilo-EMU 10”...24” series</td>
</tr>
<tr>
<td>Duty chart</td>
<td></td>
<td>Wilo-Zetos K 8</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Design</td>
<td>Submersible pump, multistage</td>
<td>Submersible pump</td>
</tr>
<tr>
<td></td>
<td>Submersible pump with sectional construction</td>
<td>with sectional</td>
</tr>
<tr>
<td></td>
<td></td>
<td>construction</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Application</td>
<td>Water supply (including drinking water supply) from boreholes and rainwater storage tanks; municipal and industrial water supply; sprinkling and irrigation; pressure boosting; lowering the ground water level; pumping of water without long-fibre or abrasive components</td>
<td>Supplying sprinkler systems</td>
</tr>
<tr>
<td>Volume flow Q max.</td>
<td>165 m³/h</td>
<td>580 m³/h</td>
</tr>
<tr>
<td>Delivery head H max.</td>
<td>500 m</td>
<td>140 m</td>
</tr>
<tr>
<td>Technical data</td>
<td>Mains connection: 1–230 V, 50 Hz (only TWI 4... or 3–400 V, 50 Hz</td>
<td>Mains connection: 3–400 V/50 Hz</td>
</tr>
<tr>
<td></td>
<td>Immersed operating mode: 5,2</td>
<td>Max. fluid temperature: 25 °C</td>
</tr>
<tr>
<td></td>
<td>Fluid temperature: 3–20 °C or 3–30 °C</td>
<td>Minimum flow rate at motor: 0.1 m/s</td>
</tr>
<tr>
<td></td>
<td>Min. flow rate at motor: 0.08–0.5 m/s</td>
<td>Max. sand content: 35 g/m³</td>
</tr>
<tr>
<td></td>
<td>Up to 10 or 20 starts per hour</td>
<td>Max. immersion depth:</td>
</tr>
<tr>
<td></td>
<td>Max. immersion depth: 100–350 m</td>
<td>– NU 611 = 100 m</td>
</tr>
<tr>
<td></td>
<td>Minimum efficiency index MEI: up to ≥ 0.7 (for the series TWI 4 and TWI 6)</td>
<td>– Other motors = 300 m</td>
</tr>
</tbody>
</table>

**Equipment/function**

- Multistage submersible pump with radial or semi-axial impellers
- Integrated non-return valve
- NEMA coupling
- Single-phase or three-phase AC motor
- Multistage submersible pump with radial or semi-axial impellers
- NEMA coupling (depending on type)
- Three-phase motor for direct or star-delta start
- Rewindable motors

**Special features**

- Corrosion-resistant thanks to stainless steel version
- Flexible installation thanks to vertical and horizontal installation
- Easy installation due to integrated non-return valve
- Large performance range
- VdS approval for TWI 4 for drinking water application
- VdS certification
- Sturdy version in cast iron or bronze
- Pressure shroud in corrosion-resistant and hygienic stainless steel version
- Pressure shroud in corrosion-resistant and hygienic stainless steel version
- Hydraulic in stainless steel precision casting (Zetos K 8)
- Maintenance-friendly motors
- Optionally with Ceramic CT coating for increasing the efficiency
- Optional with ACS approval for drinking water application

**Information**

- Online catalogue: productfinder.wilo.com
- Building Services catalogue: Water supply
- Water Management catalogue: Raw water intake

- Online catalogue: productfinder.wilo.com
- Building Services catalogue: Water supply
- Water Management catalogue: Raw water intake
<table>
<thead>
<tr>
<th>Product range</th>
<th>Submersible pumps</th>
<th>Vertical turbine pumps</th>
<th>Standard glanded pumps</th>
</tr>
</thead>
<tbody>
<tr>
<td>Series</td>
<td>Wilo–EMU polder pumps</td>
<td>Series VMF, CNE, VAF</td>
<td>Wilo–CronoNorm-NL</td>
</tr>
<tr>
<td>Field of application</td>
<td>Water distribution/boosting, clean water treatment, raw water intake, desalination, dewatering, industrial process</td>
<td>Water distribution/boosting, industrial process</td>
<td>Heating, air-conditioning, cooling, water supply, industrial process</td>
</tr>
<tr>
<td>Duty chart</td>
<td><img src="image" alt="Duty chart" /></td>
<td><img src="image" alt="Duty chart" /></td>
<td><img src="image" alt="Duty chart" /></td>
</tr>
<tr>
<td>Design</td>
<td>Polder pump</td>
<td>Vertical turbine pumps for dry well installation with submerged axial or semi-axial hydraulics</td>
<td>Single-stage low-pressure centrifugal pump with axial suction, according to EN 733 and ISO 5199, mounted on a baseplate</td>
</tr>
<tr>
<td>Application</td>
<td>Potable and process water from tanks or shallow bodies of water; municipal and industrial water supply: sprinkling and irrigation; lowering the ground water level; utilisation of geothermal energy and in offshore applications</td>
<td>For industrial or municipal water supply and</td>
<td>Applications in municipal water supply, irrigation, building services, general industry, power stations, etc.</td>
</tr>
<tr>
<td>Volume flow Q max.</td>
<td>1,200 m³/h</td>
<td>40,000 m³/h</td>
<td>650 m³/h</td>
</tr>
<tr>
<td>Delivery head H max.</td>
<td>160 m</td>
<td>450 m</td>
<td>150 m</td>
</tr>
<tr>
<td>Technical data</td>
<td>- Mains connection: 3–400 V, 50 Hz</td>
<td>- Permitted temperature range up to 80 °C, or up to 105 °C on request</td>
<td>- Fluid temperature –20 °C to +120 °C</td>
</tr>
<tr>
<td></td>
<td>- Max. fluid temperature: 20 °C</td>
<td>- Nominal diameter on pressure side DN 100 to DN 2000</td>
<td>- Mains connection 3–400 V, 50 Hz</td>
</tr>
<tr>
<td></td>
<td>- Minimum flow across outside shroud not necessary</td>
<td></td>
<td>- Minimum efficiency index (MEI) ≥ 0.4</td>
</tr>
<tr>
<td></td>
<td>- Max. sand content: 35 g/m³</td>
<td></td>
<td>- Protection class IP 55</td>
</tr>
<tr>
<td></td>
<td>- Up to 10 starts per hour</td>
<td></td>
<td>- Nominal diameter on suction side DN 50 to DN 500</td>
</tr>
<tr>
<td></td>
<td>- Max. immersion depth: 300 m</td>
<td></td>
<td>- Nominal diameter on pressure side DN 32 to DN 500</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Max. operating pressure: varies according to type and application – up to 16 bar</td>
</tr>
<tr>
<td>Equipment/function</td>
<td>→ Multistage submersible pump</td>
<td>For types of installation with pressure port, for concealed floor, floor-mount-ed or twin-ceiling installation</td>
<td>→ Single-stage horizontal spiral housing pump with bearing bracket and exchangeable casing wear rings in process design</td>
</tr>
<tr>
<td></td>
<td>→ Semi-axial impellers</td>
<td>→ Design:</td>
<td>→ Shaft sealing with mechanical seals in accordance with EN 12756 or packing stuffing box</td>
</tr>
<tr>
<td></td>
<td>→ Hydraulic and motor freely configurable according to power requirements</td>
<td>- As removable or permanent installation</td>
<td>→ Spiral housing with cast pump bases</td>
</tr>
<tr>
<td></td>
<td>→ Three-phase motor for direct or star-delta start</td>
<td>- With axial or semi-axial, single or multistage hydraulics</td>
<td>→ Shaft coupling with spacer coupling</td>
</tr>
<tr>
<td></td>
<td>→ Motors rewindable as standard</td>
<td>- With open shaft for bearing lubrication with the fluid, or with shaft trim for separate bearing lubrication</td>
<td>Motors with efficiency class IE3 for motors ≥ 0.75 kW</td>
</tr>
<tr>
<td>Special features</td>
<td>→ Deep water lowering thanks to self-cooling motors</td>
<td>→ Drive options: Electric motor, diesel motor or steam turbine</td>
<td></td>
</tr>
<tr>
<td></td>
<td>→ Sturdy version in cast iron or bronze</td>
<td></td>
<td>→ Reduced life-cycle costs through optimised efficiency levels</td>
</tr>
<tr>
<td></td>
<td>→ Compact construction</td>
<td></td>
<td>→ Bidirectional, force-flushed mechanical seal</td>
</tr>
<tr>
<td></td>
<td>→ Maintenance-friendly, rewindable motors</td>
<td></td>
<td>→ Low NPSH values, best cavitation properties</td>
</tr>
<tr>
<td></td>
<td>→ Optionally with Ceram CT coating for increasing the efficiency</td>
<td></td>
<td>Shaft coupling with or without spacer coupling</td>
</tr>
<tr>
<td>Information</td>
<td>Online catalogue: productfinder.wilo.com</td>
<td>Documentation on request</td>
<td>Online catalogue: productfinder.wilo.com</td>
</tr>
</tbody>
</table>

Water supply – Raw water intake

Water Management catalogue: Water supply – Raw water intake

### General Overview

**Delivery range** – Edition 2016 – 50 Hz – Subject to change without prior notice.

### Wilo-SCP

- **Series**: Wilo-CronoNorm-NLG
- **Field of application**: Heating, air-conditioning, cooling, water supply, industrial process
- **Duty chart**: Heating, air-conditioning, cooling, water distribution/boosting, industrial process
- **Technical data**:
  - **Volume flow Q max.**: 2,800 m³/h
  - **Delivery head H max.**: 140 m
  - **Application**: Isolating, pumping heating and cooling water in accordance with VDI 2035, water-glycol mixtures, cooling/cold water and process water
  - **Equipment/function**: Single-stage low-pressure centrifugal pump with axial suction, according to ISO 5199, mounted on a baseplate
  - **Special features NLG**:
    - Permanently lubricated, generously dimensioned roller bearings
    - Reduced life cycle costs through optimised efficiency
    - Mechanical seal independent of the direction of rotation
    - Interchangeable casing wear ring
    - Extension of the DIN EN 733 product range

### Wilo-Drain LP

- **Series**: Wilo-Drain LP
- **Field of application**: Water distribution/boosting, professional irrigation/agriculture, de-watering/food control
- **Duty chart**: Heating, air-conditioning, cooling, water distribution/boosting, industrial process
- **Technical data**:
  - **Volume flow Q max.**: 3,400 m³/h
  - **Delivery head H max.**: 245 m
  - **Application**: Suitable for temperatures up to 140 °C
  - **Equipment/function**: Single-stage horizontal spiral housing pump with bearing bracket and exchangeable casing wear rings (NLG only) in process design
  - **Special features NLG**:
    - Suitable for temperatures up to 140 °C
    - Back-pull-out version
  - **Information**: Online catalogue: productfinder.wilo.com

### Water Management catalogue

- **Series**: Wilo-VeroNorm-NPG
- **Field of application**: Water distribution/boosting, professional irrigation/agriculture, de-watering/food control
- **Duty chart**: Heating, air-conditioning, cooling, water distribution/boosting, industrial process
- **Technical data**:
  - **Volume flow Q max.**: 60 m³/h
  - **Delivery head H max.**: 29 m
  - **Application**: Suitable for temperatures up to 140 °C
  - **Equipment/function**: Single-stage low-pressure centrifugal pump with axial split housing mounted on a baseplate
  - **Special features NLG**:
    - Mechanical seal independent of the direction of rotation
    - Greased grooved ball bearings for impeller of pump shaft
  - **Information**: Online catalogue: productfinder.wilo.com

### ErP READY

**Product range**

<table>
<thead>
<tr>
<th>Series</th>
<th>Standard glanded pumps</th>
<th>Axially split case pumps</th>
<th>Self-priming drainage pumps</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wilo-CronoNorm-NLG</td>
<td>Wilo-SCP</td>
<td>Wilo-Drain LP</td>
<td></td>
</tr>
<tr>
<td>Wilo-VeroNorm-NPG</td>
<td>Wilo-SCP</td>
<td>Wilo-Drain LPC</td>
<td></td>
</tr>
</tbody>
</table>

### Design

- **Single-stage low-pressure centrifugal pump with axial suction**, according to ISO 5199, mounted on a baseplate
- **Low-pressure centrifugal pump with axial split housing mounted on a baseplate**
- **Self-priming drainage pumps for dry well installation**

### Application

- **Pumping of heating water** (in accordance with VDI 2035), cold water and cooling systems
- **Applications in municipal wastewater supply, irrigation, building services, general industry, power stations, etc.**
- **Pumping heating water** in accordance with VDI 2035, water-glycol mixtures, cooling/cold water and process water
- **Applications in municipal wastewater supply, irrigation, building services, general industry, power stations, etc.**

### Technical data

- **Volume flow Q max.**: 2,800 m³/h
- **Delivery head H max.**: 140 m
- **Application**: Heating, air-conditioning, cooling, water supply, industrial process
- **Equipment/function**: Single-stage low-pressure centrifugal pump with axial suction, according to ISO 5199, mounted on a baseplate
- **Special features NLG**:
  - Permanently lubricated, generously dimensioned roller bearings
  - Reduced life cycle costs through optimised efficiency
  - Mechanical seal independent of the direction of rotation
  - Interchangeable casing wear ring
  - Extension of the DIN EN 733 product range
  - Suitable for temperatures up to 140 °C
  - Back-pull-out version

### Information

- **Online catalogue**: productfinder.wilo.com
- **Online catalogue**: productfinder.wilo.com
- **Online catalogue**: productfinder.wilo.com

**General Overview – Delivery range – Edition 2016 – 50 Hz – Subject to change without prior notice.**
## Product range

<table>
<thead>
<tr>
<th>Pedestal pumps</th>
<th>Submersible sewage pumps</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Series</strong></td>
<td>Wilo–Drain VC</td>
</tr>
<tr>
<td><strong>Field of application</strong></td>
<td>Professional irrigation/agriculture, special applications, dewatering/flood control, industrial process</td>
</tr>
<tr>
<td><strong>Duty chart</strong></td>
<td><img src="image1" alt="Wilo–Drain VC graph" /></td>
</tr>
<tr>
<td><strong>Design</strong></td>
<td>Vertical drainage pumps</td>
</tr>
<tr>
<td><strong>Application</strong></td>
<td>Pumping of wastewater and condensate up to 95 °C from pump sumps and from cellars at risk of flooding</td>
</tr>
<tr>
<td><strong>Volume flow Q max.</strong></td>
<td>14 m³/h</td>
</tr>
<tr>
<td><strong>Delivery head H max.</strong></td>
<td>20 m</td>
</tr>
<tr>
<td><strong>Technical data</strong></td>
<td>Mains connection 1<del>230 V, 50 Hz or 3</del>400 V, 50 Hz</td>
</tr>
<tr>
<td></td>
<td>Protection class IP 54</td>
</tr>
<tr>
<td></td>
<td>Fluid temperature +5 °C to +95 °C</td>
</tr>
<tr>
<td></td>
<td>Free ball passage 5 or 7 mm, depending on type</td>
</tr>
<tr>
<td></td>
<td>Pressure port Rp 1 or Rp 1½ depending on type</td>
</tr>
<tr>
<td><strong>Equipment/function</strong></td>
<td>Attached float switch</td>
</tr>
<tr>
<td><strong>Special features</strong></td>
<td>For fluids up to 95 °C</td>
</tr>
<tr>
<td></td>
<td>Long service life</td>
</tr>
<tr>
<td></td>
<td>Easy operation with attached float switch</td>
</tr>
<tr>
<td></td>
<td>Long standstill times possible</td>
</tr>
<tr>
<td></td>
<td>Integrated motor protection with thermal relay</td>
</tr>
<tr>
<td><strong>Information</strong></td>
<td>Online catalogue: productfinder.wilo.com</td>
</tr>
<tr>
<td></td>
<td>Building services catalogue: Drainage and sewage</td>
</tr>
<tr>
<td></td>
<td>Water Management catalogue: Drainage and sewage – Wastewater transport and dewatering</td>
</tr>
</tbody>
</table>
Special applications

Many applications make it necessary to move and transport water. With their high operational reliability and efficiency, Wilo products meet your needs even in non-standard applications.

Wilo-Sevio ACT,
the process optimiser
Biological treatment with activated sludge tank
Gets things moving in the cleaning process.

Special applications need special solutions. That is why we offer you products that you can adapt easily and precisely to suit the special conditions of your location, such as our innovative Wilo-Sevio ACT.

The Wilo-Sevio ACT system is used primarily in wastewater treatment plants for biological treatment with an activated sludge tank. Firstly, classic sludge activation needs a lot of space, and sedimentation in the secondary clarifier often constitutes a challenge.

Another problem is the uniform distribution of the organic load in the activated sludge tank and fixed-bed reactors. The innovative process with biomass carriers can play out its strengths here, because it uses the advantages of both classic sludge activation and the well-known biofilm process. Wilo-Sevio ACT. This innovative system sucks in biomass carriers and gently feeds them into the biological process again below the water surface. This leads to uniform mixing and improves cleaning performance.

We would be happy to help you to design your project and select the right pump technology. Simply ask us today.

Always professional and quick to respond

Supporting all the phases of your projects is of paramount importance to us, from design through to maintenance concepts.

> accompanied by competent experts
> working out exactly the right solution together with you
> supported by a comprehensive software package
> comprises the choice of pump and machine technology in the municipal wastewater treatment
Wastewater treatment plant
Steenwijk, Netherlands

The task: Guaranteed circulation velocity at lowest energy consumption for wastewater treatment plant for a total of 73,000 PE.

The solution: Energy-efficient selection and factory-provided tests enabled a reliable system solution for the complete treatment process.
## Product range

### Submersible pumps
- **Series**
  - Wilo–EMU 8” series
  - Wilo–EMU 10”...24” series
  - Wilo–Zetos K
- **Field of application**
  - Water distribution/boosting, clean water treatment, raw water intake, desalination, professional irrigation/agriculture
- **Field of application**
  - Special applications, dewatering/flood control, industrial process
- **Design**
  - Submersible pump with sectional construction
- **Application**
  - Supply of potable and other water from boreholes and rainwater storage tanks; process water supply; municipal and industrial water supply; sprinkling and irrigation; pressure boosting; lowering the ground water level; utilisation of geothermal energy and in offshore applications
- **Volume flow Q max.**
  - 2,400 m³/h
- **Delivery head H max.**
  - 560 m
- **Technical data**
  - Mains connection: 3~400 V, 50 Hz
  - Max. fluid temperature: 20 ... 30 °C
  - Minimum flow rate at motor: 0.1 ... 0.5 m³/s
  - Max. sand content: 35 g/m³
  - Up to 10 starts per hour
  - Max. immersion depth: 100 or 300/350 m
- **Equipment/function**
  - Multistage submersible pump
  - Radial or semi-axial impellers
  - Hydraulics and motor freely configurable according to power requirements
  - Integrated non-return valve (depending on type)
  - NEMA coupling or standardised connection
  - Three-phase motor for direct or star-delta start
- **Special features**
  - Pressure shroud in corrosion-resistant and hygienic stainless steel version
  - Hydraulic in stainless steel precision casting (Zetos K)
  - Maintenance-friendly motors
  - Optionally with Ceram CT coating for increasing the efficiency
  - Optional with ACS approval for drinking water application
- **Information**
  - Online catalogue: productfinder.wilo.com
  - Water Management catalogue:
    - Water supply – Raw water intake

### Submersible drainage pumps
- **Series**
  - Wilo-Drain TMT
  - Wilo-Drain VC
- **Field of application**
  - Special applications, dewatering/flood control, professional irrigation/agriculture
- **Design**
  - Submersible drainage pumps
- **Application**
  - Pumping of condensate, hot water and aggressive media in industrial applications
- **Volume flow Q max.**
  - 22 m³/h
- **Delivery head H max.**
  - 15.5 m
- **Technical data**
  - Mains connection: 1~230 V, 50 Hz or 3~400 V, 50 Hz
  - Fluid temperature: +5 °C to +95 °C
  - Free ball passage: 5 or 7 mm, depending on type
  - Pressure port: Rp 1¼ or Rp 1½ depending on type
- **Equipment/function**
  - Housing and impeller made of grey cast iron
  - Winding temperature monitoring with bimetal sensor
- **Special features**
  - Attached float switch
- **Information**
  - Online catalogue: productfinder.wilo.com
  - Building services catalogue:
    - Drainage and sewage
  - Water Management catalogue:
    - Drainage and sewage – Wastewater transport and dewatering

### Pedestal pumps
- **Series**
  - Wilo–Drain TMT
  - Wilo–Drain VC
- **Field of application**
  - Professional irrigation/agriculture, special applications, dewatering/flood control, industrial process
- **Design**
  - Vertical drainage pumps
- **Application**
  - Pumping of wastewater and condensate up to 95 °C from pump sumps and from cellars at risk of flooding
- **Volume flow Q max.**
  - 14 m³/h
- **Delivery head H max.**
  - 20 m
- **Technical data**
  - Mains connection: 1~230 V, 50 Hz
  - Immersed operating mode: S1
  - Non-immersed operating mode: S3 25 %
  - Protection class: IP 54
  - Fluid temperature: +5 °C to +95 °C
  - Cable length: 10 m
  - Pressure port: G 1¼ or Rp 1¼ depending on type
- **Equipment/function**
  - Attached float switch
- **Special features**
  - For fluids up to 95 °C
  - Sealed cable inlet
- **Information**
  - Online catalogue: productfinder.wilo.com
  - Building services catalogue:
    - Drainage and sewage
  - Water Management catalogue:
    - Drainage and sewage – Wastewater transport and dewatering
Product range | Submersible sewage pumps | Submersible sewage pump | Submersible sewage pumps
---|---|---|---
**Series** | Wilo–Drain TP 80 | Wilo–Rexa PRO | Wilo–EMU FA 08 ... to FA 60 ...
**Field of application** | Special applications, wastewater collection and transport, dewatering/flood control, industrial process | Special applications, wastewater collection and transport, wastewater treatment, dewatering/flood control | Special applications, wastewater collection and transport, wastewater treatment, industrial process
**Duty chart** | | |
**Design** | Submersible sewage pump for industrial applications | Submersible sewage pump | Submersible sewage pump with dry motors or self-cooling motors
**Application** | Pumping heavily contaminated fluids, for environmental and water treatment technology and industrial process engineering | Pumping of drainage water and sewage, sewage containing faeces, and sludge up to max. 8% dry matter from chambers and tanks, and also for house and site drainage | Pumping sewage with solid content in wastewater treatment plants and pumping stations, local dewatering, water control and process water extraction; construction applications and industrial applications
**Volume flow Q max.** | 180 m³/h | 186 m³/h | 7,950 m³/h
**Delivery head H max.** | 22 m | 32 m | 87 m
**Technical data** | Mains connection: 3–400 V, 50 Hz | Mains connection: 1–230 V, 50 Hz or 3–400 V, 50 Hz | Mains connection: 3–400 V, 50 Hz
Immersed operating mode: S1 | Immersed operating mode: S1 | Immersed operating mode: S1
Non-immersed operating mode: S1 | Non-immersed operating mode: S2–30 min, S3 25 % | Non-immersed operating mode with self-cooling motor: S1
Self-cooling class: F | Protection class: IP 68 | Protection class: IP 68
Thermal winding monitoring | Fluid temperature: 3–40 °C, max. 60 °C for 3 min | Max. fluid temperature: 40 °C; higher temperatures on request
Sealing chamber control | Free passage: 45...100 mm | Sealing with rotary shaft seal and mechanical seal, two mechanical seals or one block seal cartridge, depending on motor
Max. fluid temperature: 40 °C | Max. immersion depth: 20 m | Free ball passage of 45 to 170 mm
Free ball passage: 80 or 100 mm | Cable length: 10 m | Permanently lubricated roller bearings
Max. immersion depth: 20 m | |
**Equipment/function** | Thermal motor monitoring | Winding temperature monitoring with bimetal sensor | Heavy-duty version made of cast iron
Sealing chamber monitoring | Leakage detection for the motor compartment | Self-cooling motors with 1- or 2-chamber system
ATEX approval | | Simple installation via suspension unit or pump base
Sheath current cooling | | |
**Special features** | Self-cooling motor for the use in wet well or dry well installations | Sturdy version in cast iron | Self-cooling motors for the use in wet well and dry well installations
Corrosion-resistant stainless steel motor housing made of 1.4404 | Oil separation chamber with optional external monitoring | Process security thanks to extensive monitoring devices
Patented non-clogging hydraulics | Longitudinal watertight cable inlet | Special versions for abrasive and corrosive fluids
Longitudinal watertight cable inlet | Also available with IE3 motor technology | Low vibrations and long standstill times thanks to high-quality components
Low weight | |
**Information** | Online catalogue: productfinder.wilo.com | Online catalogue: productfinder.wilo.com | Online catalogue: productfinder.wilo.com
Building services catalogue: Drainage and sewage | Building services catalogue: Drainage and sewage | Water Management catalogue: Drainage and sewage
Drainage and sewage – Wastewater transport and dewatering | Drainage and sewage – Wastewater transport and dewatering | Drainage and sewage – Wastewater treatment
## Special applications

### Information
- Online catalogue: productfinder.wilo.com
- Water Management catalogue: Drainage and sewage – Wastewater transport and dewatering (pumps available ex stock)
- Online catalogue: productfinder.wilo.com
- Water Management catalogue: Drainage and sewage – Wastewater transport and dewatering (order-specific production) – Wastewater treatment

### Technical data
- **Submersible sewage pumps**
  - Mains connection: 3~400 V, 50 Hz
  - Immersed operating mode: S1
  - Protection class: IP 68
  - Max. fluid temperature: 40 °C
  - Max. immersion depth: 20 m
- **Recirculation pumps**
  - Mains connection: 3~400 V, 50 Hz
  - Immersed operating mode: S1
  - Protection class: IP 68
  - Max. fluid temperature: 40 °C
  - Max. immersion depth: 20 m

### Duty chart
- **Submersible sewage pumps**
- **Recirculation pumps**

### Design
- **Submersible sewage pumps**: made of cast stainless steel
- **Axial submersible pump with dry motor for use in pipe chambers**: made of cast iron
- **Submersible mixers with housing unit, directly driven or with single-stage planetary gear**: available ex stock

### Application
- **Pumping sewage with solid content in water treatment systems and industrial applications**
- **Pumping cooling or rainwater, cleaned sewage and for irrigation and pumping sludge**
- **Pumping wastewater and sewage with low delivery heads and large volume flows, e.g. between equalising, nitrification and denitrification tanks; pumping process, raw, clean and cooling water e.g. in paint finishing systems or for clean water treatment; flow generation in water channels, e.g. amusement parks**

### Volume flow Q max.
- **70 m³/h**
- **9,500 m³/h**
- **6,800 m³/h**

### Delivery head H max.
- **30 m**
- **8.4 m**
- **1.1 m**

### Equipment/function
- **Heavy-duty version made of cast stainless steel (1.4581)**
- **Heavy-duty version made of cast iron**
- **Stationary installation directly on the flow pipe**
- **Flexible installation via lowering device**
- **Vertical or in-line installation possible**

### Special features
- **Study version completely in stainless steel casting 1.4581 for the use in corrosive fluids**
- **Installation directly in the pressure pipe**
- **Vertical or in-line installation possible**
- **Process security thanks to extensive monitoring devices**
- **Self-cleaning propeller to avoid clogging**
- **Longitudinal watertight cable inlet**
- **Low vibrations and long standstill times thanks to high-quality components**
- **Propeller in steel or PUR**

### Series
- **Wilo–EMU FA...RF**
- **Wilo–EMU KPR...**
- **Wilo–EMU RZP 20 to RZP 80–2**

### Field of application
- **Special applications, wastewater collection and transport, industrial process**
- **Raw water intake, professional irrigation- agriculture, special applications, wastewater treatment, dewatering/ flood control**
- **Special applications, wastewater treatment**

### Duty chart
- **Series Wilo-EMU FA...RF Wilo-EMU KPR... Wilo-EMU RZP 20 to RZP 80–2**

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### Product range

<table>
<thead>
<tr>
<th>Series</th>
<th>Submersible mixer</th>
<th>Submersible mixer</th>
<th>Submersible mixer</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Wilo–EMU TR 14 to TR 28</td>
<td>Wilo–EMU TR 22 to TR 40</td>
<td>Wilo–EMU TR 50–2 to TR 120–1 Wilo–EMU TRE 90–2 with IE3 motor</td>
</tr>
</tbody>
</table>

### Field of application
- Special applications, wastewater treatment
- Special applications, wastewater treatment
- Special applications, wastewater treatment

### Duty chart
- No illustration
- No illustration
- No illustration

### Design
- Compact, directly driven submersible mixer
- Directly driven submersible mixer
- Submersible mixer with single-stage planetary gear

### Application
- Turbulation of deposits and solids in stormwater retention tank and pump sump; destruction of floating sludge layers; further applications in agriculture and water supply
- Turbulation of deposits and solids in stormwater retention tank and pump sump; destruction of floating sludge layers; further applications in agriculture and water supply
- Use in activated sludge tanks and sludge tanks for flow generation, suspension of solids, homogenisation and prevention of floating sludge layers; further applications in industry, agriculture and water supply

### Volume flow Q max.
- Thrust: 45 – 330 N
- Thrust: 185 – 1100 N
- Thrust: 160 – 6620 N

### Delivery head H max.
- **Technical data**
  - Mains connection: 3–400 V, 50 Hz
  - Immersed operating mode: S1
  - Protection class: IP 68
  - Max. fluid temperature: 40 °C
  - Mechanical seal with SiC/SiC pairing
  - Permanently lubricated roller bearings
  - Max. immersion depth: 20 m
  - Single-stage planetary gear
  - Mechanical seal with SiC/SiC pairing
  - Permanently lubricated roller bearings
  - Max. immersion depth: 20 m

### Equipment/function
- Stationary installation on wall and floor
- Flexible installation through the use of lowering device or special pipe attachment
- Can be swivelled vertically and horizontally when installed with a lowering device
- Stationary installation on wall and floor
- Flexible installation via lowering device
- Can be swivelled vertically and horizontally when installed with a lowering device
- Stationary installation on walls
- Flexible installation via lowering device
- Can be swivelled horizontally when installed with a lowering device
- Installation with stand allows free placement in basin
- Single-stage planetary gear

### Special features
- Low power consumption
- Low weight
- Self-cleaning propeller with Helix hub to avoid clogging
- Propeller in steel or PUR
- Self-cleaning propeller with Helix hub to avoid clogging
- Propeller in cast iron, steel or PUR
- Planetary gear allows transmission of high torques to the propeller with an aerodynamic construction
- Exchangeable planetary stage for adaptation of the propeller speed
- Self–cleaning propeller with backward-bent blades to avoid clogging
- Also with IE3 motor technology (on the basis of IEC 60034–30)
- Propeller in steel, PUR or PUR/GFK

### Information
- Online catalogue: productfinder.wilo.com
  - Water Management catalogue: Drainage and sewage – Wastewater treatment
- Online catalogue: productfinder.wilo.com
  - Water Management catalogue: Drainage and sewage – Wastewater treatment
- Online catalogue: productfinder.wilo.com
  - Water Management catalogue: Drainage and sewage – Wastewater treatment
### Product range

<table>
<thead>
<tr>
<th>Submersible mixer</th>
<th>Submersible mixer</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Series</strong></td>
<td></td>
</tr>
<tr>
<td>Wilo–EMU TR 212 to TR 326</td>
<td>Wilo–Sevio MIX DM 50–2</td>
</tr>
<tr>
<td><strong>Field of application</strong></td>
<td></td>
</tr>
<tr>
<td>Special applications, wastewater treatment</td>
<td>Special applications, industrial process</td>
</tr>
<tr>
<td><strong>Duty chart</strong></td>
<td>no illustration</td>
</tr>
<tr>
<td><strong>Design</strong></td>
<td>Slow-running submersible mixer with two-stage planetary gear reduction</td>
</tr>
<tr>
<td><strong>Application</strong></td>
<td>Energetically optimised mixing and circulation of activated sludge; generation of flow rates in circulation channels; other applications in industry</td>
</tr>
<tr>
<td><strong>Volume flow Q max.</strong></td>
<td>Thrust: 390 – 4250 N</td>
</tr>
<tr>
<td><strong>Delivery head H max.</strong></td>
<td>Thrust: 1010 N</td>
</tr>
<tr>
<td><strong>Technical data</strong></td>
<td></td>
</tr>
<tr>
<td>Mains connection: 3–400 V, 50 Hz</td>
<td>Mains connection: 3–400 V, 50 Hz</td>
</tr>
<tr>
<td>Immersed operating mode: S1</td>
<td>Immersed operating mode: S1</td>
</tr>
<tr>
<td>Protection class: IP 68</td>
<td>Protection class: IP 68</td>
</tr>
<tr>
<td>Max. fluid temperature: 40 °C</td>
<td>Max. fluid temperature: 90 °C</td>
</tr>
<tr>
<td>Two-stage planetary gear with exchangeable second planetary gear speed</td>
<td>Single-stage planetary gear</td>
</tr>
<tr>
<td>Mechanical seal with SiC/SiC pairing</td>
<td>Mechanical seal with SiC/SiC pairing</td>
</tr>
<tr>
<td>Permanently lubricated roller bearings</td>
<td>Permanently lubricated roller bearings</td>
</tr>
<tr>
<td>Max. immersion depth: 20 m</td>
<td>Max. immersion depth: 20 m</td>
</tr>
<tr>
<td><strong>Equipment/function</strong></td>
<td>Flexible installation via lowering device</td>
</tr>
<tr>
<td>Installation with stand allows free placement in basin</td>
<td>Can be swivelled horizontally when installed with a lowering device</td>
</tr>
<tr>
<td>Flexible installation</td>
<td>Single-stage planetary gear</td>
</tr>
<tr>
<td>Two-stage planetary gear with exchangeable second planetary gear speed</td>
<td></td>
</tr>
<tr>
<td><strong>Special features</strong></td>
<td>Sturdy construction for fluid temperatures of up to 90 °C</td>
</tr>
<tr>
<td>Planetary gear allows transmission of high torques to the propeller with aerodynamic construction</td>
<td>Exchangeable planetary stage for adaptation of the propeller speed</td>
</tr>
<tr>
<td>Exchangeable planetary stage for adaptation of the propeller speed</td>
<td>Stainless steel propeller with high wear resistance</td>
</tr>
<tr>
<td>Self–cleansing propeller with backward-bent blades to avoid clogging</td>
<td>Ex approval as standard</td>
</tr>
<tr>
<td>Also with IE3 motor technology (on the basis of IEC 60034–30)</td>
<td></td>
</tr>
</tbody>
</table>

### Information

- Online catalogue: productfinder.wilo.com
- Water Management catalogue: Drainage and sewage – Wastewater treatment
- Documentation on request

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Wilo-EMU TRE,
the enduring one
“With Wilo pumps, you no longer have any need to worry about wastewater.”
Drainage and sewage

Pumps and systems for wastewater collection and transport, wastewater treatment, dewatering and flood control.
Drainage and sewage

Wastewater and sewage must be disposed of reliably in order to ensure compliance with quality, hygiene and environmental standards and to prevent obnoxious odours. Anywhere where there is no gradient allowing it to flow easily into the sewer system, our pumps and lifting units offer you an all-round, clean and efficient solution.

We have worked closely with our customers for decades to continuously optimise our powerful and highly economical systems. It shows in many little details. For instance, our pumps master even big challenges such as the rising solid content in sewage without problems, and demonstrate resource-efficient performance and top quality for the long term.

Making one thing very clear: you no longer have any need to worry about wastewater and sewage from now on.

Wilo systems
wastewater collection, transport and treatment.

Wastewater and sewage must be disposed of reliably in order to ensure compliance with quality, hygiene and environmental standards and to prevent obnoxious odours. Anywhere where there is no gradient allowing it to flow easily into the sewer system, our pumps and lifting units offer you an all-round, clean and efficient solution.

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Making one thing very clear: you no longer have any need to worry about wastewater and sewage from now on.

Wastewater collection and transport
Usedom, Germany.

The task: 40% higher load in the peak season.
The solution: Wilo supplied reliable submersible sewage pumps of the type Wilo-EMU FA 50 with a special CERAM coating.
Wastewater collection and transport
Prague, Czech Republic.

**The task:** To relieve the river Elbe from harmful sewage a new wastewater treatment plant was built. All incoming sewage is collected in a tunnel in a depth of approx. 28 m transporting the sewage into the treatment plant.

**The solution:** In this pumping station 9 Wilo submersible sewage pumps were installed overcoming a height difference of 30 m.
### Product range

<table>
<thead>
<tr>
<th>Self-priming drainage pumps</th>
<th>Submersible drainage pumps</th>
<th>Pedestal pumps</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Series</strong></td>
<td>Wilo-Drain LP</td>
<td>Wilo-Drain TMT</td>
</tr>
<tr>
<td>Wilo-Drain LPC</td>
<td>Wilo-Drain TMT</td>
<td>Wilo-Drain VC</td>
</tr>
</tbody>
</table>

### Field of application

- **Self-priming drainage pumps**: Water distribution/boosting, professional irrigation/agriculture, dewatering/flood control, special applications, dewatering/flood control, industrial process
- **Submersible drainage pumps**: Professional irrigation/agriculture, special applications, dewatering/flood control, industrial process
- **Pedestal pumps**: Professional irrigation/agriculture, special applications, dewatering/flood control, industrial process

### Duty chart

#### Wilo-Drain LP / LPC

<table>
<thead>
<tr>
<th>Q[m³/h]</th>
<th>H/m</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>25</td>
<td>25</td>
</tr>
<tr>
<td>30</td>
<td>30</td>
</tr>
</tbody>
</table>

#### Wilo-Drain TMT

<table>
<thead>
<tr>
<th>Q[m³/h]</th>
<th>H/m</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>20</td>
<td>20</td>
</tr>
</tbody>
</table>

### Design

- **Self-priming drainage pumps for dry well installation**
- **Submersible drainage pumps**
- **Vertical drainage pumps**

### Application

- **Self-priming drainage pumps**: For pumping wastewater with small amounts of solid matter for excavation pits and ponds, sprinkling/spraying of gardens and green areas, drainage of seepage water, mobile drainage
- **Submersible drainage pumps**: Pumping of condensate, hot water and aggressive media in industrial applications
- **Pedestal pumps**: Pumping of wastewater and condensate up to 95 °C from pump sumps and from cellars at risk of flooding

### Volume flow Q max.

<table>
<thead>
<tr>
<th>Q[m³/h]</th>
</tr>
</thead>
<tbody>
<tr>
<td>60</td>
</tr>
<tr>
<td>22</td>
</tr>
<tr>
<td>14</td>
</tr>
</tbody>
</table>

### Delivery head H max.

<table>
<thead>
<tr>
<th>H/m</th>
</tr>
</thead>
<tbody>
<tr>
<td>29</td>
</tr>
<tr>
<td>15.5</td>
</tr>
<tr>
<td>20</td>
</tr>
</tbody>
</table>

### Technical data

- **Mains connection**: 1~230 V, 50 Hz, 3~400 V, 50 Hz
- **Fluid temperature**: 3 °C to 35 °C
- **Free ball passage**: 5 to 12 mm, depending on type
- **Connection Rp**: 1½ to G3
- **Mains connection**: 1~230 V, 50 Hz or 3~400 V, 50 Hz
- **Fluid temperature**: +5 °C to +95 °C
- **Free ball passage**: 5 or 7 mm, depending on type
- **Pressure port**: Rp 1½ or Rp 1½ depending on type

### Equipment/function

- **Portable self-priming centrifugal pump**
- **Housing and impeller made of grey cast iron**
- **Attached float switch**
- **Winding temperature monitoring with bimetal sensor**
- **Sealed cable inlet**
- **Integrated motor protection with thermal relay**

### Special features

- **Long service life**
- **Sturdy construction**
- **Easy operation**
- **Flexible use**
- **For fluids up to 95 °C**
- **Sealed cable inlet**
- **For fluids up to 95 °C**
- **Long service life**
- **Easy operation thanks to attached float switch**
- **Long standstill times possible**

### Information

- **Online catalogue**: productfinder.wilo.com
- **Water Management catalogue**: Drainage and sewage – Wastewater transport and dewatering (pumps available ex stock)
- **Building services catalogue**: Drainage and sewage
- **Online catalogue**: productfinder.wilo.com
- **Building services catalogue**: Drainage and sewage
- **Water Management catalogue**: Drainage and sewage – Wastewater transport and dewatering

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### Product range

<table>
<thead>
<tr>
<th>Submersible drainage pumps</th>
<th>Submersible drainage pumps</th>
<th>Submersible drainage pumps</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Series</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wilo-Drain TM/TMW/TMR 32</td>
<td>Wilo-Drain T40</td>
<td>Wilo-EMU KS</td>
</tr>
<tr>
<td>Wilo-Drain TS/TSW 32</td>
<td>Wilo-Drain T50</td>
<td></td>
</tr>
<tr>
<td>Wilo-Drain TS 40</td>
<td>Wilo-Drain T65</td>
<td></td>
</tr>
<tr>
<td>Wilo-Drain TS 50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wilo-Drain TS 65</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wilo-EMU KS</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Field of application</strong></th>
<th>Wastewater collection and transport, dewatering/flood control</th>
<th>Wastewater collection and transport, dewatering/flood control, industrial process</th>
<th>Dewatering/flood control, industrial process</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th><strong>Duty chart</strong></th>
<th><img src="image" alt="Graph" /></th>
<th><img src="image" alt="Graph" /></th>
<th><img src="image" alt="Graph" /></th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th><strong>Design</strong></th>
<th>Basement drainage pump</th>
<th>Submersible drainage pumps</th>
<th>Submersible drainage pumps in rugged design for use on building sites</th>
</tr>
</thead>
</table>

| **Application**            | For pumping clear or slightly muddy water from tanks, sumps or pits. For help with overflows and flooding and for draining basement stairways and basement areas from domestic waste water and for pumping water from small fountains, waterworks or streams. | For pumping wastewater in house/site drainage, in environmental and water treatment technology and industrial and process engineering. | For dewatering of excavation pits, cellar areas, chambers and basins. Ideally suited for use in fountains. |

<table>
<thead>
<tr>
<th><strong>Volume flow Q max.</strong></th>
<th>16 m³/h</th>
<th>53 m³/h</th>
<th>165 m³/h</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Delivery head H max.</strong></td>
<td>12 m</td>
<td>25 m</td>
<td>62 m</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Technical data</strong></th>
<th>Mains connection 1–230 V, 50 Hz</th>
<th>Mains connection 1–230 V, 50 Hz or 3–400 V, 50 Hz</th>
<th>Mains connection 1–230 V, 50 Hz or 3–400 V, 50 Hz</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Protection class IP 68</td>
<td>Immersed operating mode: S1</td>
<td>Operating mode S1</td>
</tr>
<tr>
<td></td>
<td>Max. immersion depth TM/TMW/TMR = 1 m, TS/TSW = 7 m</td>
<td>Non-immersed operating mode: S3 25 %</td>
<td>Max. fluid temperature 60 °C</td>
</tr>
<tr>
<td></td>
<td>Fluid temperature 3 °C to 35 °C, for short periods up to 3 min. max. 90 °C</td>
<td>Protection class IP 68</td>
<td>Protection class IP 68</td>
</tr>
<tr>
<td></td>
<td>Cable length 4 to 10 m, depending on type</td>
<td>Fluid temperature 3 °C to 35 °C</td>
<td>Sealed by double mechanical seal</td>
</tr>
<tr>
<td></td>
<td>Free ball passage 10 mm</td>
<td>Free ball passage 10 mm</td>
<td>Maintenance-free roller bearing</td>
</tr>
<tr>
<td></td>
<td>Pressure port Rp 1½, hose connection 35 mm (TM 32/…), 32 mm (R1)</td>
<td>Pressure port Rp 1½, Rp 2 or Rp 2½ depending on type</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Equipment/function</strong></th>
<th>Ready-to-plug</th>
<th>Ready-to-plug versions also with float switch</th>
<th>Bidirectional mechanical seal</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Motor monitoring via temperature</td>
<td>Thermal motor monitoring</td>
<td>Heavy–duty motors (oil-filled and dry) ensure continuous duty even with non-immersed motor</td>
</tr>
<tr>
<td></td>
<td>Sheath current cooling</td>
<td>Explosion protection for T5 50 and T5 65</td>
<td>Corrosion-resistant components</td>
</tr>
<tr>
<td></td>
<td>Hose connection</td>
<td>Connection cable 10 m</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Turbulator (TMW, TSW)</td>
<td>Connection cable detachable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Float switch (depending on type)</td>
<td>Integrated non-return valve for T5 40</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Hose connection for T5 40</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Special features</strong></th>
<th>TMW, TSW with turbulator for constantly clean pump chamber</th>
<th>Low weight</th>
<th>Long service life</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No generation of fluid-related odours</td>
<td>Large performance range</td>
<td>Studry construction</td>
</tr>
<tr>
<td></td>
<td>Easy installation</td>
<td>Oil separation chamber</td>
<td>Slurping operation possible</td>
</tr>
<tr>
<td></td>
<td>High operational reliability</td>
<td>Easy operation thanks to attached float switch and plug (A version)</td>
<td>Suitable for continuous duty (S1)</td>
</tr>
<tr>
<td></td>
<td>Easy operation</td>
<td></td>
<td>Ready–to–plug</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Information</strong></th>
<th>Online catalogue: productfinder.wilo.com</th>
<th>Online catalogue: productfinder.wilo.com</th>
<th>Online catalogue: productfinder.wilo.com</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Building services catalogue: Drainage and sewage</td>
<td>Building services catalogue: Drainage and sewage</td>
<td>Building services catalogue: Drainage and sewage</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Water Management catalogue: Drainage and sewage – Wastewater transport and dewatering (pumps available ex stock)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Product range</th>
<th>Submersible sewage pumps with macerator</th>
<th>Submersible sewage pumps</th>
<th>Submersible sewage pumps</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Series</strong></td>
<td>Wilo-Rexa CUT</td>
<td>Wilo-Drain TC 40</td>
<td>Wilo-Drain STS 40</td>
</tr>
<tr>
<td></td>
<td>Wilo-Drain MTS</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Wilo-Drain MTC</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Field of application</strong></td>
<td>Wastewater collection and transport</td>
<td>Wastewater collection and transport, dewatering/flood control</td>
<td>Wastewater collection and transport, dewatering/flood control</td>
</tr>
<tr>
<td><strong>Duty chart</strong></td>
<td><img src="chart1.png" alt="Chart" /></td>
<td><img src="chart2.png" alt="Chart" /></td>
<td><img src="chart3.png" alt="Chart" /></td>
</tr>
<tr>
<td><strong>Design</strong></td>
<td>Submersible sewage pumps with macerator</td>
<td>Submersible sewage pump</td>
<td>Submersible sewage pumps</td>
</tr>
<tr>
<td><strong>Application</strong></td>
<td>Pumping sewage containing faeces and municipal and industrial sewage, including fibrous matter, for pressure drainage, house and site drainage, sewage and water management and environmental and water treatment technology</td>
<td>Pumping heavily contaminated fluids for house/site drainage, sewage disposal (pumping of sewage free of faeces in acc. with DIN EN 12050–2) and environmental and water treatment technology</td>
<td>Pumping heavily contaminated fluids for house/site drainage, sewage disposal (pumping of sewage free of faeces in acc. with DIN EN 12050–2), water management, and environmental, water treatment, industrial and process engineering applications</td>
</tr>
<tr>
<td><strong>Volume flow Q max.</strong></td>
<td>17 m³/h</td>
<td>22 m³/h</td>
<td>20 m³/h</td>
</tr>
<tr>
<td><strong>Delivery head H max.</strong></td>
<td>55 m</td>
<td>10 m</td>
<td>10 m</td>
</tr>
<tr>
<td><strong>Technical data</strong></td>
<td>Mains connection: 1<del>230 V, 50 Hz or 3</del>400 V, 50 Hz</td>
<td>Immersed operating mode: S1</td>
<td>Immersed operating mode: S1</td>
</tr>
<tr>
<td></td>
<td>Protection class: IP 68</td>
<td>25 %</td>
<td>25 %</td>
</tr>
<tr>
<td></td>
<td>Insulation class: F</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Thermal winding monitoring</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Max. fluid temperature: 3–40 ºC</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Free ball passage: 35 mm</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Max. immersion depth: 2 m</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Equipment/function</strong></td>
<td>Internal or external macerator</td>
<td>Ready-to–plug</td>
<td>AC variant ready-to–plug</td>
</tr>
<tr>
<td></td>
<td>Unimpeded flow to the impeller</td>
<td>Including float switch</td>
<td>A–model including float switch</td>
</tr>
<tr>
<td></td>
<td>Maceration of substances being conveyed</td>
<td>Thermal motor monitoring</td>
<td>Thermal motor monitoring</td>
</tr>
<tr>
<td></td>
<td>Simple installation via suspension unit or pump base</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Oil separation chamber with optional external monitoring</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Special features</strong></td>
<td>Low–weight version with stainless steel motor</td>
<td>Heavy–duty hydraulic housing made of cast iron</td>
<td>Connection cable detachable</td>
</tr>
<tr>
<td></td>
<td>Sturdy version in cast iron</td>
<td>Easy operation due to the attached float switch</td>
<td>Stainless steel dry motor</td>
</tr>
<tr>
<td></td>
<td>Sealing with two mechanical seals</td>
<td>Integrated stainless steel pump base for easy installation</td>
<td>Attached float switch (A–model)</td>
</tr>
<tr>
<td></td>
<td>Longitudinal watertight cable inlet</td>
<td>Free ball passage: 40 mm</td>
<td>Enables easy operation</td>
</tr>
<tr>
<td><strong>Information</strong></td>
<td>Online catalogue: productfinder.wilo.com Building services catalogue: Drainage and sewage</td>
<td>Online catalogue: productfinder.wilo.com Building services catalogue: Drainage and sewage</td>
<td>Online catalogue: productfinder.wilo.com Building services catalogue: Drainage and sewage</td>
</tr>
</tbody>
</table>
### Product range

<table>
<thead>
<tr>
<th>Submersible sewage pumps</th>
<th>Submersible sewage pumps</th>
<th>Submersible sewage pumps</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Series</strong></td>
<td><strong>Series</strong></td>
<td><strong>Series</strong></td>
</tr>
<tr>
<td>Wilo–Drain TP 50</td>
<td>Wilo–Drain TP 80</td>
<td>Wilo–Rexa FIT</td>
</tr>
<tr>
<td>Wilo–Drain TP 65</td>
<td>Wilo–Drain TP 100</td>
<td>Wilo–Rexa PRO</td>
</tr>
</tbody>
</table>

### Field of application

<table>
<thead>
<tr>
<th>Submersible sewage pumps</th>
<th>Submersible sewage pumps</th>
<th>Submersible sewage pumps</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wastewater collection and transport, dewatering/flood control</td>
<td>Special applications, wastewater collection and transport, dewatering/flood control, industrial process</td>
<td>Special applications, wastewater collection and transport, wastewater treatment, dewatering/flood control</td>
</tr>
</tbody>
</table>

### Duty chart

<table>
<thead>
<tr>
<th>Submersible sewage pumps</th>
<th>Submersible sewage pumps</th>
<th>Submersible sewage pumps</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1" alt="Duty chart" /></td>
<td><img src="image2" alt="Duty chart" /></td>
<td><img src="image3" alt="Duty chart" /></td>
</tr>
</tbody>
</table>

### Design

<table>
<thead>
<tr>
<th>Submersible sewage pumps</th>
<th>Submersible sewage pumps</th>
<th>Submersible sewage pump</th>
</tr>
</thead>
<tbody>
<tr>
<td>Submersible sewage pumps</td>
<td>Submersible sewage pump for industrial applications</td>
<td>Submersible sewage pump</td>
</tr>
</tbody>
</table>

### Application

<table>
<thead>
<tr>
<th>Submersible sewage pumps</th>
<th>Submersible sewage pumps</th>
<th>Submersible sewage pumps</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pumping heavily contaminated fluids for house and site drainage, sewage (not within the scope of DIN EN 12050–1) and water management, environmental and water treatment technology and industrial and process engineering</td>
<td>Pumping heavily contaminated fluids, for environmental and water treatment technology and industrial and process engineering</td>
<td>Pumping of drainage water and sewage, sewage containing faeces, and sludge up to max. 8% dry matter from chambers and tanks, and also for house and site drainage</td>
</tr>
</tbody>
</table>

### Volume flow Q max.

<table>
<thead>
<tr>
<th>Submersible sewage pumps</th>
<th>Submersible sewage pumps</th>
<th>Submersible sewage pumps</th>
</tr>
</thead>
<tbody>
<tr>
<td>60 m³/h</td>
<td>180 m³/h</td>
<td>186 m³/h</td>
</tr>
</tbody>
</table>

### Delivery head H max.

<table>
<thead>
<tr>
<th>Submersible sewage pumps</th>
<th>Submersible sewage pumps</th>
<th>Submersible sewage pumps</th>
</tr>
</thead>
<tbody>
<tr>
<td>21 m</td>
<td>21 m</td>
<td>32 m</td>
</tr>
</tbody>
</table>

### Technical data

<table>
<thead>
<tr>
<th>Submersible sewage pumps</th>
<th>Submersible sewage pumps</th>
<th>Submersible sewage pumps</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mains connection: 1<del>230 V, 50 Hz or 3</del>400 V, 50 Hz</td>
<td>Mains connection: 3~400 V, 50 Hz</td>
<td>Mains connection: 1<del>230 V, 50 Hz or 3</del>400 V, 50 Hz</td>
</tr>
<tr>
<td>Immersed operating mode: S1</td>
<td>Immersed operating mode: S1</td>
<td>Immersed operating mode: S1</td>
</tr>
<tr>
<td>Non-immersed operating mode: S2~8 min, S3 25 %</td>
<td>Protection class: IP 68</td>
<td>Non-immersed operating mode: S1</td>
</tr>
<tr>
<td>Protection class: IP 68</td>
<td>Insulation class: F</td>
<td>Protection class: IP 68</td>
</tr>
<tr>
<td>Thermal winding monitoring</td>
<td>Thermal winding monitoring</td>
<td>Insulation class: F</td>
</tr>
<tr>
<td>Max. fluid temperature: 40 °C</td>
<td>Free ball passage: 80 or 100 mm</td>
<td>Fluid temperature: 3~40 °C, max. 60 °C for 3 min</td>
</tr>
<tr>
<td>Free ball passage: 44 mm</td>
<td>Max. immersion depth: 20 m</td>
<td>Free passage: 50/65/80 mm</td>
</tr>
<tr>
<td>Max. immersion depth: 7 m</td>
<td></td>
<td>Max. immersion depth: 7 or 20 m</td>
</tr>
</tbody>
</table>

### Equipment/function

<table>
<thead>
<tr>
<th>Submersible sewage pumps</th>
<th>Submersible sewage pumps</th>
<th>Submersible sewage pumps</th>
</tr>
</thead>
<tbody>
<tr>
<td>AC variant with capacitor box</td>
<td>Thermal motor monitoring</td>
<td>Winding temperature monitoring with bimetal sensor</td>
</tr>
<tr>
<td>Thermal motor monitoring</td>
<td>Sealing chamber monitoring</td>
<td>Oil separation chamber with optional external monitoring</td>
</tr>
<tr>
<td>(TP 65 3~ without floatater)</td>
<td>Sheath current cooling</td>
<td></td>
</tr>
</tbody>
</table>

### Special features

<table>
<thead>
<tr>
<th>Submersible sewage pumps</th>
<th>Submersible sewage pumps</th>
<th>Submersible sewage pumps</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stainless steel motor housing made of 1.4301</td>
<td>Self-cooling motor for the use in wet well and dry well installations</td>
<td>Low-weight version with stainless steel motor or sturdy version in cast iron</td>
</tr>
<tr>
<td>Easy operation thanks to attached float switch (A version)</td>
<td>Corrosion-resistant stainless steel motor housing in 1.4404</td>
<td>Also with IE3 motor technology (on the basis of IEC 60034–30)</td>
</tr>
<tr>
<td>Low weight</td>
<td>Patented non-clogging stainless steel motor housing in 1.4404</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Longitudinal watertight cable inlet</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Low weight</td>
<td></td>
</tr>
</tbody>
</table>

### Information

<table>
<thead>
<tr>
<th>Submersible sewage pumps</th>
<th>Submersible sewage pumps</th>
<th>Submersible sewage pumps</th>
</tr>
</thead>
<tbody>
<tr>
<td>Online catalogue: productfinder.wilo.com</td>
<td>Online catalogue: productfinder.wilo.com</td>
<td>Online catalogue: productfinder.wilo.com</td>
</tr>
<tr>
<td>Building services catalogue: Drainage and sewage</td>
<td>Building services catalogue: Drainage and sewage</td>
<td>Building services catalogue: Drainage and sewage</td>
</tr>
<tr>
<td>Water Management catalogue: Drainage and sewage – Wastewater transport and dewatering</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Product range**

<table>
<thead>
<tr>
<th>Sewage pumps</th>
<th>Submersible sewage pumps</th>
<th>Submersible sewage pumps</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Series</strong></td>
<td>Wilo–RexaBloc RE</td>
<td>Wilo–EMU FA 08 ... to FA 15 ... (standard pumps)</td>
</tr>
<tr>
<td><strong>Field of application</strong></td>
<td>Wastewater collection and transport, wastewater treatment, dewatering/ flood control</td>
<td>Wastewater collection and transport, wastewater treatment, dewatering/ flood control</td>
</tr>
<tr>
<td><strong>Duty chart</strong></td>
<td><img src="Image" alt="Duty chart" /></td>
<td><img src="Image" alt="Duty chart" /></td>
</tr>
<tr>
<td><strong>Design</strong></td>
<td>Sewage hydraulics with standard motor in monobloc design for stationary dry well installation</td>
<td>Submersible sewage pumps</td>
</tr>
<tr>
<td><strong>Application</strong></td>
<td>Pumping of waste water and sewage containing faecal matter, including long–fibre constituents.</td>
<td>Pumping sewage with solid content in wastewater treatment plants and pumping stations, local dewatering, water control and process water extraction; construction applications and industrial applications</td>
</tr>
<tr>
<td><strong>Volume flow Q max.</strong></td>
<td>36 m³/h</td>
<td>380 m³/h</td>
</tr>
<tr>
<td><strong>Delivery head H max.</strong></td>
<td>18 m</td>
<td>51 m</td>
</tr>
</tbody>
</table>
| **Technical data** | - Mains connection: 3–400 V, 50 Hz  
- Operating mode: S1  
- Insulation class: F  
- Fluid temperature: 3...70 °C  
- Ambient temperature: 3 to 40 °C  
- Motor efficiency class: IE3 | - Mains connection: 3–400 V, 50 Hz  
- Immersed operating mode: S1  
- Non-immersed operating mode: S2–15 or S2–30 (depending on type)  
- Thermal motor monitoring  
- Protection class: IP 68  
- Insulation class: F  
- Max. fluid temperature: 40 °C  
- Free ball passage of 45 to 100 mm  
- Permanently lubricated roller bearings  
- Max. immersion depth: 20 m | - Mains connection: 3–400 V, 50 Hz  
- Immersed operating mode: S1  
- Non-immersed operating mode with self-cooling motor: S1  
- Protection class: IP 68  
- Max. fluid temperature: 40 °C; higher temperatures on request  
- Sealing with rotary shaft seal and mechanical seal, two mechanical seals or one block seal cartridge, depending on motor  
- Free ball passage of 45 to 170 mm  
- Permanently lubricated roller bearings  
- Max. immersion depth: 20 m |
| **Equipment/function** | - Winding temperature monitoring with bimetal sensor  
- Optional external sealing chamber monitoring for the sealing chamber | - Oil separation chamber with optional external monitoring | - Heavy-duty version made of cast iron  
- Oil separation chamber with optional external monitoring |
| **Special features** | - High reliability due to oil-filled sealing chamber and additional leakage chamber  
- Easy impeller replacement due to “back pull-out” design. This means the motor and the impeller can be removed without needing to dismantle the hydraulics  
- Closed bearing bracket design. This means that no oil needs to be drained during dismantling | - Sturdy version in cast iron  
- Operationally reliable thanks to Vortex and single–channel hydraulics with large free ball passage  
- Longitudinal watertight cable inlet | - Self-cooling motors for the use in wet well and dry well installation  
- Process security thanks to extensive monitoring devices  
- Special versions for abrasive and corrosive fluids  
- Low vibrations and long standstill times thanks to high-quality components  
- Customised versions are possible |
| **Information** | Online catalogue: productfinder.wilo.com  
Building services catalogue: Drainage and sewage | Online catalogue: productfinder.wilo.com  
Building services catalogue: Drainage and sewage | Online catalogue: productfinder.wilo.com  
Water Management catalogue: Drainage and sewage – Wastewater transport and dewatering (order-specific production) |
## General Overview

**Delivery range** — Edition 2016 — 50 Hz — Subject to change without prior notice.

**Online catalogue**: productfinder.wilo.com

### Special features

- Electronic monitoring devices
- Longitudinal watertight cable inlet
- Low vibrations and long standstill times thanks to high-quality components
- Customised versions are possible

### Equipment/function

- Oil separation chamber with optional external monitoring
- Heavy-duty version made of cast iron
- Mechanical stirring apparatus is fastened directly to the impeller
- Mixer head made of Abrasit (chilled cast iron)

### Design

- Submersible sewage pumps made of cast stainless steel
- Submersible sewage pump with mechanical stirring apparatus
- Axial submersible pump with dry motor for use in pipe chambers

### Application

- Pumping sewage with solid content in water treatment systems and industrial applications
- Pumping sewage and sludge in water treatment applications
- Pumping cooling or rainwater, cleaned sewage and for irrigation and pumping sludge

### Technical data

- Mains connection: 3~400 V, 50 Hz
- Immersed operating mode: S1
- Non-immersed operating mode with self-cooling motor: S1
- Protection class: IP 68
- Max. fluid temperature: 40 °C; higher temperatures on request
- Sealing with two mechanical seals or one block seal cartridge, depending on motor
- Free ball passage of 23 to 58 mm
- Permanently lubricated roller bearings
- Max. immersion depth: 20 m

### Product range

<table>
<thead>
<tr>
<th>Series</th>
<th>Submersible sewage pumps</th>
<th>Submersible sewage pumps</th>
<th>Submersible sewage pumps</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wilo–EMU FA…RF</td>
<td>Wilo–EMU FA…WR</td>
<td>Wilo–EMU KPR…</td>
<td></td>
</tr>
</tbody>
</table>

### Field of application

- Special applications, wastewater collection and transport, industrial process
- Wastewater collection and transport, wastewater treatment
- Raw water intake, professional irrigation/agriculture, special applications, wastewater treatment, dewatering/flood control

### Duty chart

- **Volume flow Q max.**
  - 70 m³/h
  - 72 m³/h
  - 9,500 m³/h
- **Delivery head H max.**
  - 30 m
  - 27 m
  - 8.4 m

### Information

- Online catalogue: productfinder.wilo.com
- Water Management catalogue: Drainage and sewage — Wastewater transport and dewatering (pumps available ex stock)
### Product range

<table>
<thead>
<tr>
<th>Series</th>
<th>Wastewater lifting units</th>
<th>Wastewater lifting units for concealed floor installation</th>
<th>Wastewater lifting units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Field of application</td>
<td>Waste water collection and transport</td>
<td>Wastewater collection and transport</td>
<td>Waste water collection and transport</td>
</tr>
</tbody>
</table>

### Duty chart

<table>
<thead>
<tr>
<th>Q/m³/h</th>
<th>H/m</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1</td>
<td>1.5</td>
</tr>
<tr>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>4.5</td>
</tr>
<tr>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>5</td>
<td>7.5</td>
</tr>
<tr>
<td>6</td>
<td>9</td>
</tr>
<tr>
<td>7</td>
<td>10</td>
</tr>
<tr>
<td>8</td>
<td>11.5</td>
</tr>
<tr>
<td>9</td>
<td>13</td>
</tr>
<tr>
<td>10</td>
<td>15</td>
</tr>
</tbody>
</table>

### Design

| Wastewater lifting units | Wastewater lifting units for concealed floor installation | Small sewing lifting units |

### Application

- For automatic drainage of showers, washbasins, washing machines/dishwashers, or for pumping wastewater and drainage water which is free of faeces, fibres, grease and oil
- For concealed floor installation, can be used for drainage of rooms at risk of flooding, garage entrances, cellar stairways, showers, washbasins, washing machines, dishwashers
- For disposal of sewage from a single toilet and up to three sources (washbasin, shower or bidet) which cannot be discharged to the sewer system via the natural fall

### Volume flow Q max.

<table>
<thead>
<tr>
<th>6 m³/h</th>
<th>20 m³/h</th>
<th>5 m³/h</th>
</tr>
</thead>
<tbody>
<tr>
<td>8 m</td>
<td>10 m</td>
<td>8 m</td>
</tr>
</tbody>
</table>

### Technical data

- Mains connection: 1~230 V, 50 Hz
- Fluid temperature: 35 °C, up to 60/75 °C for short periods (5 min) according to model
- Pressure port Ø 32 mm
- Inlet connection Ø 40 mm
- Protection class IP 67
- Switching volume: 22 l, for type 40/10: 30 l
- Gross tank volume: 14.4 l; 17.4 l
- Protection class: IP 44
- Inlet connection: Ø 40 mm
- Protection class: IP 44
- Max. fluid temperature: 35 °C
- Mains connection cable with shock- proof plug
- Motor monitoring via temperature
- Level control with float switch

### Equipment/function

- Ready-to-plug (except HiDrainlift 3–24)
- Thermal motor protection
- Level control with pneumatic pressure transducer
- Integrated non-return valves
- Active carbon filter

### Special features

- Very compact design for the installation into a wet cell or under a shower tray (HiDrainlift 3–24)
- Low-noise operation and integrated active carbon filter for a high user comfort
- Reliable performance and low power consumption for an efficient wastewater disposal
- Easy installation with flexible connection possibilities
- Systems ready for connection (HiDrainlift 3–35 and HiDrainlift 3–37)
- Easy to install due to integrated pump and non-return valve
- Large tank volume
- Easy maintenance
- Pumps with pressure pipe removable
- Stainless steel tile frame with trap
- HiSewlift 3–135 in particularly narrow design (< 349 mm width) for an easy front-wall installation
- Low-noise operation and integrated active carbon filter for a high user comfort
- Reliable performance and low power consumption for an efficient sewage disposal
- Easy installation with flexible connection possibilities
- Ready for connection

### Information

- Online catalogue: productfinder.wilo.com
- Building Services catalogue: Drainage and sewage
- Online catalogue: productfinder.wilo.com
- Building Services catalogue: Water supply

---

### Product range

<table>
<thead>
<tr>
<th>Compact sewage lifting units with 1 integrated pump</th>
<th>Sewage lifting units with 1 or 2 integrated pumps</th>
<th>Sewage lifting unit with 2 integrated pumps</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Series</strong></td>
<td><strong>Series</strong></td>
<td><strong>Series</strong></td>
</tr>
<tr>
<td>Wilo–DrainLift S</td>
<td>Wilo–DrainLift M</td>
<td>Wilo–DrainLift XL</td>
</tr>
<tr>
<td><strong>Field of application</strong></td>
<td><strong>Field of application</strong></td>
<td><strong>Field of application</strong></td>
</tr>
<tr>
<td>Wastewater collection and transport</td>
<td>Wastewater collection and transport</td>
<td>Wastewater collection and transport</td>
</tr>
<tr>
<td><strong>Duty chart</strong></td>
<td><strong>Duty chart</strong></td>
<td><strong>Duty chart</strong></td>
</tr>
<tr>
<td><img src="image1.png" alt="Image" /></td>
<td><img src="image2.png" alt="Image" /></td>
<td><img src="image3.png" alt="Image" /></td>
</tr>
<tr>
<td><strong>Application</strong></td>
<td><strong>Application</strong></td>
<td><strong>Application</strong></td>
</tr>
<tr>
<td>For pumping untreated sewage that cannot be discharged to the sewer system via the natural fall</td>
<td>For pumping untreated sewage that cannot be discharged to the sewer system via the natural fall</td>
<td>For pumping untreated sewage that cannot be discharged to the sewer system via the natural fall</td>
</tr>
<tr>
<td><strong>Volume flow Q max.</strong></td>
<td><strong>Volume flow Q max.</strong></td>
<td><strong>Volume flow Q max.</strong></td>
</tr>
<tr>
<td>35 m³/h</td>
<td>40 m³/h</td>
<td>40 m³/h</td>
</tr>
<tr>
<td><strong>Delivery head H max.</strong></td>
<td><strong>Delivery head H max.</strong></td>
<td><strong>Delivery head H max.</strong></td>
</tr>
<tr>
<td>6 m</td>
<td>22 m</td>
<td>22 m</td>
</tr>
</tbody>
</table>

#### Technical data

- Mains connection 1–230 V, 50 Hz or 3–400 V, 50 Hz
- Max. fluid temperature 35 °C, for short periods 60 °C
- Protection class (without switchgear): IP 67
- Gross tank volume 45 l
- Switching volume 22 l

#### Equipment/function

- Ready-to-plug
- Thermal motor monitoring
- Level control with float switch
- Mains-independent alarm
- Potential–free contact
- Pump cable detachable
- Non-return valve (RV version)
- Inlet seal
- Keyhole saw for inlet borehole
- Hose connection for venting
- Kit for pressure pipe connection
- Fixation material
- Soundproofing material
- Switchgear

#### Special features

- Space-saving installation
- Installation-friendly due to low weight and large scope of delivery incl. non-return valve
- Flexible thanks to freely selectable inlets
- Operational reliability thanks to integrated thermal motor protection and mains-independent alarm for SSM and high water

- Low system weight for an easy installation
- Integrated non-return valve
- Flexible thanks to freely selectable inlets
- Operationally reliable thanks to integrated thermal motor protection and mains-independent alarm for SSM and high water

- Flexible thanks to height-adjustable and swivel-mounted inlet connection
- Easy operation with menu-guided switchgear
- Integrated non-return valve
- Operationally reliable due to high switching volume and reliable level detection
- Continuous duty (S1) possible thanks to the use of self-cooling motors

#### Information

- Online catalogue: productfinder.wilo.com
- Building services catalogue: Drainage and sewage
- Online catalogue: productfinder.wilo.com
- Building services catalogue: Drainage and sewage
- Online catalogue: productfinder.wilo.com
- Building services catalogue: Drainage and sewage

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### Product range

<table>
<thead>
<tr>
<th>Sewage lifting unit with 2 pumps for dry well installation</th>
<th>Pumps station</th>
<th>Pump chamber</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Series</strong></td>
<td>Wilo–DrainLift XXL</td>
<td>Wilo–DrainLift WS 40 Basic</td>
</tr>
<tr>
<td><strong>Field of application</strong></td>
<td>Wastewater collection and transport</td>
<td>Wastewater collection and transport</td>
</tr>
</tbody>
</table>

### Duty chart

<table>
<thead>
<tr>
<th>Q/m³/h</th>
<th>H/m</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>20</td>
<td>12</td>
</tr>
<tr>
<td>40</td>
<td>24</td>
</tr>
<tr>
<td>60</td>
<td>36</td>
</tr>
<tr>
<td>80</td>
<td>48</td>
</tr>
<tr>
<td>100</td>
<td>60</td>
</tr>
<tr>
<td>120</td>
<td>72</td>
</tr>
</tbody>
</table>

### Design

- Sewage lifting unit with 2 pumps for dry well installation
- Pump chamber with synthetic tank or as sewage lifting unit in the building, as single- or double-pump system
- Pump chamber with synthetic tank as single or double pump system

### Application

- For pumping untreated sewage that cannot be discharged to the sewer system via the natural fall
- For pumping untreated sewage that cannot be discharged to the sewer system via the natural fall
- For pumping untreated sewage that cannot be discharged to the sewer system via the natural fall

### Volume flow Q max.

<table>
<thead>
<tr>
<th>Sewage lifting unit with 2 pumps for dry well installation</th>
<th>Pumps station</th>
<th>Pump chamber</th>
</tr>
</thead>
<tbody>
<tr>
<td>140 m³/h</td>
<td>10 m³/h</td>
<td>no illustration</td>
</tr>
</tbody>
</table>

### Delivery head H max.

<table>
<thead>
<tr>
<th>Sewage lifting unit with 2 pumps for dry well installation</th>
<th>Pumps station</th>
<th>Pump chamber</th>
</tr>
</thead>
<tbody>
<tr>
<td>21 m</td>
<td>8 m</td>
<td>no illustration</td>
</tr>
</tbody>
</table>

### Technical data

- Mains connection 3–400 V, 50 Hz
- Operating mode S1 / S3
- Max. fluid temperature 40 °C, for short periods 60 °C
- Protection class (without switchgear) IP 68
- Gross tank volume 400/800 l
- Switching volume 305 ... 630 l
- Pump chamber covers in three versions: A 15, B 125, D 400
- Telescopic chamber extension: 500 mm

### Equipment/function

- Sheath current cooling
- Thermal motor monitoring and leakage detection
- Level control with level sensor
- Potential-free contact
- Pump cable detachable
- Hose connection for venting
- Hose connection for diaphragm hand pump
- Kit for pressure pipe connection
- Fixation material
- Switchgear with breakdown barrier in the housing
- Wilo–DrainLift WS 40 Basic including sewage pump Drain TC 40
- For Wilo–DrainLift WS 40/50 following sewage pumps can be used: Drain TMW 32, Rexa CUT
- Wilo sewage pumps which can be used: Drain TMW 32, Drain TS 40, Drain TC 40, Drain STS 40, Rexa MTC, Rexa CUT

### Special features

- Flexible use thanks to one or two tanks
- Optimum tank drainage with deep suction function
- Operationally reliable thanks to large performance range and a reliable level detection
- Continuous duty (S1) possible due to the use of self-cooling motors
- Pressure–tight pump chamber for floor–mounted or concealed floor installation
- Flexible thanks to freely selectable inlets
- Large tank volume
- Including pipework, level control, switchgear and pump (basic version)
- Universal use thanks to continuous pump chamber extension up to 2.75 m
- Anti-buoyant without weights for ground water levels up to the surface of the ground for maximum operational reliability
- Pump chamber covers up to load class D 400 kN for high loading capacity
- Easy maintenance thanks to surface coupling
- Long service life thanks to pump chamber body made of corrosion–free polyethylene

### Information

- Online catalogue: productfinder.wilo.com
- Building services catalogue: Drainage and sewage
### General Overview – Delivery range – Edition 2016 – 50 Hz – Subject to change without prior notice.

<table>
<thead>
<tr>
<th>Product range</th>
<th>Pump chamber</th>
<th>Solids separation system</th>
<th>Submersible pumps</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Series</strong></td>
<td>Wilo-DrainLift WS 1100</td>
<td>Wilo-EMUport CORE</td>
<td>Wilo-EMU polder pumps</td>
</tr>
<tr>
<td><strong>Field of application</strong></td>
<td>Wastewater collection and transport</td>
<td>Wastewater collection and transport</td>
<td>Water distribution/boosting, clean water treatment, raw water intake, desalination, dewatering, industrial process</td>
</tr>
<tr>
<td><strong>Duty chart</strong></td>
<td>no illustration</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Design</strong></td>
<td>Pump chamber with synthetic tank, as single- or double-pump system</td>
<td>Sewage lifting unit with solid separation system according to DIN EN 12050-1 for installation in a building or manhole chamber (outdoor)</td>
<td>Polder pump</td>
</tr>
<tr>
<td><strong>Application</strong></td>
<td>For pumping untreated sewage that cannot be discharged to the sewer system via the natural fall</td>
<td>For pumping untreated sewage that cannot be discharged to the sewer system via the natural fall</td>
<td>Potable and process water from tanks or shallow bodies of water; municipal and industrial water supply; sprinkling and irrigation; lowering the ground water level; utilisation of geothermal energy and in offshore applications</td>
</tr>
<tr>
<td><strong>Volume flow Q max.</strong></td>
<td>60 m³/h</td>
<td></td>
<td>1,200 m³/h</td>
</tr>
<tr>
<td><strong>Delivery head H max.</strong></td>
<td>31 m</td>
<td></td>
<td>160 m</td>
</tr>
<tr>
<td><strong>Technical data</strong></td>
<td>→ Synthetic pump chamber made of recyclable PE → Maximum upward pressure reliability due to 4 lateral fins → 4 inlets can be selected on site → Maximum stability due to moulded hemispherical shape of the bottom of the pump chamber → Wilo surface coupling → Easy accessibility of the level sensor due to installation with hinged supporting bar → Maximum traffic load 5 kN/m² (in accordance with DIN EN 124, group 1)</td>
<td>→ Max. continuous inlet: 15 m³/h → Max. inlet peak for 4h: 20 m³/h → Gross tank volume: 440 l → Usable tank volume: 295 l → Inlet connection: DN 200 → Discharge connection: DN 80 → Mains connection: 3~400 V, 50 Hz</td>
<td>→ Mains connection: 3~400 V, 50 Hz → Max. fluid temperature: 20 °C → Minimum flow across outside shroud: not necessary → Max. sand content: 35 g/m³ → Up to 10 starts per hour → Max. immersion depth: 300 m</td>
</tr>
<tr>
<td><strong>Equipment/function</strong></td>
<td>Wilo sewage pumps which can be used: Drain TS 40 Drain TP 50/65 Drain TP 80 Rexa FIT/PRO Drain MTC Rexa CUT</td>
<td>→ Sewage lifting unit with solid separation system → Collection reservoir → 2x solids separation reservoir → 2x sewage pump → Complete pipework including inlet and pressure connection and non-return valve</td>
<td>Multistage submersible pump → Semi-axial impellers → Hydraulics and motor freely configurable according to power requirements → Three-phase motor for direct or star–delta start → Motors rewindable as standard</td>
</tr>
<tr>
<td><strong>Special features</strong></td>
<td>→ Flexible installation → Anti-buoyant → High stability</td>
<td>→ Long service life and corrosion resistance thanks to PE/PUR material → Maintenance-friendly as all parts are accessible from outside → High operational reliability thanks to a pre-filtering of solid matter, the pumps deliver only the cleaned sewage → Retrofit system for the economic reconstruction of old pump stations</td>
<td>Deep water lowering thanks to self-cooling motors → Sturdy construction in cast iron or bronze → Compact construction → Maintenance-friendly, rewindable motors → Optionally with Ceram CT coating for increasing the efficiency</td>
</tr>
</tbody>
</table>
## Product range

<table>
<thead>
<tr>
<th>Product range</th>
<th>Recirculation pumps</th>
<th>Submersible mixer</th>
<th>Submersible mixer</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Series</strong></td>
<td>Wilo–EMU RZP 20 to RZP 80–2</td>
<td>Wilo–EMU TR 14 to TR 28</td>
<td>Wilo–EMU TR 22 to TR 40</td>
</tr>
<tr>
<td><strong>Field of application</strong></td>
<td>Special applications, wastewater treatment</td>
<td>Special applications, wastewater treatment</td>
<td>Special applications, wastewater treatment</td>
</tr>
<tr>
<td><strong>Duty chart</strong></td>
<td><img src="image" alt="Duty chart" /></td>
<td>no illustration</td>
<td>no illustration</td>
</tr>
<tr>
<td><strong>Design</strong></td>
<td>Submersible mixers with housing unit, directly driven or with single-stage planetary gear</td>
<td>Compact, directly driven submersible mixer</td>
<td>Directly driven submersible mixer</td>
</tr>
<tr>
<td><strong>Application</strong></td>
<td>Pumping wastewater and sewage with low delivery heads and large volume flows, e.g. between equalising, nitrification and denitrification tanks; pumping process, raw, clean and cooling water e.g. in paint finishing systems or for clean water treatment; flow generation in water channels, e.g. amusement parks</td>
<td>Turbulation of deposits and solids in stormwater retention tank and pump sump; destruction of floating sludge layers; further applications in agriculture and water supply</td>
<td>Turbulation of deposits and solids in stormwater retention tank and pump sump; destruction of floating sludge layers; further applications in agriculture and water supply</td>
</tr>
<tr>
<td><strong>Volume flow Q max.</strong></td>
<td>6,800 m³/h</td>
<td>Thrust: 45 – 330 N</td>
<td>Thrust: 185 – 1100 N</td>
</tr>
<tr>
<td><strong>Delivery head H max.</strong></td>
<td>1.1 m</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Technical data</strong></td>
<td>Mains connection: 3–400 V, 50 Hz Immersed operating mode: S1 Protection class: IP 68 Max. fluid temperature: 40 °C Units directly driven or with single-stage planetary gear Mechanical seal with SiC/SiC pairing Permanently lubricated roller bearings Max. immersion depth: 20 m</td>
<td>Mains connection: 3–400 V, 50 Hz Immersed operating mode: S1 Protection class: IP 68 Max. fluid temperature: 40 °C Mechanical seal with SiC/SiC pairing Permanently lubricated roller bearings Max. immersion depth: 20 m</td>
<td>Mains connection: 3–400 V, 50 Hz Immersed operating mode: S1 Protection class: IP 68 Max. fluid temperature: 40 °C Mechanical seal with SiC/SiC pairing Permanently lubricated roller bearings Max. immersion depth: 20 m</td>
</tr>
<tr>
<td><strong>Equipment/function</strong></td>
<td>Stationary installation directly on the flow pipe Flexible installation via lowering device Vertical or in-line installation possible</td>
<td>Stationary installation on wall and floor Flexible installation through the use of lowering device or special pipe attachment Can be swivelled vertically and horizontally when installed with a lowering device</td>
<td>Stationary installation on wall and floor Flexible installation via lowering device Can be swivelled vertically and horizontally when installed with a lowering device</td>
</tr>
<tr>
<td><strong>Special features</strong></td>
<td>Vertical or in-line installation possible Self-cleaning propeller to avoid clogging Propeller in steel or PUR</td>
<td>Low power consumption Low weight Self-cleaning propeller with Helix hub to avoid clogging</td>
<td>Self-cleaning propeller with Helix hub to avoid clogging Propeller in cast iron, steel or PUR</td>
</tr>
</tbody>
</table>

### Information

- Online catalogue: productfinder.wilo.com
- Water Management catalogue: Drainage and sewage – Wastewater treatment
<table>
<thead>
<tr>
<th>Product range</th>
<th>Submersible mixer</th>
<th>Submersible mixer</th>
<th>Treatment process</th>
</tr>
</thead>
<tbody>
<tr>
<td>Series</td>
<td>Wilo–EMU TR 50–2 to TR 120–1 Wilo–EMU TRE 90–2 to TR 120–1</td>
<td>Wilo–EMU TR 212 to TR 326 Wilo–EMU TRE with IE3 motor</td>
<td>Wilo–Sevio ACT SD 101</td>
</tr>
<tr>
<td>Field of application</td>
<td>Special applications, wastewater treatment</td>
<td>Special applications, wastewater treatment</td>
<td>Wastewater treatment, industrial process</td>
</tr>
<tr>
<td>Duty chart</td>
<td>no illustration</td>
<td>no illustration</td>
<td>no illustration</td>
</tr>
<tr>
<td>Design</td>
<td>Submersible mixer with single-stage planetary gear</td>
<td>Slow-running submersible mixer with two-stage planetary gear reduction</td>
<td>Solids diffuser</td>
</tr>
<tr>
<td>Application</td>
<td>Use in activated sludge tanks and sludge tanks for flow generation, suspension of solids, homogenisation and prevention of floating sludge layers; further applications in industry, agriculture and water supply</td>
<td>Energetically optimised mixing and circulation of activated sludge; generation of flow rates in circulation channels; other applications in industry</td>
<td>Gentle mixing process of biomass particles in the pumped fluid</td>
</tr>
<tr>
<td>Delivery head H max.</td>
<td>Mains connection: 3~400 V, 50 Hz Immersed operating mode: S1 Protection class: IP 68 Single–stage planetary gear Mechanical seal with SiC/SiC pairing Permanently lubricated roller bearings Max. immersion depth: 20 m</td>
<td>Mains connection: 3~400 V, 50 Hz Immersed operating mode: S1 Protection class: IP 68 Single–stage planetary gear Mechanical seal with SiC/SiC pairing Permanently lubricated roller bearings Max. immersion depth: 20 m</td>
<td>Mains connection: 3~400 V, 50 Hz Immersed operating mode: S1 Protection class: IP 68 Max. fluid temperature: 40 °C Max. immersion depth: 20 m</td>
</tr>
<tr>
<td>Technical data</td>
<td>Stationary installation on walls Flexible installation via lowering device Can be swivelled horizontally when installed with a lowering device Installation with stand allows free placement in basin Single–stage planetary gear</td>
<td>Installation with stand allows free placement in basin Flexible installation Two–stage planetary gear with exchangeable second planetary gear speed Mechanical seal with SiC/SiC pairing Permanently lubricated roller bearings Max. immersion depth: 20 m</td>
<td>Height–adjustable suction pipe due to lowering device Suction pipe with telescopic extension</td>
</tr>
<tr>
<td>Equipment/function</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Special features</td>
<td>Planetary gear allows transmission of high torques to the propeller with an aerodynamic construction Exchangeable planetary stage for adaptation of the propeller speed Self–cleaning propeller with back–ward–bent blades to avoid clogging Also with IE3 motor technology (on the basis of IEC 60034–30) Propeller in steel, PUR or PUR/GFK</td>
<td>Planetary gear allows transmission of high torques to the propeller with aerodynamic construction Exchangeable planetary stage for adaptation of the propeller speed Self–cleaning propeller with back–ward–bent blades to avoid clogging Also with IE3 motor technology (on the basis of IEC 60034–30)</td>
<td>Careful introduction of the biomass carrier particles into the fluid Higher volume penetration for optimising the cleaning process Reduced energy costs thanks to an improved cleaning performance Also with IE3 motor technology (on the basis of IEC 60034–30) Retrofit option for existing installations</td>
</tr>
</tbody>
</table>
### Product range

<table>
<thead>
<tr>
<th></th>
<th>Aeration</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Series</strong></td>
<td>Wilo-Sevio AIR</td>
</tr>
<tr>
<td><strong>Field of application</strong></td>
<td>Sewage treatment</td>
</tr>
<tr>
<td><strong>Duty chart</strong></td>
<td>no illustration</td>
</tr>
</tbody>
</table>

### Design

- Aeration system with panel, tube or disc aerators

### Application

- For rough to fine–bubble aeration of aqueous media such as water, waste–water or sludge, for the purposes of supplying oxygen

### Technical data

- **Operating temperature range:**
  - Air: 5…60 °C
  - Fluid: 5…30 °C
- **Nominal loading range:**
  - Disc aerator: 5…12 Nm³/h
  - Panel aerator: 2…38 Nm³/h
  - Tube aerator: 4…12 Nm³/h

### Equipment/function

- Aeration system including pipework made from PVC or stainless steel

### Special features

- High operational reliability thanks to integrated non-return valve (with panel aerators)
- High system efficiency due to increased ventilation capacity
- Optimised ventilation process due to selection of the appropriate aerator – plate, strip or disc aerator
- Optimisation of the ventilation process in combination with submersible mixers

### Information

- Documentation on request
Wilo-RexaLift FIT L, the dependable one
“Wilo pumps make a major contribution to high process efficiency in industry too.”
Industry

Pumps and systems for cooling and heating, for cleaning or for peripheral process support.
Every sector of industry has its own extremely high standards for its production processes and the material of all components involved. In light of this, Wilo pumps and systems can contribute in a wide variety of ways to ensuring highly efficient and highly reliable production.

For instance, our solutions help the foodstuffs industry to comply with critical quality and hygiene standards, and help the metals industry to meet very demanding requirements and environmental standards. In the mining industry, our systems convey important raw materials securely and reliably while in the energy sector, they make a major contribution to security of supply in power stations, even at peak loads. Our pumps are also used in industry for precise climate control of rooms and factory halls, and for the supply, treatment and disposal of water.

Regardless of the application, you can depend on our world-renowned quality and system expertise — just as many well-known industrial companies have before.

Finding the right solution
Wilo ideas for industry.
## Product range

<table>
<thead>
<tr>
<th>Series</th>
<th>Glanded monobloc pumps</th>
<th>Standard glanded pumps</th>
<th>Standard glanded pumps</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wilo-CronoBloc-BL</td>
<td>Wilo-CronoNorm-NL</td>
<td>Wilo-CronoNorm-NLG</td>
<td>Wilo-VeroNorm-NPG</td>
</tr>
</tbody>
</table>

### Field of application
- Heating, air-conditioning, cooling, industrial process
- Heating, air-conditioning, cooling, water supply, industrial process
- Heating, air-conditioning, cooling, water supply, industrial process

### Duty chart

<table>
<thead>
<tr>
<th>Flow rate Q</th>
<th>Height H</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>200</td>
<td>200</td>
</tr>
<tr>
<td>300</td>
<td>300</td>
</tr>
<tr>
<td>400</td>
<td>400</td>
</tr>
<tr>
<td>500</td>
<td>500</td>
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<td>600</td>
<td>600</td>
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<td>700</td>
<td>700</td>
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<tr>
<td>800</td>
<td>800</td>
</tr>
<tr>
<td>900</td>
<td>900</td>
</tr>
<tr>
<td>1000</td>
<td>1000</td>
</tr>
</tbody>
</table>

### Design
- Glanded pump in monobloc design with flange connection
- Single-stage low-pressure centrifugal pump with axial suction, according to EN 733 and ISO 5199, mounted on a baseplate
- Single-stage low-pressure centrifugal pump with axial suction, according to EN 733 and ISO 5199, mounted on a baseplate

### Application
- For pumping cold and hot water (in accordance with VDI 2035) without abrasive substances in heating, cold water and cooling water systems
- Pumping of heating water (in accordance with VDI 2035), cold water and water–glycol mixtures without abrasive substances in heating, cold water and cooling systems
- Applications in municipal water supply, irrigation, building services, general industry, power stations, etc.

### Volume flow Q max.
- 377 m³/h
- 650 m³/h
- 2,800 m³/h

### Delivery head H max.
- 105 m
- 150 m
- 140 m

### Technical data
- Fluid temperature: 0°C to +140°C
- Mains connection 3~400 V, 50 Hz
- Minimum efficiency index (MEI) ≥ 0.4
- Protection class IP 55
- Nominal diameter DN 32 to DN 150 (25 bar on request)

### Equipment/function
- Single-stage low-pressure centrifugal pump in monobloc design, with axial suction port and radially arranged pressure port with flange connection with pressure measuring connection R ½, direct drive, flanges
- Single-stage horizontal spiral housing centrifugal pump with bearing bracket and exchangeable casing wear rings in accordance with EN 12756, packing stuffing box
- Single-stage horizontal spiral housing centrifugal pump with bearing bracket and exchangeable casing wear rings in accordance with EN 12756, packing stuffing box

### Special features
- Reduced life-cycle costs through optimised efficiency levels
- High corrosion protection through cataphoretic coating of the cast iron components
- Standard condensate drainage holes in the motor housing
- Spares/repair parts
- Meets user requirements due to performance and maximum dimensions in accordance with EN 733 (DIN for norm pumps)

### Information
- Online catalogue: productfinder.wilo.com
- Online catalogue: productfinder.wilo.com
- Online catalogue: productfinder.wilo.com

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<table>
<thead>
<tr>
<th>Product range</th>
<th>Standard pumps in accordance with EN 733</th>
<th>Standard pumps in accordance with EN 733 and EN 22858</th>
<th>Standard pumps in accordance with EN 733</th>
</tr>
</thead>
<tbody>
<tr>
<td>Series</td>
<td>Series NOLH</td>
<td>Series NESD</td>
<td>Series NFCH</td>
</tr>
<tr>
<td></td>
<td>Series NOEH</td>
<td>Series NESE</td>
<td></td>
</tr>
<tr>
<td>Field of application</td>
<td>Industrial process</td>
<td>Industrial process</td>
<td>Industrial process</td>
</tr>
<tr>
<td>Duty chart</td>
<td><img src="image1.png" alt="Duty chart" /></td>
<td><img src="image2.png" alt="Duty chart" /></td>
<td><img src="image3.png" alt="Duty chart" /></td>
</tr>
<tr>
<td>Design</td>
<td>Single-stage low-pressure centrifugal pump mounted on a baseplate</td>
<td>Single-stage low-pressure centrifugal pump mounted on a baseplate</td>
<td>Single-stage low-pressure centrifugal pump mounted on a baseplate</td>
</tr>
</tbody>
</table>
| Application   | For supplying clean or slightly muddy fluids without solid material. For use in the following applications:  
- Industrial process  
- Non-hygienic food industry  
- Power generation  
- Water circulation in the metals industry  
- Heating, cold water and cooling water systems  | For heat transfer or circulating hot water in industrial processes, for power generation or in building services | For pumping mineral or synthetic heat-carrier fluids up to 350 °C, e.g.: in industrial processes or power generation |
| Volume flow Q max. | 1,800 m³/h | 600 m³/h | 1,000 m³/h |
| Delivery head H max. | 140 m | 90 m | 90 m |
| Technical data | Neq: 207 °C  
- Maximum permitted fluid temperature: 170 °C  
- Nominal diameter on pressure side DN 32 to DN 125  
- Max. operating pressure PN 16  
- Minimum efficiency index MEI ≥ 0.1 (NOLH only, for the series)  | Neq: 207 °C  
- Maximum permitted fluid temperature: 170 °C  
- Nominal diameter on pressure side DN 32 to DN 125  
- Max. operating pressure NESD: PN 25; NESE: PN 40 | Neq: 207 °C  
- Maximum permitted fluid temperature: 170 °C  
- Nominal diameter on pressure side DN 32 to DN 125  
- Max. operating pressure PN 16 |
| Equipment/function | Single-stage, horizontal centrifugal pump with axial suction connection and radial, upwards-facing pressure connection  
- Dimensions and hydraulic output as per EN 733  
- Hydraulics made from cast iron (ML) or stainless steel (MX) depending on version.  
- Sealed by uncooled mechanical seal  
- Version with or without spacer coupling  
- 2 or 4-pole IEC standard motor  
- Baseplate made from steel or cast iron  
- Supplied as a complete unit:  
  - With pump, coupling, coupling guard, motor and baseplate  
  - Without motor or  
  - Pump only, with free shaft end | Single-stage, horizontal centrifugal pump with axial suction connection and radial, upwards-facing pressure connection  
- Dimensions and hydraulic output as per EN 22858  
- Special self-cooling design allows use of an uncooled shaft seal. Additional or external cooling devices are not required  
- Hydraulics in spheroidal cast iron EN–G5400 (MG version)  
- Flange version in accordance with EN 1092–1  
- With or without spacer coupling  
- 2 or 4-pole IEC standard motor 50 Hz  
- Baseplate steel or cast iron  
- Supplied as a complete unit:  
  - With pump, coupling, coupling guard, motor and baseplate  
  - Without motor or  
  - Pump only, with free shaft end | Single-stage, horizontal centrifugal pump with axial suction connection and radial, upwards-facing pressure connection  
- Dimensions and hydraulic output as per EN 733  
- Self-cooling design with double temperature barrier allows the use of an uncooled shaft seal and reduces heat loss.  
- Standard mechanical seal corresponding to the heat-carrier fluid  
- Version with or without spacer coupling  
- 2 or 4-pole IEC standard motor 50 Hz  
- Supplied as a complete unit:  
  - With pump, coupling, coupling guard, motor and baseplate  
  - Without motor or  
  - Pump only, with free shaft end |
| Special features | Impeller diameter is adjusted to the desired duty point  
- Many version options for the shaft seal  
- 60 Hz or ATEX version on request | Impeller diameter is adjusted to the desired duty point  
- 60 Hz or ATEX version on request | Impeller diameter is adjusted to the desired duty point  
- 60 Hz or ATEX version on request |
| Information    | Documentation on request                  | Documentation on request                         | Documentation on request                 |

## General Overview – Delivery range – Edition 2016 – 50 Hz – Subject to change without prior notice

### Industry

**Information Documentation on request Documentation on request**

### Special features

- **Volume flow Q max.**
  - **Submersible pumps**
    - 200 m³/h
  - **Vertical and horizontal, multistage centrifugal pumps**
    - 280 m³/h

- **Delivery head H max.**
  - **Submersible pumps**
    - 100 m
  - **Vertical and horizontal, multistage centrifugal pumps**
    - 495 m

### Technical data

- **Volume flow Q max.**
  - **Submersible pumps**
    - 30 m³/h
  - **Vertical and horizontal, multistage centrifugal pumps**
    - 180 m³/h

- **Permitted temperature range**
  - **Submersible pumps**
    - -20 °C to +120 °C
  - **Vertical and horizontal, multistage centrifugal pumps**
    - -5 °C to +90 °C

- **Max. suction pressure**
  - **Submersible pumps**
    - Zeox FIRST V: 27 bar
  - **Vertical and horizontal, multistage centrifugal pumps**
    - Zeox FIRST H (DN65 to DN100): 50 bar

- **Max. operating pressure**
  - **Submersible pumps**
    - Zeox FIRST V: 27 bar
  - **Vertical and horizontal, multistage centrifugal pumps**
    - Zeox FIRST H (DN150): 40 bar

- **Protection class**
  - **Submersible pumps**
    - IP 55
  - **Vertical and horizontal, multistage centrifugal pumps**
    - IEC 60034-5

- **Minimum efficiency index MEI**
  - **Submersible pumps**
    - ≥ 0.4
  - **Vertical and horizontal, multistage centrifugal pumps**
    - ≤ 0.4

### Equipment/function

- **Single-stage vertical turbine pump, discharge bend with axial suction**
- **Connection on pressure side above or optionally also below the connection plate**
- **Flange version in PN 10/16/25**
- **Basic versions:**
  - VCS: adjustable base/semi-elastic coupling
  - VEM: cast iron support/semi-elastic coupling
  - VTM: bearing block/semi-elastic coupling
- **Optional: explosion-proof float switch;**
- **Optional: external lubrication of bearing or lubrication provided by fluid (default)**

- **IE3 high-efficiency motor as standard**
- **Flushing by-pass device to ensure a long service life**
- **Packing gland on request, exchangeable without disassembling the pump**

### Special features

- **Low maintenance**
- **No shaft sealing**
- **Noise-free suction**
- **Replaceable IEC standard motor**
- **Semi-elastic coupling with the VTM version**

- **Low maintenance**
- **No mechanical seal**
- **Noise-free suction**
- **Replaceable IEC standard motor**
- **VTM with semi-elastic coupling**
- **VMT/R/VR: internal seal for pressure side and mechanical seal**
- **All parts in contact with fluid are made of stainless steel**
- **For high-pressure applications**

### Information

- **Documentation on request**
- **Online catalogue: productfinder.wilo.com**
<table>
<thead>
<tr>
<th>Product range</th>
<th>Sectional pumps</th>
<th>Axially split case pumps</th>
<th>Vertical turbine pumps</th>
</tr>
</thead>
<tbody>
<tr>
<td>Series</td>
<td>Series RN, HS, IP, PJ, STD PLURO, FG/FH</td>
<td>Wilo-SCP</td>
<td>Series VMF, CNE, VAF</td>
</tr>
<tr>
<td>Field of application</td>
<td>Industrial process</td>
<td>Cooling, air-conditioning, water distribution/boosting, industrial process</td>
<td>Water distribution/boosting, industrial process</td>
</tr>
<tr>
<td>Duty chart</td>
<td>no illustration</td>
<td>no illustration</td>
<td></td>
</tr>
<tr>
<td>Design</td>
<td>Multistage high-pressure multistage centrifugal pump in sectional construction, mounted on baseplate</td>
<td>Low-pressure centrifugal pump with axially split housing mounted on a baseplate</td>
<td>Vertical turbine pumps for dry well installation with submerged axial or semi-axial hydraulics</td>
</tr>
<tr>
<td>Application</td>
<td>For industrial use in high-pressure applications, such as: Metal industry Mine dewatering Desalination plants Boiler supply Fire fighting High-pressure cleaning Water supply</td>
<td>→ Pumping heating water in accordance with VDI 2035: water-glycol mixtures, cooling/cold water and process water → Applications in municipal water supply, irrigation, building services, general industry, power stations, etc.</td>
<td>For industrial or municipal water supply and Irrigation Fire fighting Cooling water supply Dewatering and flood control</td>
</tr>
<tr>
<td>Volume flow Q max.</td>
<td>1,000 m³/h</td>
<td>3,400 m³/h</td>
<td>40,000 m³/h</td>
</tr>
<tr>
<td>Delivery head H max.</td>
<td>1800 m</td>
<td>245 m</td>
<td>450 m</td>
</tr>
<tr>
<td>Technical data</td>
<td>→ Permitted temperature range up to +80 °C, or up to +160 °C on request → Max. operating pressure 180 bar → Nominal diameter on pressure side DN 32 to DN 250</td>
<td>→ Mains connection 3~400 V, 50 Hz → Fluid temperature -8 °C to +120 °C → Protection class IP 55 → Nominal diameters – Suction side: DN 65 to DN 500 → Pressure side: DN 50 to DN 400 → Max. operating pressure: 16 or 25 bar, depending on type</td>
<td>→ Permitted temperature range up to 80 °C, or up to 105 °C on request → Nominal diameter on pressure side DN 100 to DN 2000</td>
</tr>
<tr>
<td>Equipment/function</td>
<td>→ High-pressure multistage centrifugal pump in sectional construction → 2 to 15-stage industrial version → Screwed segments → Hydraulic axial compensation → Shaft sealing with mechanical seal or stuffing box packing → Optionally with multiple pressure outlets for e.g.: Fire extinguishing applications → 2- or 4-pole 50 Hz motors, 60 Hz on request → Supplied as a complete unit - With pump, coupling, motor mounted on baseplate or - Without motor or - As pump only, with free shaft end 1- or 2-stage, low-pressure centrifugal pump in monobloc design → Deliverable as complete unit or without motor or only pump hydraulics → Shaft sealing with mechanical seal or stuffing box packing → 4-pole and 6-pole motors</td>
<td>Materials: Pump housing: EN–GJL–250 Impeller: G–CuSn5 ZnPb Shaft: X12Cr13</td>
<td>For types of installation with pressure port, for concealed floor, floor-mount ed or twin-ceiling installation → Design: → As removable or permanent installation → With axial or semi-axial, single or multistage hydraulics → With open shaft for bearing lubrication with the fluid, or with shaft trim for separate bearing lubrication → Drive options: Electric motor, diesel motor or steam turbine</td>
</tr>
<tr>
<td>Special features</td>
<td>→ Modular design ensures pump versions in a variety of materials and versions which can be adapted to meet customer demands precisely → Hydraulic pressure compensation relieves load on bearings and ensures a longer lifetime. → Multiple optional pressure connections allow different pressures to be supplied from a single pump</td>
<td>→ Higher capacities up to 17,000 m³/h on request → Special motors and other materials on request</td>
<td>→ Minimum surface area needed → High hydraulic efficiency → Submerged pump hydraulics → Design to order as per customer specifications</td>
</tr>
<tr>
<td>Information</td>
<td>Documentation on request</td>
<td>Online catalogue: productfinder.wilo.com</td>
<td>Documentation on request</td>
</tr>
<tr>
<td>Product range</td>
<td>Glanded high-efficiency pumps in in-line design</td>
<td>Glanded high-efficiency pumps in monobloc design</td>
<td>Glanded energy-saving pumps in in-line design</td>
</tr>
<tr>
<td>---------------</td>
<td>-----------------------------------------------</td>
<td>-----------------------------------------------</td>
<td>-----------------------------------------------</td>
</tr>
<tr>
<td><strong>Field of application</strong></td>
<td>Heating, air-conditioning, cooling, industrial process</td>
<td>Heating, air-conditioning, cooling, industrial process</td>
<td>Heating, air-conditioning, cooling, industrial process</td>
</tr>
<tr>
<td><strong>Duty chart</strong></td>
<td><img src="image1.png" alt="Wilo-Stratos GIGA" /></td>
<td><img src="image2.png" alt="Wilo-Stratos GIGA B" /></td>
<td><img src="image3.png" alt="Wilo-VeroLine–IP–E" /> Wilo–VeroTwin–DP–E</td>
</tr>
<tr>
<td><strong>Design</strong></td>
<td>High-efficiency in-line pump with EC motor, electronically controlled, with flange connection, in glanded design</td>
<td>High-efficiency monobloc pump with EC motor and electronic power adjustment in glanded pump design, with flange connection and mechanical shaft seal</td>
<td>Energy-saving in-line pump/in-line double pump with electronic duty adaptation in glanded construction. Version as single- to three-stage low-pressure centrifugal pump with flange connection and mechanical seal</td>
</tr>
<tr>
<td><strong>Application</strong></td>
<td>Pumping of heating water (in accordance with VDI 2035), cold water and water–glycol mixtures without abrasive substances in heating, cooling, and cooling systems</td>
<td>Pumping of heating water (acc. to VDI 2035), cold water and water–glycol mixtures without abrasive substances in heating, cooling, and cooling systems</td>
<td>Pumping of heating water (in accordance with VDI 2035), cold water and water–glycol mixtures without abrasive substances in heating, cooling, and cooling systems</td>
</tr>
<tr>
<td><strong>Volume flow Q max.</strong></td>
<td>120 m³/h</td>
<td>120 m³/h</td>
<td>170 m³/h</td>
</tr>
<tr>
<td><strong>Delivery head H max.</strong></td>
<td>52 m</td>
<td>52 m</td>
<td>30 m</td>
</tr>
<tr>
<td><strong>Technical data</strong></td>
<td>Fluid temperature –20 °C to +140 °C, Mains connection: 3–380 V ±10 %, 50/60 Hz, Minimum efficiency index (MEI) ≥ 0.7, Protection class IP 55, Max. operating pressure 16 bar up to +120 °C, 13 bar up to +140 °C</td>
<td>Fluid temperature –20 °C to +140 °C, Mains connection: 3–380 V ±10 %, 50/60 Hz, Minimum efficiency index (MEI) ≥ 0.7, Protection class IP 55, Max. operating pressure 16 bar up to +120 °C, 13 bar up to +140 °C</td>
<td>Fluid temperature –20 °C to +120 °C, Mains connection: 3–440 V ±10 %, 50/60 Hz, 3–400 V ±10 %, 50/60 Hz, 3–380 V ±5 %/±10 %, Minimum efficiency index (MEI) ≥ 0.4, Protection class IP 55, Nominal diameter DN 32 to DN 80, Max. operating pressure 10 (16) bar</td>
</tr>
<tr>
<td><strong>Equipment/function</strong></td>
<td>Operating modes: Δp-c, Δp-v, PID control, n=constant, Manual functions: E.g. differential pressure setpoint setting, manual control mode, error acknowledgement, External control functions: E.g. Overriding Off, external pump cycling (effective only in double pump operation mode), analogue input 0–10 V/0–20 mA for manual control mode (DDC), Infrared interface for wireless data exchange with IR-Monitor/IR-Stick, plug-in position for IF–Modules for connection to building automation, Safety functions: E.g. full motor protection, access disable</td>
<td>Operating modes: Δp-c, PID control, n=constant, Manual functions: E.g. differential pressure setpoint setting, manual control mode, error acknowledgement, External control functions: E.g. Overriding Off, External pump cycling, analogue input 0–10 V/0–20 mA for manual control mode (DDC), Infrared interface for wireless data exchange with IR-Monitor/IR-Stick, Plug-in position for IF–Modules for connection to building automation, Safety functions: E.g. full motor protection, access disable, Communication using plug-in IF-Modules, Simple operation with red-button technology and display, Integrated dual pump management, Integrated full motor protection with trip electronics, Motors with efficiency class IE4</td>
<td>Operating modes: Δp-c, Δp-v, PID control, n=constant, Manual functions: E.g. differential pressure setpoint setting, manual control mode, error acknowledgement, External control functions: E.g. Overriding Off, external pump cycling (effective only in double pump operation mode), analogue input 0–10 V/0–20 mA for manual control mode (DDC), Infrared interface for wireless data exchange with IR-Monitor/IR-Stick, Plug-in position for IF–Modules for connection to building automation, Safety functions: E.g. full motor protection, access disable, Communication using plug-in IF-Modules, Simple operation with red-button technology and display, Integrated dual pump management, Integrated full motor protection with trip electronics, Motors with efficiency class IE4</td>
</tr>
<tr>
<td><strong>Special features</strong></td>
<td>Innovative high-efficiency pump for maximum total-system efficiency, High-efficiency EC motor efficiency above IE4 limit values, Highly efficient hydraulics, optimally adapted to the EC motor technology with optimised efficiency, minimum efficiency index (MEI) ≥ 0.7 according to ErP Directive 2009/125/EC, Control range is up to three times higher than that of conventional electronically controlled pumps</td>
<td>Innovative high-efficiency pump with principal dimensions in accordance with EN 733, High-efficiency EC motor (efficiency above IE4 limit values), Highly efficient hydraulics, optimally adapted to the EC motor technology, with optimised efficiency, minimum efficiency index (MEI) ≥ 0.7 according to ErP Directive 2009/125/EC, Control range is up to three times higher than that of conventional electronically controlled pumps</td>
<td>Energy savings due to integrated electronic control, Optional interfaces for bus communication using plug-in IF–Modules, Simple operation with red-button technology and display, Integrated dual pump management, Integrated full motor protection with trip electronics, Motors with efficiency class IE4</td>
</tr>
</tbody>
</table>

### Series modification

**Information**

Online catalogue: productfinder.wilo.com

**Building Services catalogue:**

Heating, air-conditioning, cooling

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### Design

**Equipment/function**

- Operating modes: Δp – c, Δp – v, PID control, n=constant
- Manual functions: E.g. differential pressure setpoint setting, manual control mode, error acknowledgement
- External control functions: E.g. Overriding Off, external pump cycling (effective only in double pump operation mode), analogue input 0–10 V/0–20 mA for manual control mode (DDC)
- Infrared interface for wireless data exchange with IR-Monitor/IR-Stick, plug-in position for IF-Modules for connection to building automation
- Safety functions: E.g. full motor protection, access disable

**Special features**

- Energy savings due to integrated electronic control
- Optional interfaces for bus communication using plug-in IF-Modules
- Simple operation with red-button technology and display
- Integrated dual pump management
- Integrated full motor protection with trip electronics
- 2-pole pumps: Motors with efficiency class IE4, 4-pole-pumps: Motors with efficiency class IE4 for motors from 11 kW up to 22 kW

**Technical data**

- Fluid temperature: -20 °C to +140 °C
- Mains connection: 3~440 V ± 10 %, 50/60 Hz
- Minimum efficiency index (MEI) ≥ 0.4
- Protection class IP 55
- Nominal diameter DN 32 to DN 125
- Max. operating pressure 16 bar (120 °C)

**Application**

- Pumping of heating water (in accordance with VDI 2035), cold water and water–glycol mixtures without abrasive substances in heating, cold water and cooling systems
- Pumping of heating water (in accordance with VDI 2035), cold water and water–glycol mixtures without abrasive substances in heating, cold water and cooling systems
- Pumping of heating water (in accordance with VDI 2035), cold water and water–glycol mixtures without abrasive substances in heating, cold water and cooling systems

**Volume flow Q max.**

- 800 m³/h
- 380 m³/h
- 245 m³/h

**Delivery head H max.**

- 65 m
- 84 m
- 52 m

**Product range**

**Glanded energy-saving pumps in line design**

- Series
  - Wilo-CronoLine-IL-E
  - Wilo-CronoTwin-DL-E

**Glanded energy-saving pumps in monobloc design**

- Series
  - Wilo-CronoBloc-BL-E

**Glanded standard pumps in line design**

- Series
  - Wilo-VeroLine-IPL
  - Wilo-VeroTwin-DPL

**Field of application**

- Heating, air-conditioning, cooling, industrial process
- Heating, air-conditioning, cooling, industrial process
- Heating, air-conditioning, cooling, industrial process

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**Online catalogue:**

productfinder.wilo.com

**Building Services catalogue:**

Heating, air-conditioning, cooling
**General Overview – Delivery range – Edition 2016 – 50 Hz – Subject to change without prior notice.**

**Industry**

**Wilo-VeroLine-IPH-O**

**Wilo-VeroLine-IPH-W**

**Online catalogue:** productfinder.wilo.com

### Technical data

- **Delivery head H max.**: 108 m
- **Volume flow Q max.**: 1.170 m³/h
- **Technical data**:
  - Fluid temperature: -20 °C to +140 °C
  - Mains connection: 3~400 V, 50 Hz
  - Maximum efficiency index (MEI): ≥ 0.4
  - Nominal diameter: DN 32 to DN 250
  - Minimum operating pressure: 16 bar

### Equipment/function

- **Duty chart**
- **Design**
  - Single-stage, low-pressure centrifugal pump in in-line design with:
    - Mechanical seal
    - Flange connection with pressure measuring connection R ½
    - Lantern
    - Coupling
    - IEC standard motor
    - DL with switchover valve
    - Motors with efficiency class IE3 for motors ≥ 7.5 kW

### Special features

- **Reduced life cycle costs thanks to optimised efficiency**
- **Standard condensate drainage holes in the motor housings**
- **Can be used flexibly in air-conditioning and cooling systems, with application benefits due to direct draining of condensat**
- **High standard of corrosion protection**
- **High worldwide availability of standard motors (according to Wilo specifications) and standard mechanical seals**
- **Main/standby mode or peak-load operation (by means of external auxiliary device)**

### Application

- **Series Wilo-CronoLine-IL**
  - Glanded pump in in-line design with flange connection
  - For pumping of heating water (in accordance with VDI 2035), cold water and water-glycol mixtures without abrasive substances in heating, closed industrial circulation systems, etc.

### Design

- **Wilo-CronoTwin-DL**
  - Design with flange connection in-line design

### Special glanded pumps in in-line design

- **Wilo-VeroLine-IP-P**
  - Special glanded pumps in in-line design
  - For pumping cold and hot water (in accordance with VDI 2035) without abrasive substances in heating, cold water and cooling water systems

### Information

- **Online catalogue:** productfinder.wilo.com
- **Building Services catalogue:** Heating, air-conditioning, cooling
### Product range

<table>
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<tr>
<th>Series</th>
<th>Glanded monobloc pumps</th>
<th>Glanded special pumps</th>
<th>Glanded energy-saving pumps</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Wilo–BAC</td>
<td>Wilo–VeroLine–IP–Z</td>
<td>Wilo–SiFlux</td>
</tr>
</tbody>
</table>

### Field of application

<table>
<thead>
<tr>
<th>Duty chart</th>
<th>Heating, air-conditioning, cooling, industrial process</th>
<th>Domestic hot water</th>
<th>Heating, air-conditioning, cooling, industrial process</th>
</tr>
</thead>
</table>

### Design

- **Glanded pump in monobloc design with screwed connection or Victaulic connection**
- **Glanded circulation pump in in-line design with screwed connection**
- **Highly efficient, fully automatic, ready for connection multi-pump system for high volume flows in heating, cold water and cooling water systems.**

### Application

- **For pumping of cooling water, cold water, water-glycol mixtures and other fluids without abrasive substances**
- **For pumping drinking water, cold and hot water (in accordance with VDI 2035) without abrasive substances, in heating, cold water and cooling water systems**
- **For pumping heating water (in accordance with VDI 2035), water-glycol mixtures and cooling and cold water without abrasive substances in heating, cold water and cooling water systems**

### Volume flow Q max.

- **Wilo–BAC**: 87 m³/h
- **Wilo–VeroLine–IP–Z**: 5 m³/h
- **Wilo–SiFlux**: 490 m³/h

### Delivery head H max.

- **Wilo–BAC**: 26 m
- **Wilo–VeroLine–IP–Z**: 4.5 m
- **Wilo–SiFlux**: 55 m

### Technical data

- Fluid temperature: –15°C to +60°C
- Mains connection: 3~400 V, 50 Hz
- Minimum efficiency index (MEI) ≥ 0.4
- Protection class IP 54
- Nominal diameter G2/G 1½ (only BAC 40…/S) or Victaulic connection Ø 60.3/48.3 mm (BAC 40…/R)
- Ø 76.1/76.1 mm (BAC 70…/R)
- Max. operating pressure 6.5 bar
- Fluid temperature: domestic hot water up to a water hardness of 4.99 mmol/l (28 °d) max., +65 °C
- In short-term duty (2 h) up to +110 °C
- Heating water – 8 °C to +110 °C
- Mains connection: 1~230 V, 50 Hz, 3~400 V, 50 Hz
- Pressure port
- Suction port and radially arranged pressure port
- Motors with efficiency class IE3
- Fluid flow: 4.59 mmol/l (28 °d) max. +65 °C
- Fluid temperature up to +110 °C
- Mains connection: 3~230/400 V, 50 Hz ±10 %
- Fluid temperature: 0 °C to +120 °C
- Pipe connections: DN 125 to DN 300
- Flanges: PN 16, according EN 1092–2
- Max. permissible operating pressure: 10 bar (IP–E), 16 bar (IL–E)

### Equipment/function

- Single-stage low-pressure centrifugal pump in monobloc design, with axial suction port and radially arranged pressure port
- Motors with efficiency class IE3
- Mechanical seal
- Screwed connection
- Motor with one-piece shaft
- Reduced life cycle costs through optimised efficiency levels
- Pump housing in plastic design
- Version with Victaulic or threaded connection (BAC 70/135… only with Victaulic connection)
- High resistance to corrosive fluids due to stainless steel housing and Noryl impeller
- Wide range of applications due to suitability for water hardness up to 5 mmol/l (28 °dH)
- All plastic parts that come into contact with the fluid fulfil KTW recommendations
- Quick and easy installation
- Energy-saving: Operation in partial load area according to current needs
- Reliable system thanks to optimally matched components
- Compact design, good accessibility to all components

### Special features

- Reduced life cycle costs through optimised efficiency levels
- Pump housing in plastic design
- Version with Victaulic or threaded connection (BAC 70/135… only with Victaulic connection)
- High resistance to corrosive fluids due to stainless steel housing and Noryl impeller
- Wide range of applications due to suitability for water hardness up to 5 mmol/l (28 °dH)
- All plastic parts that come into contact with the fluid fulfil KTW recommendations
- Quick and easy installation
- Energy-saving: Operation in partial load area according to current needs
- Reliable system thanks to optimally matched components
- Compact design, good accessibility to all components

### Information

- Online catalogue: productfinder.wilo.com
- Online catalogue: productfinder.wilo.com
- Online catalogue: productfinder.wilo.com
- Building Services catalogue: Heating, air-conditioning, cooling
### Product range

<table>
<thead>
<tr>
<th>Series</th>
<th>Particle separator systems for closed HVAC loops</th>
<th>Particle separator systems for closed HVAC loops</th>
<th>Submersible pumps</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Series</strong></td>
<td>Wilo-SiClean</td>
<td>Wilo-SiClean Comfort</td>
<td>Wilo-Sub TWI 4/6/8/10 ...</td>
</tr>
<tr>
<td><strong>Field of application</strong></td>
<td>Heating, air-conditioning, cooling</td>
<td>Heating, air-conditioning, cooling</td>
<td>Rainwater utilisation, water distribution/boosting, clean water treatment, raw water intake, desalination, professional irrigation/agriculture</td>
</tr>
<tr>
<td><strong>Duty chart</strong></td>
<td>no illustration</td>
<td>no illustration</td>
<td></td>
</tr>
<tr>
<td><strong>Design</strong></td>
<td>Compact particle separator kit, consisting of mechanical and hydraulic components. Manual emptying of the system.</td>
<td>Fully-automatic, compact particle separator, provided as “Plug &amp; Play” version, consisting of mechanical and hydraulic components. The system is drained automatically.</td>
<td>Submersible pump, multistage</td>
</tr>
<tr>
<td><strong>Application</strong></td>
<td>SiClean removes magnetic and non-magnetic particles from heating systems via natural physical phenomena. Installation in commercial properties and heating/air-conditioning systems for district heating.</td>
<td>SiClean Comfort removes particles from heating systems using natural physical phenomena. For installation in commercial properties and heating/air-conditioning systems for district heating.</td>
<td></td>
</tr>
<tr>
<td><strong>Volume flow Q max.</strong></td>
<td>4 m³/h</td>
<td>47 m³/h</td>
<td>165 m³/h</td>
</tr>
<tr>
<td><strong>Delivery head H max.</strong></td>
<td>–</td>
<td>–</td>
<td>500 m</td>
</tr>
<tr>
<td><strong>Technical data</strong></td>
<td>Fluid temperature 0 °C to +95 °C; Mains connection: 1~230 V, 50 Hz</td>
<td>Fluid temperature 0 °C to +95 °C; Mains connection: 3~400 V, 50 Hz</td>
<td>Mains connection: 1<del>230 V, 50 Hz (only TWI 4 ... ) or 3</del>400 V, 50 Hz</td>
</tr>
<tr>
<td><strong>Equipment/function</strong></td>
<td>Anti-corrosive, hydraulic components; Fabric-reinforced hoses connected to inlet and outlet of the particle separator; Pre-assembled venting unit for expulsion of microbubbles; Movable magnetic rods for separation of iron oxide particles; Volume flow limiter; Manual purge valve for draining of collected particles; Switchbox for monitoring the circulation pump</td>
<td>Corrosion-resistant, hydraulic components; Fabric-reinforced hoses connected to inlet and outlet of the particle separator; Pre-assembled flushing device including electronic drain valve and additional safety valve; Automatic draining of the particle collection chamber; SC switchgear; Separator for removing magnetic and non-magnetic particles</td>
<td>Multistage submersible pump with radial or semi-axial impellers; Integrated non-return valve; NEMA coupling; Single-phase or three-phase AC motor</td>
</tr>
<tr>
<td><strong>Special features</strong></td>
<td>Removal of magnetic and non-magnetic particles from the medium, venting of micro bubbles; High cleaning efficiency due to physical effects (gravity, filtration...) Easy to use due to ease of installation, maintenance, and simplified settings; Corrosion-resistant thanks to stainless steel particle separator</td>
<td>High efficiency via combination of physical effects; fully automated operation; “Plug &amp; Play” design; Fully automated and adjustable disposal of collected particles in the desludging tank; Highly functional thanks to removal of all magnetic and non-magnetic particles, free air and micro bubbles in the fluid and support for the degasification process</td>
<td>Corrosion-resistant thanks to stainless steel version; Flexible installation thanks to vertical and horizontal installation; Easy installation due to integrated non-return valve; Large performance range; ACS approval for TWI 4 for drinking water application</td>
</tr>
<tr>
<td><strong>Information</strong></td>
<td>Online catalogue: productfinder.wilo.com</td>
<td>Online catalogue: productfinder.wilo.com</td>
<td>Online catalogue: productfinder.wilo.com</td>
</tr>
</tbody>
</table>


Corrosion-resistant thanks to stainless steel particle separator
# General Overview

**Delivery range** – Edition 2016 – 50 Hz – Subject to change without prior notice.

## Series modification

- Series extension
- Series modification

## Online catalogue:

- productfinder.wilo.com

## Information

- Online catalogue: productfinder.wilo.com
- Water Management catalogue: Water supply – Raw water intake
- Building Services catalogue: Water supply
- Water Management catalogue: Water supply – Raw water intake

## Product range

### Submersible pumps

- **Series**
  - Wilo-EMU 6” series
  - Wilo-EMU 8” series
  - Wilo-EMU 10”...24” series
  - Wilo-Zetos K 8

### Sprinkler pumps with VdS approval

- **Series**
  - Wilo-EMU sprinkler pumps

### Submersible pumps

- **Series**
  - Wilo-EMU polder pumps

## Field of application

- **Series Wilo-EMU-6” series**
  - Fire fighting

## Duty chart

- **Volume flow Q max.**
  - 2,400 m³/h
  - 580 m³/h
  - 1,200 m³/h

- **Delivery head H max.**
  - 140 m
  - 160 m

## Technical data

- **Application**
  - Supplying sprinkler systems
  - Potable and process water from tanks or shallow bodies of water; municipal and industrial water supply; sprinkling and irrigation; lowering the ground water level; utilisation of geothermal energy and in offshore applications

## Design

- **Application**
  - Supply of potable and other water from boreholes and rainwater storage tanks; process water supply; municipal and industrial water supply; sprinkling and irrigation; pressure boosting; lowering the ground water level; utilisation of geothermal energy and in offshore applications

## Equipment/function

- **Application**
  - Multistage submersible pump
  - Radial or semi-axial impellers
  - Hydraulics and motor freely configurable according to power requirements
  - Integrated non-return valve (depending on type)
  - NEMA coupling or standardised connection
  - Three-phase motor for direct or star-delta start

## Special features

- **Application**
  - Pressure shroud in corrosion-resistant and hygienic stainless steel version
  - Hydraulic in stainless steel precision casting (Zetos K 8)
  - Maintenance-friendly motors
  - Optionally with ACS coating for increasing the efficiency
  - Optional with ACS approval for drinking water application

## Information

- Online catalogue: productfinder.wilo.com
- Water Management catalogue: Water supply – Raw water intake
- Online catalogue: productfinder.wilo.com
- Building Services catalogue: Water supply
- Online catalogue: productfinder.wilo.com
- Water Management catalogue: Water supply – Raw water intake
### Product range

<table>
<thead>
<tr>
<th>Submersible drainage pumps</th>
<th>Pedestal pumps</th>
<th>Submersible drainage pumps</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Series</strong></td>
<td>Wilo-Drain TMT</td>
<td>Wilo-Drain VC</td>
</tr>
<tr>
<td>Field of application</td>
<td>Special applications, dewatering/flood control, industrial process</td>
<td>Professional irrigation/agriculture, special applications, dewatering/flood control, industrial process</td>
</tr>
<tr>
<td><strong>Duty chart</strong></td>
<td><img src="image" alt="Graph" /></td>
<td><img src="image" alt="Graph" /></td>
</tr>
<tr>
<td><strong>Design</strong></td>
<td>Submersible drainage pumps</td>
<td>Vertical drainage pumps</td>
</tr>
<tr>
<td><strong>Application</strong></td>
<td>Pumping of condensate, hot water and aggressive media in industrial applications</td>
<td>Pumping of wastewater and condensate up to 95 °C from pump sumps and from cellars at risk of flooding</td>
</tr>
<tr>
<td><strong>Volume flow Q max.</strong></td>
<td>22 m³/h</td>
<td>14 m³/h</td>
</tr>
<tr>
<td><strong>Delivery head H max.</strong></td>
<td>15.5 m</td>
<td>20 m</td>
</tr>
</tbody>
</table>
| **Technical data**        | - Mains connection 3~400 V, 50 Hz  
- Immersed operating mode: S1  
- Non-immersed operating mode: S3 25 %  
- Protection class IP 68  
- Max. immersion depth 7 m  
- Fluid temperature max. 95 °C  
- Cable length 10 m  
- Free ball passage 5 mm  
- Pressure port G 1¼ | - Mains connection 1~230 V, 50 Hz or 3~400 V, 50 Hz  
- Protection class IP 54  
- Fluid temperature +5 °C to +95 °C  
- Free ball passage 5 or 7 mm, depending on type  
- Pressure port Rp 1¼ or Rp 1½ depending on type | - Mains connection 1~230 V, 50 Hz or 3~400 V, 50 Hz  
- Immersed operating mode: S1  
- Non-immersed operating mode: S3 25 %  
- Protection class IP 68  
- Immersion depth 5 to 7 m  
- Fluid temperature +3 °C to 35 °C  
- Free ball passage 10 mm  
- Pressure port Rp ½, Rp 2 or Rp 2½ depending on type |
| **Equipment/function**    | - Housing and impeller made of grey cast iron  
- Winding temperature monitoring with bimetal sensor | - Attached float switch | - Ready-to-plug versions also with float switch  
- Thermal motor monitoring  
- Explosion protection for TS 50 and TS 65  
- Connection cable 10 m  
- Connection cable detachable  
- Integrated non-return valve for TS 40  
- Hose connection for TS 40 |
| **Special features**      | - For fluids up to 95 °C  
- Sealed cable inlet | - For fluids up to 95 °C  
- Long service life  
- Easy operation thanks to attached float switch  
- Long standstill times possible  
- Integrated motor protection with thermal relay | - Low weight  
- Large performance range  
- Oil separation chamber  
- Easy operation thanks to attached float switch and plug (A version) |

**Information**

- Online catalogue: productfinder.wilo.com
- Building services catalogue: Drainage and sewage
- Water Management catalogue: Drainage and sewage – Wastewater transport and dewatering
### Product range

<table>
<thead>
<tr>
<th>Submersible drainage pumps</th>
<th>Submersible sewage pumps</th>
<th>Submersible sewage pumps</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Series</strong></td>
<td>Wilo–EMU KS</td>
<td>Wilo–Drain TP 80</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Wilo–Drain TP 100</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Wilo–EMU FA 30 ... to FA 60 ...</td>
</tr>
<tr>
<td><strong>Field of application</strong></td>
<td>Dewatering/flood control, industrial process</td>
<td>Special applications, wastewater collection and transport, dewatering/flood control, industrial process</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Special applications, wastewater collection and transport, dewatering/flood control, industrial process</td>
</tr>
<tr>
<td><strong>Duty chart</strong></td>
<td><img src="image" alt="Duty chart" /></td>
<td><img src="image" alt="Duty chart" /></td>
</tr>
<tr>
<td></td>
<td><img src="image" alt="Duty chart" /></td>
<td><img src="image" alt="Duty chart" /></td>
</tr>
<tr>
<td><strong>Design</strong></td>
<td>Submersible drainage pumps in rugged design for use on building sites</td>
<td>Submersible sewage pump for industrial applications</td>
</tr>
<tr>
<td><strong>Application</strong></td>
<td>For dewatering of excavation pits, cellar areas, chambers and basins. Ideally suited for use in fountains</td>
<td>Pumping heavily contaminated fluids, for environmental and water treatment technology and industrial and process engineering</td>
</tr>
<tr>
<td><strong>Volume flow Q max.</strong></td>
<td>165 m³/h</td>
<td>180 m³/h</td>
</tr>
<tr>
<td><strong>Delivery head H max.</strong></td>
<td>62 m</td>
<td>21 m</td>
</tr>
<tr>
<td><strong>Technical data</strong></td>
<td>Mains connection 1–230 V, 50 Hz or 3–400 V, 50 Hz</td>
<td>Mains connection: 3–400 V, 50 Hz</td>
</tr>
<tr>
<td></td>
<td>Operating mode S1</td>
<td>Immersed operating mode: S1</td>
</tr>
<tr>
<td></td>
<td>Max. fluid temperature 40 °C</td>
<td>Non-immersed operating mode: S1</td>
</tr>
<tr>
<td></td>
<td>Protection class: IP 68</td>
<td>Protection class: IP 68</td>
</tr>
<tr>
<td></td>
<td>Thermal winding monitoring</td>
<td>Thermal winding monitoring</td>
</tr>
<tr>
<td></td>
<td>Sealing chamber control</td>
<td>Sealing chamber control</td>
</tr>
<tr>
<td></td>
<td>Max. fluid temperature: 40 °C</td>
<td>Max. fluid temperature: 40 °C</td>
</tr>
<tr>
<td></td>
<td>Max. immersion depth: 20 m</td>
<td>Sealing with rotary shaft seal and mechanical seal, two mechanical seals or one block seal cartridge, depending on motor</td>
</tr>
<tr>
<td><strong>Equipment/function</strong></td>
<td>Bidirectional mechanical seal</td>
<td>Thermal motor monitoring</td>
</tr>
<tr>
<td></td>
<td>Thermal motor monitoring</td>
<td>Sealing chamber monitoring</td>
</tr>
<tr>
<td></td>
<td>Sheath current cooling</td>
<td></td>
</tr>
<tr>
<td><strong>Special features</strong></td>
<td>Long service life</td>
<td>Self-cooling motor for the use in wet well and dry well installations</td>
</tr>
<tr>
<td></td>
<td>Sturdy construction</td>
<td>Corrosion–resistant stainless steel motor housing in 1.4404</td>
</tr>
<tr>
<td></td>
<td>Slurping operation possible</td>
<td>Patented non–clogging hydraulics</td>
</tr>
<tr>
<td></td>
<td>Suitable for continuous duty (S1)</td>
<td>Longitudinal watertight cable inlet</td>
</tr>
<tr>
<td></td>
<td>Ready-to-plug</td>
<td>Low weight</td>
</tr>
<tr>
<td><strong>Information</strong></td>
<td>Online catalogue: productfinder.wilo.com</td>
<td>Online catalogue: productfinder.wilo.com</td>
</tr>
<tr>
<td>Building services catalogue:</td>
<td>Drainage and sewage</td>
<td>Building services catalogue:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Product range</th>
<th>Submersible sewage pumps</th>
<th>Submersible mixer</th>
<th>Treatment process</th>
</tr>
</thead>
<tbody>
<tr>
<td>Series</td>
<td>Wilo–EMU FA…RF</td>
<td>Wilo–Sevio MIX DM 50–2</td>
<td>Wilo–Sevio ACT SD 101</td>
</tr>
<tr>
<td>Field of application</td>
<td>Special applications, wastewater collection and transport, industrial process</td>
<td>Special applications, industrial process</td>
<td>Wastewater treatment, industrial process</td>
</tr>
<tr>
<td>Duty chart</td>
<td><img src="image" alt="Duty chart" /></td>
<td>no illustration</td>
<td>no illustration</td>
</tr>
<tr>
<td>Design</td>
<td>Submersible sewage pumps made of cast stainless steel</td>
<td>Submersible mixer with single–stage planetary gear</td>
<td>Solids diffuser</td>
</tr>
<tr>
<td>Application</td>
<td>Pumping sewage with solid content in water treatment systems and industrial applications</td>
<td>Pumping of drilling mud on on-shore and off-shore installations</td>
<td>Gentle mixing process of biomass particles in the pumped fluid</td>
</tr>
<tr>
<td>Volume flow Q max.</td>
<td>70 m³/h</td>
<td>Thrust: 1010 N</td>
<td>Circulation capacity 3300 – 4000 m³/h</td>
</tr>
<tr>
<td>Delivery head H max.</td>
<td>30 m</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Technical data</td>
<td>Mains connection: 3–400 V, 50 Hz</td>
<td>Mains connection: 3–400 V, 50 Hz</td>
<td>Mains connection: 3–400 V, 50 Hz</td>
</tr>
<tr>
<td></td>
<td>Immersed operating mode: S1</td>
<td>Immersed operating mode: S1</td>
<td>Immersed operating mode: S1</td>
</tr>
<tr>
<td></td>
<td>Protection class: IP 68</td>
<td>Protection class: IP 68</td>
<td>Protection class: IP 68</td>
</tr>
<tr>
<td></td>
<td>Max. fluid temperature: 60 °C; higher temperatures on request</td>
<td>Max. fluid temperature: 90 °C</td>
<td>Max. fluid temperature: 40 °C</td>
</tr>
<tr>
<td></td>
<td>Sealing with two mechanical seals or one block seal cartridge, depending on motor</td>
<td>Single–stage planetary gear</td>
<td>Max. immersion depth: 20 m</td>
</tr>
<tr>
<td></td>
<td>Free ball passage of 35 to 45 mm</td>
<td>Mechanical seal with SiC/SiC pairing</td>
<td>Permanently lubricated roller bearings</td>
</tr>
<tr>
<td></td>
<td>Permanently lubricated roller bearings</td>
<td></td>
<td>Max. immersion depth: 20 m</td>
</tr>
<tr>
<td></td>
<td>Max. immersion depth: 20 m</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equipment/function</td>
<td>Oil separation chamber with optional external monitoring</td>
<td>Flexible installation via lowering device</td>
<td>Height–adjustable suction pipe due to lowering device</td>
</tr>
<tr>
<td></td>
<td>Can be swivelled horizontally when installed with a lowering device</td>
<td>Suction pipe with telescopic extension</td>
<td></td>
</tr>
<tr>
<td>Special features</td>
<td>Sturdy version completely in stainless steel casting 1.4581 for the use in corrosive fluids</td>
<td>Sturdy construction for fluid temperatures of up to 90 °C</td>
<td>Careful introduction of the biomass carrier particles into the fluid</td>
</tr>
<tr>
<td></td>
<td>Process security thanks to extensive monitoring devices</td>
<td>Exchangeable planetary stage for adaptation of the propeller speed</td>
<td>Higher volume penetration for optimising the cleaning process</td>
</tr>
<tr>
<td></td>
<td>Longitudinal watertight cable inlet</td>
<td>Stainless steel propeller with high wear resistance</td>
<td>Reduced energy costs thanks to an improved cleaning performance</td>
</tr>
<tr>
<td></td>
<td>Low vibrations and long standstill times thanks to high–quality components</td>
<td>Ex approval as standard</td>
<td>Also with IE3 motor technology (on the basis of IEC 60034–30)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Retrofit option for existing installations</td>
</tr>
<tr>
<td>Information</td>
<td>Online catalogue: productfinder.wilo.com</td>
<td>Documentation on request</td>
<td>Documentation on request</td>
</tr>
<tr>
<td></td>
<td>Water Management catalogue: Drainage and sewage – Wastewater transport and dewatering (pumps available ex stock)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Innovative details and solutions that make our pump systems and services even more efficient.

Wilo understands the everyday needs and challenges of those who work with building services technology, especially pump systems. That’s why the experts at Wilo are always collaborating with customers and partners to develop solutions that help them work more effectively. Regardless of whether they are creating complex designs or installing and maintaining pumps and systems. Wilo is focused on the future because Wilo is shaping the future every day. Wilo is going beyond pumps.

**Wilo-Stratos**, the diverse one

→ Energy savings thanks to higher system efficiency provided by Q-Limit function (volume flow restriction)
→ Higher energy efficiency, e.g., starting at EEI ≤ 0.20 for all individual pumps
→ Display is easier to read
→ Space-saving installation thanks to compact design and variable-orientation LC display
→ Modular design for connection with any standard bus system (e.g., Modbus, BACnet, CAN, LON, PUR)
→ Proven quality and reliability

**Wilo-EMUport CORE**, the clogging-free one

→ Solids separation system with maximum operational reliability through pre-filtering of sewage
→ Can be installed in the building or in small shafts from diameters of 150 cm
→ Durable and corrosion resistant through the use of PE and PUR material
→ Easy maintenance thanks to dry well installation and easy access from the outside
→ Retrofit system for the economic refurbishing of old pumping stations

Learn more at www.wilo.com

The solids separation system for sewage disposal.

Long-term operating security, durability and easy maintenance combined in a complete system: The solids separation system filters the sewage beforehand, this means that larger solids do not have to pass the pump, but are pushed into the discharge pipe directly from the solids separation reservoir. Wilo’s benchmark for efficiency and comfort. Wilo is going beyond pumps.

Maximum operating security with minimum maintenance effort.

For more information, go to productfinder.wilo.com
Delivery range - Edition 2016 – 50 Hz

General overview

Our pumps and systems for heating, air-conditioning and cooling, water supply, special applications, drainage, sewage and industrial processes.