

Pioneering for You

**wilo**

*Efficient solutions – 50 Hz*

# Wilo General overview 2017

Our pumps and systems for heating, air-conditioning, cooling, water supply as well as drainage and sewage.

DISCOVER  
ADDITIONAL  
DIGITAL  
CONTENT




# NOW. PUMP TECHNOLOGY OF THE FUTURE.

## WILO-STRATOS MAXO, THE WORLD'S FIRST SMART PUMP\*.

The Wilo-Stratos MAXO delivers the easiest solution for increasingly complex market demands. The pump sets new standards for system efficiency, convenience and flexibility: the perfect fit for every application, it also ensures optimal efficiency in building complexes thanks to its innovative energy saving functions. Installation and operation are also incredibly easy with the Wilo-Stratos MAXO. Experience the future of pump technologies which we are harnessing to make your life easier today.





<b>Wilo – Technology of the future</b> .....	<b>4 – 9</b>
Smart solutions for a better tomorrow.	
<b>Heating, air-conditioning, cooling</b> .....	<b>10 – 27</b>
Networked solutions for an optimal indoor climate.	
<b>Water supply</b> .....	<b>28 – 49</b>
Intelligent technologies to combat water shortages.	
<b>Drainage and sewage</b> .....	<b>50 – 65</b>
Reliable waste water systems for growing cities.	
<b>Service and support</b> .....	<b>66 – 69</b>
Practical support for your daily work.	

We understand a smart-pump as a new category of pumps, which goes far beyond our high-efficiency pumps or pumps with pump intelligence. Only the combination of the latest sensor technology and innovative control functions (e.g. Dynamic Adapt plus and Multi-Flow Adaptation), bidirectional connectivity (e.g. Bluetooth, integrated analogue inputs, binary inputs and outputs, Wilo Net interface), software updates and excellent usability (e.g. thanks to the Setup Guide, the preview principle for predictive navigation and the tried and tested Green Button Technology) make this pump a smart-pump.

# SMART SOLUTIONS FOR A BETTER TOMORROW.

Wilo is a premium supplier for building services, water management and industrial applications. We make complex technologies user-friendly, simple to operate, energy-efficient and powerful for our customers. In the end, the main focus of everything we do is people. We offer them outstanding products, system solutions and services. Founded in Dortmund in 1872 as a factory for copper and brass goods, Wilo has evolved from being a local specialist to a global player in the course of its long and successful history.

We are well-acquainted with questions that will shape our future and we develop technologies that provide answers. Global megatrends are having a profound and lasting impact on our lives. As we address these trends, we concentrate on globalisation, urbanisation, climate change, energy scarcity, water shortage as well as technological advances and digitalisation – important issues for your day-to-day work. Which makes them important to us, too.

Amongst these megatrends, technological advances and digitalisation are two prime topics. Digitalisation is having a fundamental impact on consumer demands, production methods, workflows and production routes. It provides new possibilities in terms of functions and applications that were unthinkable just a few short years ago. We recognise the opportunities that digitalisation brings and leverage them to make the future a better place and enhance people's daily lives. In the process, we have emerged as a digital pioneer in the industry.

Big data is the valuable raw material of digitalisation and we harness its power. To tap the incredible potential of this exponential resource, we are transforming our processes in the digital world – for forward-looking, networked and varied results. We analyse relevant data and conduct specific evaluations. Based on the systematic assessment of existing data, we develop new business models as well as customised digital product features for our pumps, applications and services.

We do it all with a precise objective: through the intelligent networking of people, products, services, factories and machines, we effectively harness the potential of digitalisation to create smart solutions. Every day, around 7,400 employees worldwide work to make that claim a reality. At 16 production sites in more than 60 subsidiaries in 60 countries. The result: pioneering new products, systems and services. Making life easier for our customers and the future a better place.



# INNOVATIONS FOR A BRAND-NEW WORLD.

Megatrend – it's a common buzzword. But what exactly does it mean? Megatrends change the world. Lasting and profound in their effect, they are often closely related and reciprocally linked in their development. The influence of megatrends extends throughout all areas of our lives: from society, economy and politics to science, technology and culture. Wilo identified six megatrends that are especially important to you as our customers and therefore to us in our work:

- Globalisation
- Energy shortage
- Water shortage
- Urbanisation
- Climate change
- Technological progress and digitalisation

We engage intensely with these six trends to study their effects and develop solutions that make the future a better place and enhance the quality of life.

One cross-cutting megatrend that has brought many more changes is **globalisation**. We all feel its effects, most of all at the workplace. The worldwide availability of products, information, services, raw materials, technologies and procedures has heightened competition. Wilo develops solutions that give you an edge in regional and local markets. And in turnkey quality, since our distributed production network enables short delivery routes for our customers around the world.

In a globalised world, the economy is growing at an incredible pace – and with it middle class consumers and their purchasing power. Competition for raw materials and resources is intensifying. **Energy shortage** and **water shortages** are two major consequences. In addition, outdated power infrastructures, growing water pollution and highly inefficient usage patterns aggravate the situation. That is why Wilo focuses on developing both flexible, high-efficiency solutions that adapt to their environment and highly efficient technologies that conserve resources. Our development activities consider the entire process from energy production or water purification to transportation and consumption. Our innovative products let you satisfy requirements for high system efficiency and the sustainable use of precious resources.

Ultimately, the efficient use of energy and water is becoming more and more important everywhere you look. This is especially true since **urbanisation** continues as a steady trend and worldwide the number of megacities with more than ten million inhabitants continues to grow. In these increasingly dense urban centres, supplying clean water to private households as well as industry and agriculture has been a major challenge for some time. How can the demand for fresh water be reduced? And how can water purification be made as efficient as possible in terms of capacity and energy consumption?



These questions are on your mind – and ours. With our efficient products for water supply, drainage and sewage disposal, we offer you great potential to conserve water resources while lowering costs.

Urbanisation is also a trend with close links to **climate change**. Rising temperatures, more frequent extreme weather events, along with air and water pollution, above all in cities, increase the demand for effective filtration and pump systems that also ensure efficient energy use.

Solutions to many of these problems can be found in **technological progress and digitalisation**. Extensive networking of supply and disposal systems and the intelligent distribution of water and energy are key to greater sustainability. Wilo is working to improve the integration of information and communication technologies and to enable rapid, efficient data analysis. Our products and systems feature maximum connectivity – making them increasingly cost-efficient, intelligent, durable and simple. So they can easily live up to the demands of tomorrow.



An aerial photograph of a rural landscape. In the background, three wind turbines stand on a forested ridge. Below them, a white lighthouse is visible. To the left, a dam spans a river. The middle ground features a large green field with a winding path and a power line tower. The foreground shows a residential development with several white houses and a road. The sky is clear and blue.

# DISCOVER WILO SOLUTIONS.

We offer a wide variety of intelligent pumps and systems to make our users' everyday lives simply more pleasant. Our energy-efficient solutions are suitable for residential, public and commercial properties. Wilo products are used in heating, air-conditioning, cooling and water supply applications as well as for drainage and sewage.



**1 HEATING, AIR-CONDITIONING, COOLING**

Wilo delivers individual solutions and highly efficient technology for applications in heating, air-conditioning, cooling and domestic hot water.

**2 WATER SUPPLY**

Innovative products and systems from Wilo support applications in rainwater utilisation, water supply and pressure boosting, fire fighting and raw water intake.

**3 DRAINAGE AND SEWAGE**

Wilo pumps and lifting units ensure safe and reliable operation in drainage and sewage disposal.

Click "Play", learn more about our system solutions and which advantages Wilo products have for you.



# NETWORKED SOLUTIONS FOR AN OPTIMAL INDOOR CLIMATE.

PUMPS AND SYSTEMS FOR HEATING, AIR-CONDITIONING,  
COOLING AND DOMESTIC HOT WATER.



Photo: DFM/Hannappel.

Courtesy of DFB-Stiftung Deutsches Fußballmuseum gGmbH.

Technological advances and digitalisation are at the core of the megatrends that are fundamentally changing our lives. They make it possible to interlink products to create powerful, efficient systems. Advanced sensors and analytics evaluate the collected data on the spot and implement appropriate modifications. Pumps are one component of these intelligent infrastructures: they play an important part in energy and drinking water management. For all types of buildings, from single-family houses to large industrial parks. Wilo pumps are highly efficient, individually adaptable and easy to integrate into building automation systems. Communication with surrounding systems and adjusting to dynamic requirements for smart infrastructures will be key challenges in the future.

### EFFICIENT AIR-CONDITIONING

Large buildings that house a variety of applications require highly sophisticated technology and intelligent networking. The German Football Museum in Dortmund is a prime example. In addition to the exhibition areas, the building contains a multifunctional arena, several dining areas and a separate floor for events, together extending over 7,700 square metres. The imposing glass front often serves as a canvas for multimedia images and therefore must remain free of condensation. Optimal air-conditioning is provided by 21 highly efficient circulators, fully controlled by the building management system. These Wilo pumps ensure resource-efficient operation while maximising potential savings.



### VERSATILE

Our solutions make it possible to supply various types of buildings with a pleasant indoor climate and domestic hot water. From single-family houses to rental, administrative and commercial properties such as hospitals, office spaces or hotels.



Please click "Play" and discover  
Wilo-Stratos MAXO, our smart-pump.





Series modification



Product range	Glandless premium high-efficiency pumps	Glandless standard high-efficiency pumps	Glandless standard high-efficiency pumps
Series	Wilo-Stratos PICO	Wilo-Yonos PICO	Wilo-Yonos PICO-D
Field of application	Heating, air-conditioning, cooling	Heating, air-conditioning, cooling	Heating, air-conditioning, cooling
Duty chart			
Design	Glandless circulation pump with screwed connection, EC motor and automatic power adjustment	Glandless circulation pump with screwed connection, EC motor and automatic power adjustment	Glandless circulation pump with screwed connection, EC motor and automatic power adjustment
Application	Hot-water heating systems of all kinds, air-conditioning applications, industrial circulation systems	Hot-water heating systems of all kinds, air-conditioning applications, industrial circulation systems	Hot-water heating systems of all kinds, air-conditioning applications, industrial circulation systems
Volume flow Q max.	4 m <sup>3</sup> /h	4.5 m <sup>3</sup> /h	7 m <sup>3</sup> /h
Delivery head H max.	6 m	8 m	8 m
Special features	<ul style="list-style-type: none"> <li>→ Maximum energy efficiency thanks to the combination of the EC motor, Dynamic Adapt and precise settings</li> <li>→ High reliability through self-protecting automatic routines</li> <li>→ Intuitive setting/maintenance by activating functions and modes shown on LC display</li> <li>→ Monitoring of current power consumption or flow and cumulated kWh</li> <li>→ Tool-free electrical connection using the Wilo-Connector</li> </ul>	<ul style="list-style-type: none"> <li>→ Maximum set-up comfort with new smart settings, self-explanatory interface and new functions</li> <li>→ Optimised energy efficiency thanks to EC motor technology, precise settings by 0.1m</li> <li>→ Quick installation/replacement thanks to the improved compact design</li> <li>→ Easier maintenance due to automatically and manually activated restart or air venting function</li> <li>→ Maximum reliability and operational safety thanks to proven technology</li> </ul>	<ul style="list-style-type: none"> <li>→ LED display for setting the setpoint in 0.1 m steps and for showing the current consumption</li> <li>→ Tool-free electrical connection using the Wilo-Connector</li> <li>→ Unique pump venting function per pump</li> <li>→ Double pump for individual (Δp-c and Δp-v) or parallel operation (Δp-c)</li> <li>→ Very high starting torque for safe start-up</li> </ul>
Technical data	<ul style="list-style-type: none"> <li>→ Fluid temperature +2 °C to +110 °C</li> <li>→ Mains connection 1~230 V, 50 Hz</li> <li>→ Energy Efficiency Index (EEI) ≤ 0.20</li> <li>→ Screwed connection Rp ½, Rp 1, Rp 1¼</li> <li>→ Max. operating pressure 10 bar</li> </ul>	<ul style="list-style-type: none"> <li>→ Fluid temperature -10 °C to +95 °C</li> <li>→ Mains connection 1~230 V, 50 Hz</li> <li>→ Energy Efficiency Index (EEI) ≤ 0.20</li> <li>→ Screwed connection Rp ½, Rp 1, Rp 1¼</li> <li>→ Max. operating pressure 10 bar</li> </ul>	<ul style="list-style-type: none"> <li>→ Fluid temperature -10 °C to +95 °C</li> <li>→ Mains connection 1~230 V, 50 Hz</li> <li>→ Energy Efficiency Index (EEI) ≤ 0.20</li> <li>→ Screwed connection Rp 1¼</li> <li>→ Max. operating pressure 6 bar</li> </ul>
Equipment/function	<ul style="list-style-type: none"> <li>→ Control mode: Δp-c and Δp-v (Dynamic Adapt)</li> <li>→ Automatic setback operation</li> <li>→ Automatic venting routine</li> <li>→ Automatic restart and dry running detection</li> <li>→ Display of the current power consumption or flow and cumulative kWh</li> <li>→ Reset function for the electricity meter or to factory settings</li> <li>→ Hold function (Key lock)</li> <li>→ Wilo-Connector</li> <li>→ Options: stainless steel pump housing; port-to-port length 130 mm</li> </ul>	<ul style="list-style-type: none"> <li>→ Control mode: Δp-c, Δp-v and constant speed (3 curves)</li> <li>→ Setting the operating mode by application</li> <li>→ Setting of delivery head or constant speed</li> <li>→ Automatic deblocking function</li> <li>→ Manual re-start and venting function</li> <li>→ LED display for setting the setpoint and displaying actual consumption</li> <li>→ Wilo-Connector</li> <li>→ Options: port-to-port length 130 mm</li> </ul>	<ul style="list-style-type: none"> <li>→ Control mode: Δp-c and Δp-v</li> <li>→ Setting of delivery head</li> <li>→ Automatic venting function</li> <li>→ Automatic deblocking function</li> <li>→ Main/standby mode and parallel operation</li> <li>→ LED display for setting the setpoint and displaying actual consumption</li> <li>→ Wilo-Connector</li> </ul>



NEW



NEW

Product range	Glandless standard high-efficiency pumps	Glandless standard high-efficiency pumps	Glandless premium smart pumps
Series	Wilo-Varios PICO	Wilo-Yonos ECO...-BMS	Wilo-Stratos MAXO Wilo-Stratos MAXO-D
Field of application	Heating, air-conditioning, cooling	Heating, air-conditioning, cooling	Heating, air-conditioning, cooling
Duty chart	no illustration		
Design	Glandless circulation pump with screwed connection, EC motor and automatic power adjustment	Glandless circulation pump with screwed connection, EC motor and automatic power adjustment	Smart glandless circulator with screwed connection or flange connection, EC motor with integrated power adjustment
Application	Hot-water heating systems of all kinds, air-conditioning applications, industrial circulation systems	Hot-water heating systems of all kinds, air-conditioning systems, closed cooling circuits, industrial circulation systems	Hot-water heating systems of all kinds, air-conditioning systems, closed cooling circuits, industrial circulation systems
Volume flow Q max.	available in summer 2017	3 m <sup>3</sup> /h	120 m <sup>3</sup> /h
Delivery head H max.	available in summer 2017	5 m	16 m
Special features	<ul style="list-style-type: none"> <li>→ A highly compatible replacement solution for all applications thanks to compact dimensions, new control modes e.g. iPWM and the new Sync function</li> <li>→ Highest comfort in handling with one push button for control mode and one for preset curves and the LED-display</li> <li>→ Easy installation through adaptable connections and maintenance functions like air venting</li> <li>→ Highest reliability and operational safety thanks to proven technology</li> </ul>	<ul style="list-style-type: none"> <li>→ Potential-free collective fault signal (SSM) for connection to external monitoring unit (e.g. building automation) and control input 0-10 V</li> <li>→ Control cable (4-core, 1.5 m) for connecting SSM and 0-10 V</li> <li>→ Wilo-Connector</li> <li>→ Thermal insulation as standard</li> <li>→ Pump housing with cataphoretic coating protects against corrosion due to condensation formation</li> </ul>	<ul style="list-style-type: none"> <li>→ Intuitive operation by guided application settings with the Setup Guide</li> <li>→ Optimised energy-saving functions such as No-Flow Stop</li> <li>→ Innovative and intelligent controlling functions such as Dynamic Adapt plus and Multi-Flow Adaptation</li> <li>→ Bluetooth interface for connection to mobile devices and direct pump networking for multiple pump control via Wilo Net</li> <li>→ Maximum electric installation comfort by the optimised Wilo-Connector</li> </ul>
Technical data	<ul style="list-style-type: none"> <li>→ Mains connection 1~230 V, 50 Hz</li> <li>→ available in summer 2017</li> <li>→ Energy Efficiency Index (EEI) ≤ 0.20</li> </ul>	<ul style="list-style-type: none"> <li>→ Fluid temperature -10 °C to +110 °C</li> <li>→ Mains connection 1~230 V, 50 Hz</li> <li>→ Energy Efficiency Index (EEI) ≤ 0.20</li> <li>→ Screwed connection Rp 1, Rp 1½</li> <li>→ Max. operating pressure 10 bar</li> </ul>	<ul style="list-style-type: none"> <li>→ Fluid temperature -10 °C to +110 °C</li> <li>→ Mains connection 1~230 V, 50 Hz</li> <li>→ Nominal diameter Rp 1 to DN 100</li> <li>→ Max. operating pressure 10 bar (special version: 16 bar)</li> </ul>
Equipment/function	<ul style="list-style-type: none"> <li>→ Control mode: Δp-c, Δp-v and constant speed</li> <li>→ External control (PWM and iPWM)</li> <li>→ Sync function (manual programming mode)</li> <li>→ Air venting function</li> <li>→ Manual re-start</li> <li>→ LED display and 2 push buttons for settings and functions activation</li> <li>→ Dual electrical connection (Molex and Wilo-Connector)</li> <li>→ Front access to motor screws</li> </ul>	<ul style="list-style-type: none"> <li>→ Control modes: Δp-c, Δp-v and manual control mode (n = constant)</li> <li>→ Control input "Analog In 0 - 10 V" (remote speed control)</li> <li>→ Collective fault signal (potential-free NC contact)</li> <li>→ Control cable (4-core, 1.5 m) for connecting SSM and 0-10 V</li> <li>→ Wilo-Connector</li> <li>→ Deblocking function</li> </ul>	<ul style="list-style-type: none"> <li>→ Control mode: Dynamic Adapt plus, Δp-c, Δp-v, n-const, T-const, ΔT-const and Q-const</li> <li>→ Automatic switch-off of the pump with No-Flow Stop</li> <li>→ Multi-Flow Adaptation</li> <li>→ Remote control via Bluetooth interface</li> <li>→ Selection of application range with Setup Guide</li> <li>→ Heat and cold metering</li> <li>→ Dual pump management</li> <li>→ Retrofittable interface modules for communication</li> </ul>



Q-Limit  
EEI ≤ 0.20



IE5

Series extension

Product range	Glandless premium high-efficiency pumps	Glandless standard high-efficiency pumps	Glanded high-efficiency pumps in in-line design
Series	Wilo-Stratos Wilo-Stratos-D	Wilo-Yonos MAXO Wilo-Yonos MAXO-D	Wilo-Stratos GIGA Wilo-Stratos GIGA-D
Field of application	Heating, air-conditioning, cooling	Heating, air-conditioning, cooling	Heating, air-conditioning, cooling, industrial process
Duty chart			
Design	Glandless circulator with screwed connection or flange connection, EC motor and automatic power adjustment	Glandless circulator with screwed connection or flange connection, EC motor and automatic power adjustment	High-efficiency in-line pump with EC motor, electronically controlled, with flange connection, in glanded design
Application	Hot-water heating systems of all kinds, air-conditioning systems, closed cooling circuits, industrial circulation systems	Hot-water heating systems of all kinds, air-conditioning systems, closed cooling circuits, industrial circulation 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.	109 m³/h	55 m³/h	155 m³/h
Delivery head H max.	17 m	16 m	52 m
Special features	<ul style="list-style-type: none"> <li>→ Energy savings through greater system efficiency with the Q-Limit function</li> <li>→ Improved Energy Efficiency Index (EEI) ≤ 0.20 for all single pumps.</li> <li>→ Optimised display for better readability</li> <li>→ Space-saving installation due to compact design and location-dependent LC display</li> <li>→ Retrofittable interface modules for communication (e.g. Modbus, BACnet, CAN, LON and PLR)</li> <li>→ Tried and tested quality and reliability</li> </ul>	<ul style="list-style-type: none"> <li>→ LED display for indication of set delivery head and fault codes</li> <li>→ Quick setting when replacing an uncontrolled standard pump with pre-set speed stages, e.g. TOP-S</li> <li>→ Electrical connection with Wilo plug</li> <li>→ Collective fault signal ensures system availability</li> <li>→ Pump housing with cathoretic (KTL) coating protects against corrosion due to condensation</li> </ul>	<ul style="list-style-type: none"> <li>→ Innovative high-efficiency pump for maximum total-system efficiency</li> <li>→ High-efficiency EC motor (efficiency class IE5 acc. IEC 60034-30-2)</li> <li>→ Highly efficient hydraulics, optimally adapted to the EC motor technology with optimised efficiency, minimum efficiency index (MEI) ≥ 0.7</li> <li>→ Control range is up to three times higher than that of conventional electronically controlled pumps</li> </ul>
Technical data	<ul style="list-style-type: none"> <li>→ Fluid temperature -10 °C to +110 °C</li> <li>→ Mains connection 1~230 V, 50 Hz</li> <li>→ Energy Efficiency Index (EEI) ≤ 0.20 (EEI ≤ 0.23 for double pumps)</li> <li>→ Nominal diameter Rp 1 to DN 100</li> <li>→ Max. operating pressure 10 bar (special version: 16 bar)</li> </ul>	<ul style="list-style-type: none"> <li>→ Fluid temperature -20 °C to +110 °C</li> <li>→ Mains connection 1~230 V, 50 Hz</li> <li>→ Energy Efficiency Index (EEI) ≤ 0.20 (EEI ≤ 0.23 for double pumps)</li> <li>→ Nominal diameter Rp 1 to DN 100</li> <li>→ Max. operating pressure 10 bar</li> </ul>	<ul style="list-style-type: none"> <li>→ Fluid temperature -20 °C to +140 °C</li> <li>→ Mains connection: 3~380 V – 3~480 V (±10 %), 50/60 Hz</li> <li>→ Minimum efficiency index (MEI) ≥ 0.7</li> <li>→ Max. operating pressure 16 bar up to +120 °C, 13 bar up to +140 °C</li> </ul>
Equipment/function	<ul style="list-style-type: none"> <li>→ Control modes: Δp-c, Δp-v, Δp-T</li> <li>→ Volume flow limitation with Q-Limit function (via IR-Stick)</li> <li>→ Automatic setback operation</li> <li>→ Dual pump management</li> <li>→ Graphical pump display</li> <li>→ Remote control via infrared interface (IR-Stick/IR-Monitor)</li> <li>→ Retrofittable interface modules for communication</li> <li>→ Combination flanges PN 6/PN 10 (DN 32 to DN 65)</li> </ul>	<ul style="list-style-type: none"> <li>→ Control modes: Δp-c, Δp-v, 3 speed stages</li> <li>→ LED display for setting the required delivery head</li> <li>→ Quick electrical connection with Wilo plug</li> <li>→ Motor protection, fault signal light and contact for collective fault signal</li> <li>→ Combination flanges PN 6/PN 10 (for DN 40 to DN 65)</li> </ul>	<ul style="list-style-type: none"> <li>→ Control modes: Δp-c, Δp-v, PID control, n=constant</li> <li>→ Manual functions: E.g. differential pressure setpoint setting, manual control mode, error acknowledgement</li> <li>→ External control functions: E.g. Overriding Off, external pump cycling (double pump operation), analogue input 0-10 V/0-20 mA for constant speed (DDC)</li> <li>→ Remote control via infrared interface (IR-Stick/IR-Monitor), plug-in position for IF-Modules for connection to building automation</li> <li>→ Safety functions</li> </ul>



IE5



IE4

Series modification



IE4

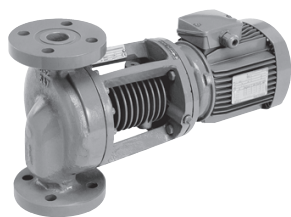
Series modification

Product range	Glanded high-efficiency pumps in monobloc design	Glanded energy-saving pumps in in-line design	Glanded energy-saving pumps in in-line design
Series	Wilo-Stratos GIGA B	Wilo-VeroLine-IP-E Wilo-VeroTwin-DP-E	Wilo-CronoLine-IL-E Wilo-CronoTwin-DL-E
Field of application	Heating, air-conditioning, cooling, industrial process	Heating, air-conditioning, cooling, industrial process	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 seal	Energy-saving in-line pump/in-line double pump in glanded construction. Version as single-stage low-pressure centrifugal pump with flange connection and mechanical seal	Energy-saving in-line pump/in-line double pump in glanded construction. Version as single-stage low-pressure centrifugal pump with flange connection and mechanical seal
Application	Pumping of heating water, cold water and water-glycol mixtures without abrasive substances in heating, cold water and cooling systems	Pumping of heating water, cold water and water-glycol mixtures without abrasive substances in heating, cold water and cooling systems	Pumping of heating water, cold water and water-glycol mixtures without abrasive substances in heating, cold water and cooling systems
Volume flow Q max.	120 m <sup>3</sup> /h	170 m <sup>3</sup> /h	800 m <sup>3</sup> /h
Delivery head H max.	44 m	30 m	65 m
Special features	<ul style="list-style-type: none"> <li>→ Innovative high-efficiency pump for maximum total-system efficiency, with principal dimensions in accordance with EN 733</li> <li>→ High-efficiency EC motor (efficiency class IE5 acc. IEC 60034-30-2)</li> <li>→ Highly efficient hydraulics, optimally adapted to the EC motor technology, with optimised efficiency, minimum efficiency index (MEI) ≥ 0.7</li> <li>→ Control range is up to three times higher than that of conventional electronically controlled pumps</li> </ul>	<ul style="list-style-type: none"> <li>→ Energy savings due to integrated electronic control</li> <li>→ Optional interfaces for bus communication using plug-in IF-Modules</li> <li>→ Simple operation with green button technology and display</li> <li>→ Integrated dual pump management</li> <li>→ Integrated full motor protection with trip electronics</li> <li>→ Motors with efficiency class IE4</li> </ul>	<ul style="list-style-type: none"> <li>→ Energy savings due to integrated electronic control</li> <li>→ Optional interfaces for bus communication using plug-in IF-Modules</li> <li>→ Simple operation with green button technology and display</li> <li>→ Integrated dual pump management</li> <li>→ Integrated full motor protection with trip electronics</li> <li>→ Motors with efficiency class IE4</li> </ul>
Technical data	<ul style="list-style-type: none"> <li>→ Fluid temperature -20 °C to +140 °C</li> <li>→ Mains connection: 3~380 V -3~480 V (±10 %), 50/60 Hz</li> <li>→ Minimum efficiency index (MEI) ≥ 0.7</li> <li>→ Max. operating pressure 16 bar up to +120 °C, 13 bar up to +140 °C</li> </ul>	<ul style="list-style-type: none"> <li>→ Fluid temperature -20 °C to +120 °C</li> <li>→ Mains connection: 3~440 V ±10 %, 50/60 Hz, 3~400 V ±10 %, 50/60 Hz, 3~380 V -5 %/+10 %, 50/60 Hz</li> <li>→ Minimum efficiency index (MEI) ≥ 0.4</li> <li>→ Nominal diameter DN 32 to DN 80</li> <li>→ Max. operating pressure 10 (16) bar</li> </ul>	<ul style="list-style-type: none"> <li>→ Fluid temperature -20 °C to +140 °C</li> <li>→ Mains connection: 3~440 V ±10 %, 50/60 Hz, 3~400 V ±10 %, 50/60 Hz, 3~380 V -5 %/+10 %, 50/60 Hz</li> <li>→ Minimum efficiency index (MEI) ≥ 0.4</li> <li>→ Nominal diameter DN 40 to DN 80</li> <li>→ Max. operating pressure 16 bar</li> </ul>
Equipment/function	<ul style="list-style-type: none"> <li>→ Control modes: Δp-c, PID control, n=constant</li> <li>→ Manual functions: E.g. differential pressure setpoint setting, manual control mode, error acknowledgement</li> <li>→ External control functions: E.g. Overriding Off, External pump cycling, analogue input 0-10 V/0-20 mA for constant speed (DDC)</li> <li>→ Remote control via infrared interface (IR-Stick/IR-Monitor), plug-in position for IF-Modules for connection to building automation</li> <li>→ Safety functions</li> </ul>	<ul style="list-style-type: none"> <li>→ Control modes: Δp-c, Δp-v, PID control, n=constant</li> <li>→ Manual functions: E.g. differential pressure setpoint setting, manual control mode, error acknowledgement</li> <li>→ 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 constant speed (DDC)</li> <li>→ Remote control via infrared interface (IR-Stick/IR-Monitor), plug-in position for IF-Modules for connection to building automation</li> <li>→ Safety functions</li> </ul>	<ul style="list-style-type: none"> <li>→ Control modes: Δp-c, Δp-v, PID control, n=constant</li> <li>→ Manual functions: E.g. differential pressure setpoint setting, manual control mode, error acknowledgement</li> <li>→ 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 constant speed (DDC)</li> <li>→ Remote control via infrared interface (IR-Stick/IR-Monitor), plug-in position for IF-Modules for connection to building automation</li> <li>→ Safety functions</li> </ul>



Product range	Glanded energy-saving pumps in monobloc design	Glanded standard pumps in in-line design	Glanded standard pumps in in-line design
Series	Wilo-CronoBloc-BL-E	Wilo-VeroLine-IPL Wilo-VeroTwin-DPL	Wilo-CronoLine-IL Wilo-CronoTwin-DL
Field of application	Heating, air-conditioning, cooling, industrial process	Heating, air-conditioning, cooling, industrial process	Heating, air-conditioning, cooling, industrial process
Duty chart			
Design	Energy-saving pump in monobloc design in glanded construction. Version as single-stage low-pressure centrifugal pump with flange connection and mechanical seal	Glanded pump/double pump in in-line design with screwed connection or flange connection	Glanded pump/double pump in in-line design with flange connection
Application	Pumping of heating water, cold water and water-glycol mixtures without abrasive substances in heating, cold water and cooling systems	Pumping of heating water, cold water and water-glycol mixtures without abrasive substances in heating, cold water and cooling systems	Pumping of heating water, cold water and water-glycol mixtures without abrasive substances in heating, cold water and cooling systems
Volume flow Q max.	380 m³/h	245 m³/h	1,170 m³/h
Delivery head H max.	84 m	52 m	108 m
Special features	<ul style="list-style-type: none"> <li>→ Energy savings due to integrated electronic control</li> <li>→ Optional interfaces for bus communication using plug-in IF-Modules</li> <li>→ Easy operation due to tried and tested green button technology and display</li> <li>→ Integrated full motor protection with trip electronics</li> <li>→ Meets user requirements due to performance and main dimensions in accordance with EN 733</li> <li>→ Motors with efficiency class IE4</li> </ul>	<ul style="list-style-type: none"> <li>→ High standard of corrosion protection thanks to cathophoretic coating</li> <li>→ Standard condensate drainage holes in the motor housings and lanterns</li> <li>→ Series design: motor with one-piece shaft</li> <li>→ Version N: Standard motor B5 or V1 with stainless steel plug shaft</li> <li>→ Bidirectional, force-flushed mechanical seal</li> <li>→ DPL: Main-/standby operation or peak-load operation (via additional external device)</li> </ul>	<ul style="list-style-type: none"> <li>→ Reduced life cycle costs thanks to optimised efficiency</li> <li>→ Can be used flexibly in air-conditioning and cooling systems, with application benefits due to direct draining of condensate</li> <li>→ High standard of corrosion protection</li> <li>→ Worldwide availability of standard motors (according to Wilo specifications) and standard mechanical seals</li> <li>→ Main/standby mode or peak-load operation (by means of external auxiliary device)</li> </ul>
Technical data	<ul style="list-style-type: none"> <li>→ Fluid temperature -20 °C to +140 °C</li> <li>→ Mains connection: 3~440 V ±10 %, 50/60 Hz, 3~400 V ±10 %, 50/60 Hz, 3~380 V -5 %/+10 %, 50/60 Hz</li> <li>→ Minimum efficiency index (MEI) ≥ 0.4</li> <li>→ Nominal diameter DN 32 to DN 125</li> <li>→ Max. operating pressure 16 bar (120 °C)</li> </ul>	<ul style="list-style-type: none"> <li>→ Fluid temperature -20 °C to +120 °C</li> <li>→ Mains connection: 3~400 V, 50 Hz</li> <li>→ Minimum efficiency index (MEI) ≥ 0.4</li> <li>→ Nominal diameter Rp 1 to DN 100</li> <li>→ Max. operating pressure 10 bar (special version: 16 bar)</li> </ul>	<ul style="list-style-type: none"> <li>→ Fluid temperature -20 °C to +140 °C</li> <li>→ Mains connection: 3~400 V, 50 Hz</li> <li>→ Minimum efficiency index (MEI) ≥ 0.4</li> <li>→ Nominal diameter DN 32 to DN 250</li> <li>→ Max. operating pressure 16 bar (25 bar on request)</li> </ul>
Equipment/function	<ul style="list-style-type: none"> <li>→ Control modes: Δp-c (with external DDG), PID control, n=constant</li> <li>→ Manual functions: E.g. differential pressure setpoint setting, manual control mode, error acknowledgement</li> <li>→ External control functions: E.g. Overriding Off, analogue input 0-10 V/0-20 mA for constant speed (DDC)</li> <li>→ Remote control via infrared interface (IR-Stick/IR-Monitor), plug-in position for IF-Modules for connection to building automation</li> <li>→ Safety functions</li> </ul>	<ul style="list-style-type: none"> <li>→ Single-stage, low-pressure centrifugal pump in in-line design with</li> <li>→ Mechanical seal</li> <li>→ Flange connection with pressure measuring connection R ½</li> <li>→ Motor with one-piece shaft</li> <li>→ DPL with switchover valve</li> <li>→ Motors with efficiency class IE3 for motors ≥ 7.5 kW</li> </ul>	<ul style="list-style-type: none"> <li>→ Single-stage, low-pressure centrifugal pump in in-line design with</li> <li>→ Mechanical seal</li> <li>→ Flange connection with pressure measuring connection R ½</li> <li>→ Lantern</li> <li>→ Coupling</li> <li>→ IEC standard motor</li> <li>→ DL with switchover valve</li> <li>→ Motors with efficiency class IE3 for motors ≥ 7.5 kW</li> </ul>



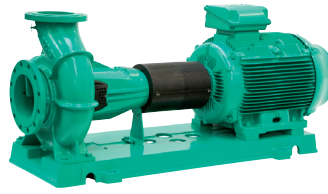
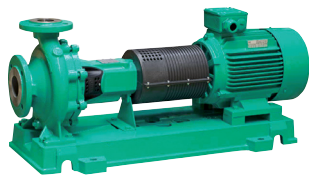


Series extension

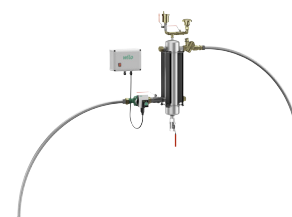


Series modification

Product range	Special glanded pumps in in-line design	Glanded monobloc pumps	Glanded monobloc pumps
Series	Wilo-Veroline-IPH-W Wilo-Veroline-IPH-O	Wilo-CronoBloc-BL	Wilo-BAC
Field of application	Heating, air-conditioning, cooling, industrial process	Heating, air-conditioning, cooling, industrial process	Heating, air-conditioning, cooling, industrial process
Duty chart			
Design	Glanded pump in in-line design with flange connection	Glanded pump in monobloc design with flange connection	Glanded pump in monobloc design with screwed connection or Victaulic connection
Application	IPH-W: For pumping hot water in closed industrial circulation systems, district heating, closed heating systems, etc. IPH-O: For pumping heat transfer oil in closed industrial circulation systems	Pumping of heating water, cold water and water-glycol mixtures without abrasive substances in heating, cold water and cooling systems	For pumping of cooling water, cold water, water-glycol mixtures and other fluids without abrasive substances
Volume flow Q max.	80 m <sup>3</sup> /h	710 m <sup>3</sup> /h	87 m <sup>3</sup> /h
Delivery head H max.	38 m	104 m	26 m
Special features	<ul style="list-style-type: none"> <li>→ Self-cooled mechanical seal, independent of direction of rotation</li> <li>→ Great variety of applications due to a wide fluid temperature range without additional wearing parts</li> </ul>	<ul style="list-style-type: none"> <li>→ Reduced life cycle costs through optimised efficiency levels</li> <li>→ High corrosion protection through cathoporesis coating of the cast iron components</li> <li>→ Standard condensate drainage holes in the motor housings</li> <li>→ High worldwide availability of standard motors (according to Wilo specifications) and mechanical seals</li> <li>→ Performance and main dimensions in accordance with EN 733</li> </ul>	<ul style="list-style-type: none"> <li>→ Reduced life cycle costs through optimised efficiency levels</li> <li>→ Pump housing in plastic design</li> <li>→ Version with Victaulic or threaded connection (BAC 70/135... only with Victaulic connection)</li> </ul>
Technical data	<ul style="list-style-type: none"> <li>→ Fluid temperature IPH-W: -10 °C to +210 °C (at max. 23 bar)</li> <li>→ Fluid temperature IPH-O: -10 °C to +350 °C (at max. 9 bar)</li> <li>→ Mains connection 3~400 V, 50 Hz</li> <li>→ Nominal diameter DN 20 to DN 80</li> </ul>	<ul style="list-style-type: none"> <li>→ Fluid temperature -20 °C to +140 °C</li> <li>→ Mains connection 3~400 V, 50 Hz</li> <li>→ Minimum efficiency index (MEI) ≥ 0.4</li> <li>→ Nominal diameter DN 32 to DN 150</li> <li>→ Max. operating pressure 16 bar (25 bar on request)</li> </ul>	<ul style="list-style-type: none"> <li>→ Fluid temperature -15 °C to +60 °C</li> <li>→ Mains connection 3~400 V, 50 Hz</li> <li>→ Minimum efficiency index (MEI) ≥ 0.4</li> <li>→ 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)</li> <li>→ Max. operating pressure 6.5 bar</li> </ul>
Equipment/function	<ul style="list-style-type: none"> <li>→ Single-stage, low-pressure centrifugal pump in in-line design with</li> <li>→ Mechanical seal</li> <li>→ Flange connection</li> <li>→ Lantern</li> <li>→ Motor with special shaft</li> </ul>	<ul style="list-style-type: none"> <li>→ Single-stage low-pressure centrifugal pump in monobloc design, with axial suction port and radially arranged pressure port with</li> <li>→ Mechanical seal</li> <li>→ Flange connection with pressure measuring connection R ½</li> <li>→ Lantern</li> <li>→ Coupling</li> <li>→ Motors with efficiency class IE3 for motors ≥ 0.75 kW</li> </ul>	<ul style="list-style-type: none"> <li>→ Single-stage low-pressure centrifugal pump in monobloc design, with axial suction port and radially arranged pressure port</li> <li>→ Motors with efficiency class IE3</li> </ul>



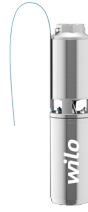
Product range	Standard glanded pumps	Standard glanded pumps	Axially split case pumps
Series	Wilo-CronoNorm-NL	Wilo-CronoNorm-NLG Wilo-VeroNorm-NPG	Wilo-SCP
Field of application	Heating, air-conditioning, cooling, water supply, industrial process	Heating, air-conditioning, cooling, water supply, industrial process	Cooling, air-conditioning, water distribution/boosting, industrial process
Duty chart			
Design	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 ISO 5199, mounted on a baseplate	Low-pressure centrifugal pump with axially split housing mounted on a baseplate
Application	Pumping of heating water, cold water and water-glycol mixtures without abrasive substances. Applications in municipal water supply, irrigation, general industry, power stations etc.	Pumping of heating water, cold water and water-glycol mixtures without abrasive substances. Applications in municipal water supply, irrigation, general industry, power stations etc.	Pumping heating water, water-glycol mixtures, cooling/cold water and process water. Applications in municipal water supply, irrigation, building services, general industry, power stations, etc.
Volume flow Q max.	650 m³/h	2,800 m³/h	3,400 m³/h
Delivery head H max.	150 m	140 m	245 m
Special features	<ul style="list-style-type: none"> <li>→ Reduced life-cycle costs through optimised efficiency levels</li> <li>→ Bidirectional, force-flushed mechanical seal</li> <li>→ Low NPSH values, best cavitation properties</li> <li>→ Shaft coupling with or without spacer coupling</li> </ul>	<ul style="list-style-type: none"> <li>→ NLG:                             <ul style="list-style-type: none"> <li>- Reduced life cycle costs through optimised efficiency</li> <li>- Mechanical seal independent of the direction of rotation</li> <li>- Interchangeable casing wear ring</li> <li>- Permanently lubricated, generously dimensioned roller bearings</li> </ul> </li> <li>→ NPG:                             <ul style="list-style-type: none"> <li>- Suitable for temperatures up to 140 °C</li> <li>- Back pull-out version</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>→ Higher capacities up to 17,000 m³/h on request</li> <li>→ Special motors and other materials on request</li> </ul>
Technical data	<ul style="list-style-type: none"> <li>→ Fluid temperature -20 °C to +120 °C</li> <li>→ Mains connection 3~400 V, 50 Hz</li> <li>→ Minimum efficiency index (MEI) ≥ 0.4</li> <li>→ Nominal diameter: DN 50 to DN 500 (suction side), DN 32 to DN 500 (pressure side)</li> <li>→ Operating pressure: depending on type and application – up to 16 bar</li> </ul>	<ul style="list-style-type: none"> <li>→ Fluid temperature -20 °C to +120 °C (depending on type)</li> <li>→ Mains connection 3~400 V, 50 Hz</li> <li>→ Minimum efficiency index (MEI) ≥ 0.4</li> <li>→ Nominal diameters: DN 150 to DN 500 (depending on type)</li> <li>→ Operating pressure: depending on type and application – up to 16 bar</li> </ul>	<ul style="list-style-type: none"> <li>→ Fluid temperature -8 °C to +120 °C</li> <li>→ Mains connection 3~400 V, 50 Hz</li> <li>→ Nominal diameters – Suction side: DN 65 to DN 500</li> <li>→ Pressure side: DN 50 to DN 400</li> <li>→ Max. operating pressure: 16 or 25 bar, depending on type</li> </ul>
Equipment/function	<ul style="list-style-type: none"> <li>→ Single-stage horizontal spiral housing pump with bearing bracket and exchangeable casing wear rings in process design</li> <li>→ Shaft sealing with mechanical seals in accordance with EN 12756 or packing stuffing box</li> <li>→ Spiral housing with cast pump bases</li> <li>→ Shaft coupling with spacer coupling</li> <li>→ Motors with efficiency class IE3 for motors ≥ 0.75 kW</li> </ul>	<ul style="list-style-type: none"> <li>→ Single-stage horizontal spiral housing pump with bearing bracket and exchangeable casing wear rings (NLG only) in process design</li> <li>→ Shaft sealing with mechanical seals in accordance with EN 12756 or packing stuffing box</li> <li>→ Spiral housing with cast pump bases</li> <li>→ Greased grooved ball bearings for bearing of pump shaft</li> <li>→ Motors with efficiency class IE3</li> </ul>	<ul style="list-style-type: none"> <li>→ 1- or 2-stage, low-pressure centrifugal pump in monobloc design</li> <li>→ Deliverable as complete unit or without motor or only pump hydraulics</li> <li>→ Shaft sealing with mechanical seal or stuffing box packing</li> <li>→ 4-pole and 6-pole motors</li> <li>→ Materials:                             <ul style="list-style-type: none"> <li>- Pump housing: EN-GJL-250</li> <li>- Impeller: G-CuSn5 ZnPb</li> <li>- Shaft: X12Cr13</li> </ul> </li> </ul>



Product range	Glanded energy-saving pumps Multi-pump systems	Condensate lifting units	Particle separator systems for closed HVAC loops
Series	Wilo-SiFlux	Wilo-Plavis ...-C	Wilo-SiClean
Field of application	Heating, air-conditioning, cooling, industrial process	Heating, air-conditioning, cooling	Heating, air-conditioning, cooling
Duty chart			no illustration
Design	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	Compact particle separator kit, consisting of mechanical and hydraulic components. Manual emptying of the system
Application	For pumping heating water, 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, Air-conditioning and cooling systems (such as refrigerators, refrigerated display cases and evaporators)	Removes magnetic and non-magnetic particles from heating systems via natural physical phenomena. Installation in commercial properties, heating/air-conditioning systems for district heating
Volume flow Q max.	490 m <sup>3</sup> /h	330 l/h	4 m <sup>3</sup> /h
Delivery head H max.	55 m	4 m	–
Special features	<ul style="list-style-type: none"> <li>→ Number of pumps: 2+1 or 3+1 (2 or 3 pumps in operation, 1 standby pump each)</li> <li>→ Quick and easy installation</li> <li>→ Energy-saving: Operation in partial load area according to current needs</li> <li>→ Reliable system thanks to optimally matched components</li> <li>→ Compact design, good accessibility to all components</li> </ul>	<ul style="list-style-type: none"> <li>→ Low-noise operation (&lt; 40 dB[A])</li> <li>→ Energy saving through low power consumption</li> <li>→ Easy installation thanks to adaptable inlet</li> <li>→ Quick and easy maintenance thanks to removable service cap and integrated non-return valve</li> </ul>	<ul style="list-style-type: none"> <li>→ Removal of magnetic and non-magnetic particles from the medium, venting of micro bubbles</li> <li>→ High cleaning efficiency due to physical effects (gravity, filtration...)</li> <li>→ Easy to use due to ease of installation, maintenance, and simplified settings</li> <li>→ Corrosion-resistant thanks to stainless steel particle separator</li> </ul>
Technical data	<ul style="list-style-type: none"> <li>→ Pump type: VeroLine-IP-E or CronoLine-IL-E</li> <li>→ 3~230/400 V, 50 Hz ±10 %</li> <li>→ Fluid temperature: 0 °C to +120 °C</li> <li>→ Pipe connections: DN 125 to DN 300</li> <li>→ Flanges: PN 16, according EN 1092-2</li> <li>→ Max. permissible operating pressure: 10 bar (IP-E), 16 bar (IL-E)</li> </ul>	<ul style="list-style-type: none"> <li>→ Mains connection 1 ~ 100-240 V, 50/60 Hz</li> <li>→ Max. fluid temperature 60 °C</li> <li>→ Protection class IP X4</li> <li>→ Inlet connections 18/40 mm</li> <li>→ Tank volume 0.7 l to 1.6</li> </ul>	<ul style="list-style-type: none"> <li>→ Fluid temperature 0 °C to +95 °C</li> <li>→ Mains connection: 1~230 V, 50 Hz</li> </ul>
Equipment/function	<ul style="list-style-type: none"> <li>→ Automatic pump control via Wilo-SCe</li> <li>→ Parts that come in contact with the fluid are corrosion-resistant</li> <li>→ Base frame made of galvanised steel, with height-adjustable vibration absorbers for insulation against structure-borne noise</li> <li>→ Distributor steel, with corrosion-resistant coating</li> <li>→ Shut-off valves, non-return valve, pressure gauge and premounted seals</li> <li>→ Differential pressure sensor</li> </ul>	<ul style="list-style-type: none"> <li>→ Electric connecting cable with plug (1.5 m, versions available with UK plug)</li> <li>→ 011-C and 013-C: Pressure hose (5 m, Ø 8) ; Alarm cable (1.5 m) ; Adjustable rubber guide, Ø 2 to Ø 32; Detachable slide valve for maintenance</li> <li>→ 015-C: Granulated chamber wall for neutralisation</li> </ul>	<ul style="list-style-type: none"> <li>→ Anti-corrosive, hydraulic components</li> <li>→ Fabric-reinforced hoses connected to inlet and outlet of the particle separator</li> <li>→ Pre-assembled venting unit for expulsion of microbubbles</li> <li>→ Movable magnetic rods for separation of iron oxide particles</li> <li>→ Volume flow limiter</li> <li>→ Manual purge valve for draining of collected particles</li> <li>→ Switchbox for monitoring the circulator</li> </ul>



Product range	Particle separator systems for closed HVAC loops	Control devices (Comfort controller CC..., Vario controller VR..., Smart controller SC...)	Pump control
Series	Wilo-SiClean Comfort	Wilo-CC/CC-FC/CCe-HVAC system Wilo-SC/SC-FC/SCe-HVAC system Wilo-VR-HVAC system	Wilo-IR-Stick, IR-Monitor Wilo-IF-Module Stratos/Wilo-IF-Module
Field of application	Heating, air-conditioning, cooling	Heating, air-conditioning, cooling	Heating, air-conditioning, cooling
Duty chart	no illustration	no illustration	no illustration
Design	Fully-automatic, compact particle separator, provided as "Plug & Play" version, consisting of mechanical and hydraulic components. The system is drained automatically		
Application	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	Wilo-Control products for connecting pumps to building automation
Volume flow Q max.	47 m <sup>3</sup> /h	–	–
Delivery head H max.	–	–	–
Special features	<ul style="list-style-type: none"> <li>→ High efficiency via combination of physical effects</li> <li>→ Fully automated operation</li> <li>→ "Plug &amp; Play" design</li> <li>→ Fully automated and adjustable disposal of collected particles in the desludging tank</li> <li>→ Highly functional thanks to removal of all magnetic and non-magnetic particles, free air and micro bubbles in the fluid, support for the degasification process</li> </ul>	→ Special versions on request	–
Technical data	<ul style="list-style-type: none"> <li>→ Fluid temperature 0 °C to +95 °C</li> <li>→ Mains connection: 3~400 V, 50 Hz</li> </ul>	–	–
Equipment/function	<ul style="list-style-type: none"> <li>→ Corrosion-resistant, hydraulic components</li> <li>→ Fabric-reinforced hoses connected to inlet and outlet of the particle separator</li> <li>→ Pre-assembled flushing device including electronic drain valve and additional safety valve</li> <li>→ Automatic draining of the particle collection chamber</li> <li>→ SC switchgear</li> <li>→ Separator for removing magnetic and non-magnetic particles</li> </ul>	<ul style="list-style-type: none"> <li>→ CC-HVAC: Control system for 1 to 6 pumps with fixed speed</li> <li>→ CCe-HVAC: Control system for 1 to 6 pumps with integrated electronics/speed control or external frequency converter control</li> <li>→ VR-HVAC: Controller for 1 to 4 pumps with integrated speed control</li> <li>→ SC-HVAC: Controller for 1 to 4 pumps</li> <li>→ SC and SC-FC versions for standard pumps with fixed speed</li> <li>→ SCe version for infinitely variable, electronically controlled pumps or pumps with integrated frequency converter</li> </ul>	<ul style="list-style-type: none"> <li>→ Wilo-IR-Stick/IR-Monitor</li> <li>→ Remote control with infrared interface for electronically controlled Wilo pumps</li> <li>→ Wilo-IF-Modules Stratos/IF-Modules</li> <li>→ Plug-in modules for BA connection of Stratos, Stratos GIGA/-D/-B, IP-E, DP-E, IL-E/DL-E, BL-E, MHIE, MVIE, Helix VE...</li> </ul>



Product range	Glandless high-efficiency pumps	Submersible pumps	Glandless high-efficiency pumps
Series	Wilco-Yonos PICO-STG	Wilco-Sub TWU 4 ...-GT	Wilco-Star-Z NOVA
Field of application	Solar thermal and geothermal energy	Geothermal energy systems	Domestic hot water
Duty chart			
Design	Glandless circulator with screwed connection, EC motor and automatic power adjustment	Submersible pump, multistage	Glandless circulator with screwed connection and blocking-current proof synchronous motor
Application	Circulation in solar thermal and geothermal energy systems	Water supply from boreholes, wells and rainwater storage for geothermal applications	Domestic hot water circulation systems in industry and in building services
Volume flow Q max.	4.5 m³/h	6 m³/h	0.4 m³/h
Delivery head H max.	13 m	33 m	1.1 m
Special features	<ul style="list-style-type: none"> <li>→ Green button for setting the control mode <math>\Delta p-v</math> or the fixed speed</li> <li>→ External speed control via integrated interface PWM 1 (geothermal) and PWM 2 (solar)</li> <li>→ Flexible connection cable with Wilco-Connector</li> <li>→ Pump housing with cathaphoretic coating protects against corrosion due to condensation formation</li> <li>→ Operation and fault display via ring LED</li> </ul>	<ul style="list-style-type: none"> <li>→ Performance-optimised motors for geothermal applications</li> <li>→ Parts in contact with the fluid are corrosion-resistant</li> <li>→ Integrated non-return valve</li> <li>→ Low wear due to floating impellers</li> </ul>	<ul style="list-style-type: none"> <li>→ Low power consumption of only 3 to 5 W thanks to synchronous motor</li> <li>→ Extended field of application in calcareous water: up to 3,57 mmol/l (20 °dH)</li> <li>→ Wilco-Connector</li> <li>→ Safe protection against bacteria and corrosion due to the use of high-quality materials for a long service life</li> <li>→ Flexible service motor: quick replacement of all conventional pump types</li> </ul>
Technical data	<ul style="list-style-type: none"> <li>→ Fluid temperature 0 °C to +110 °C</li> <li>→ Mains connection 1~230 V, 50 Hz</li> <li>→ Energy Efficiency Index (EEI) <math>\geq 0.23</math></li> <li>→ Screwed connection Rp ½, Rp 1, Rp 1 ¼</li> <li>→ Max. operating pressure 10 bar</li> </ul>	<ul style="list-style-type: none"> <li>→ Mains connection: 3-400 V, 50 Hz</li> <li>→ Immersed operating mode: S1</li> <li>→ Fluid temperature: 3-30 °C</li> <li>→ Minimum flow rate at motor: 0.08 m/s</li> <li>→ Max. sand content: 50 g/m³</li> <li>→ Up to 20 starts per hour</li> <li>→ Max. immersion depth: 200 m</li> <li>→ Minimum efficiency index MEI: <math>\geq 0.7</math></li> </ul>	<ul style="list-style-type: none"> <li>→ Fluid temperature: drinking water up to water hardness 3.56 mmol/l (20 °dH): max. +65 °C</li> <li>→ Mains connection 1~230 V, 50 Hz</li> <li>→ Screwed connection Rp ½</li> <li>→ Max. operating pressure 10 bar</li> </ul>
Equipment/function	<ul style="list-style-type: none"> <li>→ Control modes: <math>\Delta p-v</math>, manual control mode (<math>n = \text{constant}</math>), external speed control with PWM 1 or PWM 2 signal</li> <li>→ Interface for PWM 1 or PWM 2 signal</li> <li>→ Wilco-Connector</li> <li>→ Automatic deblocking function</li> <li>→ Pump housing with cathaphoretic coating</li> </ul>	<ul style="list-style-type: none"> <li>→ Multistage submersible pump with radial or semi-axial impellers</li> <li>→ Integrated non-return valve</li> <li>→ NEMA coupling</li> <li>→ Three-phase motor</li> <li>→ Hermetically sealed motors</li> </ul>	<ul style="list-style-type: none"> <li>→ Wilco-Connector</li> <li>→ Integrated ball shut-off valve on the suction side (Star-Z NOVA A, Star-Z-NOVA C)</li> <li>→ Integrated non-return valve on the pressure side (Star-Z NOVA A, Star-Z-NOVA C)</li> <li>→ Including plug-in time switch (Star-Z NOVA C)</li> <li>→ Including 1.8 m connection cable with shockproof plug (Star-Z NOVA C)</li> </ul>



Product range	Glandless high-efficiency pumps	Glandless premium smart pumps	Glandless high-efficiency pumps
Series	Wilo-Stratos PICO-Z	Wilo-Stratos MAXO-Z	Wilo-Stratos-Z Wilo-Stratos-ZD
Field of application	Domestic hot water	Domestic hot water	Domestic hot water
Duty chart			
Design	Glandless circulator with screwed connection, EC motor and automatic power adjustment	Smart glandless circulator with screwed connection or flange connection, EC motor with integrated power adjustment	Glandless circulator with screwed connection or flange connection, EC motor with automatic power adjustment
Application	Domestic hot water circulation systems in industry and in building services	Domestic hot water circulation systems and similar systems in industry and in building services	Domestic hot water circulation systems and similar systems in industry and in building services
Volume flow Q max.	3.5 m <sup>3</sup> /h	45 m <sup>3</sup> /h	41 m <sup>3</sup> /h
Delivery head H max.	6 m	12 m	12 m
Special features	<ul style="list-style-type: none"> <li>→ Manual and temperature-controlled mode for optimum operation</li> <li>→ Identification of the thermal disinfection of the drinking water tank</li> <li>→ Display of the current consumption in Watts and the cumulative kilowatt hours or of the current flow and the temperature</li> <li>→ Stainless steel pump housing protects against bacteria and corrosion</li> <li>→ Wilo-Connector</li> </ul>	<ul style="list-style-type: none"> <li>→ Intuitive operation by guided application settings with the Setup Guide</li> <li>→ Maximum drinking water hygiene, energy efficiency by the new, innovative and intelligent control function T-const</li> <li>→ Optimum hygiene support thanks to thermal disinfection</li> <li>→ Bluetooth interface for connection to mobile devices</li> <li>→ Maximum electric installation comfort by the optimised Wilo-Connector</li> <li>→ Corrosion-resistant pump housing in stainless steel</li> </ul>	<ul style="list-style-type: none"> <li>→ Energy savings through greater system efficiency with the Q-Limit function</li> <li>→ Space-saving installation due to compact design and location-dependent LC display</li> <li>→ Retrofittable interface modules for communication (e.g. Modbus, BACnet, CAN, LON and PLR)</li> <li>→ Corrosion-resistant pump housing in red brass for systems where oxygen entry is possible</li> <li>→ Tried and tested quality and reliability</li> </ul>
Technical data	<ul style="list-style-type: none"> <li>→ Fluid temperature: drinking water up to water hardness 3.57 mmol/l (20 °dH) max. +70 °C</li> <li>→ Mains connection 1~230 V, 50 Hz</li> <li>→ Screw connection Rp ¾, Rp 1</li> <li>→ Max. operating pressure 10 bar</li> </ul>	<ul style="list-style-type: none"> <li>→ Fluid temperature: drinking water max. +80 °C</li> <li>→ Heating water -10 °C to +110 °C</li> <li>→ Mains connection 1~230 V, 50 Hz</li> <li>→ Nominal diameter Rp 1 to DN 65</li> <li>→ Max. operating pressure 10 bar</li> </ul>	<ul style="list-style-type: none"> <li>→ Fluid temperature: drinking water max. +80 °C</li> <li>→ Heating water -10 °C to +110 °C</li> <li>→ Mains connection 1~230 V, 50 Hz</li> <li>→ Energy Efficiency Index (EEI) ≤ 0.20 (EEI ≤ 0.23 for double pumps)</li> <li>→ Nominal diameter Rp 1 to DN 65</li> <li>→ Max. operating pressure 10 bar</li> </ul>
Equipment/function	<ul style="list-style-type: none"> <li>→ Control modes: Δp-c, temperature-controlled mode</li> <li>→ Temperature control for constant return temperature in drinking water circulation systems</li> <li>→ Thermal disinfection routine</li> <li>→ Reset function for resetting the electricity counter or to factory settings</li> <li>→ "Hold" function (key lock)</li> <li>→ Wilo-Connector</li> <li>→ Automatic deblocking function</li> </ul>	<ul style="list-style-type: none"> <li>→ Control modes: Dynamic Adapt plus, Δp-c, Δp-v, n-const, T-const, ΔT-const and Q-const</li> <li>→ Multi-Flow Adaptation</li> <li>→ Remote control via Bluetooth interface</li> <li>→ Selection of application range with Setup Guide</li> <li>→ Heat metering</li> <li>→ Desinfection detection</li> <li>→ Air-venting function</li> <li>→ Retrofittable interface modules for communication</li> </ul>	<ul style="list-style-type: none"> <li>→ Control modes: Δp-c, Δp-v, Δp-T</li> <li>→ Volume flow limitation with Q-Limit function (via IR-Stick)</li> <li>→ Pre-selectable speed for constant operation</li> <li>→ Automatic setback operation</li> <li>→ Graphical pump display</li> <li>→ Remote control via infrared interface (IR-Stick/IR-Monitor)</li> <li>→ Retrofittable interface modules for communication</li> <li>→ Combination flanges PN 6/PN 10 (for DN 40 and DN 65)</li> </ul>



Product range	Glandless standard high-efficiency pumps	Standard glandless pumps	Standard glandless pumps
Series	Wilo-Yonos MAXO-Z	Wilo-Star-Z Wilo-Star-ZD	Wilo-TOP-Z
Field of application	Domestic hot water	Domestic hot water	Domestic hot water
Duty chart			
Design	Glandless circulator with screwed connection or flange connection, EC motor with automatic power adjustment	Glandless circulator with screwed connection	Glandless circulator with screwed connection or flange connection
Application	Domestic hot water circulation systems in industry and in building services	Domestic hot water circulation systems in industry and in building services	Domestic hot water circulation systems in industry and in building services
Volume flow Q max.	22 m <sup>3</sup> /h	4.8 m <sup>3</sup> /h	65 m <sup>3</sup> /h
Delivery head H max.	12 m	6.0 m	9 m
Special features	<ul style="list-style-type: none"> <li>→ LED display for indication of set delivery head and fault codes</li> <li>→ Quick setting when replacing an uncontrolled standard pump with pre-set speed stages, e.g. TOP-Z</li> <li>→ Electrical connection with Wilo plug</li> <li>→ Collective fault signal ensures system availability</li> <li>→ Corrosion-resistant pump housing in red brass for systems where oxygen entry is possible</li> </ul>	<ul style="list-style-type: none"> <li>→ All plastic parts that come into contact with the fluid fulfil KTW recommendations</li> </ul>	<ul style="list-style-type: none"> <li>→ Thermal winding contact (WSK) as potential-free contact (depending on type) as potential-free contact (depending on type)</li> <li>→ Rotation control lamp indicates the correct direction of rotation (only for 3~)</li> <li>→ Thermal insulation as standard</li> </ul>
Technical data	<ul style="list-style-type: none"> <li>→ Permissible temperature range drinking water up to a water hardness of 3.57 mmol/l (20 °dH) max. +80 °C</li> <li>→ Mains connection 1~230 V, 50 Hz</li> <li>→ Nominal diameter Rp 1 to DN 50</li> <li>→ Max. operating pressure 10 bar</li> </ul>	<ul style="list-style-type: none"> <li>→ Fluid temperature: drinking water up to water hardness 3.2 mmol/l (18 °dH) max. +65 °C</li> <li>→ Mains connection 1~230 V, 50 Hz, (DM = 3~400 V, 50 Hz)</li> <li>→ Screwed connection Rp ½, Rp 1</li> <li>→ Max. operating pressure 10 bar</li> </ul>	<ul style="list-style-type: none"> <li>→ Fluid temperature: drinking water max. +80 °C (+65 °C for TOP-Z 20/4 and TOP-Z 25/6)</li> <li>→ Mains connection: <ul style="list-style-type: none"> <li>- 1~230 V, 50 Hz (depending on type)</li> <li>- 3~400 V, 50 Hz</li> </ul> </li> <li>→ Nominal diameter Rp 1 to DN 80</li> <li>→ Max. operating pressure 10 bar</li> </ul>
Equipment/function	<ul style="list-style-type: none"> <li>→ Control modes: Δp-c, Δp-v, 3 speed stages</li> <li>→ LED display for setting the required delivery head</li> <li>→ Quick electrical connection with Wilo plug</li> <li>→ Motor protection, fault signal light and contact for collective fault signal</li> <li>→ Corrosion-resistant pump housing in red brass</li> <li>→ Combination flanges PN 6/PN 10 (for DN 40 to DN 65)</li> </ul>	<ul style="list-style-type: none"> <li>→ Constant speed or 3 selectable speed stages (Star-Z 25/6),</li> <li>→ Quick electrical connection with spring clips</li> <li>→ Star-Z 15 TT with integrated timer and thermostat, LCD display with symbolic language and automatic detection of the thermal disinfection, ball shut-off valve on the suction side and non-return valve on the pressure side</li> <li>→ Star-ZD version as double pump</li> </ul>	<ul style="list-style-type: none"> <li>→ Pre-selectable speed stages</li> <li>→ Thermal insulation as standard</li> <li>→ All plastic parts that come into contact with the fluid fulfil KTW recommendations</li> <li>→ Combination flange PN 6/PN 10 (DN 40 to DN 65)</li> </ul>



<b>Product range</b>	<b>Glanded special pumps</b>														
<b>Series</b>	Wilo-VeroLine-IP-Z														
<b>Field of application</b>	Domestic hot water														
<b>Duty chart</b>	<p><b>Wilo-VeroLine-IP-Z</b></p> <table border="1"> <caption>Duty Chart Data (Approximate)</caption> <thead> <tr> <th>Flow Rate (Q) [m³/h]</th> <th>Head (H) [m]</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>4.5</td> </tr> <tr> <td>1</td> <td>4.2</td> </tr> <tr> <td>2</td> <td>3.8</td> </tr> <tr> <td>3</td> <td>3.2</td> </tr> <tr> <td>4</td> <td>2.5</td> </tr> <tr> <td>5</td> <td>1.8</td> </tr> </tbody> </table>	Flow Rate (Q) [m³/h]	Head (H) [m]	0	4.5	1	4.2	2	3.8	3	3.2	4	2.5	5	1.8
Flow Rate (Q) [m³/h]	Head (H) [m]														
0	4.5														
1	4.2														
2	3.8														
3	3.2														
4	2.5														
5	1.8														
<b>Design</b>	Glanded circulator in in-line design with screwed connection														
<b>Application</b>	For pumping drinking water, cold and hot water without abrasive substances, in heating, cold water and cooling water systems														
<b>Volume flow Q max.</b>	5 m³/h														
<b>Delivery head H max.</b>	4.5 m														
<b>Special features</b>	<ul style="list-style-type: none"> <li>→ High resistance to corrosive fluids due to stainless steel housing and Noryl impeller</li> <li>→ Wide range of applications due to suitability for water hardness up to 5 mmol/l (28 °dH)</li> <li>→ All plastic parts that come into contact with the fluid fulfil KTW recommendations</li> </ul>														
<b>Technical data</b>	<ul style="list-style-type: none"> <li>→ Fluid temperature: drinking water up to a water hardness of 4.99 mmol/l (28 °dH) max. +65 °C</li> <li>→ Heating water -8 °C to +110 °C</li> <li>→ Mains connection 1~230 V, 50 Hz, 3~400 V, 50 Hz</li> <li>→ Nominal diameter Rp 1</li> <li>→ Max. operating pressure 10 bar</li> </ul>														
<b>Equipment/function</b>	<ul style="list-style-type: none"> <li>→ Single-stage, low-pressure centrifugal pump in in-line design with</li> <li>→ Mechanical seal</li> <li>→ Screwed connection</li> <li>→ Motor with one-piece shaft</li> </ul>														



## 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.

\*Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxemburg, 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



Non EU product



Non EU product



Non EU product

Product range	Standard glandless pumps	Standard glandless pumps	Standard glandless pumps
Series	Wilo-Star-RS Wilo-Star-RSD	Wilo-TOP-S Wilo-TOP-SD	Wilo-TOP-RL
Field of application	Heating, air-conditioning, cooling	Heating, air-conditioning, cooling	Heating, air-conditioning, cooling
Duty chart			
Design	Glandless circulator with screwed connection	Glandless circulator with screwed or flanged connection	Glandless circulator 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
Volume flow Q max.	6.0 m <sup>3</sup> /h	77 m <sup>3</sup> /h	10 m <sup>3</sup> /h
Delivery head H max.	8.0 m	19 m	7.0 m
Special features	<ul style="list-style-type: none"> <li>→ Suitable for any installation position with horizontal shaft; terminal box in 3-6-9-12 o'clock position</li> <li>→ Three pre-selectable speed stages for load adaptation</li> <li>→ Easy and safe installation with practical wrench attachment point on the pump housing</li> <li>→ 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</li> </ul>	<ul style="list-style-type: none"> <li>→ Rotation control lamp indicates the correct direction of rotation (only for 3~)</li> <li>→ Manual power adjustment with 3 speed stages</li> <li>→ Pump housing with cataphoretic (KTL) coating protects against corrosion due to condensation formation</li> </ul>	<ul style="list-style-type: none"> <li>→ Collective fault signal as potential-free contact (depending on type)</li> <li>→ Pump housing with cataphoretic (KTL) coating protects against corrosion due to condensation formation</li> </ul>
Technical data	<ul style="list-style-type: none"> <li>→ Fluid temperature -10 °C to +110 °C</li> <li>→ Mains connection 1~230 V, 50 Hz</li> <li>→ Screw connection Rp ½, Rp 1, Rp 1½</li> <li>→ Max. operating pressure 10 bar</li> </ul>	<ul style="list-style-type: none"> <li>→ Fluid temperature -20 °C to +130 °C</li> <li>→ Mains connection:                             <ul style="list-style-type: none"> <li>- 1~230 V, 50 Hz (depending on type)</li> <li>- 3~400 V, 50 Hz</li> </ul> </li> <li>→ Nominal diameter Rp 1 to DN 100</li> <li>→ Max operating pressure 10 bar (optional: 16 bar)</li> </ul>	<ul style="list-style-type: none"> <li>→ Fluid temperature -20 °C to +130 °C</li> <li>→ Mains connection 1~230 V, 50 Hz, 3~400 V, 50 Hz</li> <li>→ Nominal diameter Rp 1 to DN 40</li> <li>→ Max operating pressure 10 bar (optional: 16 bar)</li> </ul>
Equipment/function	<ul style="list-style-type: none"> <li>→ 3 manually selectable speed stages</li> <li>→ Wrench attachment point on pump body</li> <li>→ Cable inlet possible from both sides - for easy installation</li> <li>→ Quick electrical connection with spring clips</li> <li>→ RSD version as double pump</li> </ul>	<ul style="list-style-type: none"> <li>→ Preselectable speed stages for performance adaptation</li> <li>→ Combination flanges PN 6/PN 10 (DN 40 to DN 65)</li> <li>→ Pump housing is KTL-coated</li> <li>→ Thermal insulation shells for heating applications as standard</li> <li>→ Extendable motor protection</li> </ul>	<ul style="list-style-type: none"> <li>→ Preselectable speed stages for performance adaptation</li> <li>→ Pump housing is KTL-coated</li> <li>→ Combination flange PN 6/PN 10 (DN 40)</li> </ul>

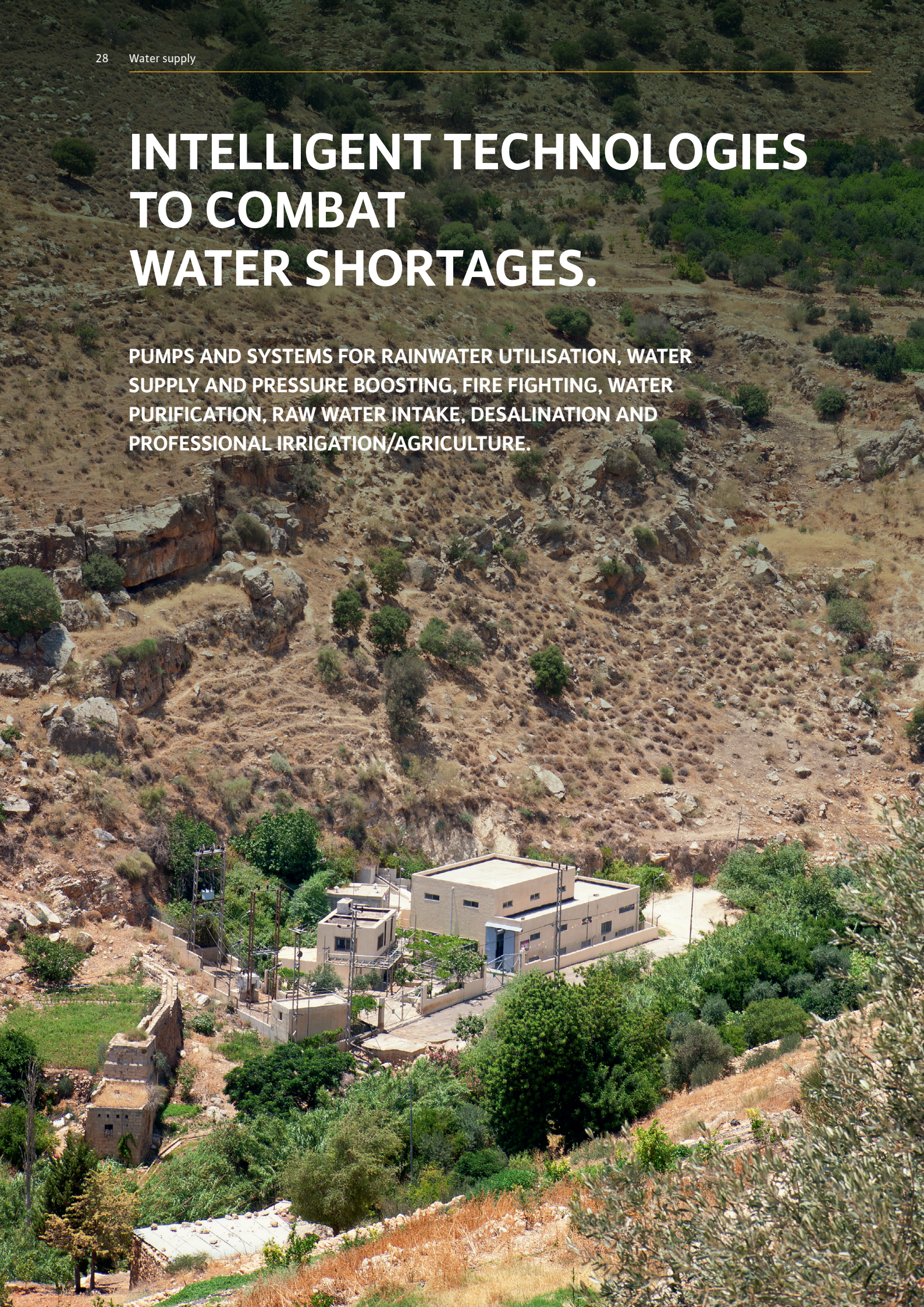


Non EU product

<b>Product range</b>	<b>Standard glandless pumps</b>												
<b>Series</b>	Wilo-Star-STG												
<b>Field of application</b>	Solar thermal and geothermal energy												
<b>Duty chart</b>	<table border="1"> <caption>Wilo-Star-STG Duty Chart Data</caption> <thead> <tr> <th>Flow (Q) [m³/h]</th> <th>Head (H) [m]</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>11</td> </tr> <tr> <td>1</td> <td>7</td> </tr> <tr> <td>2</td> <td>4</td> </tr> <tr> <td>3</td> <td>2</td> </tr> <tr> <td>3.8</td> <td>0</td> </tr> </tbody> </table>	Flow (Q) [m³/h]	Head (H) [m]	0	11	1	7	2	4	3	2	3.8	0
Flow (Q) [m³/h]	Head (H) [m]												
0	11												
1	7												
2	4												
3	2												
3.8	0												
<b>Design</b>	Glandless circulator with screwed connection												
<b>Application</b>	Circulation in solar thermal and geothermal energy systems												
<b>Volume flow Q max.</b>	3.8 m³/h												
<b>Delivery head H max.</b>	11 m												
<b>Special features</b>	<ul style="list-style-type: none"> <li>→ Special hydraulics for use in solar thermal and geothermal energy systems</li> <li>→ Pump housing with wrench attachment point</li> <li>→ Pump housing with cataphoretic (KTL) coating protects against corrosion due to condensate formation</li> </ul>												
<b>Technical data</b>	<ul style="list-style-type: none"> <li>→ Fluid temperature -10 °C to +110 °C, in short-term duty (2 h) +120 °C</li> <li>→ Mains connection 1~230 V, 50 Hz</li> <li>→ Screwed connection Rp ½, Rp 1</li> <li>→ Max. operating pressure 10 bar</li> </ul>												
<b>Equipment/function</b>	<ul style="list-style-type: none"> <li>→ 3 manually selectable speed stages</li> <li>→ Wrench attachment point on pump housing</li> <li>→ Blocking-current proof motor, motor protection not required</li> <li>→ Cable inlet on both sides for simple installation</li> <li>→ Quick electrical connection with spring clips</li> <li>→ Pump housing with cataphoretic coating</li> </ul>												

# INTELLIGENT TECHNOLOGIES TO COMBAT WATER SHORTAGES.

PUMPS AND SYSTEMS FOR RAINWATER UTILISATION, WATER SUPPLY AND PRESSURE BOOSTING, FIRE FIGHTING, WATER PURIFICATION, RAW WATER INTAKE, DESALINATION AND PROFESSIONAL IRRIGATION/AGRICULTURE.



Water is one of the most precious resources on the planet. With a growing world population, more and more water is required for drinking, cleaning and hygiene, in agriculture and industry. Insufficient access to water is an urgent problem worldwide – and a major source of potential conflict. The extraction and supply of water are therefore among the most important challenges of the future. Wilo develops pumps and systems that enable the use and optimisation of new sources and methods of water collection. Our flexible solutions ensure a reliable supply while adapting to the requirements of buildings that range from multi-family houses, schools to industrial parks. With individual concepts and highly efficient technologies, we advance the construction of intelligent networks as well as the availability of decentralised water purification systems.

### RELIABLE CLEAN WATER SUPPLY

There are countries where the supply of clean water poses an enormous challenge. Jordan, for example, is one of the most arid countries in the world. Fresh water is pumped into the major cities from the Jordan Valley over a vertical distance of 1,400 metres. The growing population and old, leaky pipe systems further aggravate the problem. Wilo provided new equipment and above all expertise for the drinking water pumping station in Ebquoreyeh. Equipped with two efficient Wilo-EMU K pressure shroud pumps, energy saving systems and new monitoring, the pumping station now reliably supplies drinking water to 50,000 inhabitants. And it saves more than 1.5 million kilowatt hours, 1,100 tonnes of CO<sub>2</sub> and over 110,000 euros in electricity costs per year.



### FLEXIBLE SOLUTIONS GUARANTEED

Whether rental, administrative or commercial buildings, dams, desalination plants, pumping stations or reservoirs for drinking water, Wilo creates individual water supply systems for a wide variety of constructions.



Please click “Play” and discover Wilo-Zetos K8, our submersible pump with maximum efficiency.

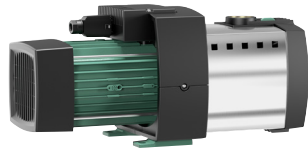




Product range	Rainwater utilisation systems	Rainwater utilisation systems	Rainwater utilisation systems
Series	Wilo-RainSystem AF Basic Wilo-RainSystem AF Comfort	Wilo-RainSystem AF 150	Wilo-RainSystem AF 400
Field of application	Rainwater utilisation	Rainwater utilisation	Rainwater utilisation
Duty chart			
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
Volume flow Q max.	5 m <sup>3</sup> /h	16 m <sup>3</sup> /h	16 m <sup>3</sup> /h
Delivery head H max.	52 m	55 m	55 m
Special features	<ul style="list-style-type: none"> <li>→ Low-noise, due to encapsulated system (Comfort) and multistage pump</li> <li>→ System fulfills DIN 1989 and EN 1717</li> <li>→ Demand-oriented, flow- and noise-optimised fresh water replenishment</li> <li>→ Media-touched components are corrosion-free</li> <li>→ Automatic support function for evacuation of air (Comfort)</li> </ul>	<ul style="list-style-type: none"> <li>→ Low-noise due to multistage pumps</li> <li>→ Media-touched components are corrosion-free</li> <li>→ Maximum operational reliability due to fully electronic controller (RCP)</li> <li>→ Demand-oriented fresh water replenishment</li> <li>→ High reliability due to flow-optimised and noise-optimised replenishment reservoir</li> </ul>	<ul style="list-style-type: none"> <li>→ Low-noise due to flow- and noise-optimised overall concept with multistage pumps</li> <li>→ Media-touched components are corrosion-free</li> <li>→ Maximum operational reliability due to a fully electronic controller (RCH)</li> <li>→ Demand-oriented fresh water replenishment</li> <li>→ Automatic control of the feeding pump</li> <li>→ System/level control in the low-voltage range</li> </ul>
Technical data	<ul style="list-style-type: none"> <li>→ Mains connection 1~230 V, 50 Hz</li> <li>→ Suction head max. 8 m</li> <li>→ Fluid temperature max. +5 °C to +35 °C</li> <li>→ Max. operating pressure 8 bar</li> <li>→ Replenishment reservoir 11 l with float valve</li> <li>→ Protection class IP 42/IP 54</li> </ul>	<ul style="list-style-type: none"> <li>→ Mains connection 1~230 V, 50 Hz</li> <li>→ Suction head max. 8 m</li> <li>→ Fluid temperature max. +5 °C to +35 °C</li> <li>→ Max. operating pressure 8 bar</li> <li>→ Replenishment reservoir 150 l with float valve</li> <li>→ Protection class IP 41</li> </ul>	<ul style="list-style-type: none"> <li>→ Mains connection 3~400 V, 50 Hz</li> <li>→ Fluid temperature max. +5 °C to +35 °C</li> <li>→ Max. operating pressure 10 bar</li> <li>→ Replenishment reservoir 400 l</li> <li>→ Protection class IP 54</li> </ul>
Equipment/function	<ul style="list-style-type: none"> <li>→ Connection-ready module mounted on a non-corroding base frame</li> <li>→ Pressure-side pipework Rp 1</li> <li>→ 1.8/3.0 m connection cable and mains plug</li> <li>→ Switchgear Rain Control Basic RCB/Economy RCE with control electronics</li> <li>→ Monitoring of rainwater storage levels</li> <li>→ Connection for overflow warning</li> </ul>	<ul style="list-style-type: none"> <li>→ Connection-ready module on vibration-insulated tubular frame</li> <li>→ Pressure sided joint tubing R 1 ½ with transmitter unit, diaphragm pressure vessel, shut-off device</li> <li>→ Pressure gauge 0-10 bar</li> <li>→ Ball valve on suction/pressure sides</li> <li>→ Central switchgear (RCP) with control electronics, level sensor</li> <li>→ Menu-prompted operation and display</li> <li>→ Pump cycling and test run</li> <li>→ Automatic fault-actuated switchover, peak-load operation plus water exchange in the replenishment reservoir</li> </ul>	<ul style="list-style-type: none"> <li>→ Connection-ready module on vibration-insulated baseplate</li> <li>→ Pressure sided joint tubing R 1 ½ with transmitter unit, diaphragm pressure vessel, shut-off device</li> <li>→ Pressure gauge 0-10 bar</li> <li>→ Ball valve on suction/pressure sides, non-return valve</li> <li>→ Hybrid tank with all connections, calmed inlets and overflow with siphon</li> <li>→ Central switchgear (RCH) with control electronics</li> <li>→ Pump cycling and test run</li> <li>→ Automatic fault-actuated switchover, peak-load operation plus water exchange in the replenishment reservoir</li> </ul>



Product range	Self priming pumps, self-priming multistage pumps and pump systems	Self-priming multistage pumps and pump systems	Non self-priming multistage pumps and pump systems
Series	Wilco-Jet WJ Wilco-Jet HWJ Wilco-Jet FWJ	Wilco-MultiCargo MC Wilco-MultiCargo HMC Wilco-MultiCargo FMC	Wilco-MultiPress MP Wilco-MultiPress HMP Wilco-MultiPress FMP
Field of application	Rainwater utilisation, water supply/pressure boosting, raw water intake	Rainwater utilisation, water supply/pressure boosting, raw water intake	Rainwater utilisation, water supply/pressure boosting, raw water intake
Duty chart			
Design	Self-priming single-stage centrifugal pumps	Self-priming multistage centrifugal pumps	Non self-priming multistage centrifugal pumps
Application	For pumping water from wells for filling, pumping empty, transferring by pumping, irrigation and sprinkling. As emergency pump for overflows	For domestic water supply, sprinkling, irrigation, spraying and rainwater utilisation	For domestic water supply, sprinkling, irrigation, spraying and rainwater utilisation
Volume flow Q max.	5 m <sup>3</sup> /h	7 m <sup>3</sup> /h	8 m <sup>3</sup> /h
Delivery head H max.	50 m	57 m	57 m
Special features	<ul style="list-style-type: none"> <li>→ Ideal for portable outdoor applications (hobby, garden)</li> <li>→ HWJ version with diaphragm pressure vessel and pressure switch</li> <li>→ FWJ version with fluid control for system control</li> </ul>	<ul style="list-style-type: none"> <li>→ Low-noise</li> <li>→ Ideal as a base-load pump for rainwater utilisation</li> <li>→ HMC version with diaphragm pressure vessel and pressure switch</li> <li>→ FMC version with fluid control for system control</li> </ul>	<ul style="list-style-type: none"> <li>→ Low-noise</li> <li>→ Ideal as a base-load pump for rainwater utilisation</li> <li>→ HMP version with diaphragm pressure vessel and pressure switch</li> <li>→ FMP version with fluid control for system control</li> </ul>
Technical data	<ul style="list-style-type: none"> <li>→ Mains connection 1~230 V, 50 Hz / 3~400 V, 50 Hz</li> <li>→ Inlet pressure max. 1 bar</li> <li>→ Fluid temperature max. +5 °C to +35 °C</li> <li>→ Max. operating pressure 6 bar</li> <li>→ Protection class IP 44</li> </ul>	<ul style="list-style-type: none"> <li>→ Mains connection 1~230 V, 50 Hz / 3~400 V, 50 Hz connections:</li> <li>- MC: Rp 1/Rp 1</li> <li>- FMC: Rp 1/R 1</li> <li>- HMC: Rp 1/Rp 1</li> <li>→ Inlet pressure max. 6 bar</li> </ul>	<ul style="list-style-type: none"> <li>→ Mains connection 1~230 V, 50 Hz / 3~400 V, 50 Hz</li> <li>→ Inlet pressure max. 6 bar</li> <li>→ Suction/pressure side connections:</li> <li>- MP 3.. Rp 1/Rp 1; MP 6.. Rp 1¼/Rp 1</li> <li>- FMP 3.. Rp 1/R 1; FMP 6.. Rp 1¼/R 1</li> <li>- HMP 3.. Rp 1/Rp 1; HMP 6.. Rp 1¼/Rp 1</li> </ul>
Equipment/function	<ul style="list-style-type: none"> <li>→ With or without carrying frame, depending on the version (WJ, FWJ)</li> <li>→ For single-phase AC motor (1~230 V)</li> <li>→ Connection cable with plug</li> <li>→ On/Off switch</li> <li>→ Thermal motor protection switch</li> </ul>	<ul style="list-style-type: none"> <li>→ Directly flanged motor</li> <li>→ Thermal motor protection switch for single-phase AC motor (1~230 V)</li> </ul>	<ul style="list-style-type: none"> <li>→ Directly flanged motor</li> <li>→ Thermal motor protection switch for 1~230 V version</li> </ul>



Product range	Self- and non self-priming multistage pumps and pump systems	Non self-priming peripheral pump	Non self-priming water-supply unit with frequency converter
Series	Wilo-HiMulti 3 (P) Wilo-HiMulti 3 C (P) Wilo-HiMulti 3 H (P)	Wilo-HiPeri 1	Wilo-EMHIL
Field of application	Rainwater utilisation, water supply/pressure boosting, raw water intake	Water supply/pressure boosting, raw water intake, rainwater utilisation	Rainwater utilisation, water supply/pressure boosting, raw water intake
Duty chart			
Design	Self-priming (version P) and non self-priming multistage pumps and pump systems	Non self-priming peripheral pump	Non self-priming water-supply unit with frequency converter
Application	For domestic potable water supply, sprinkling, irrigation, spraying and rainwater utilisation	For water supply/pressure boosting, raw water intake, sprinkling and spraying, rainwater utilisation	Water supply Rainwater utilisation Irrigation and spraying
Volume flow Q max.	7 m <sup>3</sup> /h	3 m <sup>3</sup> /h	55 m <sup>3</sup> /h
Delivery head H max.	55 m	8 m	8 m
Special features	<ul style="list-style-type: none"> <li>→ Easy: Electrical quick connector, On/Off switch, cap for filling and draining, enlarged foot fastening</li> <li>→ Efficient and economical: highly efficient hydraulics, extremely compact</li> <li>→ HiMulti 3 C (P): Automation and dry-running protection, automation rotatable by 360° for easier installation</li> <li>→ HiMulti 3 H (P): Automation and water hammer protection</li> </ul>	<ul style="list-style-type: none"> <li>→ Simple handling thanks to low weight, perfectly suited for permanent operation</li> <li>→ Brass impeller for fluids up to 60 °C and ambient temperatures up to 40 °C</li> <li>→ Efficient thanks to low power consumption at a high maximum delivery head and high maximum volume flow</li> <li>→ Expandable with the electronic pump control Wilo-Fluidcontrol/HiControl 1</li> </ul>	<ul style="list-style-type: none"> <li>→ Heavy-duty multistage pump with stainless steel hydraulics</li> <li>→ Easy operation and adjustment:</li> <li>→ Large display screen</li> <li>→ LEDs for status display</li> <li>→ Plug &amp; Pump</li> <li>→ Functions: PID, frost protection, restart after a fault</li> <li>→ Float switch can be connected as an option</li> </ul>
Technical data	<ul style="list-style-type: none"> <li>→ Mains connection 1~230 V, 50 Hz</li> <li>→ Inlet pressure max. 3 bar</li> <li>→ Fluid temperature max. 0 °C to +40 °C (+55 °C for max. 10 minutes)</li> <li>→ Operating pressure max. 8 bar</li> <li>→ Protection class IP X4, IP 54</li> </ul>	<ul style="list-style-type: none"> <li>→ Mains connection 1~230 V, 50 Hz</li> <li>→ Inlet pressure max. 1.5 bar</li> <li>→ Fluid temperature max. +5 °C to +60 °C</li> <li>→ Max. operating pressure 6.5 bar</li> <li>→ Protection class IP x4</li> <li>→ Suction/pressure side connections: Rp 1"</li> </ul>	<ul style="list-style-type: none"> <li>→ Max. operating pressure: 10 bar</li> <li>→ Max. fluid temperature: 40 °C</li> <li>→ Min. fluid temperature: 0 °C</li> <li>→ Max. ambient temperature: 50 °C</li> <li>→ Mains connection: 1~230 V, 50/60 Hz</li> </ul>
Equipment/function	<ul style="list-style-type: none"> <li>→ Directly flanged motor</li> <li>→ Thermal motor protection switch for 1~230 V version</li> <li>→ Version HiMulti 3 C (P): Automatic pump control, low-water level switch</li> <li>→ Version HiMulti 3 H (P): Pressure switch, diaphragm pressure vessel 50l/100 l</li> </ul>	<ul style="list-style-type: none"> <li>→ Single-stage displacement pump with a radial impeller</li> <li>→ Can be supplemented by the Wilo-FluidControl resp. HiControl 1</li> </ul>	<ul style="list-style-type: none"> <li>→ Including 1.4 m mains connection and plug</li> <li>→ Including EMC filter</li> <li>→ With built-in pressure and flow controllers</li> </ul>





IE5

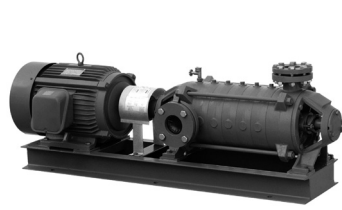
Product range	Cistern pumps	Non self-priming water-supply unit	Vertical, multistage centrifugal pumps
Series	Wilo-Sub TWI 5/TWI 5-SE Wilo-Sub TWI 5-SE PnP	Wilo-Economy COE-2 TWI 5	Wilo-Helix EXCEL
Field of application	Rainwater utilisation, water supply/pressure boosting, raw water intake	Water supply/pressure boosting	Water supply/pressure boosting
Duty chart			
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
Volume flow Q max.	16 m <sup>3</sup> /h	14 m <sup>3</sup> /h	58 m <sup>3</sup> /h
Delivery head H max.	88 m	68 m	243 m
Special features	<ul style="list-style-type: none"> <li>→ Ready-to-plug in EM version (1~230 V)</li> <li>→ Pump (housing, stages, impellers) made entirely of stainless steel 1.4301 (AISI 304)</li> <li>→ Self-cooling motor enables installation outside water</li> </ul>	<ul style="list-style-type: none"> <li>→ Pumps in the TWI 5 series with low noise due to water-cooled motor, between 51 dB (A) and 61 dB (A)</li> <li>→ 2-pump pressure boosting system in compact design due to vertical pump layout</li> <li>→ Economical system, based on the basic functions of the BC switchgear</li> <li>→ Long service life due to the stainless steel construction of the pumps and the piping</li> </ul>	<ul style="list-style-type: none"> <li>→ High-efficiency EC motor (energy efficiency class IE5 acc. to IEC 60034-30-2)</li> <li>→ Integrated electronic control "High Efficiency Drive"</li> <li>→ Easy operation thanks to proven green button technology and clear display</li> <li>→ User-friendly cartridge mechanical seal "X-Seal" and spacer coupling (from 5.5 kW)</li> <li>→ Flexible connection to building automation</li> </ul>
Technical data	<ul style="list-style-type: none"> <li>→ Mains 3~400 V or 1~230 V ±10% 50 Hz</li> <li>→ Fluid temperature max. +40 °C</li> <li>→ Max. operating pressure 10 bar</li> <li>→ Protection class IP 68</li> <li>→ Pressure-side Rp 1¼</li> <li>→ Suction-side (SE version) Rp 1¼</li> </ul>	<ul style="list-style-type: none"> <li>→ Mains 3~400 V or 1~230 V ±10% 50 Hz</li> <li>→ Fluid temperature max: +40°C</li> <li>→ Operating pressure max: 10 bar</li> <li>→ Nominal connection diameters G 2"</li> </ul>	<ul style="list-style-type: none"> <li>→ Fluid temperature: -30 to +120 °C with EPDM (-10 to +90 °C with FKM)</li> <li>→ Max. operating pressure: 16/25 bar</li> <li>→ Protection class IP 55</li> <li>→ Minimum efficiency index MEI ≥ 0.7 (Helix EXCEL 16: MEI ≥ 0.5)</li> </ul>
Equipment/function	<ul style="list-style-type: none"> <li>→ Connection cable, 20 m</li> <li>→ TWI 5 version with standard intake strainer</li> <li>→ Variants: <ul style="list-style-type: none"> <li>- SE: with lateral inlet connecting piece</li> <li>- FS: with built-in float switch</li> <li>- Thermal motor protection for EM version (1~230 V)</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>→ Intake and outflow collector pipes</li> <li>→ Ball shut-off valves on the suction side and pressure side</li> <li>→ Non-return valve on the pressure side</li> <li>→ 1 manometer</li> <li>→ 2 pressure switches</li> <li>→ BC switchgear</li> </ul>	<ul style="list-style-type: none"> <li>→ Impellers, guide vanes and stage housings made of corrosion-resistant material</li> <li>→ Versions in special stainless steel for aggressive media</li> <li>→ Versions <ul style="list-style-type: none"> <li>- Helix EXCEL 2 - 16, PN 16 with oval flanges, with round flanges</li> <li>- Helix EXCEL 22 - 36, with round flanges</li> </ul> </li> </ul>



Product range	Vertical, multistage centrifugal pumps	Vertical, multistage centrifugal pumps	Vertical, multistage centrifugal pumps
Series	Wilo-Helix VE	Wilo-Helix V	Wilo-Helix FIRST V
Field of application	Water supply/pressure boosting	Water supply/pressure boosting	Water supply/pressure boosting
Duty chart			
Design	Non self-priming multistage pump with integrated frequency converter	Non self-priming multistage pump	Non self-priming multistage pump
Application	Water supply and pressure boosting Process water Cooling water circulation systems Washing systems Irrigation	Water supply and pressure boosting Process water Cooling water circulation systems Washing systems Irrigation	Water supply and pressure boosting Process water Cooling water circulation systems Washing systems Irrigation
Volume flow Q max.	80 m <sup>3</sup> /h	80 m <sup>3</sup> /h	80 m <sup>3</sup> /h
Delivery head H max.	240 m	280 m	280 m
Special features	<ul style="list-style-type: none"> <li>→ Multistage, speed-configurable stainless steel high-efficiency pump with 2D/3D hydraulics and standard motor</li> <li>→ Optimised design for easy operation, transportation and installation with handles, lantern-adjustment and controllable free flanges</li> <li>→ User-friendly display with red-button technology and full text menu</li> <li>→ WRAS/KTW/ACS approval for all parts that come in contact with the fluid (EPDM version)</li> </ul>	<ul style="list-style-type: none"> <li>→ Efficiency-optimised, laser-welded 2D/3D hydraulics, flow and degassing optimised</li> <li>→ Corrosion-resistant impellers, guide vane apparatuses and stage housings</li> <li>→ Flow and NPSH-optimised pump housing</li> <li>→ Maintenance-friendly design with particularly robust coupling guard</li> <li>→ WRAS/KTW/ACS approval for all parts that come in contact with the fluid (EPDM version)</li> </ul>	<ul style="list-style-type: none"> <li>→ Efficiency-optimised, laser-welded, optimised 2D/3D hydraulics</li> <li>→ Economic and low acquisition costs thanks to compact installation</li> <li>→ Compatible connections allow installation into existing pipework with Helix V pumps</li> <li>→ Special, firmly attached transport eye-lets allow a safe pump transport</li> </ul>
Technical data	<ul style="list-style-type: none"> <li>→ Fluid temperature -30 to +120 °C</li> <li>→ Max. operating pressure 16/25 bar</li> <li>→ Max. inlet pressure 10 bar</li> <li>→ Protection class IP 55</li> <li>→ Minimum efficiency index MEI ≥ 0.7 (Helix VE 16: MEI ≥ 0.5)</li> </ul>	<ul style="list-style-type: none"> <li>→ Fluid temperature -30 to +120 °C</li> <li>→ Max. operating pressure 16/25 bar</li> <li>→ Max. inlet pressure 10 bar</li> <li>→ Protection class IP 55</li> <li>→ Minimum efficiency index MEI ≥ 0.7 (Helix V 16: MEI ≥ 0.5)</li> </ul>	<ul style="list-style-type: none"> <li>→ Fluid temperature range: -20 to 120 °C</li> <li>→ Max. operating pressure: 16/25/30 bar</li> <li>→ Protection class: IP 55</li> <li>→ Round flange in accordance with ISO 2531 and ISO 7005</li> <li>→ Minimum efficiency index MEI ≥ 0.7 (Helix FIRST V 16: MEI ≥ 0.5)</li> </ul>
Equipment/function	<ul style="list-style-type: none"> <li>→ Impellers, stage chambers and pump housing made of stainless steel 1.4301/1.4404 (AISI 304L/AISI 316L)</li> <li>→ Versions in special stainless steel for aggressive media</li> <li>→ PN 16 and PN 25 with round flanges in accordance with ISO 2531 and ISO 7005</li> <li>→ IEC standard three-phase AC motor</li> <li>→ Integrated frequency converter</li> </ul>	<ul style="list-style-type: none"> <li>→ Impellers, stage chambers and pump housing made of stainless steel 1.4301/1.4404 (AISI 304L/AISI 316L)</li> <li>→ Versions in special stainless steel for aggressive media</li> <li>→ Versions: <ul style="list-style-type: none"> <li>- Helix V 2 - 16, PN 16 with oval flanges, PN 25 with round flanges</li> <li>- Helix V 22 - 52, PN 16 and PN 25 with round flanges</li> <li>- IEC standard three-phase AC motor</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>→ Corrosion-resistant impellers, guide vanes and stage housings</li> </ul>



Product range	Vertical and horizontal, multistage centrifugal pumps	Vertical, multistage centrifugal pumps	Vertical, multistage centrifugal pumps
Series	Wilo-Zeox FIRST H Wilo-Zeox FIRST V	Wilo-Multivert MVIE	Wilo-Multivert MVI
Field of application	Water supply/pressure boosting	Water supply/pressure boosting	Water supply/pressure boosting
Duty chart			
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	Professional irrigation/agriculture Water supply/pressure boosting Fire fighting Heating, air-conditioning, cooling	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
Volume flow Q max.	280 m <sup>3</sup> /h	145 m <sup>3</sup> /h	155 m <sup>3</sup> /h
Delivery head H max.	495 m	100 m	240 m
Special features	<ul style="list-style-type: none"> <li>→ High-efficiency hydraulics and high-efficiency IE3 motor</li> <li>→ Standard rinsing device for the sealing system</li> <li>→ Additional flange alignments and stuffing box packing on request</li> <li>→ Bronze impeller on request</li> </ul>	<ul style="list-style-type: none"> <li>→ Large control range</li> <li>→ Stainless steel or with pump housing made of cataphoretic-coated cast iron</li> <li>→ All relevant components have KTW and WRAS approval</li> </ul>	<ul style="list-style-type: none"> <li>→ MVI 1..-8.. all parts that come in contact with the fluid are made of stainless steel</li> <li>→ MVI 70..-95.. in stainless steel or with pump housing made of cataphoretic-coated cast iron</li> <li>→ All relevant components have KTW and WRAS approval</li> </ul>
Technical data	<ul style="list-style-type: none"> <li>→ Fluid temperature: -5 °C to +90 °C</li> <li>→ Max. suction pressure: <ul style="list-style-type: none"> <li>- Zeox FIRST .. V/ .. H: 6/16 bar</li> </ul> </li> <li>→ Max. operating pressure: <ul style="list-style-type: none"> <li>- Zeox FIRST V: 27 bar</li> <li>- Zeox FIRST H (DN 65 to DN 1 00): 50 bar; Zeox FIRST H (DN 150): 40 bar</li> </ul> </li> <li>→ Protection class: IP 55</li> </ul>	<ul style="list-style-type: none"> <li>→ Fluid temperature -15 to +120 °C</li> <li>→ Max. operating pressure 16 bar/25 bar</li> <li>→ Max. inlet pressure 10 bar</li> <li>→ Protection class IP 54 or IP 55</li> <li>→ Minimum efficiency index MEI ≥ 0.4 for the series)</li> </ul>	<ul style="list-style-type: none"> <li>→ Fluid temperature -15 to +120 °C</li> <li>→ Max. operating pressure 16/25 bar</li> <li>→ Max. inlet pressure 10 bar</li> <li>→ Protection class IP 55</li> <li>→ Minimum efficiency index MEI ≥ 0.4 (for the series)</li> </ul>
Equipment/function	<ul style="list-style-type: none"> <li>→ IE3 high-efficiency motor as standard</li> <li>→ Flushing by-pass device to ensure a long service life</li> <li>→ Packing gland on request, exchangeable without disassembling the pump</li> </ul>	<ul style="list-style-type: none"> <li>→ Stainless steel pump in in-line design</li> <li>→ PN 16/25 with round flange</li> <li>→ Integrated frequency converter</li> <li>→ IEC standard motor, 2-pole, AC motor with thermal motor protection</li> <li>→ Protection against low water level</li> </ul>	<ul style="list-style-type: none"> <li>→ Stainless steel pump in in-line design</li> <li>→ Versions</li> <li>→ MVI 1.. to 8.. PN 16 with oval flanges, PN 25 with round flange</li> <li>→ MVI 70.. to 95.. PN 16/PN 25 with round flange</li> <li>→ Victaulic connections (PN 25) depending on pump type</li> <li>→ IEC standard motor, 2-pole</li> </ul>



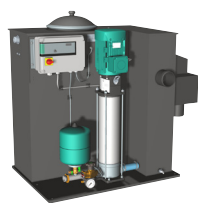
Product range	Sectional pumps	Vertical, multistage centrifugal pumps	Vertical, multistage centrifugal pumps
Series	RN, HS, IPB, PJ, STD PLURO, FG/FH	Wilo-Multivert MWISE	Wilo-Multivert MVIS
Field of application	Industrial process	Water supply/pressure boosting	Water supply/pressure boosting
Duty chart	no illustration		
Design	Multistage high-pressure multistage centrifugal pump in sectional construction, mounted on baseplate	Non self-priming multistage pump with glandless pump motor and integrated frequency converter	Non self-priming multistage pump with glandless pump motor
Application	Metal industry, mine dewatering, desalination plants, boiler supply, fire fighting, high-pressure cleaning, water supply	Water supply and pressure boosting	Water supply and pressure boosting
Volume flow Q max.	1,000 m <sup>3</sup> /h	14 m <sup>3</sup> /h	14 m <sup>3</sup> /h
Delivery head H max.	1800 m	110 m	110 m
Special features	<ul style="list-style-type: none"> <li>→ Modular design ensures pump versions in a variety of materials and versions which can be adapted to meet customer demands precisely</li> <li>→ Hydraulic pressure compensation relieves load on bearings and ensures a longer service life</li> <li>→ Multiple optional pressure connections allow different pressures to be supplied from a single pump</li> </ul>	<ul style="list-style-type: none"> <li>→ Glandless pump technology</li> <li>→ Virtually noiseless operation (up to 20 dB [A] quieter than conventional pumps)</li> <li>→ Space-saving, compact design</li> <li>→ Virtually maintenance free thanks to a design which does not feature any mechanical seals</li> <li>→ Drinking water approval for all components that come in contact with the fluid (EPDM version)</li> </ul>	<ul style="list-style-type: none"> <li>→ Glandless pump technology</li> <li>→ Virtually noiseless operation (up to 20 dB [A] quieter than conventional pumps)</li> <li>→ Space-saving, compact design</li> <li>→ Virtually maintenance free thanks to a design which does not feature any mechanical seals</li> <li>→ Drinking water approval for all components that come in contact with the fluid (EPDM version)</li> </ul>
Technical data	<ul style="list-style-type: none"> <li>→ Permitted temperature range up to +80 °C, or up to +160 °C on request</li> <li>→ Max. operating pressure 180 bar</li> <li>→ Nominal diameter on pressure side DN 32 to DN 250</li> <li>→ 2- or 4-pole 50 Hz motors, 60 Hz on request</li> </ul>	<ul style="list-style-type: none"> <li>→ Fluid temperature -15 to +50 °C</li> <li>→ Max. operating pressure 16 bar</li> <li>→ Max. inlet pressure 16 bar</li> <li>→ Protection class IP 44</li> </ul>	<ul style="list-style-type: none"> <li>→ Fluid temperature -15 to +50 °C</li> <li>→ Max. operating pressure 16 bar</li> <li>→ Max. inlet pressure 10 bar</li> <li>→ Protection class IP 44</li> </ul>
Equipment/function	<ul style="list-style-type: none"> <li>→ 2 to 15-stage industrial version</li> <li>→ Screwed segments</li> <li>→ Hydraulic axial compensation</li> <li>→ Shaft sealing with mechanical seal or stuffing box packing</li> <li>→ Optionally with multiple pressure outlets for e.g. fire extinguishing applications</li> <li>→ Supplied as a complete unit: with pump, coupling, motor mounted on baseplate or without motor or as pump only, with free shaft end</li> </ul>	<ul style="list-style-type: none"> <li>→ Multistage, non-self-priming, vertical high-pressure centrifugal pump in in-line design</li> <li>→ Glandless three-phase motor with integral water-cooled frequency converter</li> <li>→ Hydraulic connection with oval flanges PN 16. Counter flanges with female thread, screws and gaskets (scope of delivery)</li> </ul>	<ul style="list-style-type: none"> <li>→ Multistage, non-self-priming, vertical high-pressure centrifugal pump in in-line design</li> <li>→ Glandless three-phase motor</li> <li>→ Hydraulic connection with oval flanges PN 16. Counter flanges with female thread, screws and gaskets (scope of delivery)</li> </ul>



Product range	Horizontal, multistage centrifugal pumps	Horizontal, multistage centrifugal pumps	Horizontal, multistage centrifugal pumps
Series	Wilco-Economy MHIE	Wilco-Economy MHI	Wilco-Economy MHL
Field of application	Water supply/pressure boosting	Water supply/pressure boosting	Water supply/pressure boosting
Duty chart			
Design	Non self-priming multistage pump with integrated frequency converter	Non self-priming multistage pump	Non self-priming multistage pump
Application	Water supply, pressure boosting, irrigation, Industrial heating System industrial equipment, cooling, washing	Water supply, pressure boosting, irrigation, Industrial heating System industrial equipment, cooling, washing, food, renewable energy, ship building	Water supply, pressure boosting, irrigation, Industrial heating, hydraulic maintenance System industrial equipment, cooling, washing, food, renewable energy
Volume flow Q max.	32 m <sup>3</sup> /h	25 m <sup>3</sup> /h	13 m <sup>3</sup> /h
Delivery head H max.	88 m	70 m	68 m
Special features	<ul style="list-style-type: none"> <li>→ Easy commissioning</li> <li>→ All parts that come in contact with the fluid are made of stainless steel</li> <li>→ Compact design</li> <li>→ Integrated frequency converter</li> <li>→ Full motor protection</li> <li>→ WRAS/KTW/ACS approval for all parts that come in contact with the fluid (EPDM version)</li> </ul>	<ul style="list-style-type: none"> <li>→ All parts that come in contact with the fluid are made of stainless steel</li> <li>→ Compact design</li> <li>→ WRAS/KTW/ACS approval for all parts that come in contact with the fluid (EPDM version)</li> </ul>	<ul style="list-style-type: none"> <li>→ Impellers and stage chambers made of 1.4301 stainless steel (AISI 304)</li> <li>→ Pump housing made of grey cast iron EN-GJL-250, with cataphoretic coating</li> </ul>
Technical data	<ul style="list-style-type: none"> <li>→ Fluid temperature -15 to +110 °C (EPDM)</li> <li>→ Max. operating pressure 10 bar</li> <li>→ Inlet pressure max. 6 bar</li> <li>→ Protection class IP 54</li> </ul>	<ul style="list-style-type: none"> <li>→ Fluid temperature -15 to +110 °C (EPDM)</li> <li>→ Max. operating pressure 10 bar</li> <li>→ Inlet pressure max. 6 bar</li> <li>→ Protection class IP 54</li> </ul>	<ul style="list-style-type: none"> <li>→ Fluid temperature -15 to +90 °C (EPDM)</li> <li>→ Max. operating pressure 10 bar</li> <li>→ Inlet pressure max. 6 bar</li> <li>→ Protection class IP 54 (three-phase)</li> </ul>
Equipment/function	<ul style="list-style-type: none"> <li>→ Stainless steel in monobloc design</li> <li>→ Threaded connection</li> <li>→ Integrated frequency converter</li> <li>→ Single-phase or three-phase AC motor</li> <li>→ Three-phase display (LCD) for status indication</li> <li>→ Integrated thermal motor protection</li> </ul>	<ul style="list-style-type: none"> <li>→ Stainless steel pump in monobloc design</li> <li>→ Threaded connection</li> <li>→ Single-phase or three-phase AC motor</li> <li>→ Single-phase AC motor with integrated thermal motor protection</li> <li>→ IE3 motor for three-phase ≥ 0.75 kW</li> </ul>	<ul style="list-style-type: none"> <li>→ Pump in monobloc design</li> <li>→ Threaded connection</li> <li>→ Single-phase or three-phase AC motor</li> <li>→ Single-phase AC motor with integrated thermal motor protection</li> <li>→ IE3 motor for three-phase ≥ 0.75 kW</li> </ul>



Product range	Vertical, multistage centrifugal pumps	Single-pump pressure boosting systems with speed-controlled pump	Single-pump pressure boosting systems
Series	Wilo-Multivert MVIL	Wilo-Comfort-N-Vario COR-1 MVISE ... Wilo-Comfort-Vario COR-1 MVIE ... Wilo-SiBoost Smart 1 Helix VE ... Wilo-Comfort-Vario COR-1 MHIE...	Wilo-Economy CO-1 MVIS ... /ER Wilo-Economy CO-1 MVI ... /ER Wilo-Economy CO-1 Helix V ... /CE+
Field of application	Water supply/pressure boosting	Water supply/pressure boosting	Water supply/pressure boosting
Duty chart			
Design	Non self-priming multistage pump	Water-supply units with a non self-priming, high-pressure multistage centrifugal pump with integrated speed control of the series MWISE, MVIE, Helix VE or MHIE	Water supply systems with a non self-priming, high-pressure multistage centrifugal pump of the series MVIS, MVI or Helix V
Application	Water supply and pressure boosting Commerce and industry Washing and spraying systems Rainwater utilisation Cooling and cold water circuits	Fully automated water supply in inlet mode from the public water supply network or a reservoir For pumping drinking/process water, cooling water, water for fire-fighting	Fully automated water supply in inlet mode from the public water supply network or a reservoir For pumping drinking/process water, cooling water, water for fire-fighting
Volume flow Q max.	13 m <sup>3</sup> /h	165 m <sup>3</sup> /h	135 m <sup>3</sup> /h
Delivery head H max.	135 m	160 m	160 m
Special features	→ Space-saving, compact block design	→ For systems with MWISE 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 → For systems with Helix V pump → Optimised hydraulics → Cartridge mechanical seal
Technical data	→ Fluid temperature -15 to +90 °C → Max. operating pressure or max. 10 or 16 bar, depending on type → Max. inlet pressure 6 or 10 bar, depending on type → Protection class IP 54 → Minimum efficiency index MEI ≥ 0.4 (for the series)	→ 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 44/IP 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 41/IP 54
Equipment/function	→ Pump in in-line design → Hydraulics in 1.4301, pump housing in EN-GJL-250 → Oval flange → Single-phase or three-phase AC motor → Single-phase AC motor with integrated thermal motor protection	→ 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



Product range	Single-pump pressure boosting system with system separation	Multi-pump pressure boosting systems with speed-controlled pumps or base-load pump	Multi-pump pressure boosting systems with speed-controlled pumps
Series	Wilco-Economy CO/T-1 Helix V ... /CE	Wilco-SiBoost Smart Helix V Wilco-SiBoost Smart Helix VE Wilco-SiBoost Smart Helix EXCEL	Wilco-Comfort-Vario-COR 2-4 MHIE ... /VR Wilco-Comfort-N-Vario-COR 2-4 MWISE ... /VR Wilco-Comfort-Vario-COR 2-4 MVIE ... /VR
Field of application	Water supply/pressure boosting	Water supply/pressure boosting	Water supply/pressure boosting
Duty chart			
Design	Water supply systems with system separation and a non self-priming, high-pressure multistage centrifugal pump of the Helix V series	Highly efficient pressure boosting system with 2 to 4 stainless steel, non self-priming, high-pressure multistage centrifugal pumps (Helix V, VE or EXCEL) switched in parallel	Pressure boosting system with 2 to 4 non self-priming, stainless steel, high-pressure, multistage centrifugal pumps switched in parallel, with integrated speed control
Application	Fully automated water supply in inlet mode from the public water supply network For pumping drinking/process water, cooling water, water for fire-fighting	Fully automatic water supply/pressure boosting in residential/office buildings and in industrial systems For pumping drinking/process water, cooling water, water for fire-fighting	Fully automatic water supply/pressure boosting in residential/office buildings and in industrial systems For pumping drinking/process water, cooling water, water for fire-fighting
Volume flow Q max.	10 m <sup>3</sup> /h	360 m <sup>3</sup> /h	650 m <sup>3</sup> /h
Delivery head H max.	120 m	158 m	159 m
Special features	<ul style="list-style-type: none"> <li>→ Compact system, ready for connection, for all applications that require system separation</li> <li>→ High-efficiency pump hydraulics</li> <li>→ Helix V with IE3 standard motors</li> </ul>	<ul style="list-style-type: none"> <li>→ High-efficiency pump hydraulics</li> <li>→ Helix V with IE3 standard motors, Helix VE with IE4, Helix EXCEL with High-efficiency EC motor (energy efficiency class IE5 acc. to IEC 60034-30-2)</li> <li>→ Hydraulics of entire system are pressure-loss optimised</li> <li>→ Integrated dry-running detection and low water cut-out switch</li> </ul>	<ul style="list-style-type: none"> <li>→ Compact system due to high-pressure, multistage centrifugal pumps with integrated frequency converters</li> <li>→ Integrated full motor protection via PTC</li> <li>→ Integrated dry-running detection and low water cut-out switch</li> <li>→ For systems with MWISE pumps</li> <li>→ Up to 20 dB(A) quieter than comparable systems</li> </ul>
Technical data	<ul style="list-style-type: none"> <li>→ Mains connection 3~230 V / 400 V, 50 Hz (other versions on request)</li> <li>→ Max. fluid temperature 40 °C</li> <li>→ Operating pressure 16 bar</li> <li>→ Inlet pressure 6 bar</li> <li>→ Protection class IP 41</li> </ul>	<ul style="list-style-type: none"> <li>→ Mains connection: <ul style="list-style-type: none"> <li>- Helix V: 3~230 V/400 V, 50 Hz</li> <li>- Helix VE and EXCEL: 3~400 V, 50 Hz</li> </ul> </li> <li>→ Max. fluid temperature 50 °C (70 °C optional)</li> <li>→ Operating pressure 16 bar (25 bar optional)</li> <li>→ Inlet pressure 10 bar</li> <li>→ Protection class IP 54</li> </ul>	<ul style="list-style-type: none"> <li>→ Mains connection 3~400 V, 50/60 Hz, depending on type also 1~230 V, 50/60 Hz</li> <li>→ Max. fluid temperature 70 °C</li> <li>→ Operating pressure 10/16 bar</li> <li>→ Inlet pressure 6/10 bar</li> <li>→ Protection class IP 54</li> </ul>
Equipment/function	<ul style="list-style-type: none"> <li>→ PE break tank, atmospherically ventilated (150 l)</li> <li>→ Components that come in contact with fluid are corrosion-resistant</li> <li>→ Pipework made of stainless steel 1.4307</li> <li>→ Shut-off device, on the pressure side</li> <li>→ Non-return valve, on the pressure side</li> <li>→ Break tank including float valve and float switch</li> <li>→ Diaphragm pressure vessel 8 l, PN 16, on pressure side</li> <li>→ Low-water cut-out switchgear</li> </ul>	<ul style="list-style-type: none"> <li>→ Automatic pump control via Smart Controller SC. Smart FC version also includes a frequency converter in the switchbox</li> <li>→ Components that come in contact with fluid are corrosion-resistant</li> <li>→ Shut-off device on the suction and pressure sides of each pump</li> <li>→ Non-return valve, on the pressure side</li> <li>→ Pressure sensor, pressure side</li> <li>→ Pressure gauge, pressure side</li> </ul>	<ul style="list-style-type: none"> <li>→ Continuous auto control due to pumps with integrated frequency converters</li> <li>→ Components that come in contact with fluid are corrosion-resistant</li> <li>→ Pipework made of stainless steel 1.4571</li> <li>→ Shut-off device at each pump, on the suction and pressure sides</li> <li>→ Non-return valve, on the pressure side</li> <li>→ Diaphragm pressure vessel 8 l, PN 16, on pressure side</li> <li>→ Pressure sensor, on the discharge side</li> </ul>



Product range	Multi-pump pressure boosting systems with speed-controlled pumps or base-load pump	Multi-pump pressure boosting systems	Modular pressure boosting system according to EN1717, EN 806, DIN 1988-500
Series	Wilo-Comfort-N-COR 2-6 MVIS ... /CC Wilo-Comfort-COR 2-6 MVI ... /CC Wilo-Comfort-COR 2-6 Helix V ... /CC Wilo-Comfort-COR 2-6 Helix VE ... /CCe	Wilo-Economy CO 2-4 MHI ... /ER Wilo-Comfort-N-CO 2-6 MVIS ... /CC Wilo-Comfort-CO 2-6 MVI ... /CC Wilo-Comfort-CO 2-6 Helix V ... /CC	Wilo-GEP Drink
Field of application	Water supply/pressure boosting	Water supply/pressure boosting	Water supply/pressure boosting
Duty chart			
Design	Pressure boosting system with speed control and 2 to 6 non self-priming, stainless steel, high-pressure, multistage centrifugal pumps switched in parallel	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
Application	Fully automatic water supply/pressure boosting in residential/office buildings and in industrial systems For pumping drinking/process water, cooling water, water for fire-fighting	Fully automatic water supply/pressure boosting in residential/office buildings and in industrial systems For pumping drinking/process water, cooling water, water for fire-fighting	For water supply/pressure boosting in residential/office buildings, in industrial systems, according to the regulations for drinking water hygiene and hospital hygiene, EN 1717, EN 806, DIN 1988-500
Volume flow Q max.	800 m <sup>3</sup> /h	800 m <sup>3</sup> /h	5 to 1,000 m <sup>3</sup> /h
Delivery head H max.	160 m	160 m	160 m, up to 450 m on request
Special features	<ul style="list-style-type: none"> <li>→ Compact system in accordance of DIN 1988 (EN 806)</li> <li>→ Series with Helix VE integrated frequency converter</li> <li>→ For systems with MVIS pumps</li> <li>→ Up to 20 dB(A) quieter than comparable systems</li> </ul>	<ul style="list-style-type: none"> <li>→ Compact system in accordance of DIN 1988 (EN 806)</li> <li>→ For systems with MVIS pumps</li> <li>→ Up to 20 dB(A) quieter than comparable systems</li> </ul>	<ul style="list-style-type: none"> <li>→ Isolation of the run-down tank in order to prevent formation of condensate and temperature loading</li> <li>→ Split version for installation and transport</li> <li>→ Pressure maintaining pump or pilot pump as an option</li> <li>→ Complete unit casing</li> <li>→ Monitoring of the switchgear and the equipment environment temperature</li> <li>→ Automatic energy optimisation</li> </ul>
Technical data	<ul style="list-style-type: none"> <li>→ Mains connection 3~230 / 400 V, 50 Hz</li> <li>→ Max. fluid temperature 50 °C</li> <li>→ Operating pressure 10/16 bar</li> <li>→ Inlet pressure 6/10 bar</li> <li>→ Protection class IP 54</li> </ul>	<ul style="list-style-type: none"> <li>→ Mains connection 3~230 V / 400 V, 50 Hz</li> <li>→ Max. fluid temperature 50 °C</li> <li>→ Operating pressure 10/16 bar</li> <li>→ Inlet pressure 6/10 bar</li> <li>→ Protection class IP 54</li> </ul>	<ul style="list-style-type: none"> <li>→ Hygienic safety due to optional free outlet (EN 1717)</li> <li>→ Stainless steel run-down tank (optionally)</li> <li>→ Automatic function test of all measurement and control devices up to redundancy stage 3</li> <li>→ Small installation surface min. 0.64 m<sup>2</sup></li> </ul>
Equipment/function	<ul style="list-style-type: none"> <li>→ Continuous auto control of the base-load pump via frequency converter integrated in the CC controller</li> <li>→ Components that come in contact with fluid are corrosion-resistant</li> <li>→ Pipework made of stainless steel 1.4571</li> <li>→ Shut-off device at each pump, on the suction and pressure sides</li> <li>→ Non-return valve, on the pressure side</li> <li>→ Diaphragm pressure vessel 8 l, PN 16, on pressure side</li> <li>→ Pressure sensor, on the discharge side</li> </ul>	<ul style="list-style-type: none"> <li>→ Components that come in contact with fluid are corrosion-resistant</li> <li>→ Pipework made of stainless steel 1.4571</li> <li>→ Shut-off device at each pump, on the suction and pressure sides</li> <li>→ Non-return valve, on the pressure side</li> <li>→ Diaphragm pressure vessel 8 l, PN 16, on pressure side</li> <li>→ Pressure sensor, on the discharge side</li> </ul>	<ul style="list-style-type: none"> <li>→ Secure drinking water quality due to monitoring of water temperature and stagnation in the stainless steel run-down tank (optional); water is changed out if necessary</li> <li>→ Drainage or pump emergency drainage (EN12056) for total volume flow</li> <li>→ Installation possible below backflow level</li> <li>→ Effective maintenance management and permanent information on the operation via smartphone, tablet or PC</li> </ul>





Product range	Fire-fighting systems for wall hydrant installations according to DIN 14462	Fire fighting systems for wall hydrant installations according to DIN 14462	Fire fighting systems for sprinkler systems according to EN 12845
Series	Wilo-FLA	Wilo-FLA Compact	Wilo-SiFire EN Wilo-SiFire Easy
Field of application	Fire fighting	Fire fighting	Fire fighting
Duty chart			
Design	Pressure boosting system for fire extinguishing applications with 1 to 2 autonomously operating, non self-priming, stainless steel, high-pressure, multistage centrifugal pumps	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
Application	For supply of fire extinguishing water from fire hose reels in accordance with DIN 14462 from 04/2009	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
Volume flow Q max.	100 m <sup>3</sup> /h	30 m <sup>3</sup> /h	750 m <sup>3</sup> /h
Delivery head H max.	159 m	142 m	128 m
Special features	<ul style="list-style-type: none"> <li>→ Compact system in accordance of DIN 14462</li> <li>→ Variants</li> <li>→ Single-pump system</li> <li>→ Double-pump system with redundant single-pump systems in a base frame</li> <li>→ Comes as standard with pump protection by means of minimum volume discharge via bypass circuit without auxiliary energy</li> </ul>	<ul style="list-style-type: none"> <li>→ Compact system with break tank in accordance with DIN 14462</li> <li>→ Variants</li> <li>→ Single-pump system</li> <li>→ Double-pump system with two redundant single-pump systems on a base frame</li> <li>→ Comes as standard with pump protection by means of minimum volume discharge via bypass circuit without auxiliary energy</li> </ul>	<ul style="list-style-type: none"> <li>→ Compact system (just one base frame) in accordance with EN 12845</li> <li>→ Jockey pump for maintaining the required pressure in the system; with automatic start/stop function</li> <li>→ Sized diaphragm at the pump outlet for a minimum bypass line so that the pump is protected at a low volume flow</li> <li>→ The cables are hidden in the construction and are thus protected from shocks or cuts</li> </ul>
Technical data	<ul style="list-style-type: none"> <li>→ Mains connection 3~400 V, 50 Hz</li> <li>→ Max. fluid temperature 50 °C</li> <li>→ Max. operating pressure 16 bar</li> <li>→ Inlet pressure 6 bar</li> <li>→ Protection class IP 54</li> </ul>	<ul style="list-style-type: none"> <li>→ Mains connection 3~400 V, 50 Hz</li> <li>→ Fluid temperature max. 50 °C</li> <li>→ Operating pressure up to 16 bar</li> <li>→ Inlet pressure from break tank &lt; 1 bar</li> <li>→ Protection class of operating device IP 54</li> <li>→ Round break tank (540 l)</li> </ul>	<ul style="list-style-type: none"> <li>→ Mains connection 3~400 V, 50 Hz (1~230 V, 50 Hz panel diesel pump)</li> <li>→ Fluid temperature max. +40 °C</li> <li>→ Max. operating pressure 10 bar or 16 bar</li> <li>→ Max. inlet pressure 6 bar</li> <li>→ Protection class of the switch cabinet IP54</li> </ul>
Equipment/function	<ul style="list-style-type: none"> <li>→ Components that come in contact with fluid are corrosion-resistant</li> <li>→ Pipework made of stainless steel 1.4301</li> <li>→ Shut-off device at each pump, on the suction and pressure sides</li> <li>→ Non-return valve, on the pressure side</li> <li>→ Diaphragm pressure vessel 8 l, PN 16, on pressure side</li> <li>→ Pressure switch, on the discharge side</li> </ul>	<ul style="list-style-type: none"> <li>→ Components in contact with the fluid are corrosion-resistant</li> <li>→ Pipework made of stainless steel 1.4301</li> <li>→ Ball shut-off valve on pressure side</li> <li>→ Gate valve between pump and break tank with free outlet according to EN 13077, type AB according to DIN EN 1717</li> <li>→ Non-return valve, on pressure side</li> <li>→ Diaphragm pressure vessel 8L, PN16, arranged on the pressure side</li> <li>→ Pressure switch, on pressure side</li> </ul>	<ul style="list-style-type: none"> <li>→ A circuit with double pressure switch, pressure gauge, non-return valve, valve for the main and standby pump for an automatic start</li> <li>→ Pipework in steel; painted with epoxy resin. Distributor with flanges</li> <li>→ Shutting gate with safety lock on the pressure side of the pump</li> <li>→ Non-return valve on the pressure side of every pump</li> <li>→ DN 2" connection for the break tank of the pumps</li> <li>→ Pressure measuring on pressure side</li> </ul>



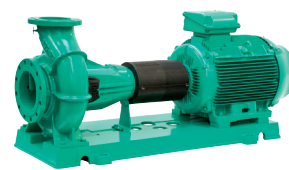
Product range	Certified fire fighting systems for hydrant and sprinkler systems according to EN 1717, EN 12056, DIN 14462 or EN 12845	Submersible pumps	Submersible pumps
Series	Wilo-GEP Fire	Wilo-Sub TWU 3 Wilo-Sub TWU 3...-HS	Wilo-Sub TWU 4 ... Wilo-Sub TWU 4 ...-QC Wilo-Sub TWU 4 ...-GT
Field of application	Fire fighting	Rainwater utilisation, raw water intake	Rainwater utilisation, raw water intake
Duty chart			
Design	Pressure boosting system for fire fighting applications with 1 to 12 multistage centrifugal pumps with/without break tank, with/without housing	Submersible pump, multistage	Submersible pump, multistage
Application	Fire-fighting water with exterior hydrants and fire hose reels particularly for high-rise buildings and large properties - without using valves for pressure reduction - for sprinkler and water spray systems	Water supply: boreholes, wells and rainwater tanks; domestic water supply, sprinkling and irrigation; pumping of water without long-fibre or abrasive components	Water supply: boreholes, wells, rainwater tanks; sprinkling, irrigation, pressure boosting; lowering ground water level; pumping of water without long-fibre or abrasive components; geothermal applications
Volume flow Q max.	certified up to 1000 m³/h	6.5 m³/h	22 m³/h
Delivery head H max.	250 m, up to 450 m on request	130 m	322 m
Special features	<ul style="list-style-type: none"> <li>→ Room air cooling</li> <li>→ Split version for installation/transport</li> <li>→ Pressure maintaining pump or pilot pump as an option</li> <li>→ Combination with industrial water system</li> <li>→ Real pressure method and VR controller for high-rise buildings and large properties</li> <li>→ Monitoring of the switchgear and the equipment environment temperature</li> <li>→ Complete unit casing</li> </ul>	<ul style="list-style-type: none"> <li>→ Parts in contact with the fluid are corrosion-resistant</li> <li>→ Integrated non-return valve</li> <li>→ Supply security with constant pressure thanks to extended pump performance due to a higher speed of up to 8,400 rpm (TWU 3/HS)</li> <li>→ Frequency converter with integrated and menu-guided control (TWU 3/HS)</li> </ul>	<ul style="list-style-type: none"> <li>→ Parts in contact with the fluid are corrosion-resistant</li> <li>→ Integrated non-return valve</li> <li>→ Low wear due to floating impellers</li> <li>→ Maintenance-friendly motor</li> </ul>
Technical data	<ul style="list-style-type: none"> <li>→ Certified system - TÜV, DEKRA, DVGW, SVGW</li> <li>→ Hygienic safety due to free outlet (EN 1717)</li> <li>→ Stainless steel run-down tank</li> <li>→ Automatic function test up to redundancy stage 3</li> <li>→ Small installation surface min. 0.64 m²</li> </ul>	<ul style="list-style-type: none"> <li>→ Mains connection: 1~230 V, 50 Hz or 3~400 V, 50 Hz</li> <li>→ Fluid temperature: 3-35 °C</li> <li>→ Minimum flow rate at motor: 0.08 m/s</li> <li>→ Max. sand content: 50 g/m³</li> <li>→ Max. number of starts: 30/h</li> <li>→ Max. immersion depth: 150 m</li> <li>→ Pressure connection: Rp 1</li> </ul>	<ul style="list-style-type: none"> <li>→ Mains connection: 1~230 V, 50 Hz or 3~400 V, 50 Hz</li> <li>→ Fluid temperature: 3-30 °C</li> <li>→ Minimum flow rate at motor: 0.08 m/s</li> <li>→ Max. sand content: 50 g/m³</li> <li>→ Up to 20 starts per hour</li> <li>→ Max. immersion depth: 200 m</li> <li>→ MEI: up to ≥ 0.7</li> </ul>
Equipment/function	<ul style="list-style-type: none"> <li>→ Drainage or pump emergency drainage (EN12056) for total volume flow</li> <li>→ Installation possible below backflow level</li> <li>→ No valves for reducing pressure in the main flow of the fire extinguishing system</li> <li>→ Effective maintenance management and permanent information on the operation via smartphone, tablet or PC</li> </ul>	<ul style="list-style-type: none"> <li>→ Multistage submersible pump with radial impellers</li> <li>→ Integrated non-return valve</li> <li>→ NEMA coupling</li> <li>→ Single-phase or three-phase AC motor</li> <li>→ Thermal motor protection for single-phase motor</li> <li>→ HS variant including external or internal frequency converter</li> </ul>	<ul style="list-style-type: none"> <li>→ Multistage submersible pump with radial or semi-axial impellers</li> <li>→ Integrated non-return valve</li> <li>→ NEMA coupling</li> <li>→ Single-phase or three-phase AC motor</li> <li>→ Integrated thermal motor protection for single-phase motor</li> <li>→ Hermetically sealed motors</li> </ul>



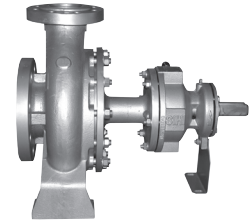
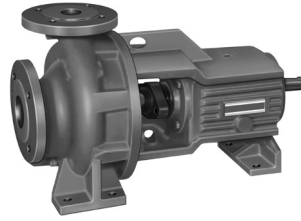
Product range	Submersible pump system	Submersible pumps	Submersible pumps
Series	Wilo-Sub TWU 3 ... Plug & Pump Wilo-Sub TWU 4 ... Plug & Pump	Wilo-Sub TWI 4/6/8/10 ...	Series MMI 50 V
Field of application	Rainwater utilisation, raw water intake	Water supply/pressure boosting, clean water treatment, rainwater utilisation, raw water intake, desalination, irrigation	Industrial process
Duty chart			
Design	Water-supply unit with submersible pump, control and complete accessories	Submersible pump, multistage	Multistage submersible pump
Application	Water supply system for water supply from boreholes, wells and rainwater tanks; domestic water supply, sprinkling and irrigation; pumping of water without long-fibre or abrasive components	Water supply (also drinking water): boreholes, rainwater tanks; municipal/industrial; sprinkling, irrigation; pressure boosting; lowering ground water; pumping of water without long-fibre or abrasive components	Pumping clean/slightly contaminated water (industrial process or clean water treatment). Ideal for small installation spaces. Installation in tanks, vessels, rainwater storage tanks and chambers
Volume flow Q max.	6 m <sup>3</sup> /h	165 m <sup>3</sup> /h	30 m <sup>3</sup> /h
Delivery head H max.	88 m	500 m	180 m
Special features	<ul style="list-style-type: none"> <li>→ Easy installation thanks to pre-mounted and pre-wired components</li> <li>→ Parts in contact with the fluid are corrosion-resistant</li> <li>→ Integrated non-return valve</li> </ul>	<ul style="list-style-type: none"> <li>→ Corrosion-resistant thanks to stainless steel version</li> <li>→ Flexible installation thanks to vertical and horizontal installation</li> <li>→ Easy installation due to integrated non-return valve</li> <li>→ Large performance range</li> <li>→ ACS approval for TWI 4 for drinking water application</li> </ul>	<ul style="list-style-type: none"> <li>→ Low maintenance</li> <li>→ No mechanical seal</li> <li>→ Noise-free suction</li> <li>→ Replaceable IEC standard motor</li> <li>→ VTM with semi-elastic coupling</li> <li>→ VTMRI/VRl: internal seal for pressure side and mechanical seal</li> <li>→ All parts in contact with fluid are made of stainless steel</li> <li>→ For high-pressure applications</li> </ul>
Technical data	<ul style="list-style-type: none"> <li>→ Mains connection: 1~230 V, 50 Hz</li> <li>→ Fluid temperature: 3–30 °C</li> <li>→ Minimum flow rate at motor: 0.08 m/s</li> <li>→ Max. sand content: 50 g/m<sup>3</sup></li> <li>→ Up to 20 starts per hour</li> <li>→ Max. immersion depth TWU 3/TWU 4: 150/200 m</li> <li>→ MEI: ≥ 0.7 (TWU 4)</li> </ul>	<ul style="list-style-type: none"> <li>→ Mains: 1~230 V, 50 Hz</li> <li>→ (only TWI 4 ...) or 3~400 V, 50 Hz</li> <li>→ Immersed operating mode: S1</li> <li>→ Fluid temperature: 3–20 °C or 3–30 °C</li> <li>→ Min. flow rate at motor: 0.08–0.5 m/s</li> <li>→ Max. sand content: 50 g/m<sup>3</sup></li> <li>→ Up to 10 or 20 starts per hour</li> <li>→ Max. immersion depth: 100–350 m</li> </ul>	<ul style="list-style-type: none"> <li>→ Permitted temperature range –20 °C to +120 °C</li> <li>→ Nominal diameter on pressure side DN 32 to DN 100</li> <li>→ Max. operating pressure PN 10 or PN 16</li> <li>→ Mains connection 3~400 V, 50 Hz</li> <li>→ Max. viscosity 150 cSt</li> </ul>
Equipment/function	<ul style="list-style-type: none"> <li>→ Multistage submersible pump with radial impellers</li> <li>→ Integrated non-return valve</li> <li>→ NEMA coupling</li> <li>→ Single-phase AC motor</li> <li>→ Integrated thermal motor protection</li> <li>→ Dry-running protection (only for TWU 4- ... -P&amp;P with Wilo-Sub-I package)</li> </ul>	<ul style="list-style-type: none"> <li>→ Multistage submersible pump with radial or semi-axial impellers</li> <li>→ Integrated non-return valve</li> <li>→ NEMA coupling</li> <li>→ Single-phase or three-phase</li> <li>→ AC motor</li> </ul>	<ul style="list-style-type: none"> <li>→ VCS: adjustable base and fixed coupling</li> <li>→ VEM: cast iron support and fixed coupling</li> <li>→ VTM: bearing block and semi-elastic coupling</li> <li>→ VTMRI: bearing block and semi-elastic coupling with internal drain (shaft seal) for small installation spaces</li> <li>→ VRl: cast iron support, fixed coupling and internal drain (shaft seal) for small installation spaces</li> </ul>



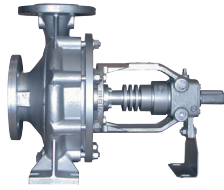
Product range	Sprinkler pumps with VdS approval	Submersible pumps	Submersible pumps
Series	Wilo-EMU sprinkler pumps	Wilo-EMU 6" Wilo-EMU 8" Wilo-EMU 10"...24" Wilo-Zetos K 8	Wilo-EMU polder pumps
Field of application	Fire fighting	Water supply/pressure boosting, clean water treatment, raw water intake, desalination	Water supply/pressure boosting, clean water treatment, raw water intake, desalination, dewatering, industrial process
Duty chart			
Design	Submersible pump with sectional construction	Submersible pump with sectional construction	Polder pump
Application	Supplying sprinkler systems	Potable and other water from boreholes, rainwater tanks; process water; municipal/industrial; sprinkling/irrigation; pressure boosting; lowering the ground water level; geothermal and offshore applications	Potable and process water from tanks or shallow bodies of water; municipal/industrial water supply; sprinkling, irrigation; lowering the ground water level; geothermal and offshore applications
Volume flow Q max.	580 m <sup>3</sup> /h	2,400 m <sup>3</sup> /h	1,200 m <sup>3</sup> /h
Delivery head H max.	140 m	560 m	160 m
Special features	<ul style="list-style-type: none"> <li>→ VdS certification</li> <li>→ Sturdy version in cast iron or bronze</li> <li>→ Pressure shroud in corrosion-resistant and hygienic stainless steel version with rubber bearing for minimising noise and vibrations</li> <li>→ VdS certified non-return valve is available as an accessory</li> </ul>	<ul style="list-style-type: none"> <li>→ Pressure shroud in corrosion-resistant and hygienic stainless steel version</li> <li>→ Hydraulic in stainless steel precision casting (Zetos K 8)</li> <li>→ Maintenance-friendly motors</li> <li>→ Optionally with Ceram CT coating for increasing the efficiency</li> <li>→ Optionally with ACS approval for drinking water application</li> </ul>	<ul style="list-style-type: none"> <li>→ Deep water lowering thanks to self-cooling motors</li> <li>→ Sturdy version in cast iron or bronze</li> <li>→ Compact construction</li> <li>→ Maintenance-friendly, rewindable motors</li> <li>→ Optionally with Ceram CT coating for increasing the efficiency</li> </ul>
Technical data	<ul style="list-style-type: none"> <li>→ Mains connection: 3~400 V/50 Hz</li> <li>→ Max. fluid temperature: 25 °C or on request</li> <li>→ Minimum flow rate at motor: 0.1 m/s</li> <li>→ Max. sand content: 35 g/m<sup>3</sup></li> <li>→ Up to 10 starts per hour</li> <li>→ Max. immersion depth: 100 m or 300 m</li> </ul>	<ul style="list-style-type: none"> <li>→ Mains connection: 3~400 V, 50 Hz</li> <li>→ Max. fluid temperature: 20 ... 30 °C</li> <li>→ Minimum flow rate at motor: 0.1 ... 0.5 m/s</li> <li>→ Max. sand content: 35 g/m<sup>3</sup> or 150 g/m<sup>3</sup></li> <li>→ Up to 10 starts per hour</li> <li>→ Max. immersion depth: 100/300/350 m</li> <li>→ MEI: up to ≥ 0.7</li> </ul>	<ul style="list-style-type: none"> <li>→ Mains connection: 3~400 V, 50 Hz</li> <li>→ Max. fluid temperature: 20 °C</li> <li>→ Minimum flow across outside shroud: not necessary</li> <li>→ Max. sand content: 35 g/m<sup>3</sup></li> <li>→ Up to 10 starts per hour</li> <li>→ Max. immersion depth: 300 m</li> </ul>
Equipment/function	<ul style="list-style-type: none"> <li>→ Multistage submersible pump</li> <li>→ Radial or semi-axial impellers</li> <li>→ NEMA coupling (depending on type)</li> <li>→ Three-phase motor for direct or star-delta start</li> <li>→ Rewindable motors</li> </ul>	<ul style="list-style-type: none"> <li>→ Multistage submersible pump</li> <li>→ Radial or semi-axial impellers</li> <li>→ Hydraulics and motor freely configurable according to power requirements</li> <li>→ Integrated non-return valve (depending on type)</li> <li>→ NEMA coupling or standardised connection</li> <li>→ Three-phase motor for direct or star-delta start</li> </ul>	<ul style="list-style-type: none"> <li>→ Multistage submersible pump</li> <li>→ Semi-axial impellers</li> <li>→ Hydraulics and motor freely configurable according to power requirements</li> <li>→ Three-phase motor for direct or star-delta start</li> <li>→ Motors rewindable as standard</li> </ul>



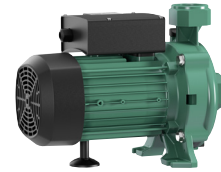
Product range	Vertical turbine pumps	Standard glanded pumps	Standard glanded pumps
Series	VMF, CNE, VAF	Wilo-CronoNorm-NL	Wilo-CronoNorm-NLG Wilo-VeroNorm-NPG
Field of application	Water supply/pressure boosting, industrial process	Heating, air-conditioning, cooling, water supply, industrial process	Heating, air-conditioning, cooling, water supply, industrial process
Duty chart	no illustration		
Design	Vertical turbine pumps for dry well installation with submerged axial or semi-axial hydraulics	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 ISO 5199, mounted on a baseplate
Application	Industrial or municipal water supply irrigation, fire fighting Cooling water supply Dewatering, flood control	Pumping of heating water, cold water and water-glycol mixtures without abrasive substances. Applications in municipal water supply, irrigation, general industry, power stations etc.	Pumping of heating water, cold water and water-glycol mixtures without abrasive substances. Applications in municipal water supply, irrigation, general industry, power stations etc.
Volume flow Q max.	40,000 m <sup>3</sup> /h	650 m <sup>3</sup> /h	2,800 m <sup>3</sup> /h
Delivery head H max.	450 m	150 m	140 m
Special features	<ul style="list-style-type: none"> <li>→ Minimum surface area needed</li> <li>→ High hydraulic efficiency</li> <li>→ Submerged pump hydraulics</li> <li>→ Design to order as per customer specifications</li> </ul>	<ul style="list-style-type: none"> <li>→ Reduced life-cycle costs through optimised efficiency levels</li> <li>→ Bidirectional, force-flushed mechanical seal</li> <li>→ Low NPSH values, best cavitation properties</li> <li>→ Shaft coupling with or without spacer coupling</li> </ul>	<ul style="list-style-type: none"> <li>→ NLG: <ul style="list-style-type: none"> <li>- Reduced life cycle costs through optimised efficiency</li> <li>- Bidirectional mechanical seal</li> <li>- Replaceable casing wear ring</li> <li>- Permanently lubricated, generously dimensioned roller bearings</li> </ul> </li> <li>→ NPG: <ul style="list-style-type: none"> <li>- Suitable for temperatures up to 140 °C</li> <li>- Back pull-out version</li> </ul> </li> </ul>
Technical data	<ul style="list-style-type: none"> <li>→ Permitted temperature range up to 80 °C, or up to 105 °C on request</li> <li>→ Nominal diameter on pressure side DN 100 to DN 2000</li> </ul>	<ul style="list-style-type: none"> <li>→ Fluid temperature -20 °C to +120 °C</li> <li>→ Mains connection 3~400 V, 50 Hz</li> <li>→ Minimum efficiency index (MEI) ≥ 0.4</li> <li>→ Nominal diameter: DN 50 to DN 500 (suction side), DN 32 to DN 500 (pressure side)</li> <li>→ Operating pressure: depending on type and application – up to 16 bar</li> </ul>	<ul style="list-style-type: none"> <li>→ Fluid temperature -20 °C to +120 °C (depending on type)</li> <li>→ Mains connection 3~400 V, 50 Hz</li> <li>→ Minimum efficiency index (MEI) ≥ 0.4</li> <li>→ Nominal diameters: DN 150 to DN 500 (depending on type)</li> <li>→ Operating pressure: depending on type and application – up to 16 bar</li> </ul>
Equipment/function	<ul style="list-style-type: none"> <li>→ For types of installation with pressure port, for concealed floor, floor-mounted or twin-ceiling installation</li> <li>→ Design: <ul style="list-style-type: none"> <li>- As removable or permanent installation</li> <li>- With axial or semi-axial, single or multistage hydraulics</li> <li>- With open shaft for bearing lubrication with the fluid, or with shaft trim for separate bearing lubrication</li> </ul> </li> <li>→ Drive options: Electric motor, diesel motor or steam turbine</li> </ul>	<ul style="list-style-type: none"> <li>→ Single-stage horizontal spiral housing pump with bearing bracket and exchangeable casing wear rings in process design</li> <li>→ Shaft sealing with mechanical seals in accordance with EN 12756 or stuffing box packing</li> <li>→ Spiral housing with cast pump support feet</li> <li>→ Shaft coupling with spacer coupling</li> <li>→ Motors with efficiency class IE3 for motors ≥ 0.75 kW</li> </ul>	<ul style="list-style-type: none"> <li>→ Single-stage horizontal spiral housing pump with bearing bracket and exchangeable casing wear rings (NLG only) in process design</li> <li>→ Shaft sealing with mechanical seals in accordance with EN 12756 or stuffing box packing</li> <li>→ Spiral housing with cast pump bases</li> <li>→ Greased grooved ball bearings for bearing of pump shaft</li> <li>→ Motors with efficiency class IE3</li> </ul>



Product range	Axially split case pumps	Standard pumps in accordance with EN 733	Standard pumps in accordance with EN 733 and EN 22858
Series	Wilo-SCP	NOLH NOEH	NESD NESE
Field of application	Cooling, air-conditioning, water supply/pressure boosting, industrial process	Industrial process	Industrial process
Duty chart			
Design	Low-pressure centrifugal pump with axially split housing mounted on a baseplate	Single-stage low-pressure centrifugal pump with axial suction connection and radial, upwards-facing pressure connection, mounted on a baseplate	Single-stage low-pressure centrifugal pump with axial suction connection and radial, upwards-facing pressure connection mounted on a baseplate
Application	Pumping of heating water in accordance with VDI 2035, water-glycol mixtures, cooling/cold water and process water, municipal water supply, irrigation, building services, general industry, power stations, etc.	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
Volume flow Q max.	3,400 m³/h	1,800 m³/h	600 m³/h
Delivery head H max.	245 m	140 m	90 m
Special features	<ul style="list-style-type: none"> <li>→ Higher volume flows up to 17,000 m³/h on request</li> <li>→ Special motors and other materials on request</li> </ul>	<ul style="list-style-type: none"> <li>→ Impeller diameter is adjusted to the desired duty point</li> <li>→ Many version options for the shaft seal</li> <li>→ 60 Hz or ATEX version on request</li> <li>→ Pumping of clean or slightly muddy fluids without solid material</li> </ul>	<ul style="list-style-type: none"> <li>→ Impeller diameter is adjusted to the desired duty point</li> <li>→ 60 Hz or ATEX version on request</li> <li>→ Special self-cooling design allows use of an uncooled shaft seal. Additional or external cooling devices are not required</li> </ul>
Technical data	<ul style="list-style-type: none"> <li>→ Fluid temperature -8 °C to +120 °C</li> <li>→ Mains connection 3~400 V, 50 Hz</li> <li>→ Protection class IP 55</li> <li>→ Nominal diameters - Suction side: DN 65 to DN 500</li> <li>→ Pressure side: DN 50 to DN 400</li> <li>→ Max. operating pressure: 16 or 25 bar, depending on type</li> </ul>	<ul style="list-style-type: none"> <li>→ Permitted temperature range -20 °C to +120 °C</li> <li>→ Mains connection 3~400 V, 50 Hz</li> <li>→ Nominal diameter on pressure side DN 32 to DN 125</li> <li>→ Max. operating pressure PN 16</li> </ul>	<ul style="list-style-type: none"> <li>→ Max. permitted fluid temperature                             <ul style="list-style-type: none"> <li>- NESD: 207 °C</li> <li>- NESE: 0 °C ... 120 °C (40 bar), 120 °C ..., 200 °C (35 bar), 200 °C ... 230 °C (32 bar)</li> </ul> </li> <li>→ Minimum fluid temperature: 170 °C</li> <li>→ Nominal-Ø pressure side: DN 32 - 125</li> <li>→ Max. operating pressure                             <ul style="list-style-type: none"> <li>- NESD: PN 25; NESE: PN 40</li> </ul> </li> </ul>
Equipment/function	<ul style="list-style-type: none"> <li>→ 1- or 2-stage, low-pressure centrifugal pump in monobloc design</li> <li>→ Deliverable as complete unit or without motor or only pump hydraulics</li> <li>→ Shaft sealing with mechanical seal or stuffing box packing</li> <li>→ 4-pole and 6-pole motors</li> <li>→ Materials:                             <ul style="list-style-type: none"> <li>- Pump housing: EN-GJL-250</li> <li>- Impeller: G-CuSn5 ZnPb</li> <li>- Shaft: X12Cr13</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>→ Dimensions and hydraulic output as per EN 733</li> <li>→ Hydraulics made from cast iron (ML) or stainless steel (MX) depending on version</li> <li>→ Sealed by uncooled mechanical seal</li> <li>→ Version with or without spacer coupling</li> <li>→ 2 or 4-pole IEC standard motor</li> <li>→ Baseplate made from steel or cast iron</li> <li>→ Supplied as a complete unit: with pump, coupling, coupling guard, motor and baseplate or without motor or pump only, with free shaft end</li> </ul>	<ul style="list-style-type: none"> <li>→ Dimensions and hydraulic output as per EN 22858</li> <li>→ Hydraulics in spheroidal cast iron EN-GS400 (MG version)</li> <li>→ Flange version in accordance with EN 1092-1</li> <li>→ With or without spacer coupling</li> <li>→ 2 or 4-pole IEC standard motor 50 Hz</li> <li>→ Baseplate steel or cast iron</li> <li>→ Supplied as a complete unit: with pump, coupling, coupling guard, motor and baseplate or without motor or pump only, with free shaft end</li> </ul>

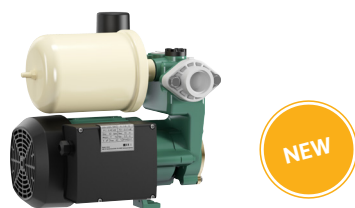


Product range	Standard pumps in accordance with EN 733	Self-priming drainage pumps	Pedestal pumps
Series	NFCH	Wilo-Drain LP Wilo-Drain LPC	Wilo-Drain VC
Field of application	Industrial process	Water supply/pressure boosting, dewatering/flood control	Dewatering/flood control, industrial process
Duty chart			
Design	Single-stage low-pressure centrifugal pump with axial suction connection and radial, upwards-facing pressure connection, mounted on a baseplate	Self-priming drainage pumps for dry well installation	Vertical drainage pumps
Application	For pumping mineral or synthetic heat-carrier fluids up to 350 °C, e.g.: in industrial processes or power generation	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 and mobile drainage	Pumping of wastewater and condensate up to 95 °C from pump sumps and from cellars at risk of flooding
Volume flow Q max.	1,000 m <sup>3</sup> /h	60 m <sup>3</sup> /h	14 m <sup>3</sup> /h
Delivery head H max.	90 m	29 m	20 m
Special features	<ul style="list-style-type: none"> <li>→ Impeller diameter is adjusted to the desired duty point</li> <li>→ 60 Hz or ATEX version on request</li> <li>→ Self-cooling design with double temperature barrier allows the use of an uncooled shaft seal and reduces heat loss</li> </ul>	<ul style="list-style-type: none"> <li>→ Long service life</li> <li>→ Sturdy construction</li> <li>→ Easy operation</li> <li>→ Flexible use</li> </ul>	<ul style="list-style-type: none"> <li>→ For fluids up to 95 °C</li> <li>→ Long service life</li> <li>→ Easy operation with attached float switch</li> <li>→ Long standstill times possible</li> <li>→ Integrated motor protection with thermal relay</li> </ul>
Technical data	<ul style="list-style-type: none"> <li>→ Permitted temperature range: 0 °C ... 120 °C (16 bar), 120 °C ... 300 °C (13 bar), 300 °C ... 350 °C (16 bar)</li> <li>→ Nominal diameter on pressure side DN 32 to DN 125</li> <li>→ Max. operating pressure PN 16</li> </ul>	<ul style="list-style-type: none"> <li>→ Mains connection: 1~230 V, 50 Hz, 3~400 V, 50 Hz</li> <li>→ Fluid temperature 3 °C to 35 °C</li> <li>→ Free ball passage 5 to 12 mm, depending on type</li> <li>→ Connection Rp 1½ to G3</li> </ul>	<ul style="list-style-type: none"> <li>→ Mains 1~230 V, 50 Hz or 3~400 V, 50 Hz</li> <li>→ Protection class IP 54</li> <li>→ Fluid temperature +5 °C to +95 °C</li> <li>→ Free ball passage 5 or 7 mm, depending on type</li> <li>→ Pressure port Rp 1 or Rp 1½ depending on type</li> </ul>
Equipment/function	<ul style="list-style-type: none"> <li>→ Dimensions and hydraulic output as per EN 733</li> <li>→ Standard mechanical seal corresponding to the heat-carrier fluid</li> <li>→ Version with or without spacer coupling</li> <li>→ 2 or 4-pole IEC standard motor 50 Hz</li> <li>→ Supplied as a complete unit: with pump, coupling, coupling guard, motor and baseplate or without motor or pump only, with free shaft end</li> </ul>	<ul style="list-style-type: none"> <li>→ Portable self-priming centrifugal pump</li> </ul>	<ul style="list-style-type: none"> <li>→ Attached float switch</li> </ul>



Product range	Submersible sewage pumps	Hot-water pressure-boosting pumps	Horizontal centrifugal pumps
Series	Wilo-EMU KPR ...	Wilo-PB	Wilo-PUN
Field of application	Raw water intake, dewatering/flood control, wastewater treatment, special applications	Water supply/pressure boosting	Water supply/pressure boosting
Duty chart			
Design	Axial submersible pump with dry motor for use in pipe chambers	Circulator	Small jet and block pumps
Application	Pumping cooling or rainwater, cleaned sewage and for irrigation and pumping sludge	Domestic water supply from a water tank	Water supply from a water tank Sprinkling from a water tank Irrigation and spraying from a water tank Rainwater utilisation from a water tank
Volume flow Q max.	9,500 m <sup>3</sup> /h	4.8 m <sup>3</sup> /h	5.8 m <sup>3</sup> /h
Delivery head H max.	8.4 m	3 m	22 m
Special features	<ul style="list-style-type: none"> <li>→ Installation directly in the pressure pipe</li> <li>→ Angle of propeller blades adjustable</li> <li>→ Process security thanks to extensive monitoring devices</li> <li>→ Low vibrations and long standstill times thanks to high-quality components</li> </ul>	<ul style="list-style-type: none"> <li>→ Easy: -...S...A versions for all in one water booster</li> <li>→ Efficient: High-efficiency motor (IE2 or IE3 depending on versions)</li> </ul>	<ul style="list-style-type: none"> <li>→ Easy: PU-S... versions for salt water</li> <li>→ Efficient: Self-priming automatic peripheral pumps up to 8m</li> <li>→ Efficient: High-efficiency motor (IE2 or IE3 depending on versions)</li> </ul>
Technical data	<ul style="list-style-type: none"> <li>→ Mains connection: 3~400 V, 50 Hz</li> <li>→ Immersed operating mode: S1</li> <li>→ Protection class: IP 68</li> <li>→ Max. fluid temperature: 40 °C</li> <li>→ Free ball passage of 85 to 130 mm</li> <li>→ Short common pump/motor shaft</li> <li>→ Permanently lubricated roller bearings</li> <li>→ Max. immersion depth: 20 m</li> </ul>	<ul style="list-style-type: none"> <li>→ Mains connection: 1~230 V, 50/60 Hz (depending models)</li> <li>→ Fluid temperature from 5°C to +80°C (depending models)</li> <li>→ Ambient temperature from 0°C to +40°C</li> <li>→ Max suction pressure: From 0.4 bars up to 1.4 bars</li> <li>→ Protection class 1~: IP X4</li> </ul>	<ul style="list-style-type: none"> <li>→ Mains connection: 1~230 V, 50/60 Hz (depending models)</li> <li>→ Fluid temperature from +0°C to +60°C</li> <li>→ Ambient temperature from 0°C to +40°C</li> <li>→ Max suction pressure: From 1.0 bar up to 1.4 bar</li> <li>→ Protection class 1~: IP X4</li> </ul>
Equipment/function	→ Heavy-duty version made of cast iron	<ul style="list-style-type: none"> <li>→ Directly flanged motor</li> <li>→ Thermal motor protection switch for 1~230V version</li> <li>→ Flow sensor for automatic pump start PB-...A</li> <li>→ Flow sensor, pressure switch and pressurised tank for automatic pump start and protection of versions PB-...S...A</li> </ul>	<ul style="list-style-type: none"> <li>→ Directly flanged motor</li> <li>→ Thermal motor protection switch for 1~230V version</li> </ul>





<b>Product range</b>	<b>Peripheral pumps</b>															
Series	Wilo-PW															
Field of application	Water supply															
Duty chart	<p>The duty chart shows the performance of four Wilo-PW pump models. The y-axis represents head (H) in meters (m), ranging from 0 to 70. The x-axis represents volume flow rate (Q) in cubic meters per hour (m³/h), ranging from 0 to 4.8. The curves are as follows:</p> <table border="1"> <thead> <tr> <th>Model</th> <th>Approx. Max Head (m)</th> <th>Approx. Max Flow (m³/h)</th> </tr> </thead> <tbody> <tr> <td>PW-750 E</td> <td>65</td> <td>4.8</td> </tr> <tr> <td>PW-252 EA</td> <td>45</td> <td>2.4</td> </tr> <tr> <td>PW-175 E</td> <td>35</td> <td>1.2</td> </tr> <tr> <td>PW-175 EA</td> <td>25</td> <td>1.2</td> </tr> </tbody> </table>	Model	Approx. Max Head (m)	Approx. Max Flow (m³/h)	PW-750 E	65	4.8	PW-252 EA	45	2.4	PW-175 E	35	1.2	PW-175 EA	25	1.2
Model	Approx. Max Head (m)	Approx. Max Flow (m³/h)														
PW-750 E	65	4.8														
PW-252 EA	45	2.4														
PW-175 E	35	1.2														
PW-175 EA	25	1.2														
Design	Peripheral pump															
Application	<p>Water supply from a water tank</p> <p>Sprinkling from a water tank</p> <p>Irrigation and spraying from a water tank</p> <p>Rainwater utilisation from a water tank</p>															
Volume flow Q max.	2.4 m³/h															
Delivery head H max.	35 m															
Special features	<ul style="list-style-type: none"> <li>→ Easy: S...A versions for all in one water booster</li> <li>→ Efficient: Self-priming automatic peripheral pumps up to 8m</li> <li>→ Efficient: High efficiency motor (IE2 or IE3 depending on versions)</li> </ul>															
Technical data	<ul style="list-style-type: none"> <li>→ Mains connection: 1~230 V, 50/60 Hz (depending models)</li> <li>→ Fluid temperature from +5°C to +40°C</li> <li>→ Ambient temperature from 0°C to +40°C</li> <li>→ Max suction pressure: From 0.7 bar up to 1.4 bar</li> <li>→ Protection class 1~: IP X4</li> </ul>															
Equipment/function	<ul style="list-style-type: none"> <li>→ Directly flanged motor</li> <li>→ Thermal motor protection switch for 1~230V version</li> <li>→ Pressure switch and pressurised tank for automatic pump start PW-...S...A</li> </ul>															

# RELIABLE WASTE WATER SYSTEMS FOR GROWING CITIES.

PUMPS AND SYSTEMS FOR WASTEWATER COLLECTION AND  
TRANSPORT, SEWAGE TREATMENT, DRAINAGE AND FLOOD  
CONTROL.



More and more people live in cities and these habitats of the future pose us major challenges. One of these challenges is the disposal of drainage and sewage to comply with hygiene standards and prevent unpleasant odours. Wherever sewage does not simply flow into the sewer system via gravity, efficient sewage pumps and lifting units come into play. The powerful and particularly economical products and systems from Wilo collect and transport sewage reliably and in a resource-friendly way. And with the development of effective solutions for sewage treatment, we help protect the environment and contribute to sustainable use of water – one of life's most valuable resources.

### MODULAR WATER INFRASTRUCTURE

Nowhere are intelligent technology concepts so urgently necessary as in the rapidly growing metropolises of Latin America, Africa and Asia. In cooperation with TU Darmstadt, Wilo is working to develop a flexible infrastructure approach as part of the research project "Semizentral". Semizentral grows with cities and integrates sewage and organic waste streams into a modular solution concept. At the pilot plant in Qingdao, China, 56 of our high-tech pumps are in operation. They help to generate industrial water and energy from sewage and organic waste. The highly energy-efficient submersible mixers and pumps as well as pressure boosting and fire extinguishing systems enable the energy self-sufficient operation of the system.

### POWER AND RELIABILITY

The efficient lifting units and sewage pumps from Wilo are suitable for a wide variety of construction settings, from rental, administrative and commercial buildings to wastewater treatment plants, pumps stations and collective pumping stations.



Please click "Play" and discover Wilo-EMUport CORE, our solids separation system with maximum operational reliability.





Product range	Self-priming drainage pumps	Submersible drainage pumps	Pedestal pumps
Series	Wilo-Drain LP Wilo-Drain LPC	Wilo-Drain TMT	Wilo-Drain VC
Field of application	Water distribution/boosting, dewatering/ flood control	Dewatering/flood control, industrial process	Dewatering/flood control, industrial process
Duty chart			
Design	Non-submersible self-priming drainage pump	Submersible drainage pump	Non-submersible pedestal pump with standard motor
Application	Pumping of → Wastewater → Process water	Pumping of → Wastewater → Industrial wastewater	Pumping of → Wastewater → Industrial wastewater
Volume flow Q max.	60 m <sup>3</sup> /h	22 m <sup>3</sup> /h	14 m <sup>3</sup> /h
Delivery head H max.	29 m	15.5 m	20 m
Special features	<ul style="list-style-type: none"> <li>→ Long service life</li> <li>→ Sturdy construction</li> <li>→ Easy operation</li> <li>→ Flexible use</li> </ul>	<ul style="list-style-type: none"> <li>→ For fluids up to 95 °C</li> <li>→ Sealed cable inlet</li> </ul>	<ul style="list-style-type: none"> <li>→ For fluids up to 95 °C</li> <li>→ Long service life</li> <li>→ Easy operation thanks to attached float switch</li> <li>→ Long standstill times possible</li> <li>→ Integrated motor protection with thermal relay</li> </ul>
Technical data	<ul style="list-style-type: none"> <li>→ Mains connection: 1~230 V or 3~400 V</li> <li>→ Fluid temperature: max. 35 °C</li> <li>→ Operation mode: S1</li> </ul>	<ul style="list-style-type: none"> <li>→ Mains connection: 3~400 V</li> <li>→ Immersed operating mode: S1</li> <li>→ Non-immersed operating mode: S3 25 %</li> <li>→ Protection class: IP 68</li> <li>→ Max. immersion depth: 7 m</li> <li>→ Fluid temperature: max. 95 °C</li> </ul>	<ul style="list-style-type: none"> <li>→ Mains connection: 1~230 V or 3~400 V</li> <li>→ Operation mode: S1</li> <li>→ Protection class: IP 54</li> <li>→ Fluid temperature: max. +95 °C</li> </ul>
Equipment/function	→ Portable self-priming centrifugal pump	→ Housing and impeller made of grey cast iron → Thermal motor monitoring	→ Attached float switch



Product range	Submersible drainage pumps	Submersible drainage pumps	Submersible drainage pumps
Series	Wilo-Drain TM/TMW/TMR 32 Wilo-Drain TS/TSW 32	Wilo-Drain TS 40 Wilo-Drain TS 50 Wilo-Drain TS 65	Wilo-EMU KS
Field of application	Wastewater collection and transport, dewatering/flood control	Wastewater collection and transport, dewatering/flood control	Dewatering/flood control, industrial process
Duty chart			
Design	Submersible drainage pump	Submersible drainage pump	Submersible drainage pump
Application	Pumping of → Pre-cleaned sewage without faeces and long-fibre components → Wastewater	Pumping of → Pre-cleaned sewage without faeces and long-fibre components → Wastewater	Pumping of → Wastewater
Volume flow Q max.	16 m <sup>3</sup> /h	53 m <sup>3</sup> /h	165 m <sup>3</sup> /h
Delivery head H max.	12 m	25 m	62 m
Special features	<ul style="list-style-type: none"> <li>→ TMW, TSW with turbulator for constantly clean pump chamber</li> <li>→ No generation of fluid-related odours</li> <li>→ Easy installation</li> <li>→ High operational reliability</li> <li>→ Easy operation</li> </ul>	<ul style="list-style-type: none"> <li>→ Low weight</li> <li>→ Large performance range</li> <li>→ Sealing chamber</li> <li>→ Easy operation thanks to attached float switch and plug (A version)</li> </ul>	<ul style="list-style-type: none"> <li>→ Long service life</li> <li>→ Sturdy construction</li> <li>→ Slurping operation possible</li> <li>→ Suitable for continuous duty (S1)</li> <li>→ Ready-to-plug</li> </ul>
Technical data	<ul style="list-style-type: none"> <li>→ Mains connection: 1~230 V, 50 Hz</li> <li>→ Protection class IP 68</li> <li>→ Max. immersion depth TM/TMW/TMR = 1 m, TS/TSW = 7 m</li> <li>→ Fluid temperature 3 °C to 35 °C, for short periods up to 3 min.</li> <li>→ max. 90 °C</li> </ul>	<ul style="list-style-type: none"> <li>→ Mains connection: 1~230 V or 3~400 V</li> <li>→ Immersed operating mode: S1</li> <li>→ Non-immersed operating mode: S3 25 %</li> <li>→ Protection class: IP 68</li> <li>→ Immersion depth: 5 to 7 m</li> <li>→ Fluid temperature: max. 35 °C</li> </ul>	<ul style="list-style-type: none"> <li>→ Mains connection: 1~230 V or 3~400 V</li> <li>→ Immersed operating mode: S1</li> <li>→ Non-immersed operating mode: S1</li> <li>→ Fluid temperature: max. 40 °C</li> <li>→ Protection class: IP 68</li> <li>→ Immersion depth: 20 m</li> </ul>
Equipment/function	<ul style="list-style-type: none"> <li>→ Motor monitoring via temperature</li> <li>→ Sheath current cooling</li> <li>→ Hose connection</li> <li>→ Turbulator (TMW, TSW)</li> <li>→ Float switch (depending on type)</li> </ul>	<ul style="list-style-type: none"> <li>→ Ready-to-plug versions also with float switch</li> <li>→ Thermal motor monitoring</li> <li>→ Explosion protection for TS 50 and TS 65</li> <li>→ Integrated non-return valve for TS 40</li> <li>→ Hose connection for TS 40</li> </ul>	<ul style="list-style-type: none"> <li>→ Heavy-duty design</li> <li>→ Slurping operation</li> </ul>

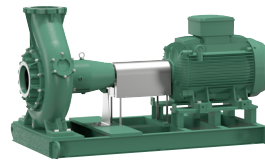


Product range	Submersible sewage pumps	Submersible sewage pumps	Submersible sewage pumps
Series	Wilo-Rexa CUT	Wilo-Drain TC 40	Wilo-Drain STS 40
Field of application	Wastewater collection and transport	Wastewater collection and transport, dewatering/flood control	Wastewater collection and transport, dewatering/flood control
Duty chart			
Design	Submersible sewage pump with macerator	Submersible sewage pump	Submersible sewage pump
Application	Pumping of → Sewage containing faeces ((DIN) EN 12050-1) → Wastewater	Pumping of → Pre-cleaned sewage without faeces and long-fibre components (EN 12050-2) → Wastewater	Pumping of → Pre-cleaned sewage without faeces and long-fibre components (EN 12050-2) → Wastewater
Volume flow Q max.	21 m <sup>3</sup> /h	22 m <sup>3</sup> /h	20 m <sup>3</sup> /h
Delivery head H max.	41 m	10 m	10 m
Special features	<ul style="list-style-type: none"> <li>→ Low-weight version with stainless steel motor</li> <li>→ Sturdy version in cast iron</li> <li>→ Sealing with two mechanical seals</li> <li>→ Longitudinal watertight cable inlet</li> </ul>	<ul style="list-style-type: none"> <li>→ Heavy-duty hydraulic housing made of cast iron</li> <li>→ Easy operation due to the attached float switch</li> <li>→ Integrated stainless steel pump support foot for easy installation</li> <li>→ Free ball passage: 40 mm</li> </ul>	<ul style="list-style-type: none"> <li>→ Connection cable detachable</li> <li>→ Stainless steel surface-cooled motor</li> <li>→ Attached float switch (A-model) enables easy operation</li> <li>→ Integrated pump support foot for easy installation</li> <li>→ Free ball passage: 40 mm</li> <li>→ No switchgear required for thermal fuse protection</li> <li>→ Integrated thermal motor protection (1~/3~) and phase failure protection (3~)</li> </ul>
Technical data	<ul style="list-style-type: none"> <li>→ Mains connection: 1~230 V or 3~400 V</li> <li>→ Immersed operating mode: S1</li> <li>→ Non-immersed operating mode: S2 or S3</li> <li>→ Protection class: IP 68</li> <li>→ Fluid temperature: max. 40 °C</li> <li>→ Immersion depth: 7 or 20 m</li> </ul>	<ul style="list-style-type: none"> <li>→ Mains connection: 1~230 V</li> <li>→ Immersed operating mode: S1</li> <li>→ Non-immersed operating mode: S3 25 %</li> <li>→ Protection class: IP 68</li> <li>→ Fluid temperature: max. 40 °C</li> <li>→ Max. immersion depth: 2 m</li> </ul>	<ul style="list-style-type: none"> <li>→ Mains connection: 1~230 V or 3~400 V</li> <li>→ Immersed operating mode: S1</li> <li>→ Non-immersed operating mode: S3 25 %</li> <li>→ Protection class: IP 68</li> <li>→ Fluid temperature: max. 35 °C</li> <li>→ Max. immersion depth: 7 m</li> </ul>
Equipment/function	<ul style="list-style-type: none"> <li>→ Internal or external macerator</li> <li>→ Unimpeded flow to the impeller</li> <li>→ Maceration of substances being conveyed</li> <li>→ Sealing chamber with optional external monitoring</li> </ul>	<ul style="list-style-type: none"> <li>→ Ready-to-plug</li> <li>→ Including float switch</li> <li>→ Thermal motor monitoring</li> </ul>	<ul style="list-style-type: none"> <li>→ AC variant ready-to-plug</li> <li>→ A-model including float switch</li> <li>→ Thermal motor monitoring</li> </ul>



Series extension

Product range	Submersible sewage pumps	Submersible sewage pumps	Submersible sewage pumps
Series	Wilo-Rexa UNI	Wilo-Drain TP 80 Wilo-Drain TP 100	Wilo-Rexa FIT Wilo-Rexa PRO
Field of application	Wastewater collection and transport, dewatering/flood control	Wastewater collection and transport, dewatering/flood control, industrial process	Wastewater collection and transport, wastewater treatment, dewatering/flood control
Duty chart			
Design	Submersible sewage pump	Submersible sewage pump	Submersible sewage pump
Application	Pumping of → Sewage containing faeces (EN 12050-1) → Wastewater	Pumping of → Sewage containing faeces (DIN EN 12050-1) → Process water → Wastewater	Pumping of → Sewage containing faeces ((DIN) EN 12050-1) → Wastewater
Volume flow Q max.	54 m <sup>3</sup> /h	180 m <sup>3</sup> /h	186 m <sup>3</sup> /h
Delivery head H max.	23.5 m	21 m	32 m
Special features	<ul style="list-style-type: none"> <li>→ High reliability due to corrosion-free hydraulics for universal applications and various fluids</li> <li>→ Easy installation thanks to low weight of composite, integrated capacitor in single-phase motor and integrated fixations in flanges</li> <li>→ Quick maintenance by direct access to sealing chamber and to pump housing</li> <li>→ Larger inspection interval thanks to double sealing with large sealing chamber</li> </ul>	<ul style="list-style-type: none"> <li>→ Self-cooling motor for the use in wet well and dry well installations</li> <li>→ Corrosion-resistant stainless steel motor housing in 1.4404</li> <li>→ Patented non-clogging hydraulics</li> <li>→ Longitudinal watertight cable inlet</li> <li>→ Low weight</li> </ul>	<ul style="list-style-type: none"> <li>→ Low-weight version with stainless steel motor or sturdy version in cast iron</li> <li>→ Also with IE3 motor technology (on the basis of IEC 60034-30)</li> </ul>
Technical data	<ul style="list-style-type: none"> <li>→ Mains connection: 1~230 V or 3~400 V</li> <li>→ Immersed operating mode: S1</li> <li>→ Non-immersed operating mode: S2-15 min, S3 10 %</li> <li>→ Protection class: IP 68</li> <li>→ Fluid temperature: max. 40 °C</li> <li>→ Max. immersion depth: 7 m</li> </ul>	<ul style="list-style-type: none"> <li>→ Mains connection: 3~400 V</li> <li>→ Immersed operating mode: S1</li> <li>→ Non-immersed operating mode: S1</li> <li>→ Protection class: IP 68</li> <li>→ Fluid temperature: max. 40 °C</li> <li>→ Max. immersion depth: 20 m</li> </ul>	<ul style="list-style-type: none"> <li>→ Mains connection: 1~230 V or 3~400 V</li> <li>→ Immersed operating mode: S1</li> <li>→ Non-immersed operating mode: S2 or S3</li> <li>→ Protection class: IP 68</li> <li>→ Fluid temperature: max. 40 °C</li> <li>→ Max. immersion depth: 7 or 20 m</li> </ul>
Equipment/function	<ul style="list-style-type: none"> <li>→ AC variant with internal capacitor</li> <li>→ A-model with plug and float switch</li> <li>→ P-model with plug</li> <li>→ Thermal motor monitoring</li> </ul>	<ul style="list-style-type: none"> <li>→ Thermal motor monitoring</li> <li>→ Sealing chamber monitoring</li> <li>→ ATEX approval</li> <li>→ Sheath current cooling</li> </ul>	<ul style="list-style-type: none"> <li>→ Thermal motor monitoring</li> <li>→ sealing chamber with optional external monitoring</li> <li>→ ATEX approval (Rexa PRO)</li> </ul>



Product range	Sewage pumps	Sewage pumps	Submersible sewage pumps
Series	Wilo-RexaBloc RE	Wilo-RexaNorm RE	Wilo-EMU FA 08 ... to FA 15 ... (standard pumps)
Field of application	Wastewater collection and transport, wastewater treatment, dewatering/flood control	Wastewater collection and transport, wastewater treatment, dewatering/flood control, industrial process	Wastewater collection and transport, wastewater treatment, dewatering/flood control
Duty chart			
Design	Non submersible sewage pump in monobloc design	Non submersible sewage pump with standard motor, fully mounted on baseplate	Submersible sewage pump
Application	Pumping of → Sewage containing faeces (EN 12050-1) → Pre-cleaned sewage without faeces and long-fibre components → Wastewater	Pumping of → Untreated sewage with faeces and long-fibre components → Sewage containing faeces (EN 12050-1) → Process water, Wastewater	Pumping of → Sewage containing faeces ((DIN) EN 12050-1) → Pre-cleaned sewage without faeces and long-fibre components → Wastewater
Volume flow Q max.	440 m <sup>3</sup> /h	1150 m <sup>3</sup> /h	380 m <sup>3</sup> /h
Delivery head H max.	26 m	33 m	51 m
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	→ Easy impeller replacement due to "back pull-out" design and spacer coupling as standard. This makes it possible to uninstall the impeller without dismantling the hydraulics from the pipeline and the motor from the baseplate → Shut "Back pull-out" unit: Dismantling without draining the oil in the sealing chamber	→ Sturdy version in cast iron → Operationally reliable thanks to Vortex and single-channel hydraulics with large free ball passage → Longitudinal watertight cable inlet
Technical data	→ Mains connection: 3~400 V → Operating mode: S1 → Protection class: IP 55 → Fluid temperature: max. 70 °C → Ambient temperature: max. 40 °C → Motor efficiency class: IE3, IE4	→ Mains connection: 3~400 V → Operating mode: S1 → Protection class: IP 55 → Fluid temperature: max. 70 °C → Ambient temperature: max. 40 °C → Motor efficiency class: IE3	→ Mains connection: 3~400 V → Immersed operating mode: S1 → Non-immersed operating mode: S2-15 or S2-30 → Protection class: IP 68 → Fluid temperature: max. 40 °C → Max. immersion depth: 20 m
Equipment/function	→ Optional external sealing chamber monitoring	→ Optional thermal motor monitoring → Optional external sealing chamber monitoring	→ Optional external sealing chamber monitoring

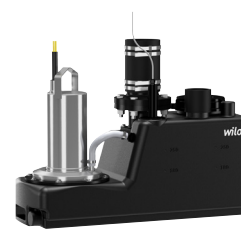




Product range	Submersible sewage pumps	Submersible sewage pumps	Submersible sewage pumps
Series	Wilo-EMU FA 08 ... to FA 60 ...	Wilo-EMU FA...RF	Wilo-EMU FA...WR
Field of application	Wastewater collection and transport, wastewater treatment, dewatering/flood control, industrial process	Wastewater collection and transport, industrial process	Wastewater collection and transport, wastewater treatment
Duty chart			
Design	Submersible sewage pump	Submersible sewage pump made of cast stainless steel	Submersible sewage pump with mechanical stirring apparatus
Application	Pumping of <ul style="list-style-type: none"> <li>→ Untreated sewage with faeces and long-fibre components</li> <li>→ Sewage containing faeces ((DIN) EN 12050-1)</li> <li>→ Process water, wastewater</li> </ul>	Pumping of highly abrasive sewage containing faeces (EN 12050-1) without long-fibre components	Pumping of highly abrasive and faeces-containing sewage (EN 12050-1) without long-fibre components
Volume flow Q max.	7,950 m <sup>3</sup> /h	70 m <sup>3</sup> /h	72 m <sup>3</sup> /h
Delivery head H max.	87 m	30 m	27 m
Special features	<ul style="list-style-type: none"> <li>→ Self-cooling motors for the use in wet well and dry well installation</li> <li>→ Process security thanks to extensive monitoring devices</li> <li>→ Special versions for abrasive and corrosive fluids</li> <li>→ Low vibrations and long service life thanks to high-quality components</li> <li>→ Customised versions are possible</li> </ul>	<ul style="list-style-type: none"> <li>→ Sturdy version completely in stainless steel casting 1.4581 for the use in corrosive fluids</li> <li>→ Longitudinal watertight cable inlet</li> <li>→ Low vibrations and long service life thanks to high-quality components</li> </ul>	<ul style="list-style-type: none"> <li>→ Mechanical mixing device made of Abrasit material to avoid deposits in the pump chamber</li> <li>→ Low vibrations and long service life thanks to high-quality components</li> <li>→ Customised versions are possible</li> </ul>
Technical data	<ul style="list-style-type: none"> <li>→ Mains connection: 3~400 V</li> <li>→ Immersed operating mode: S1</li> <li>→ Non-immersed operating mode: S1 with self-cooling motor, S2 with surface-cooled motors</li> <li>→ Protection class: IP 68</li> <li>→ Fluid temperature: max. 40 °C</li> <li>→ Max. immersion depth: 20 m</li> </ul>	<ul style="list-style-type: none"> <li>→ Mains connection: 3~400 V</li> <li>→ Immersed operating mode: S1</li> <li>→ Non-immersed operating mode: S2</li> <li>→ Protection class: IP 68</li> <li>→ Fluid temperature: max. 40 °C</li> <li>→ Max. immersion depth: 20 m</li> </ul>	<ul style="list-style-type: none"> <li>→ Mains connection: 3~400 V</li> <li>→ Immersed operating mode: S1</li> <li>→ Non-immersed operating mode: S2</li> <li>→ Protection class: IP 68</li> <li>→ Fluid temperature: max. 40 °C</li> <li>→ Max. immersion depth: 20 m</li> </ul>
Equipment/function	<ul style="list-style-type: none"> <li>→ Heavy-duty version made of cast iron</li> <li>→ Optional external sealing chamber monitoring</li> </ul>	<ul style="list-style-type: none"> <li>→ Optional external sealing chamber monitoring</li> </ul>	<ul style="list-style-type: none"> <li>→ Heavy-duty version made of cast iron</li> <li>→ Mechanical stirring apparatus is fastened directly to the impeller</li> <li>→ Mixer head made of Abrasit (chilled cast iron)</li> <li>→ Optional external sealing chamber monitoring</li> </ul>



Product range	Submersible sewage pumps	Submersible pumps	Sewage lifting unit
Series	Wilo-EMU KPR ...	Series Norma V	Wilo-HiDrainlift 3
Field of application	Raw water intake, wastewater treatment, dewatering/flood control	Industrial process	Waste water collection and transport
Duty chart			
Design	Axial submersible pump for use in pipe chambers	Single-stage submersible pump with pump hydraulics as per EN 733, discharge bend with axial suction	Sewage lifting unit
Application	Pumping of → Pre-cleaned sewage without faeces and long-fibre components (EN 12050-2) → Process water, Wastewater	Pumping of → Clean or slightly contaminated fluids in industrial processes → Lightweight mineral oil products	Pumping of pre-cleaned sewage without faeces (DIN EN 12050-2) that cannot be piped to the sewer system through the use of natural falls.
Volume flow Q max.	9,500 m <sup>3</sup> /h	200 m <sup>3</sup> /h	6 m <sup>3</sup> /h
Delivery head H max.	8.4 m	100 m	8 m
Special features	→ Installation directly in the pressure pipe → Angle of propeller blades adjustable → Process security thanks to extensive monitoring devices → Low vibrations and long service life thanks to high-quality components → Customised versions are possible	→ Low maintenance → No shaft sealing → Noise-free suction → Replaceable IEC standard motor → Semi-elastic coupling with the VTM version → Installation in tanks, vessels, rainwater storage tanks and chambers	→ 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)
Technical data	→ Mains connection: 3-400 V → Immersed operating mode: S1 → Protection class: IP 68 → Fluid temperature: max. 40 °C → Max. immersion depth: 20 m	→ Permitted temperature range up to +120 °C → Nominal-Ø on pressure side DN 32 to DN 100 → Max. operating pressure PN 16 → Mains connection 3~400 V, 50 Hz → Max. viscosity 150 cSt	→ Mains connection: 1~230 V → Operation mode: S3 → Fluid temperature: 35 °C, up to 60/75 °C for short periods (5 min) → Pressure port: Ø 32 mm → Inlet connection: Ø 40 mm → Tank volume: 3.9 l; 16 l; 15.5 l → Switching Volume: 0.7 l; 2 l; 2 l
Equipment/function	→ Heavy-duty version made of cast iron	→ Connection on pressure side above or optionally also below the connection plate → Flange version in PN 10/16/25 → Basic versions VCS: adjustable base-plate/adjustable coupling → Basic version VEM: cast iron support/ fixed coupling → Basic version VTM: bearing block/ semi-elastic coupling → Optional: explosion-proof float switch → Optional: external lubrication of bearing or lubrication provided by fluid (default)	→ Ready-to-plug (except HiDrainlift 3-24) → Thermal motor monitoring → Level control with pneumatic pressure transducer → Integrated non-return valves → Active carbon filter



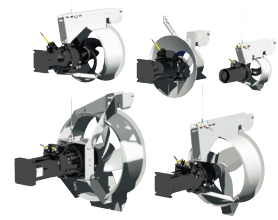
Product range	Sewage lifting unit	Sewage lifting unit	Sewage lifting unit
Series	Wilo-DrainLift Box	Wilo-HiSewlift 3	Wilo-DrainLift S
Field of application	Wastewater collection and transport	Waste water collection and transport	Wastewater collection and transport
Duty chart			
Design	Sewage lifting unit for concealed floor installation	Sewage lifting unit	Sewage lifting unit Single-pump system
Application	Pumping of pre-cleaned sewage without faeces (DIN EN 12050-2) that cannot be piped to the sewer system through the use of natural falls.	Pumping of sewage containing faeces (DIN EN 12050-1) that cannot be piped to the sewer system through the use of natural falls	Pumping of sewage containing faeces (DIN EN 12050-1) that cannot be returned to the sewer system using natural falls, backflow resistant drainage of discharge points below the backflow level
Volume flow Q max.	18 m <sup>3</sup> /h	5 m <sup>3</sup> /h	35 m <sup>3</sup> /h
Delivery head H max.	10.5 m	8 m	6 m
Special features	<ul style="list-style-type: none"> <li>→ Easy to install due to integrated pump and non-return valve</li> <li>→ Large tank volume</li> <li>→ Easy maintenance</li> <li>→ Pumps with pressure pipe removable</li> <li>→ Stainless steel tile frame with trap</li> </ul>	<ul style="list-style-type: none"> <li>→ HiSewlift 3-135 in particularly narrow design (&lt; 149 mm width) for an easy front-wall installation</li> <li>→ Low-noise operation and integrated active carbon filter for a high user comfort</li> <li>→ Reliable performance and low power consumption for an efficient sewage disposal</li> <li>→ Easy installation with flexible connection possibilities</li> <li>→ Ready for connection</li> </ul>	<ul style="list-style-type: none"> <li>→ Space-saving installation</li> <li>→ Installation-friendly due to low weight and large scope of delivery incl. non-return valve</li> <li>→ Flexible thanks to freely selectable inlets</li> <li>→ Operational reliability thanks to integrated thermal motor protection and mains-independent alarm for SSM and high water</li> </ul>
Technical data	<ul style="list-style-type: none"> <li>→ Mains connection: 1~230 V</li> <li>→ Operation mode: S3</li> <li>→ Fluid temperature: max. 35/40 °C</li> <li>→ Pressure port: Ø 40 mm</li> <li>→ Inlet connection: DN 100</li> <li>→ Gross volume: 113 l</li> <li>→ Switching volume: 22...31 l</li> </ul>	<ul style="list-style-type: none"> <li>→ Mains connection: 1~230 V</li> <li>→ Operation mode: S3</li> <li>→ Fluid temperature: max. 35 °C</li> <li>→ Pressure port: Ø 32 mm</li> <li>→ Inlet connection: Ø 40 mm</li> <li>→ Gross volume: 14.4 l; 17.4 l</li> <li>→ Switching Volume: 1 l</li> </ul>	<ul style="list-style-type: none"> <li>→ Mains connection: 1~230 V or 3~400 V</li> <li>→ Operation mode: S3</li> <li>→ Pressure port: DN 80</li> <li>→ Inlet connection: DN 100, DN 40</li> <li>→ Fluid temperature: max. 40 °C</li> <li>→ Gross volume: 45 l</li> <li>→ Switching volume: 21 l</li> </ul>
Equipment/function	<ul style="list-style-type: none"> <li>→ Single and double-pump system</li> <li>→ Ready-to-plug system</li> <li>→ Lifting unit with ready-mounted pump, level control, pressure pipe and integrated non-return valve</li> <li>→ Mains connection cable with shock-proof plug</li> <li>→ Thermal motor monitoring</li> <li>→ Double pump system with switch gear</li> </ul>	<ul style="list-style-type: none"> <li>→ Ready-to-plug</li> <li>→ Thermal motor monitoring</li> <li>→ Level control with pneumatic pressure transducer</li> <li>→ Integrated non-return valves</li> <li>→ Active carbon filter</li> </ul>	<ul style="list-style-type: none"> <li>→ Ready-to-plug</li> <li>→ Thermal motor monitoring</li> <li>→ Level control with float switch</li> <li>→ Mains-independent alarm</li> <li>→ Potential-free contact</li> <li>→ Non-return valve (RV version)</li> <li>→ Inlet seal</li> <li>→ Keyhole saw for inlet borehole</li> <li>→ Hose connection for venting</li> <li>→ Kit for pressure pipe connection</li> <li>→ Fixation material</li> <li>→ Soundproofing material</li> <li>→ Switchgear</li> </ul>



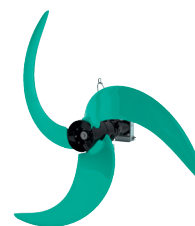
Product range	Sewage lifting unit	Sewage lifting unit	Sewage lifting unit
Series	Wilo-DrainLift M Wilo-RexaLift FIT L	Wilo-DrainLift XL	Wilo-DrainLift XXL
Field of application	Wastewater collection and transport	Wastewater collection and transport	Wastewater collection and transport
Duty chart			
Design	Sewage lifting unit Single and double-pump system	Sewage lifting unit Double-pump system	Sewage lifting unit Double-pump system
Application	Pumping of sewage containing faeces (DIN EN 12050-1) that cannot be returned to the sewer system using natural falls	Pumping of sewage containing faeces (DIN EN 12050-1) that cannot be returned to the sewer system using natural falls	Pumping of sewage containing faeces (DIN EN 12050-1) that cannot be returned to the sewer system using natural falls
Volume flow Q max.	40 m³/h	40 m³/h	140 m³/h
Delivery head H max.	22 m	22 m	21 m
Special features	<ul style="list-style-type: none"> <li>→ Low system weight for an easy installation</li> <li>→ Integrated non-return valve</li> <li>→ Flexible thanks to freely selectable inlets</li> <li>→ Operationally reliable thanks to integrated thermal motor protection and mains-independent alarm for SSM and high water</li> </ul>	<ul style="list-style-type: none"> <li>→ Flexible thanks to height-adjustable and swivel-mounted inlet connection</li> <li>→ Easy operation with menu-guided switchgear</li> <li>→ Integrated non-return valve</li> <li>→ Operationally reliable due to high switching volume and reliable level detection</li> <li>→ Continuous duty (S1) possible thanks to the use of self-cooling motors</li> </ul>	<ul style="list-style-type: none"> <li>→ Flexible use thanks to one or two tanks</li> <li>→ Optimum tank drainage with deep suction function</li> <li>→ Operationally reliable thanks to large performance range and a reliable level detection</li> <li>→ Continuous duty (S1) possible due to the use of self-cooling motors</li> </ul>
Technical data	<ul style="list-style-type: none"> <li>→ Mains connection: 1~230 V or 3~400 V</li> <li>→ Operation mode: S3</li> <li>→ Fluid temperature: max. 40 °C</li> <li>→ Pressure port: DN 80</li> <li>→ Inlet connection: DN 40/50, DN 100, DN 150</li> <li>→ Gross volume: 62 to 140 l</li> <li>→ Switching volume: 24 to 50 l</li> </ul>	<ul style="list-style-type: none"> <li>→ Mains connection: 3~400 V</li> <li>→ Operating mode: S1</li> <li>→ Fluid temperature: max. 40 °C</li> <li>→ Pressure connection: DN 80</li> <li>→ Inlet connection: DN 100, DN 150</li> <li>→ Gross volume: 380 l</li> <li>→ Switching volume: 260 l</li> </ul>	<ul style="list-style-type: none"> <li>→ Mains connection: 3~400 V</li> <li>→ Operating mode: S1</li> <li>→ Fluid temperature: max. 40 °C</li> <li>→ Pressure port: DN 80, DN 100</li> <li>→ Inlet connection: DN 100, DN 150</li> <li>→ Gross volume: 400/800 l</li> <li>→ Switching volume: 305 ... 630 l</li> </ul>
Equipment/function	<ul style="list-style-type: none"> <li>→ Ready-to-plug</li> <li>→ Thermal motor monitoring</li> <li>→ Level control with float switch</li> <li>→ Mains-independent alarm</li> <li>→ Potential-free contact</li> <li>→ Pump cable detachable</li> <li>→ Non-return valve (RV version)</li> <li>→ Inlet seal</li> <li>→ Keyhole saw for inlet borehole</li> <li>→ Hose connection for venting</li> <li>→ Kit for pressure pipe connection</li> <li>→ Fixation material</li> <li>→ Soundproofing material</li> <li>→ Switchgear</li> </ul>	<ul style="list-style-type: none"> <li>→ Thermal motor monitoring</li> <li>→ Level control with level sensor</li> <li>→ Potential-free contact</li> <li>→ Pump cable detachable</li> <li>→ Inlet seal DN 150</li> <li>→ Keyhole saw for inlet seal</li> <li>→ Non-return valve</li> <li>→ Hose connection for venting</li> <li>→ Hose connection for diaphragm hand pump</li> <li>→ Hose connection for pressure pipe connection</li> <li>→ Fixation material</li> <li>→ Switchgear with breakdown barrier</li> </ul>	<ul style="list-style-type: none"> <li>→ Sheath current cooling</li> <li>→ Thermal motor monitoring and leakage detection</li> <li>→ Level control with level sensor</li> <li>→ Potential-free contact</li> <li>→ Hose connection for venting</li> <li>→ Hose connection for diaphragm hand pump</li> <li>→ Kit for pressure pipe connection</li> <li>→ Fixation material</li> <li>→ Switchgear with breakdown barrier</li> </ul>



Product range	Sewage lifting unit	Sewage lifting unit Pump chamber	Pump chamber
Series	Wilo-EMUport CORE Wilo-EMUport FTS	Wilo-DrainLift WS 40 Basic Wilo-DrainLift WS 40/50	Wilo-Port 600 Wilo-Port 800
Field of application	Wastewater collection and transport	Wastewater collection and transport	Wastewater collection and transport
Duty chart		no illustration	no illustration
Design	Sewage lifting unit with solid separation system according to DIN EN 12050-1 for installation in a building or manhole chamber (outdoor)	Pump chamber as concealed pumping station or floor-mounted lifting unit	Pump chamber with synthetic tank, as single or double pump system
Application	Pumping of sewage containing faeces or pre-cleaned sewage that cannot be returned to the sewer system using natural falls	Pumping of sewage containing faeces or pre-cleaned sewage that cannot be returned to the sewer system using natural falls	Pumping of sewage containing faeces or pre-cleaned sewage that cannot be returned to the sewer system using natural falls
Volume flow Q max.	80 m <sup>3</sup> /h	10 m <sup>3</sup> /h	
Delivery head H max.	28 m	8 m	
Special features	<ul style="list-style-type: none"> <li>→ Long service life and corrosion resistance thanks to PE/PUR material</li> <li>→ Maintenance-friendly as all parts are accessible from outside</li> <li>→ High operational reliability thanks to a pre-filtering of solid matter, the pumps deliver only the cleaned sewage</li> <li>→ Retrofit system for the economic reconstruction of old pump stations</li> </ul>	<ul style="list-style-type: none"> <li>→ Pressure-tight pump chamber for floor-mounted or concealed floor installation</li> <li>→ Flexible thanks to freely selectable inlets</li> <li>→ Large tank volume</li> <li>→ Including pipework, level control, switchgear and pump (basic version)</li> </ul>	<ul style="list-style-type: none"> <li>→ Universal use thanks to continuous pump chamber extension up to 2.75 m</li> <li>→ Anti-buoyant without weights for ground water levels up to the surface of the ground for maximum operational reliability</li> <li>→ covers up to load class D 400</li> <li>→ Easy maintenance thanks to surface coupling</li> <li>→ Long service life thanks to pump chamber body made of corrosion-free polyethylene</li> </ul>
Technical data	<ul style="list-style-type: none"> <li>→ Mains connection: 3~400 V</li> <li>→ Max. inlet: 60 m<sup>3</sup>/h</li> <li>→ Operation mode: S1</li> <li>→ Fluid temperature: max. 40 °C</li> <li>→ Pressure port: DN 80, DN 100</li> <li>→ Inlet connection: DN 200</li> <li>→ Gross volume: 440 or 1200 l</li> <li>→ Tank volume: 295 or 900 l</li> </ul>	<ul style="list-style-type: none"> <li>→ Mains connection: 1~230 V or 3~400 V</li> <li>→ Operating mode: S3</li> <li>→ Fluid temperature: max. 40 °C</li> <li>→ Pressure port: Ø 40/50 mm</li> <li>→ Inlet connection: DN 100, DN 150</li> <li>→ Gross volume: 255/400 l</li> <li>→ Switching volume: 90/130 l</li> </ul>	<ul style="list-style-type: none"> <li>→ Diameter: 600/800 mm</li> <li>→ Pressure port: R 1¼, R 1½</li> <li>→ Inlet connection: DN 100, DN 150, DN 200</li> <li>→ Tank heights: 1500, 1800, 2250 mm</li> <li>→ covers: class A15, B125, D400</li> <li>→ Telescopic chamber extension: 500 mm</li> </ul>
Equipment/function	<ul style="list-style-type: none"> <li>→ Sewage lifting unit with solid separation system</li> <li>→ Collection reservoir</li> <li>→ 2x solids separation reservoir</li> <li>→ 2x sewage pump</li> <li>→ Complete pipework including inlet and pressure connection and non-return valve</li> </ul>	<ul style="list-style-type: none"> <li>→ Wilo-DrainLift WS 40 Basic including sewage pump Drain TC 40</li> <li>→ For Wilo-DrainLift WS 40/50 following sewage pumps can be used: <ul style="list-style-type: none"> <li>- Drain TP 50/65</li> <li>- Rexa CUT</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>→ Wilo sewage pumps which can be used: <ul style="list-style-type: none"> <li>- Drain TMW 32</li> <li>- Drain TS 40</li> <li>- Drain TC 40</li> <li>- Drain STS 40</li> <li>- Drain MTC</li> <li>- Rexa CUT</li> </ul> </li> </ul>



Product range	Pump chamber	Submersible pumps	Recirculation pump
Series	Wilo-DrainLift WS 1100	Wilo-EMU polder pump	Wilo-EMU RZP 20 to RZP 80-2
Field of application	Wastewater collection and transport	Water distribution/boosting, clean water treatment, raw water intake, dewatering, industrial process	Wastewater treatment
Duty chart	no illustration		
Design	Pump chamber with synthetic tank, as single- or double-pump system	Polder pump	Submersible mixers with housing unit, directly driven or with single-stage planetary gear
Application	Pumping of sewage containing faeces or pre-cleaned sewage that cannot be returned to the sewer system using natural falls	Potable and process water from tanks or shallow bodies of water; municipal and industrial water supply; sprinkling and irrigation	Pumping of → Wastewater and sewage with low delivery heads and large volume flows → Flow generation in water channels
Volume flow Q max.		1,200 m <sup>3</sup> /h	6,800 m <sup>3</sup> /h
Delivery head H max.		160 m	1.1 m
Special features	<ul style="list-style-type: none"> <li>→ Flexible installation</li> <li>→ Anti-buoyant</li> <li>→ High stability</li> </ul>	<ul style="list-style-type: none"> <li>→ Deep water lowering thanks to self-cooling motors</li> <li>→ Sturdy construction in cast iron or bronze</li> <li>→ Compact construction</li> <li>→ Maintenance-friendly, rewindable motors</li> <li>→ Optionally with Ceram CT coating for increasing the efficiency</li> </ul>	<ul style="list-style-type: none"> <li>→ Vertical or in-line installation possible</li> <li>→ Self-cleaning propeller to avoid clogging</li> <li>→ Propeller in steel or PUR</li> </ul>
Technical data	<ul style="list-style-type: none"> <li>→ Diameter: 1500 mm</li> <li>→ Pressure port: Rp1½, Rp2, Rp2½, DN 80</li> <li>→ Inlet connection: DN 150</li> <li>→ Tank height: 1800 mm</li> <li>→ Pump chamber covers: 5 kN/m<sup>2</sup> (in accordance with DIN EN 124, Group 1)</li> </ul>	<ul style="list-style-type: none"> <li>→ Mains connection: 3~400 V</li> <li>→ Fluid temperature: max. 20 °C</li> <li>→ Minimum flow across outside shroud: not necessary</li> <li>→ Max. sand content: 35 g/m<sup>3</sup></li> <li>→ Immersed operating mode: S1</li> <li>→ Max. immersion depth: 300 m</li> </ul>	<ul style="list-style-type: none"> <li>→ Mains connection: 3~400 V</li> <li>→ Immersed operating mode: S1</li> <li>→ Protection class: IP 68</li> <li>→ Fluid temperature: max. 40 °C</li> <li>→ Max. immersion depth: 20 m</li> </ul>
Equipment/function	<ul style="list-style-type: none"> <li>→ Wilo sewage pumps which can be used:                             <ul style="list-style-type: none"> <li>- Drain TS 40</li> <li>- Drain TP 50/65</li> <li>- Drain TP 80</li> <li>- Rexa FIT/PRO</li> <li>- Drain MTC</li> <li>- Rexa CUT</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>→ Multistage submersible pump</li> <li>→ Semi-axial impellers</li> <li>→ Hydraulics and motor freely configurable according to power requirements</li> <li>→ Three-phase motor for direct or star-delta start</li> <li>→ Motors rewindable as standard</li> </ul>	<ul style="list-style-type: none"> <li>→ Stationary installation directly on the flow pipe</li> <li>→ Flexible installation via lowering device</li> <li>→ Vertical or in-line installation possible</li> </ul>



Product range	Submersible mixer	Submersible mixer	Submersible mixer
Series	Wilo-EMU TR 14 to TR 40	Wilo-EMU TR 50-2 to TR 120-1 Wilo-EMU TRE with IE3 motor	Wilo-EMU TR 212 to TR 326-3 Wilo-EMU TRE with IE3 motor
Field of application	Wastewater treatment	Wastewater treatment	Wastewater treatment
Duty chart	no illustration	no illustration	no illustration
Design	Direct driven submersible mixer	Submersible mixer with single-stage planetary gear	Submersible mixer with two-stage planetary gear
Application	Turbulation of deposits and solids in stormwater retention tank and pump sump; destruction of floating sludge layers	Use in activated sludge tanks and sludge tanks for flow generation, suspension of solids, homogenisation and prevention of floating sludge layers	Energetically optimised mixing and circulation of activated sludge; generation of flow rates in circulation channels
Volume flow Q max.	Thrust: 45 – 1100 N	Thrust: 160 – 6620 N	Thrust: 390 – 4250 N
Delivery head H max.			
Special features	<ul style="list-style-type: none"> <li>→ Low power consumption</li> <li>→ Low weight</li> <li>→ Self-cleaning propeller with Helix hub to avoid clogging</li> <li>→ Propeller in steel or PUR</li> </ul>	<ul style="list-style-type: none"> <li>→ Planetary gear allows transmission of high torques to the propeller with an aerodynamic construction</li> <li>→ Exchangeable planetary stage for adaptation of the propeller speed</li> <li>→ Self-cleaning propeller with backward-bent blades to avoid clogging</li> <li>→ Also with IE3 motor technology (on the basis of IEC 60034-30)</li> <li>→ Propeller in steel, PUR or PUR/GFK</li> </ul>	<ul style="list-style-type: none"> <li>→ Planetary gear allows transmission of high torques to the propeller with aerodynamic construction</li> <li>→ Exchangeable planetary stage for adaptation of the propeller speed</li> <li>→ Self-cleaning propeller with backward-bent blades to avoid clogging</li> <li>→ Also with IE3 motor technology (on the basis of IEC 60034-30)</li> </ul>
Technical data	<ul style="list-style-type: none"> <li>→ Mains connection: 3~400 V</li> <li>→ Immersed operating mode: S1</li> <li>→ Protection class: IP 68</li> <li>→ Fluid temperature: max. 40 °C</li> <li>→ Max. immersion depth: 20 m</li> </ul>	<ul style="list-style-type: none"> <li>→ Mains connection: 3~400 V</li> <li>→ Immersed operating mode: S1</li> <li>→ Protection class: IP 68</li> <li>→ Fluid temperature: max. 40 °C</li> <li>→ Max. immersion depth: 20 m</li> </ul>	<ul style="list-style-type: none"> <li>→ Mains connection: 3~400 V</li> <li>→ Immersed operating mode: S1</li> <li>→ Protection class: IP 68</li> <li>→ Fluid temperature: max. 40 °C</li> <li>→ Max. immersion depth: 20 m</li> </ul>
Equipment/function	<ul style="list-style-type: none"> <li>→ Stationary installation on wall and floor</li> <li>→ Flexible installation through the use of lowering device or special pipe attachment</li> <li>→ Can be swivelled vertically and horizontally when installed with a lowering device</li> </ul>	<ul style="list-style-type: none"> <li>→ Stationary installation on walls</li> <li>→ Flexible installation via lowering device</li> <li>→ Can be swivelled horizontally when installed with a lowering device</li> <li>→ Installation with stand allows free placement in basin</li> <li>→ Single-stage planetary gear</li> </ul>	<ul style="list-style-type: none"> <li>→ Installation with stand allows free placement in basin</li> <li>→ Flexible installation</li> <li>→ Two-stage planetary gear with exchangeable second planetary gear speed</li> </ul>



Product range	Treatment process	Aeration
Series	Wilo-Sevio ACT	Wilo-Sevio AIR
Field of application	Wastewater treatment, industrial process	Sewage treatment
Duty chart	no illustration	no illustration
Design	Solids diffuser	Aeration system with panel, tube or disc diffusers
Application	Gentle mixing process of biomass particles in the pumped fluid	For fine-bubble aeration of aqueous media such as water, wastewater or sludge, for the purposes of supplying oxygen
Volume flow Q max.	Circulation capacity 3300 – 4000 m <sup>3</sup> /h	
Delivery head H max.		
Special features	<ul style="list-style-type: none"> <li>→ Careful introduction of the biomass carrier particles into the fluid</li> <li>→ Higher volume penetration for optimising the cleaning process</li> <li>→ Reduced energy costs thanks to an improved cleaning performance</li> <li>→ Also with IE3 motor technology (on the basis of IEC 60034-30)</li> <li>→ Retrofit option for existing installations</li> </ul>	<ul style="list-style-type: none"> <li>→ High operational reliability thanks to integrated non-return valve (with panel diffusers)</li> <li>→ High system efficiency due to increased ventilation capacity</li> <li>→ Optimised ventilation process due to selection of the appropriate diffuser – panel, tube or disc diffuser</li> <li>→ Optimisation of the ventilation process in combination with submersible mixers</li> </ul>
Technical data	<ul style="list-style-type: none"> <li>→ Mains connection: 3-400 V</li> <li>→ Immersed operating mode: S1</li> <li>→ Protection class: IP 68</li> <li>→ Fluid temperature: max. 40 °C</li> <li>→ Max. immersion depth: 20 m</li> </ul>	<ul style="list-style-type: none"> <li>→ Air temperature: max. 60/80 °C</li> <li>→ Fluid temperature: max. 40/60 °C</li> <li>→ Nominal loading range:                             <ul style="list-style-type: none"> <li>- AIR D: 1.5...12 Nm<sup>3</sup>/h</li> <li>- AIR P: 2...76 Nm<sup>3</sup>/h</li> <li>- AIR T: 1...12 Nm<sup>3</sup>/h</li> </ul> </li> </ul>
Equipment/function	<ul style="list-style-type: none"> <li>→ Height-adjustable suction pipe due to lowering device</li> <li>→ Suction pipe with telescopic extension</li> </ul>	<ul style="list-style-type: none"> <li>→ Aeration system including pipework made from PVC or stainless steel</li> </ul>





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Investments require a great deal of planning. Product reliability and efficient operation are always central considerations. But how do you make the right decision? Wilo's unique service can help. Try & Buy allows you to experience the quality of Wilo products for yourself before buying. Test our products\* in your own system, and invest reliably in the future. Please note that Try & Buy is not available in all subsidiaries. Enquire with your local Wilo partner about options for using this service.

### WiloCare

With WiloCare your cost security and operational reliability are ensured. The service package provides you with monthly reports on the current status of your system, energy consumption, possible optimisation measures and pending maintenance intervals. Individual options can be adjusted precisely to your requirements, all at a fixed monthly price. Choose the version that fits you best: Basic, Comfort or Premium.

\*Ask us what series are available.

## OUR TOOLS AND TRAINING: COMPREHENSIVE AND PRACTICE-ORIENTATED.

We are there for you worldwide, 365 days a year. With over 2,500 technicians, our teams assist you in over 60 countries – not just to meet your needs and requirements but to exceed them whenever possible. A phone call is all it takes and we'll initiate all the necessary steps – quickly, professionally and in direct coordination with you. Our service pledge holds for the entire life cycle of your Wilo products. Because you can always rely on Wilo.

### DESIGN AND SELECTION

We want you to find the perfect solution for your requirements. That's why we provide personal consulting before your purchase to help you find the best and most economical product solution.

#### **Our services at a glance:**

- On-site support
- Wilo-Select pump design software
- Installation drawings
- Convenient integration of our product data into the BIM model for optimal consulting support
- Efficiency checks to determine the economic efficiency of existing pumps and suitable replacement pumps



## SERVICE

Wilo has a long tradition of collaborating with installers and plant engineers. Service is an essential component of this partnership. We collaborate to develop a service concept tailored to your individual needs – with our expertise and personal consulting, we make sure that the operation of your systems is as energy-efficient, reliable and economical as possible. All the while, our competent Wilo service technicians are ready to assist you with fast, reliable and on-time support.

### Our services at a glance:

- Rapid repair service
- Commissioning
- Customised, reliable maintenance concepts
- Optimisation and replacement
- Fast spare parts solutions
- Service packages

## TRAINING AND SEMINARS

We want you to be able to use innovative technologies and products from Wilo optimally and integrate them perfectly into your working process. With this goal in mind, we offer expert-led seminars designed for the specific needs and applications of your industry. Expand your knowledge and put our expertise to work for you. Our seminars also give you the opportunity to exchange ideas with industry colleagues. We also develop company seminars for your particular requirements.

### Our services at a glance:

- Practically orientated product and system seminars
- Instructors with long-term practical experience
- Ideal space for meeting colleagues and exchanging ideas
- Dialogue-based training concepts for active learning
- Wilo-Brain qualification
- System consulting





**THE FUTURE IS  
NOW.**

***wilo***

Pioneering for You



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