Pioneering for You

*Efficient solutions – 50 Hz*

# General Overview 2022

Our product and system solutions for Heating, Air conditioning, Cooling, Water supply and Drainage and sewage.

# 150 YEARS WILO

Wilo sees its role since being founded in 1872 as a pioneer and company with vision and foresight. Our values and spirit of innovation have been our main success factor and will also determine our future. We look back on cherished traditions and important events in our past. To prepare ourselves for the challenges of the future we remember our roots.

We develop sustainable technologies that help people all around the world. This is the only way we can make our vision come true. The vision that Wilo stands as a solutions provider for a smart and resource-efficient world. The focus here lies on pumps and pump systems as the heart of any system in which water is moved.

Experience Wilo on www.wilo1872.com

# CONTENT



AR **More is more: in-depth digital content**
**Our extra for you:** wherever you see this logo you can call up additional information we prepared for you. Simply scan the area with your smartphone and find out more about selected topics.

wilo **Download the Wilo-Assistant app for free in the Google Play Store for Android or in the App Store for iOS.**

AR **Tap the AR logo to start the Wilo-Assistent app and scan the content with your smartphone.**

# Pioneering for You

## Our promise to you.

The Wilo Group is one of the world's leading premium providers of pumps and pump systems for the building services, water management and industrial sectors. In the past decade, we have developed from a hidden champion into a visible and connected champion. Today, Wilo has around 8,000 employees worldwide.

Our innovative solutions, smart products and individual services move water in an intelligent, efficient and climate-friendly manner. We are also making an important contribution to climate protection with our sustainability strategy and in conjunction with our partners. We are systematically pressing ahead with the digital transformation of the Group. We are already the digital pioneer in the industry with our products and solutions, processes and business models.

## Sustainably better.

One of the most important tasks in times of limited natural resources is the responsible consumption of water, a resource that is becoming increasingly scarce. Efficiency, connectivity and safety will become ever more important in the future. We aspire to offer you sustainable, user-friendly and high-performance solutions for building services and water management that are ahead of their time. We work closely with our customers to create innovative products and systems that perfectly match their requirements and are rounded off with convenient services. The result is integrated solutions you can rely on at all times.


wilo

# Sustainability strategy

**Wilo has developed** an explicit sustainability strategy on the basis of its Ambition 2025 corporate strategy and the identification of key issues. The central tenet of this strategy is to provide more people with clean water while simultaneously reducing the ecological footprint. A total of 18 goals have been formulated within four action areas. Business and politics do not take place in isolation from one another, which is why this year we have integrated corporate political responsibility as a new aspect of our sustainability strategy.

## WATER

We are facilitating better access to clean water for **100 million people**.

Increased provision of innovative water solutions: Annual growth rate **7.5 percent**.

Expansion of smart water systems portfolio: Annual growth rate **35 percent**.

Expansion of water programmes.

Reduction in drinking water consumption at Wilo's sites: **20 percent**.

## ENERGY & EMISSIONS

We are reducing $CO_2$ emissions by **50 million t**.

Energy savings through high-efficiency pumps: **1.8 TWh** per year.

Increase in energy solution projects: **10,000** projects per year.

Expansion of smart products portfolio: Annual growth rate **15 percent**.

Reduction in $CO_2$ emissions at Wilo's sites: **Climate-neutral production**.

## MATERIAL & WASTE

We are reducing the consumption of raw materials by **250 t**.

Increase in the number of reused components: **30,000** items per year.

Reduction of materials consumption: **12 t** copper per year.

Increased use of reusable packaging: **100 percent**.

Increase in recycling rate at Wilo's sites: **90 percent**.

## EMPLOYEES & SOCIETY

We **act responsibly** towards employees and society.

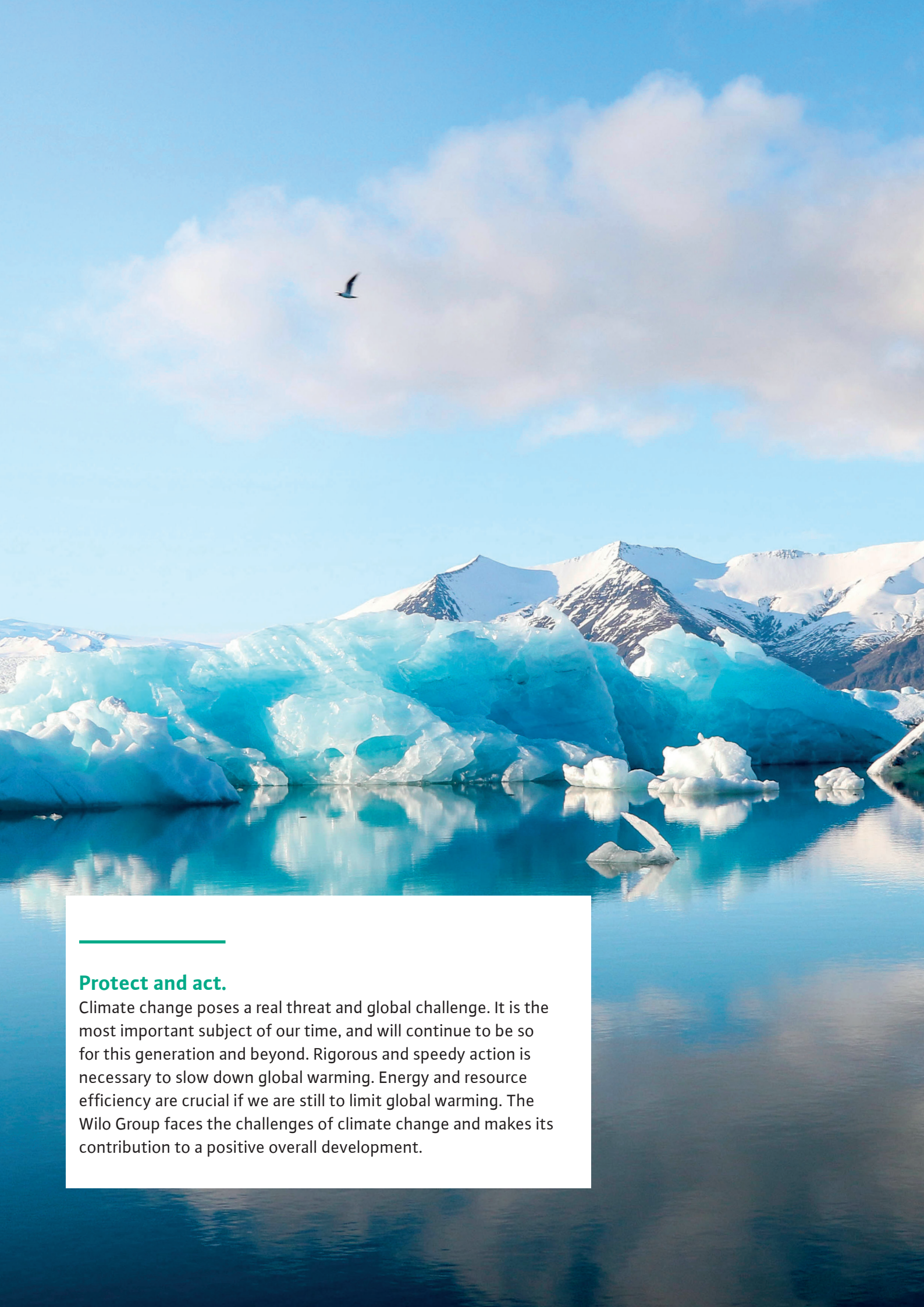
Promotion of local capacity development: **20** new training centres.

Ensuring social compliance: **90 percent** training coverage.

Effective development programmes: **70 percent** of managers developed internally.

Strengthening the culture of diversity: **20 percent** of management positions filled by women.

Ensuring a safe working environment: **0** accidents.



## Protect and act.

Climate change poses a real threat and global challenge. It is the most important subject of our time, and will continue to be so for this generation and beyond. Rigorous and speedy action is necessary to slow down global warming. Energy and resource efficiency are crucial if we are still to limit global warming. The Wilo Group faces the challenges of climate change and makes its contribution to a positive overall development.

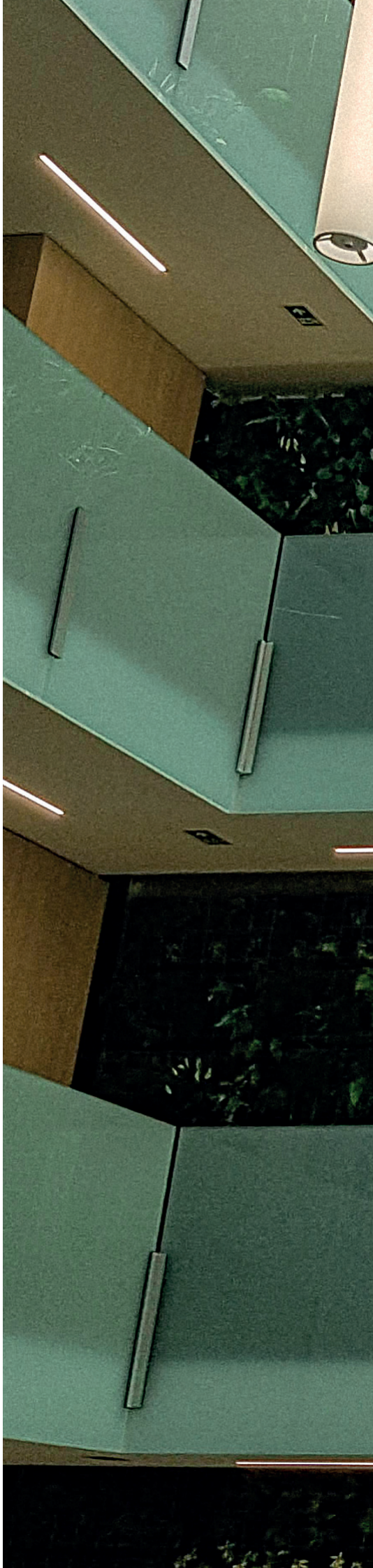
# Smart products for smart buildings

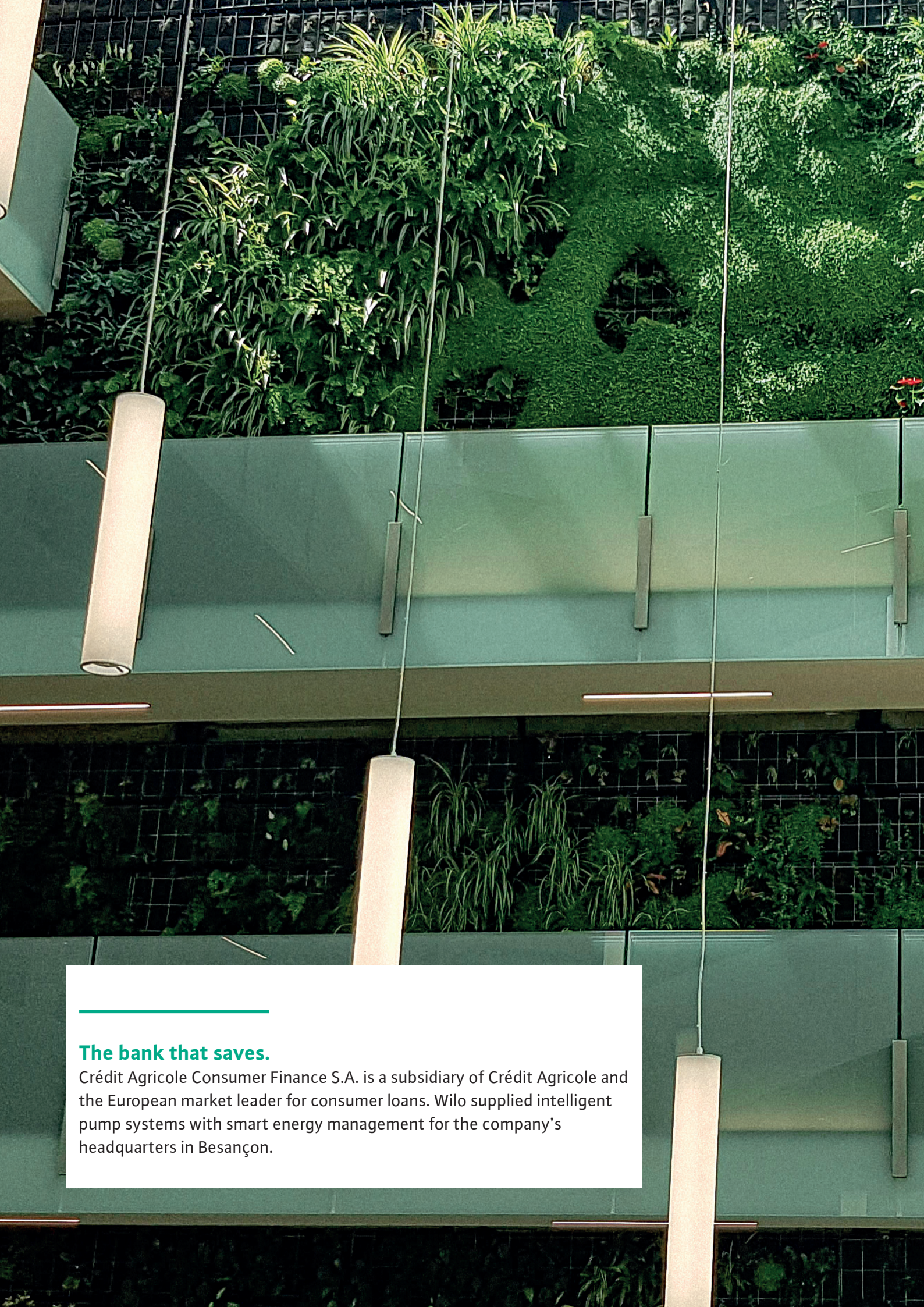
## Smart homes and intelligently connected buildings are no longer a rarity – they have become the gold standard for all new builds.

**Sustainability considerations** are increasingly being taken into account in today's building design and construction. The less energy a building consumes, the better. After all, the use of renewable energy sources on the supply side alone will not be enough to reduce $CO_2$ emissions to the extent required to slow climate change. Intelligent building control is playing an increasingly important role in this respect. And pumps and pump systems are a central component of building services.

**The Wilo-Stratos MAXO** is the world's first smart-pump* and sets standards in terms of energy efficiency, installation, customer comfort and connectivity. It combines the qualities of Wilo's traditional high-efficiency pump with the requirements of smart buildings. Thanks to its numerous interfaces, it can be easily integrated into complex building systems across a wide range of applications. In this way, the Wilo-Stratos MAXO achieves outstanding efficiency ratings that allow it to make a significant contribution to a building's overall energy efficiency.

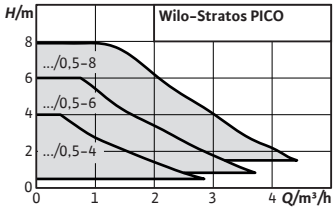
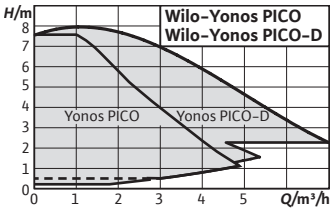
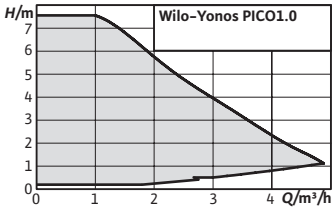
** By a smart-pump we mean a new category of pumps that goes far beyond our high-efficiency pumps or pumps with pump intelligence. The combination of the latest sensor technology and innovative control functions (e.g. Dynamic Adapt plus and Multi-Flow Adaptation), bi-directional connectivity (e.g. Bluetooth, integrated analogue inputs, binary inputs and outputs, interface to the Wilo Net), updating through software updates and excellent user-friendliness (e.g. thanks to the Setup Guide, preview principle for anticipatory navigation and the proven Green Button Technology) make this pump a smart-pump.*

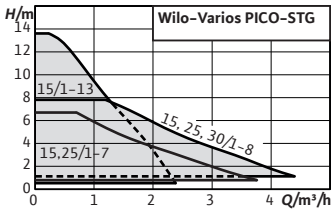
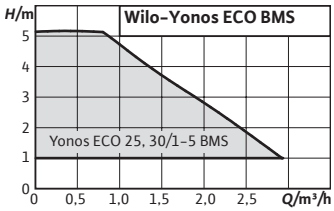
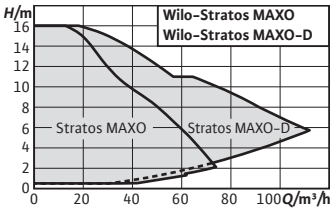


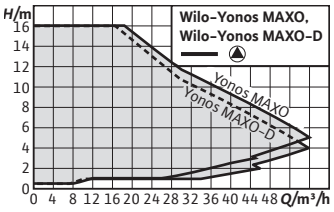
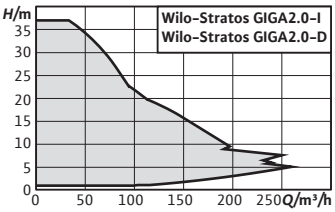
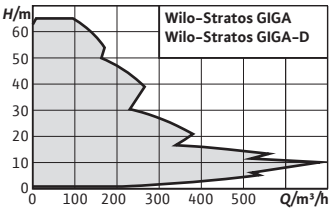


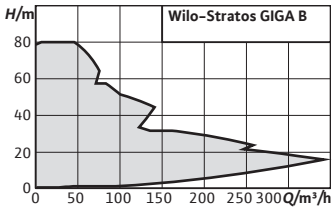
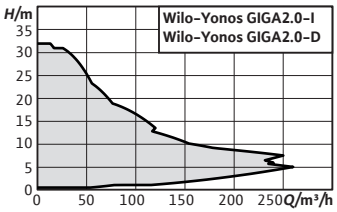
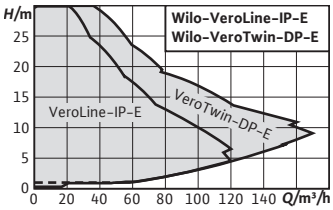
## The bank that saves.

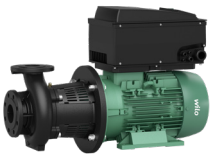
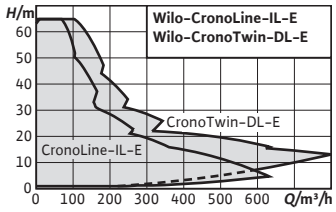
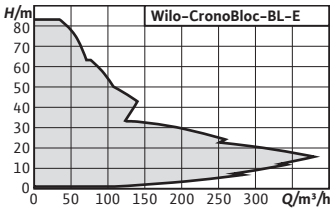
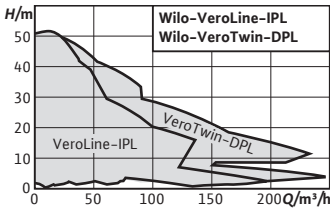
Crédit Agricole Consumer Finance S.A. is a subsidiary of Crédit Agricole and the European market leader for consumer loans. Wilo supplied intelligent pump systems with smart energy management for the company's headquarters in Besançon.

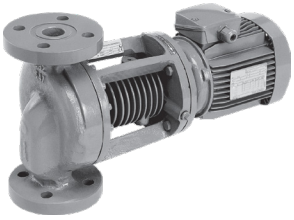
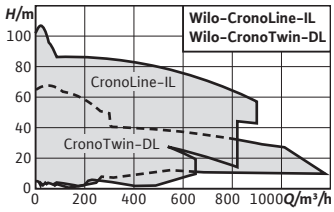
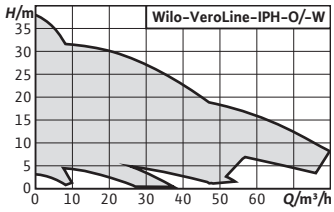
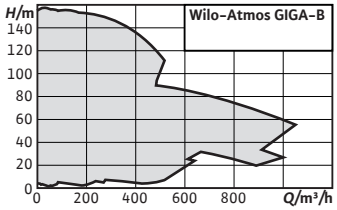
| Series | Wilo-Stratos PICO | Wilo-Yonos PICO<br>Wilo-Yonos PICO-D | Wilo-Yonos PICO1.0 |
|---|---|---|---|
| Product photo |  |  |  |
| Design | Glandless circulator with screwed connection, EC motor with automatic power adjustment | Glandless circulator with screwed connection, EC motor with automatic power adjustment | Glandless circulator with screwed connection, EC motor with 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 |
| Duty chart |  |  |  |
| Volume flow $Q_{max}$ | 4.8 m³/h | 7 m³/h | 7 m³/h |
| Delivery head $H_{max}$ | 8 m | 8 m | 8 m |
| Technical data | → Fluid temperature -10 °C to +110 °C<br>→ Mains connection 1~230 V, 50 Hz<br>→ Energy efficiency index (EEI) ≤ 0.18 (Stratos PICO.../0.5-8 ≤ 0.23)<br>→ Screwed connection Rp ½, Rp 1, Rp 1¼<br>→ Max. operating pressure 10 bar | → Fluid temperature -10 °C to +95 °C<br>→ Mains connection 1~230 V, 50 Hz<br>→ Energy efficiency index (EEI) ≤ 0.20 (Yonos PICO.../1-8 ≤ 0.23)<br>→ Screwed connection Rp ½, Rp 1, Rp 1¼<br>→ Max. operating pressure 10 bar | → Fluid temperature -10 °C to +95 °C<br>→ Mains connection 1~230 V, 50 Hz<br>→ Energy efficiency index (EEI) ≤ 0.20 (Yonos PICO.../1-8 ≤ 0.23)<br>→ Protection class IPX4D<br>→ Screwed connection Rp ½, Rp 1, Rp 1¼<br>→ Max. operating pressure 10 bar |
| Special features | → Easy to operate thanks to setting assistant, large display and Green Button Technology<br>→ Maximum energy efficiency through EC motor, Dynamic Adapt plus and precise settings<br>→ Optional: Operation with mobile devices via Bluetooth with Wilo-Smart Connect module BT<br>→ High level of reliability thanks to self-protection routines such as dry-running protection and restart<br>→ Monitoring of current flow, delivery head, electricity consumption and kilowatt hours consumed | → Maximum operating convenience with new intelligent settings, intuitive user interfaces and new functions<br>→ Optimised energy efficiency thanks to EC motor technology, precise settings of 0.1 m<br>→ Quick installation/replacement thanks to improved, compact design<br>→ Easier maintenance thanks to automatically and manually triggered restart or pump venting functions | → Maximum operating convenience with intuitive user interfaces<br>→ Optimised energy efficiency thanks to EC motor technology, precise settings of 0.1 m and display of current power consumption<br>→ Quick installation/replacement thanks to improved, optimised design<br>→ Easy maintenance and high degree of operational reliability due to automatically triggered restart or manual air venting function<br>→ Maximum operational reliability based on proven technology |
| Equipment/function | → Control mode: Dynamic Adapt plus, Δp-v, Δp-c, n-constant<br>→ Setting assistant for number of radiators or surface area of underfloor heating<br>→ Automatic setback operation; venting routine; restart and dry-running protection<br>→ Current values displayed for power consumption, flow, delivery head, speed and energy consumption<br>→ Function for resetting the electricity meter or restoring factory settings<br>→ Key lock<br>→ Wilo-Connectivity interface for external modules<br>→ Wilo-Connector | → Control modes: Δp-c, Δp-v and constant speed (3 characteristic curves)<br>→ Setting of operating mode according to application, delivery head or constant speed<br>→ Automatic deblocking function<br>→ Manual restart and pump venting function<br>→ LED display for setting the setpoint, displaying current consumption and flow<br>→ Wilo-Connector<br>→ Twin-head pump for individual (Δp-c, Δp-v, 3 speed stages) or parallel operation (Δp-c, 3 speed stages) | → Control modes: Δp-c and Δp-v<br>→ Setting of operating mode according to application, delivery head<br>→ Manual air venting function<br>→ Automatic deblocking function<br>→ LED display for setting the setpoint; displaying current consumption, error codes and activated air venting function<br>→ Wilo-Connector |

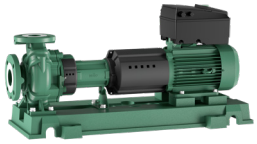
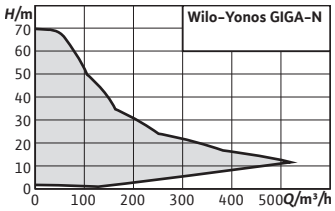
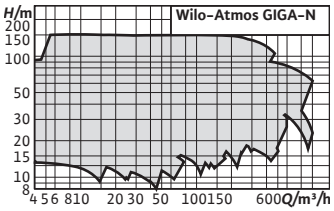
| Series | Wilo-Varios PICO-STG | Wilo-Yonos ECO...-BMS | Wilo-Stratos MAXO<br>Wilo-Stratos MAXO-D |
|---|---|---|---|
| Product photo |  |  |  |
| Design | Glandless circulator with screwed connection, EC motor and automatic power adjustment | Glandless circulator with screwed connection, EC motor and automatic power adjustment | Smart glandless circulator with screwed connection or flange connection, EC motor with integrated power adjustment |
| Application | Hot-water heating systems of all kinds, air-conditioning applications, industrial circulation systems, primary circuits of solar and geothermal 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 |
| Duty chart |  |  |  |
| Volume flow $Q_{max}$ | 4.4 m³/h | 3 m³/h | 112 m³/h |
| Delivery head $H_{max}$ | 13 m | 5 m | 16 m |
| Technical data | → Fluid temperature: -20 °C to +110 °C<br>→ Mains connection 1~230 V, 50/60 Hz<br>→ Energy Efficiency Index (EEI): 7 m: ≤ 0.20, 8 m / 13 m: ≤ 0.23<br>→ Screwed connection Rp ½, Rp 1, Rp 1¼<br>→ Max. operating pressure 10 bar | → Fluid temperature -10 °C to +110 °C<br>→ Mains connection: 1~230 V, 50/60 Hz<br>→ Energy Efficiency Index (EEI) ≤ 0.20<br>→ Screwed connection Rp 1, Rp 1¼<br>→ Max. operating pressure 10 bar | → Fluid temperature -10 °C to +110 °C<br>→ Mains connection: 1~230 V, 50/60 Hz<br>→ Nominal diameter Rp 1 to DN 100<br>→ Max. operating pressure 10 bar (special version: 16 bar) |
| Special features | → A highly compatible replacement solution for all applications thanks to compact dimensions, new control modes e.g. iPWM and the new Sync function<br>→ Highest comfort in handling with one push button for control mode and one for preset curves and the LED display<br>→ Easy installation through adaptable connections and maintenance functions like air venting | → Potential-free collective fault signal (SSM) for connection to external monitoring unit (e.g. building automation) and control input 0-10 V<br>→ Control cable (4-core, 1.5 m) for connecting SSM and 0-10 V<br>→ Wilo-Connector<br>→ Thermal insulation as standard<br>→ Pump housing with cataphoretic coating protects against corrosion due to condensation formation | → Intuitive operation by guided application settings with the setting assistant<br>→ Energy-saving functions such as No-Flow Stop<br>→ Innovative controlling functions such as Dynamic Adapt plus and Multi-Flow Adaption<br>→ Direct pump networking for multiple pump control via Wilo Net<br>→ Installation comfort by the optimised Wilo-Connector |
| Equipment/function | → Control modes: Δp-c, Δp-v and constant speed<br>→ External control (iPWM GT and iPWM ST)<br>→ Sync function (manual manual programming mode)<br>→ Air venting function<br>→ Manual restart<br>→ LED display and 2 push buttons for settings and functions activation<br>→ Dual electrical connection (Molex and Wilo-Connector)<br>→ Front access to motor screws | → Control modes: Δp-c, Δp-v and manual control mode (n = constant)<br>→ Control input “Analogue In 0 - 10 V” (remote speed control)<br>→ Collective fault signal (potential-free NC contact)<br>→ Control cable (4-core, 1.5 m) for connecting SSM and 0-10 V<br>→ Wilo-Connector<br>→ Deblocking function | → Control modes: Dynamic Adapt plus, Δp-c, Δp-v, n-const, T-const, ΔT-const and Q-const<br>→ Multi-Flow Adaptation<br>→ Remote control via Bluetooth interface<br>→ Selection of application-based presettings in the setting assistant<br>→ Cooling/heat measurement<br>→ Dual pump management<br>→ Retrofittable interface modules for communication |

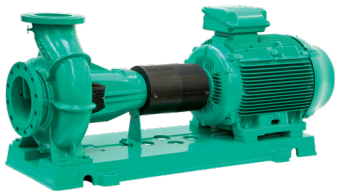
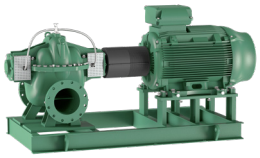
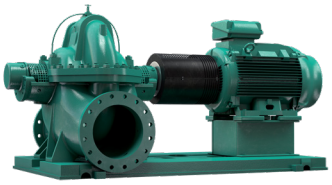
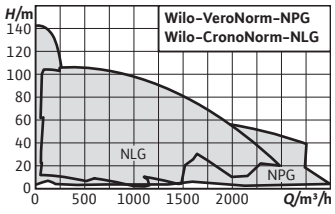
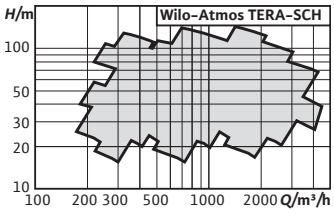
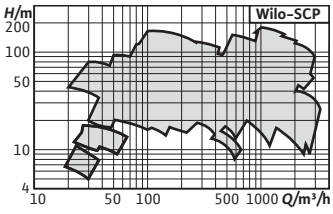
| Series | Wilo-Yonos MAXO<br>Wilo-Yonos MAXO-D | Stratos GIGA2.0-I<br>Stratos GIGA2.0-D | Wilo-Stratos GIGA<br>Wilo-Stratos GIGA-D |
|---|---|---|---|
| Product photo |  |  |  |
| Design | Glandless circulator with screwed connection or flange connection, EC motor and automatic power adjustment | High-efficiency in-line pump (as single or twin-head pump) with EC motor, electronically controlled, in glanded design with flange connection and mechanical seal | High-efficiency in-line pump (as single or twin-head pump) with EC motor, electronically controlled, in glanded design with flange connection and mechanical seal |
| Application | Hot-water heating systems of all kinds, air-conditioning systems, closed cooling circuits, industrial circulation 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 |
| Duty chart |  |  |  |
| Volume flow $Q_{max}$ | 56 m³/h | 260 m³/h | 680 m³/h |
| Delivery head $H_{max}$ | 16 m | 37 m | 65 m |
| Technical data | → Fluid temperature -20 °C to +110 °C<br>→ Mains connection 1~230 V, 50/60 Hz<br>→ Energy Efficiency Index (EEI) ≤ 0.20 (EEI ≤ 0.23 for twin-head pumps)<br>→ Nominal diameter Rp 1 to DN 100<br>→ Max. operating pressure 10 bar | → Fluid temperature -20 °C to +140 °C<br>→ Mains connection: 3~400 V - 3~440 V (±10 %) - 3~380 V (±10 %), 50/60 Hz<br>→ Minimum efficiency index (MEI): ≥ 0.7<br>→ Nominal diameter DN 40 to DN 125<br>→ Max. operating pressure 16 bar up to +120 °C, 13 bar up to +140 °C | → Fluid temperature -20 °C to +140 °C<br>→ Mains connection: 3~380 V - 3~480 V (±10 %), 50/60 Hz<br>→ Minimum efficiency index (MEI): up to 6.0 kW: MEI ≥ 0.7, from 11 kW: MEI ≥ 0.4<br>→ Nominal diameter DN 40 to DN 200<br>→ Max. operating pressure 16 bar up to +120 °C, 13 bar up to +140 °C |
| Special features | → LED display for indication of set delivery head and error codes<br>→ Quick setting when replacing an uncontrolled standard pump with pre-set speed stages, e.g. TOP-S<br>→ Electrical connection with Wilo plug<br>→ Collective fault signal ensures system availability<br>→ Pump housing with cataphoretic (KTL) coating protects against corrosion due to condensation | → High-efficiency EC motor with efficiency class IE5 acc. IEC 60034-30-2<br>→ Optimal control through application-guided setting assistant<br>→ Innovative controlling functions such as Dynamic Adapt plus and Multi-Flow Adaption<br>→ Remote access and multi-pump control via Wilo Net<br>→ Highest operational data transparency for optimisation of the pump and overall system | → Innovative high-efficiency pump for maximum overall efficiency<br>→ High-efficiency EC motor with efficiency class IE5 acc. IEC 60034-30-2<br>→ Optional IF module interfaces for bus communication with building automation |
| Equipment/function | → Control modes: Δp-c, Δp-v, 3 speed stages<br>→ LED display for setting the required delivery head<br>→ Quick electrical connection with Wilo plug<br>→ Motor protection, fault signal light and contact for collective fault signal<br>→ Combination flanges PN 6/PN 10 (for DN 40 to DN 65)<br>→ Retrofitable interface module (Connect module) for connection to building automation | → Control modes: Dynamic Adapt plus, Δp-c, Δp-v, n-const, T-const, ΔT-const and Q-const<br>→ Multi-Flow Adaptation<br>→ Remote control via Bluetooth interface<br>→ Selection of the field of application in the setting assistant<br>→ Heat and cold metering<br>→ Dual pump management<br>→ Retrofitable interface modules for communication | → Control modes: Δp-c, Δp-v, PID control, n=constant<br>→ Manual functions: e.g. differential pressure setpoint setting, manual control mode, error acknowledgement<br>→ External control functions: e.g. Overriding Off, external cyclical pump alteration (twin-head pump operation), analogue input 0-10 V / 0-20 mA for constant speed (DDC)<br>→ Remote control via infrared interface (IR-Stick), plug position for IF modules for connection to building automation |

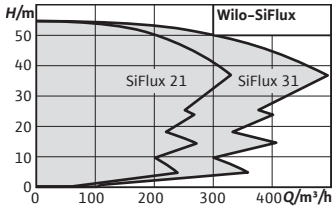
| Series | Wilo-Stratos GIGA B | Yonos GIGA2.0-I<br>Yonos GIGA2.0-D | Wilo-VeroLine-IP-E<br>Wilo-VeroTwin-DP-E |
|---|---|---|---|
| Product photo |  |  |  |
| Design | High-efficiency monobloc pump with EC motor and electronic power adjustment in glanded pump design, with flange connection and mechanical seal | In-line pump with high energy efficiency (as single or twin-head pump) with EC motor, electronically controlled in glanded design with flange connection and mechanical seal. | Energy-saving glanded pump (as single or twin-head pump) in in-line design. 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 |
| Duty chart |  |  |  |
| Volume flow $Q_{max}$ | 340 m³/h | 260 m³/h | 170 m³/h |
| Delivery head $H_{max}$ | 80 m | 20 m | 30 m |
| Technical data | → Fluid temperature -20 °C to +140 °C<br>→ Mains connection: 3~380 V -3~480 V (±10 %), 50/60 Hz<br>→ Minimum efficiency index (MEI): up to 6.0 kW: MEI ≥ 0.7, from 11 kW: MEI ≥ 0.4<br>→ Nominal diameter DN 32 to DN 125<br>→ Max. operating pressure 16 bar up to +120 °C, 13 bar up to +140 °C | → Fluid temperature -20 °C bis +120 °C<br>→ Ambient temperature to +50 °C<br>→ Mains connection: 3~440 V ±10 %, 50/60 Hz, 3~400 V ±10 %, 50/60 Hz, 3~380 V -5 % +10 %, 50/60 Hz<br>→ Minimum efficiency index (MEI): ≥ 0.4<br>→ Nominal diameter DN 32 to DN 125<br>→ Max. operating pressure 16 bar up to +120 °C | → Fluid temperature -20 °C to +120 °C<br>→ Mains connection: 3~440 V ±10 %, 50/60 Hz3~400 V ±10 %, 50/60 Hz 3~380 V -5 %/+10 %, 50/60 Hz<br>→ Minimum efficiency index (MEI) ≥ 0.4<br>→ Nominal diameter DN 32 to DN 80<br>→ Max. operating pressure 10 (16) bar |
| Special features | → Innovative high-efficiency pump for maximum total-system efficiency, with principal dimensions in accordance with EN 733<br>→ High-efficiency EC motor (efficiency class IE5 acc. IEC 60034-30-2)<br>→ Optional IF module interfaces for bus communication with building automation | → High energy efficiency thanks to IE5 EC motor technology and proven pump hydraulics (MEI ≥0.4)<br>→ Easy to use with clear menu navigation, colour display and Green Button Technology<br>→ High reliability thanks to innovative drive technology and proven pump hydraulics<br>→ Ready for integration into building automation systems via analogue and digital interface and CIF module | → Optional interfaces for bus communication using plug-in IF modules<br>→ Simple operation with Green Button Technology and display<br>→ Integrated dual pump management<br>→ Integrated full motor protection with trip electronics<br>→ Motors with efficiency class IE4 |
| Equipment/function | → Control modes: Δp-c, Δp-v, PID control, n=constant<br>→ Manual functions: e.g. differential pressure setpoint setting, manual control mode, error acknowledgement<br>→ External control functions: e.g. Overriding Off, external cyclical pump cycling, analogue input 0-10 V / 0-20 mA for constant speed (DDC)<br>→ Remote control via infrared interface (IR-Stick), plug position for IF modules for connection to building automation | → Control modes: Δp-c, Δp-v, n-const, user-defined PID control<br>→ Dual pump management<br>→ Retrofitable interface modules for communication | → Control modes: Δp-c, Δp-v, PID control, n=constant<br>→ Manual functions: e.g. differential pressure setpoint setting, manual control mode, error acknowledgement<br>→ External control functions: e.g. Overriding Off, external cyclical pump cycling (twin-head pump operation), analogue input 0-10 V / 0-20 mA for constant speed (DDC)<br>→ Remote control via infrared interface (IR-Stick), plug position for IF modules for connection to building automation |

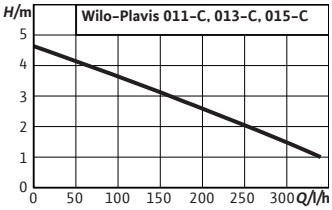
| Series | Wilo-CronoLine-IL-E<br>Wilo-CronoTwin-DL-E | Wilo-CronoBloc-BL-E | Wilo-VeroLine-IPL<br>Wilo-VeroTwin-DPL |
|---|---|---|---|
| Product photo |  |  |  |
| Design | Energy-saving glanded pump (as single or twin-head pump) in in-line design. Version as single-stage low-pressure centrifugal pump with flange connection and mechanical seal | 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/twin-head pump in in-line design with screwed connection or 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 |
| Duty chart |  |  |  |
| Volume flow $Q_{max}$ | 800 m³/h | 380 m³/h | 245 m³/h |
| Delivery head $H_{max}$ | 65 m | 80 m | 52 m |
| Technical data | → Fluid temperature -20 °C to +140 °C<br>→ Mains connection: 3~440 V ±10 %, 50/60 Hz 3~400 V ±10 %, 50/60 Hz 3~380 V -5 %/+10 %, 50/60 Hz<br>→ Minimum efficiency index (MEI) ≥ 0.4<br>→ Nominal diameter DN 40 to DN 200<br>→ Max. operating pressure 16 bar up to +120 °C, 13 bar up to +140 °C | → Fluid temperature -20 °C to +140 °C<br>→ Mains connection: 3~440 V ±10 %, 50/60 Hz, 3~400 V ±10 %, 50/60 Hz, 3~380 V -5 %/+10 %, 50/60 Hz<br>→ Minimum efficiency index (MEI) ≥ 0.4<br>→ Nominal diameter DN 32 to DN 125<br>→ Max. operating pressure 16 bar up to +120 °C, 13 bar up to +140 °C | → Fluid temperature -20 °C to +120 °C<br>→ Mains connection 3~400 V, 50 Hz<br>→ Minimum efficiency index (MEI) ≥ 0.4<br>→ Nominal diameter Rp 1 to DN 100<br>→ Max. operating pressure 10 bar (special version: 16 bar) |
| Special features | → Optional interfaces for bus communication using plug-in IF modules<br>→ Simple operation with Green Button Technology and display<br>→ Integrated dual pump management<br>→ Integrated full motor protection with trip electronics<br>→ Motors with efficiency class IE4 | → Optional interfaces for bus communication using plug-in IF modules<br>→ Simple operation with Green Button Technology and display<br>→ Integrated full motor protection with trip electronics<br>→ Meets user requirements due to performance and main dimensions in accordance with EN 733<br>→ Motors with efficiency class IE4 | → High standard of corrosion protection<br>→ Standard condensate drainage holes in motor housings and lanterns<br>→ Series design: motor with one-piece shaft<br>→ Version N: Standard motor B5 or V1 with stainless steel plug shaft<br>→ Bidirectional, force-flushed mechanical seal<br>→ DPL: Main-/standby operation or peak-load operation (via additional external device) |
| Equipment/function | → Control modes: Δp-c, Δp-v, PID control, n=constant<br>→ Manual functions: e.g. differential pressure setpoint setting, manual control mode, error acknowledgement<br>→ External control functions: e.g. Overriding Off, external cyclical pump cycling (twin-head pump operation), analogue input 0-10 V / 0-20 mA for constant speed (DDC)<br>→ Remote control via infrared interface (IR-Stick), plug position for IF modules for connection to building automation | → Control modes: Δp-c, Δp-v, PID control, n=constant<br>→ Manual functions: e.g. differential pressure setpoint setting, manual control mode, error acknowledgement<br>→ External control functions: e.g. Overriding Off, analogue input 0-10 V / 0-20 mA for constant speed (DDC)<br>→ Remote control via infrared interface (IR-Stick), plug position for IF modules for connection to building automation | → Single-stage, low-pressure centrifugal pump in in-line design with<br>→ Mechanical seal<br>→ Flange connection with pressure measuring connection R ⅛<br>→ Motor with one-piece shaft<br>→ DPL with switchover valve<br>→ Motors with efficiency class IE3 for motors ≥ 0.75 kW |

| Series | Wilo-CronoLine-IL<br>Wilo-CronoTwin-DL | Wilo-VeroLine-IPH-W<br>Wilo-VeroLine-IPH-O | Wilo-Atmos GIGA-B |
|---|---|---|---|
| Product photo |  |  |  |
| Design | Glanded pump (as single pump or twin-head pump) in in-line design with flange connection | Glanded pump in in-line design with flange connection | Glanded pump in monobloc 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 | IPH-W: For hot water in closed industrial circulation systems, district heating, closed heating systems<br>IPH-O: For heat transfer oil in closed industrial circulation systems | Pumping of heating water, cold water and water-glycol mixtures without abrasive substances in hot water/cold water/cooling systems |
| Duty chart |  |  |  |
| Volume flow $Q_{max}$ | 1,170 m³/h | 80 m³/h | 1,010 m³/h |
| Delivery head $H_{max}$ | 110 m | 38 m | 158 m |
| Technical data | → Fluid temperature -20 °C to +140 °C<br>→ Mains connection 3~400 V, 50 Hz<br>→ Minimum efficiency index (MEI) ≥ 0.7<br>→ Nominal diameter DN 32 to DN 250<br>→ Max. operating pressure 16 bar up to +120 °C, 13 bar up to +140 °C (25 bar on request) | → Fluid temperature IPH-W: -10 °C to +210 °C (at max. 23 bar)<br>→ Fluid temperature IPH-O: -10 °C to +350 °C (at max. 9 bar)<br>→ Mains connection 3~400 V, 50 Hz<br>→ Nominal diameter DN 20 to DN 80 | → Fluid temperature -20 °C to +140 °C<br>→ Mains connection 3~400 V, 50 Hz<br>→ Minimum efficiency index (MEI) ≥ 0.4<br>→ Nominal diameter DN 32 to DN 150<br>→ Max. operating pressure 16 bar up to +120 °C, 13 bar up to +140 °C (25 bar on request) |
| Special features | → Can be used flexibly in air-conditioning and cooling systems, with application benefits due to direct draining of condensate<br>→ High standard of corrosion protection<br>→ Worldwide availability of standard motors (according to Wilo specifications) and standard mechanical seals<br>→ Main/standby mode or peak-load operation (by means of external auxiliary device) | → Self-cooled mechanical seal, independent of direction of rotation<br>→ Great variety of applications due to a wide fluid temperature range without additional wearing parts | → High corrosion protection through cataphoretic coating of the cast iron components<br>→ Standard condensate drainage holes in the motor housings<br>→ High worldwide availability of standard motors (according to Wilo specifications) and standard mechanical seals<br>→ Power and main dimensions in accordance with EN 733 |
| Equipment/function | → Single-stage, low-pressure centrifugal pump in in-line design with<br>→ Mechanical seal<br>→ Flange connection with pressure measuring connection R ⅛<br>→ Lantern<br>→ Coupling<br>→ IEC standard motor<br>→ DL with switchover valve<br>→ Motors with efficiency class IE3 for motors ≥ 0.75 kW | → Single-stage, low-pressure centrifugal pump in in-line design with<br>→ Mechanical seal<br>→ Flange connection<br>→ Lantern<br>→ Motor with special shaft | Single-stage low-pressure centrifugal pump in monobloc design, with axial suction port and radially arranged pressure port with<br>→ Mechanical seal<br>→ Flange connection with pressure measuring connection R ¼<br>→ Lantern<br>→ Pump housing with feet<br>→ Coupling<br>→ IEC standard motor |

| Series | Wilo-BAC | Wilo-Yonos GIGA-N | Wilo-Atmos GIGA-N |
|---|---|---|---|
| Product photo |  Series extension |  |  |
| Design | Glanded pump in monobloc design with Victaulic connection | Electronically controlled, single-stage low-pressure centrifugal pump with axial suction. Mounted on a baseplate with flange connection and automatic power adjustment. | Single-stage, low-pressure centrifugal pump with axial suction, mounted on a baseplate |
| Application | For pumping of cooling water, cold water, water-glycol mixtures and other fluids without abrasive substances | Pumping of heating water (in accordance with VDI 2035), cold water, water-glycol mixtures in heating, cold water and cooling systems. For irrigation, building services, general industry etc. | Pumping of heating water (in accordance with VDI 2035), cold water, water-glycol mixtures in heating, cold water and cooling systems |
| Duty chart |   |   |   |
| Volume flow $Q_{max}$ | 81 m³/h | 520 m³/h | 1000 m³/h |
| Delivery head $H_{max}$ | 25 m | 70 m | 150 m |
| Technical data | → Fluid temperature -15 °C to +60 °C (BAC70), to +90 °C (BAC50)<br>→ Mains connection 3~400 V, 50 Hz (others on request)<br>→ Minimum efficiency index (MEI) ≥ 0.4<br>→ Victaulic connection: DN 50: 60.3 mm; DN 65: 76.1 mm<br>→ Max. operating pressure 10 bar: BAC50; 6.5 bar: BAC70 | → Fluid temperature -20 °C to +140 °C<br>→ Mains connection: 3~440 V ±10 %, 50/60 Hz, 3~400 V ±10 %, 50/60 Hz, 3~380 V -5 %/+10 %, 50/60 Hz<br>→ Minimum efficiency index (MEI) ≥ 0.4<br>→ Nominal diameter DN 32 to DN 150<br>→ Max. operating pressure 16 bar | → Fluid temperature -20 °C to +140 °C<br>→ Mains connection 3~400 V, 50 Hz<br>→ Protection class IP55<br>→ Nominal diameter DN 32 to DN 150<br>→ Max. operating pressure 16 bar |
| Special features | → Pump housing in plastic or grey cast iron design<br>→ Victaulic connection for quick installation<br>→ Optimised pump dimensions for flexibility during replacement<br>→ High reliability thanks to top-quality mechanical seal and bearing<br>→ optional: Maximum comfort with electrical connection thanks to quick connection plug | → Efficient pump with IE4 motors<br>→ Cataphoretic coating of all cast components for high corrosion resistance and long service life<br>→ Standard dimensions in accordance with EN 733<br>→ Easy adjustment and operation with Green Button Technology<br>→ Easy maintenance thanks to user-friendly spacer coupling in back pull-out design<br>→ Optional interfaces for connection to building automation using insertable IF modules | → Energy-saving thanks to increased overall efficiency through improved hydraulics and the use of IE3 motors<br>→ Cataphoretic coating of all cast components for high corrosion resistance and long service life<br>→ Universally usable thanks to standardised dimensions, a range of motor options and impellers made of different materials |
| Equipment/function | → Single-stage low-pressure centrifugal pump in monobloc design, with axial suction port and radially arranged pressure port<br>→ Motors with efficiency class IE3 | → Control modes: Δp-c, PID control, n=constant<br>→ Manual functions: E.g. differential pressure setpoint setting, manual control mode, error acknowledgement<br>→ External control functions: E.g. Overriding Off, analogue input 0-10 V/0-20 mA for constant speed (DDC)<br>→ Remote control via infrared interface (IR-Stick), plug-in position for IF modules for connection to building automation | → Single-stage low-pressure centrifugal pump in monobloc design with coupling, coupling guard, motor and baseplate<br>→ Motors with efficiency class IE3 |

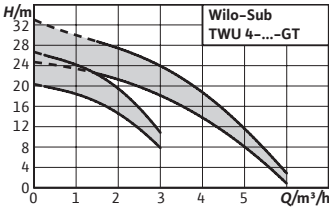
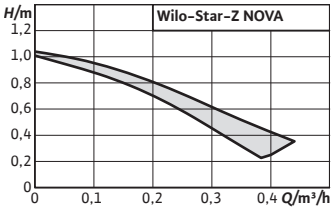
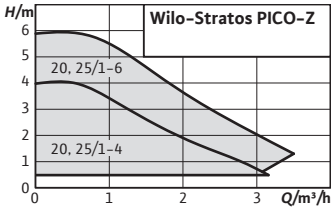
| Series | Wilo-CronoNorm-NLG<br>Wilo-VeroNorm-NPG | Wilo-Atmos TERA-SCH | Wilo-SCP |
|---|---|---|---|
| Product photo |  |  |  |
| Design | Single-stage low-pressure centrifugal pump with axial suction, according to ISO 5199, mounted on a baseplate | Axially spilt case pump mounted on a base frame | Low-pressure centrifugal pump with axially split housing mounted on a baseplate |
| Application | Pumping of heating water, cold water, water-glycol mixtures in municipal water supply, general industry, power stations etc. | Raw water intake; boosting/ transport in water supply systems; pumping of process/ cooling water, heating water (in Germany acc. VDI 2035), water-glycol mixtures; irrigation | Pumping of heating water (acc. VDI 2035), cold water, process water, water-glycol mixtures in heating, cold water and cooling systems. |
| Duty chart |  |  |  |
| Volume flow $Q_{max}$ | 2,800 m³/h | 4,675 m³/h | 3,400 m³/h |
| Delivery head $H_{max}$ | 140 m | 150 m | 245 m |
| Technical data | → Fluid temperature -20 °C to +120 °C (depending on type)<br>→ Mains connection 3~400 V, 50 Hz<br>→ Nominal diameters: DN 150 to DN 500 (depending on type)<br>→ Operating pressure: depending on type and application – up to 16 bar | → Fluid temperature -20 °C to +120 °C<br>→ Mains connection 3~400 V, 50 HzNominal diameters<br>– Suction side: DN 150 to DN 500<br>– Discharge side: DN 150 to DN 400<br>→ Max. operating pressure: PN 16, PN 25 | → Fluid temperature -8 °C to +120 °C<br>→ Mains connection 3~400 V, 50 Hz<br>→ Nominal diameters – Suction side: DN 65 to DN 500<br>→ Discharge side: DN 50 to DN 400<br>→ Max. operating pressure: 16 or 25 bar, depending on type |
| Special features | NLG:<br>→ Reduced life cycle costs through optimised efficiency<br>→ Mechanical seal independent of the direction of rotation<br>→ Interchangeable casing wear ring<br>→ Permanently lubricated, generously dimensioned roller bearings<br>NPG:<br>→ Suitable for temperatures up to 140 °C<br>→ Back pull-out version | → Reduced energy costs through high overall efficiency<br>→ Simplified alignment thanks to tolerant coupling and motor adjusting device<br>→ Increased operational reliability thanks to quiet-running hydraulics<br>→ Reduced cavitation tendency through optimised NPSH values<br>→ Also available as drinking water version | → Higher volume flows up to 17,000 m³/h on request<br>→ Special motors and other materials on request |
| Equipment/function | → Single-stage horizontal spiral housing pump with bearing bracket and exchangeable casing wear rings (NLG only) in back pull-out design<br>→ Shaft sealing with mechanical seals in accordance with EN 12756 or stuffing box packing<br>→ Spiral housing with cast pump bases<br>→ Greased grooved ball bearings for bearing of pump shaft<br>→ Motors with efficiency class IE3 | → Centrifugal axially split case pump, available in single-stage design<br>→ Deliverable as complete unit or without motor or only pump hydraulics<br>→ Shaft sealing with mechanical seal or stuffing box<br>→ 4- and 6-pole motors; IE3 standard to 1000 kW (IE4 on request)<br>→ Welded steel frame | → 1- or 2-stage, low-pressure centrifugal pump in monobloc design<br>→ Deliverable as complete unit or without motor or only pump hydraulics<br>→ Shaft sealing with mechanical seal or stuffing box packing<br>→ 4-pole and 6-pole motors<br>→ Materials:<br>→ Pump housing: EN-GJL-250<br>→ Impeller: G-CuSn5 ZnPb<br>→ Shaft: X12Cr13 |

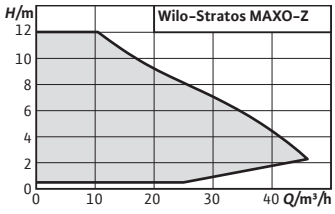
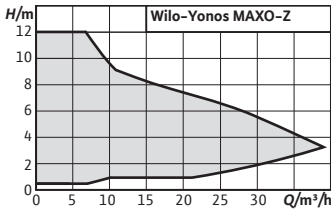
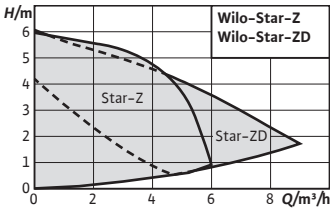
| Series | Wilo-SiFlux | Wilo-Sium | Wilo-Tagus |
|---|---|---|---|
| Product photo |  |  |  |
| Design | Fully automatic, ready for connection multi-pump system for high volume flows in heating, cold water and cooling water systems. 3 to 4 electronically controlled in-line pumps switched in parallel | Pressure-maintaining station with 1 or 2 pumps incl. diaphragm pressure vessel | Pressure step degasser |
| Application | For pumping heating water, water-glycol mixtures and cooling and cold water without abrasive substances in heating, cold water and cooling water systems | Automatic pressure maintenance, topping-up and degassing in closed heating and cooling circuits | Active degassing and automatic refilling in closed heating and cooling systems for combination with diaphragm pressure vessel or pressure-maintaining stations Wilo-Sinum |
| Duty chart |  | | |
| Volume flow $Q_{max}$ | 490 m³/h | | |
| Delivery head $H_{max}$ | 55 m | | |
| Technical data | → VeroLine-IP-E or CronoLine-IL-E<br>→ 3~230/400 V, 50 Hz ±10 %<br>→ Fluid temperature: 0 °C to +120 °C<br>→ Pipe connections: DN 125 to DN 300<br>→ Max. permissible operating pressure: 10 bar (IP-E), 16 bar (IL-E) | → Mains connection: 230V – 400V, 50Hz<br>→ Max. system pressure: 6, 10 and 16 bar<br>→ Operating temperature: min. 3 °C – max. 70 °C<br>→ Ambient temperature: 3 °C – 45 °C<br>→ Max. (feed) supply temperature in the system: 120°C<br>→ Tank 100 – 1,000 litres: in accordance with EN 13831 / 1,200 – 10,000 litres: in accordance with AD 2000<br>→ Noise emission: approx. 55 dB(a) | → Mains connection: 230 V, 50 Hz<br>→ Operating temperature: 3 °C – 70 °C<br>→ Max. (feed) supply temperature in the system: 120°C<br>→ Ambient temperature: 3 °C – 45 °C<br>→ Max. pressure (feed) supply pipe: 2 – 8 bar<br>→ Noise emission: approx. 55 dB(a) |
| Special features | → Number of pumps: 2+1 or 3+1 (2 or 3 pumps in operation, 1 standby pump each)<br>→ Quick and easy installation<br>→ Energy-saving: Operation in partial load area according to current needs<br>→ Reliable system thanks to optimally matched components<br>→ Compact design, good accessibility to all components | → Easy installation<br>→ Pressure maintenance within narrow limits +/- 0.2 bar<br>→ Different operating modes for continuous degassing<br>→ Low power consumption, long service life<br>→ Modular design<br>→ Automatic switching for twin-head pump systems<br>→ Up to 50% glycol-based antifreeze<br>→ Flexible connections and hoses<br>→ Optionally: Integration into Building Management System<br>→ Optionally: Diaphragm break detector | → Up to 30% glycol-based antifreeze<br>→ Continuous degassing and self-controlled topping-up<br>→ Active degassing by patented PALL ring technology for high ventilation performance<br>→ Individually adjustable degassing performance through turbo or normal degassing.<br>→ Low installation effort<br>→ Completely assembled and ready for connection<br>→ Compact and robust design<br>→ Version depending on connection size |
| Equipment/function | → Automatic pump control via Wilo-SCe<br>→ Parts that come in contact with the fluid are corrosion-resistant<br>→ Base frame made of galvanised steel, with height-adjustable vibration absorbers for insulation against structure-borne noise<br>→ Distributor steel, with corrosion-resistant coating<br>→ Shut-off valves, non-return valve, pressure gauge and premounted seals<br>→ Differential pressure sensor | → 1 or 2 Wilo pumps per station<br>→ Microprocessor control<br>→ Diaphragm pressure vessel in different sizes<br>→ Diaphragm pressure vessel with white epoxy powder coating | → Integrated Wilo pump<br>→ Clear operation via intuitive display<br>→ Assembled and ready for connection |

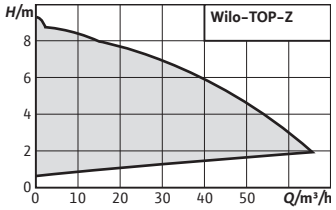
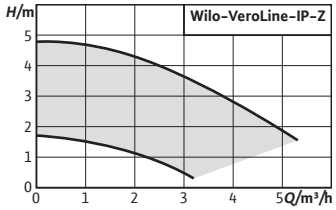
| Series | Wilo-Voda | Wilo-Plavis ...-C | Wilo-SiClean |
|---|---|---|---|
| Product photo |  |  |  |
| Design | Air and/or dirt separator | Automatic condensate lifting unit | Compact particle separator kit, consisting of mechanical and hydraulic components. Manual emptying of the system |
| Application | Air and dirt separation in closed heating and cooling systems | For pumping condensate out of heat generators with condensing boiler technology, air-conditioning and cooling systems | Removes particles from heating systems using natural physical phenomena in commercial properties and for district heating |
| Duty chart | |  | |
| Volume flow $Q_{max}$ | | 330 l/h | 4 m³/h |
| Delivery head $H_{max}$ | | 4 m | – |
| Technical data | → Max. working pressure: 10 bar<br>→ Max. fluid temperature: 120°C<br>→ Max. flow velocity: 1.5 m/s | → Mains connection 1~ 100-240 V, 50/60 Hz<br>→ Max. fluid temperature 60 °C<br>→ Protection class IPX4<br>→ Inlet connections 18/40 mm<br>→ Tank volume 0.7 l to 1.6 l | → Fluid temperature: 0 °C to +95 °C<br>→ Mains connection: 1~230 V, 50 Hz |
| Special features | → Suitable for addition of up to 50 % glycol-based antifreeze<br>→ Protection against deposits in boilers, pumps and fittings<br>→ Increased performance of the system by eliminating micro bubbles > 15 to 20 µm<br>→ Service life extension of pumps, control units and other system accessories<br>→ Maintenance during operation<br>→ No interruption of operation | → Reliable level measurement via electrode level switching<br>→ Easy installation thanks to Plug & Pump with adjustable inlet<br>→ Quick and easy maintenance thanks to removable service cap and integrated non-return ball valve<br>→ Energy savings due to low electricity consumption (≤ 20 W)<br>→ Compact, modern construction and quiet operation (≤ 40 dBA) | → Removal of magnetic and non-magnetic particles from the fluid, venting of micro bubbles<br>→ High cleaning efficiency due to physical effects (gravity, filtration...)<br>→ Easy to use due to ease of installation, maintenance, and simplified settings<br>→ Corrosion-resistant thanks to stainless steel particle separator |
| Equipment/function | → Separation of air and micro bubbles as well as mud and dirt<br>→ Depending on version: Flange connection PN 16 | → Electric connecting cable with plug (1.5 m)<br>→ Detachable service cap; integrated non-return ball valve<br>→ 013-C and 015-C: Pressure hose (5 m, Ø 8); Alarm cable (1.5 m); Alarm contact (NC/NO contact); Adjustable rubber guide, Ø 2 to Ø 32; Fixation material for wall mounting<br>→ 015-C: granulate chamber including granulate for pH-neutralisation | → Anti-corrosive, hydraulic components<br>→ Pre-assembled fabric-reinforced connecting hoses<br>→ Pre-assembled venting unit for expulsion of micro bubbles<br>→ Movable magnetic rods for separation of iron oxide particles<br>→ Volume flow limiter<br>→ Manual purge valve for draining of collected particles<br>→ Switchbox for monitoring the circulator |

| Series | Wilo-SiClean Comfort | Wilo-WEH | Wilo-WEV |
|---|---|---|---|
| Product photo |  |  |  |
| Design | Fully-automatic, compact particle separator consisting of mechanical and hydraulic components. The system is drained automatically. | Compact pressure-maintaining system ready for connection for easy installation and commissioning. System comprising mechanical and hydraulic components as well as CE + switchgears. | Compact pressure-maintaining system ready for connection for easy installation and commissioning. System comprising mechanical and hydraulic components as well as CE + switchgears. |
| Application | Removes particles from heating systems using natural physical phenomena in commercial properties and for district heating | Pressure-maintaining system designed to ensure constant and stable pressure in heating and cooling closed loops.<br>For installation in commercial properties (office buildings, hotels,...). | Pressure-maintaining system designed to ensure constant and stable pressure in heating and cooling closed loops.<br>For installation in commercial properties (office buildings, hotels,...). |
| Duty chart | | | |
| Volume flow $Q_{max}$ | 47 m³/h | – | – |
| Delivery head $H_{max}$ | – | – | – |
| Technical data | → Fluid temperature 0 °C to +95 °C<br>→ Mains connection: 3~400 V, 50 Hz | → Fluid temperature: 0 °C to + 90 °C<br>→ Mains connection: 1~230 V, 50 Hz<br>→ Mains connection: 3~400 V, 50 Hz<br>→ Max. operating pressure: 6 bar | → Fluid temperature: 0 °C to + 90 °C<br>→ Mains connection: 3~400 V, 50 Hz<br>→ Max. operating pressure: 8 bar |
| Special features | → High efficiency via combination of physical effects<br>→ "Plug & Play" design; fully automated operation<br>→ Fully automated and adjustable disposal of collected particles in the desludging tank<br>→ 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 | → System ready to connect<br>→ Open tanks range in PPH, light and corrosion proof.<br>→ Easy-to-adjust switchgear including safety features.<br>→ High corrosion resistance materials including 304 stainless steel collectors.<br>→ MHIL pumps with IE2 motor and stainless steel hydraulics<br>→ Possibility to order non-standard versions in MSO | → System ready to connect<br>→ Open tanks range in PPH, light and corrosion proof.<br>→ Easy-to-adjust switchgear including safety features.<br>→ High corrosion resistance materials including 304 stainless steel collectors.<br>→ MVIL pumps with IE2 motor and stainless steel hydraulics<br>→ Possibility to order non-standard versions in MSO |
| Equipment/function | → Corrosion-resistant, hydraulic components<br>→ Fabric-reinforced hoses connected to inlet and outlet of the particle separator<br>→ Pre-assembled flushing device including electronic drain valve and additional safety valve<br>→ Automatic draining of the particle collection chamber<br>→ SC switchgear | → Fully-electronic central control unit with configurable parameters for pressure setting<br>→ MHIL-series multistage pump<br>→ Open composite vessels with excellent resistance to corrosion (to be ordered separately)<br>→ Two pipeworks, one on the discharge side and one on the suction side | → Fully-electronic central control unit with configurable parameters for pressure setting<br>→ MVIL-series multistage pump<br>→ Open composite vessels with excellent resistance to corrosion (to be ordered separately)<br>→ Two pipeworks, one on the discharge side and one on the suction side |

| Series | Wilo-CC/CC-FC/CCe-HVAC system<br>Wilo-SC/SC-FC/SCe-HVAC system | Wilo-EFC | 1. Wilo-IR-Stick<br>2. Wilo-IF modules, Wilo-CIF modules |
|---|---|---|---|
| Product photo |  |  |  |
| Design | | Frequency converter | |
| Application | Switchgear for controlling 1 to 6 pumps | Wall-mounted frequency converter for fixed-speed pumps equipped with asynchronous or permanent magnet motors | 1. Remote control with infrared interface for electronically controlled Wilo pumps<br>2. Wilo-Control products for connecting pumps to building automation |
| Duty chart | | | |
| Volume flow $Q_{max}$ | – | – | – |
| Delivery head $H_{max}$ | – | – | – |
| Technical data | – | → Max. ambient temperature: 55°C (50°C without derating) up to 90 kW, 50°C (45°C without derating) from 110 kW<br>→ Environment protection class: IP55 up to 90 kW, IP54 from 110 kW | – |
| Special features | → Special versions on request | → Flexible and safe application<br>→ Compact design with energy-saving cooling concept to reduce temperature losses<br>→ Integrated energy-efficient harmonic reduction<br>→ Additional energy-saving function in the partial load range of the pump<br>→ Versatile use in pump applications thanks to several connection options and different control modes | – |
| Equipment/function | → CC-HVAC for 1 to 6 pumps with fixed speed<br>→ CCe-HVAC for 1 to 6 pumps with integrated speed control or external frequency converter control<br>→ SC-HVAC for 1 to 4 pumps<br>→ SC and SC-FC for standard pumps with fixed speed<br>→ SCe for electronically controlled pumps or pumps with integrated frequency converter | → IF modules as an option: Profibus, Ethernet, DeviceNet, Profinet, Modbus | → Wilo IR-Stick<br>→ Remote control for electronically controlled Wilo pumps with infrared interface<br>→ Wilo-IF module Stratos/Wilo-IF module<br>→ Plug-in modules for connection to building automation of Stratos, Stratos GIGA2.0-I/-D, Stratos GIGA/-D/-B, Yonos GIGA2.0-I/-D, IP-E/DP-E, IL-E/DL-E/BL-E, MHIE, MVIE, Helix VE..<br>→ Wilo-CIF modules<br>→ Plug-in modules for connection to building automation of products compatible to the CIF module |

| Series | Wilo-Sub TWU 4 ...-GT | Wilo-Star-Z NOVA | Wilo-Stratos PICO-Z |
|---|---|---|---|
| Product photo |  |  |  |
| Design | Submersible pump, multistage | Glandless circulator with screwed connection and blocking-current proof synchronous motor | Glandless circulator with screwed connection, EC motor and automatic power adjustment |
| Application | Water supply from boreholes, wells and rainwater storage for geothermal applications | Domestic hot water circulation systems in industry and building services | Domestic hot water circulation systems in industry and in building services |
| Duty chart |  |  |  |
| Volume flow $Q_{max}$ | 6 m³/h | 0.4 m³/h | 3.5 m³/h |
| Delivery head $H_{max}$ | 33 m | 1.1 m | 6 m |
| Technical data | → Mains connection: 3~400 V, 50 Hz<br>→ Fluid temperature: 3-30 °C<br>→ Max. sand content: 50 g/m³<br>→ Max. immersion depth: 200 m | → Fluid temperature: Drinking water, max. +95 °C<br>→ Mains connection 1~230 V, 50 Hz<br>→ Screwed connection Rp ½<br>→ Max. operating pressure 10 bar | → Fluid temperature: drinking water up to water hardness 3.57 mmol/l (20 °dH) max. +70 °C<br>→ Mains connection 1~230 V, 50 Hz<br>→ Screw connection Rp ¾, Rp 1<br>→ Max. operating pressure 10 bar |
| Special features | → Performance-optimised motors for geothermal applications<br>→ Parts in contact with the fluid are corrosion-resistant<br>→ Integrated non-return valve<br>→ Low wear due to floating impellers | → Hygienically safe thanks to proven technology<br>→ Improved energy efficiency due to synchronous motor with power consumption of only 3-6 watts and thermal insulation shell as standard<br>→ Quick, easy installation and replacement of common pump types thanks to flexible service motor and Wilo-Connector | → Manual and temperature-controlled mode for optimum operation<br>→ Identification of the thermal disinfection of the drinking water tank<br>→ Display of the current consumption in Watts and the cumulative kilowatt hours or of the current flow and the temperature<br>→ Stainless steel pump housing protects against bacteria and corrosion |
| Equipment/function | → Multistage submersible pump with radial or semi-axial impellers<br>→ Integrated non-return valve<br>→ NEMA coupling<br>→ Three-phase motor<br>→ Hermetically sealed motors | → Wilo-Connector<br>→ Ball shut-off valve on the suction side and backflow preventer on the discharge side (Star-Z NOVA A, T)<br>→ Star-Z NOVA T incl. time switch, thermostat and thermal disinfection detection, LCD display with symbolic language | → Control modes: Δp-c, temperature-controlled mode<br>→ Temperature control for constant return temperature in drinking water circulation systems<br>→ Thermal disinfection routine<br>→ Reset function for the electricity meter or to factory settings<br>→ "Hold" function (key lock)<br>→ Automatic deblocking function<br>→ Wilo-Connector |

| Series | Wilo-Stratos MAXO-Z | Wilo-Yonos MAXO-Z | Wilo-Star-Z<br>Wilo-Star-ZD |
|---|---|---|---|
| Product photo |  |  |  |
| Design | 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 | Glandless circulator with screwed connection |
| Application | Domestic hot water circulation systems and similar 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 |
| Duty chart |  |  |  |
| Volume flow $Q_{max}$ | 46 m³/h | 39 m³/h | 8.5 m³/h |
| Delivery head $H_{max}$ | 12 m | 12 m | 6.0 m |
| Technical data | → Fluid temperature: drinking water max. +80 °C<br>→ Heating water -10 °C to +110 °C<br>→ Mains connection 1~230 V, 50/60 Hz<br>→ Nominal diameter Rp 1 to DN 65<br>→ Max. operating pressure 10 bar | → Permissible temperature range drinking water up to a water hardness of 3.57 mmol/l (20 °dH) max. +80 °C<br>→ Mains connection 1~230 V, 50/60 Hz<br>→ Nominal diameter Rp 1 to DN 65<br>→ Max. operating pressure 10 bar | → Fluid temperature: drinking water up to water hardness 3.2 mmol/l (18 °dH) max. +65 °C<br>→ Mains connection 1~230 V, 50 Hz,<br>→ Screwed connection Rp ½ (¾), Rp 1<br>→ Max. operating pressure 10 bar |
| Special features | → Operation by guided application settings with the setting assistant<br>→ Maximum drinking water hygiene and energy efficiency by the new control function T-const.<br>→ Optimum hygiene support thanks to thermal disinfection.<br>→ Installation comfort by the Wilo-Connector<br>→ Corrosion-resistant pump housing in stainless steel | → Indication of set delivery head and fault codes<br>→ Quick setting when replacing an uncontrolled standard pump with pre-set speed stages, e.g. TOP-Z<br>→ Electrical connection with Wilo plug<br>→ Collective fault signal ensures system availability<br>→ Corrosion-resistant pump housing in red brass for systems where oxygen entry is possible | → All plastic parts that come into contact with the fluid fulfil KTW recommendations |
| Equipment/function | → Control modes: Dynamic Adapt plus, Δp-c, Δp-v, n-const, T-const, ΔT-const and Q-const<br>→ Multi-Flow Adaptation<br>→ Remote control via Bluetooth interface<br>→ Selection of application-based pre-settings in the setting assistant<br>→ Heat measurement<br>→ Disinfection detection<br>→ Pump venting function<br>→ Retrofittable interface modules for communication | → Control modes: Δp-c, Δp-v, 3 speed stages<br>→ LED display for setting the required delivery head<br>→ Quick electrical connection with Wilo plug<br>→ Motor protection, fault signal light and contact for collective fault signal<br>→ Corrosion-resistant pump housing in red brass<br>→ Combination flanges PN 6/PN 10 (for DN 40 to DN 65)<br>→ Retrofitable interface module (Connect module) for connection to building automation | → Constant speed or 3 selectable speed stages (Star-Z...-3),<br>→ Quick electrical connection with spring clips<br>→ Star-ZD version as twin-head pump |

| Series | Wilo-TOP-Z | Wilo-VeroLine-IP-Z |
|---|---|---|
| Product photo |  |  |
| Design | Glandless circulator with screwed connection or flange connection | Glanded circulator in in-line design with screwed connection |
| Application | Domestic hot water circulation systems in industry and in building services | For pumping drinking water, cold and hot water without abrasive substances, in heating, cold water and cooling water systems |
| Duty chart |  |  |
| Volume flow $Q_{max}$ | 67 m³/h | 5 m³/h |
| Delivery head $H_{max}$ | 9 m | 4.5 m |
| Technical data | → Fluid temperature: drinking water max. +80 °C (+65°C for TOP-Z 20/4 and TOP-Z 25/6)<br>→ Mains connection 1~230 V, 50 Hz; 3~400 V, 50 Hz<br>→ Nominal diameter Rp 1 to DN 80<br>→ Max. operating pressure 10 bar | → Fluid temperature: drinking water up to a water hardness of 4.99 mmol/l (28 °dH) max. +65 °C<br>→ Heating water -8 °C to +110 °C<br>→ Mains connection 1~230 V, 50 Hz, 3~230/400 V, 50 Hz<br>→ Nominal diameter Rp 1<br>→ Max. operating pressure 10 bar |
| Special features | → Thermal winding contact (WSK) as potential-free contact (depending on type)<br>→ Rotation control lamp indicates the correct direction of rotation (only for 3~)<br>→ Thermal insulation as standard | → High resistance to corrosive fluids due to stainless steel housing and Noryl impeller<br>→ Wide range of applications due to suitability for water hardness up to 5 mmol/l (28 °dH)<br>→ All plastic parts that come into contact with the fluid fulfil KTW recommendations |
| Equipment/function | → Pre-selectable speed stages<br>→ Thermal insulation as standard<br>→ All plastic parts that come into contact with the fluid fulfil KTW recommendations<br>→ Combination flange PN 6/PN 10 (DN 40 to DN 65) | → Single-stage, low-pressure centrifugal pump in in-line design with<br>→ Mechanical seal<br>→ Screwed connection<br>→ Motor with one-piece shaft |

# Standard glandless circulators 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 circulators 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 circulators 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.

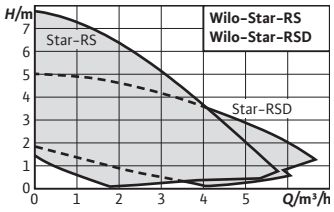
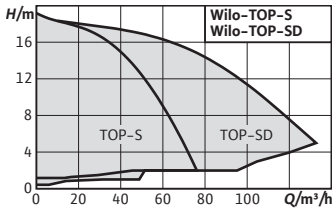
Star-RS/RSD
TOP-S/SD
TOP-RL
Star-STG

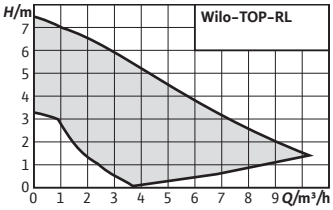
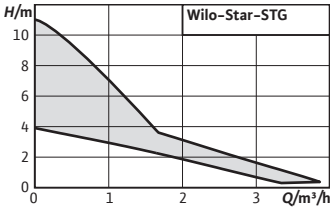
**Note**
An energy efficiency evaluation and a CE conformity declaration (CE mark) do no longer exist for these products.

*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

| Series | Wilo-Star-RS<br>Wilo-Star-RSD | Wilo-TOP-S<br>Wilo-TOP-SD |
|---|---|---|
| Product photo |  |  |
| Design | Glandless circulator with screwed 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, air-conditioning systems and closed cooling circuits |
| Duty chart |  |  |
| Volume flow $Q_{max}$ | 6.0 m³/h | 130,0 m³/h |
| Delivery head $H_{max}$ | 8.0 m | 19.0 m |
| Technical data | → Fluid temperature -10 °C to +110 °C<br>→ Mains connection 1~230 V, 50 Hz<br>→ Screw connection Rp ½, Rp 1, Rp 1½<br>→ Max. operating pressure 10 bar | → Fluid temperature -20 °C to +130 °C<br>→ Mains connection 1~230 V, 50 Hz (depending on type); 3~400 V, 50 Hz<br>→ Nominal diameter Rp 1 to DN 100<br>→ Max operating pressure 10 bar (optional: 16 bar) |
| Special features | → Suitable for any installation position with horizontal shaft; terminal box in 3-6-9-12 o'clock position<br>→ Three pre-selectable speed stages for load adaptation<br>→ Easy and safe installation with useful wrench attachment point on the pump housing<br>→ Simplified electrical connection to the terminal box with changeable threaded cable connection used from both sides; quick connection with spring clips | → Rotation control lamp indicates the correct direction of rotation (only for 3~)<br>→ Manual power adjustment with 3 speed stages<br>→ Pump housing with cataphoretic (KTL) coating protects against corrosion due to condensation formation |
| Equipment/function | → 3 manually selectable speed stages<br>→ Wrench attachment point on pump body<br>→ Cable inlet possible from both sides - for easy installation<br>→ Quick electrical connection with spring clips<br>→ RSD version as twin-head pump | → Preselectable speed stages for performance adaptation<br>→ Combination flanges PN 6/PN 10 (DN 40 to DN 65)<br>→ Pump housing is KTL-coated<br>→ Thermal insulation shells for heating applications as standard |

| Series | Wilo-TOP-RL | Wilo-Star-STG |
|---|---|---|
| Product photo |  |  |
| Design | Glandless circulator with screwed or flanged connection | Glandless circulator with screwed connection |
| Application | Hot-water heating systems of all kinds,air-conditioning systems, closed cooling circuits, industrial circulation systems | Circulation in solar thermal and geothermal energy systems |
| Duty chart |  |  |
| Volume flow $Q_{max}$ | 10.0 m³/h | 3.8 m³/h |
| Delivery head $H_{max}$ | 7.0 m | 11.0 m |
| Technical data | → Fluid temperature -20 °C to +130 °C<br>→ Mains connection 1~230 V, 50 Hz, 50 Hz<br>→ Nominal diameter Rp 1 to DN 40<br>→ Max. operating pressure 10 bar | → Fluid temperature -10 °C to +110 °C, in short-term duty (2 h) +120 °C<br>→ Mains connection 1~230 V, 50 Hz<br>→ Screwed connection Rp ½, Rp 1<br>→ Max. operating pressure 10 bar |
| Special features | → Collective fault signal as potential-free contact (depending on type)<br>→ Pump housing with cataphoretic (KTL) coating protects against corrosion due to condensation formation | → Special hydraulics for use in solar thermal and geothermal energy systems<br>→ Pump housing with wrench attachment point<br>→ Pump housing with cataphoretic (KTL) coating protects against corrosion due to condensate formation |
| Equipment/function | → Pre-selectable speed stages for power adjustment<br>→ Pump housing with cataphoretic coating<br>→ Combination flange PN 6/PN 10 (DN 40) | → 3 manually selectable speed stages<br>→ Wrench attachment point on pump housing<br>→ Blocking-current proof motor, motor protection not required<br>→ Cable inlet on both sides for simple installation<br>→ Quick electrical connection with spring clips<br>→ Pump housing with cataphoretic coating |

# ENERGY AND EMISSIONS

**We are reducing $CO_2$ emissions by 50 million t.**

# Hospitals in Kazakhstan

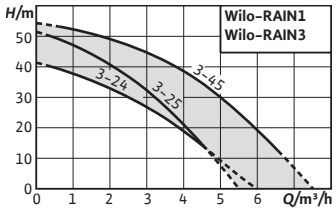
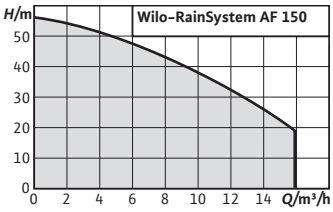
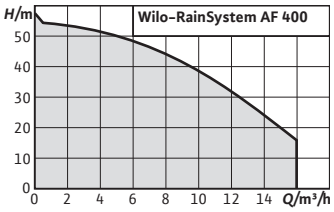
## Making a significant contribution to fight COVID-19.

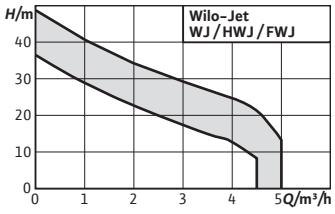
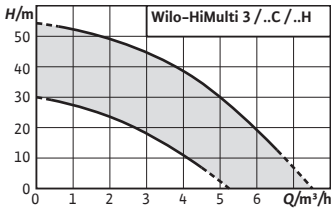
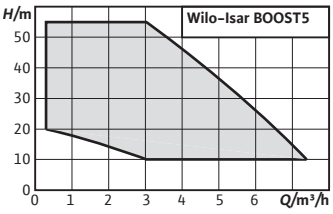
**In the fight against the coronavirus,** the Kazakh government has provided around 12 million euros for the construction of a modular hospital for infectious diseases. In the space of just 13 days, the 7,000 m² hospital in the capital Nur-Sultan was finished and opened its doors back in April 2020. In order to meet the special requirements, particular emphasis was placed on ensuring the safety of the medical personnel and patients in the modular construction.

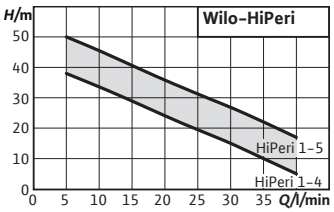
**A Wilo pressure-boosting system** operates around the clock with three horizontal, multistage Wilo-Helix MHI 1603 pumps to ensure operation in the hospital. The multistage pumps ensure water supply and disposal in the new hospital and feed a drip irrigation and fire-extinguishing system. The hospital was officially opened by Kazakh president, Kassym-Jomart Tokayev, who thanked everyone involved in the construction and design process for the quick turnaround. Alongside the pilot project in the Kazakh capital, three further hospitals have also been constructed thanks to Wilo, and 12 additional new hospitals, among other things, are in the pipeline for the large cities of Almaty and Shymkent. Here, too, Wilo, with its solutions and services, is set to make a significant contribution in the fight against the coronavirus.

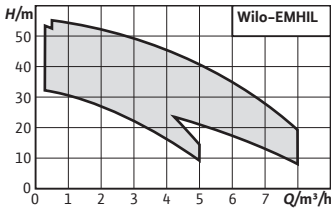
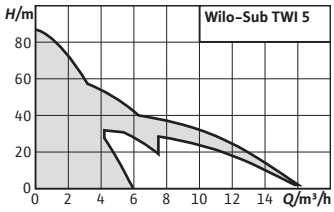
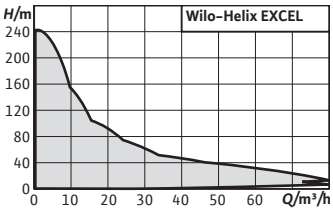
## A hospital in 13 days.

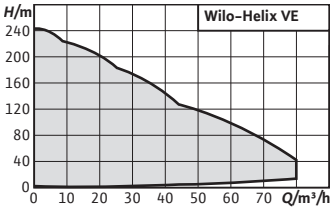
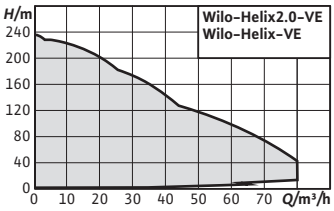
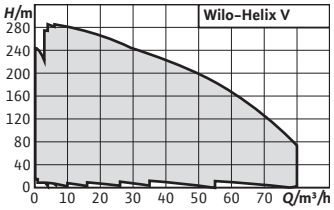
The coronavirus hospital in the Kazakh capital Nur-Sultan is one of 16 hospitals in Kazakhstan where Wilo pumps are in use, including the Wilo-Helix for pressure boosting.

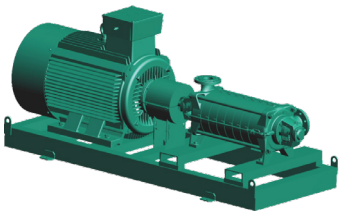
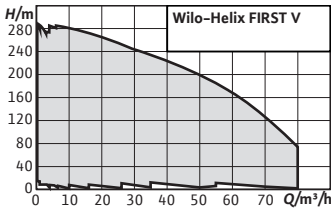
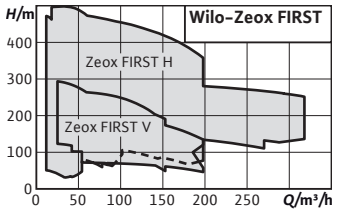
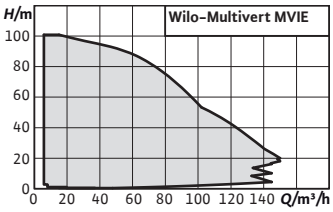
| Series | Wilo-RAIN1<br>Wilo-RAIN3 | Wilo-RainSystem AF 150 | Wilo-RainSystem AF 400 |
|---|---|---|---|
| Product photo |  |  |  |
| Design | Ready-to-plug rainwater utilisation system with 1 HiMulti3 P self-priming centrifugal pump | Automatic rainwater utilisation system with 2 MultiCargo MC self-priming centrifugal pumps | Automatic rainwater utilisation system with run-down tank and 2 MultiPress MP non-self-priming centrifugal pumps |
| Application | Rainwater utilisation for saving drinking water in conjunction with rainwater storage tanks or reservoirs | Rainwater utilisation in multi-family houses and small businesses for saving drinking water in conjunction with rainwater storage tanks or reservoirs | Hybrid system for commercial and industrial rainwater utilisation for saving drinking water in conjunction with rainwater storage tanks or reservoirs |
| Duty chart |  |  |  |
| Volume flow $Q_{max}$ | 6 m³/h | 16 m³/h | 16 m³/h |
| Delivery head $H_{max}$ | 55 m | 55 m | 55 m |
| Technical data | → Mains connection 1~230 V, 50 Hz<br>→ Suction head max. 8 m<br>→ Fluid temperature +5 °C to +35 °C<br>→ Max. operating pressure 8 bar<br>→ Replenishment reservoir 11 l<br>→ Protection class IPX4 | → Mains connection 1~230 V, 50 Hz<br>→ Suction head max. 8 m<br>→ Fluid temp. +5 °C to +35 °C<br>→ Max. operating pressure 8 bar<br>→ Replenishment reservoir 150 l<br>→ Protection class IP41 | → Mains connection 3~400 V, 50 Hz<br>→ Fluid temp. +5 °C to +35 °C<br>→ Max. operating pressure 10 bar<br>→ Replenishment reservoir 400 l<br>→ Protection class IP54 |
| Special features | → Backflow prevention according to DIN 1989 and EN 1717<br>→ Low noise, encapsulated multistage centrifugal pump<br>→ Ready to plug with variety of hydraulic connections<br>→ Compact modular construction<br>→ Touch screen (RAIN3), user friendly designed interface<br>→ Integrated features: dry-running protection, automatic water periodic refresh, adjustable starting pressure | → Low-noise due to multistage pumps<br>→ Components that come in contact with the fluid are corrosion-free<br>→ Maximum operational reliability due to fully electronic controller (RCP)<br>→ Demand-oriented fresh water replenishment<br>→ High reliability due to flow-optimised and noise-optimised replenishment reservoir | → Low-noise due to multistage pumps<br>→ Components that come in contact with the fluid are corrosion-free<br>→ Maximum operational reliability due to a fully electronic controller (RCH)<br>→ Demand-oriented fresh water replenishment<br>→ Automatic feeding pump control<br>→ System/level control in the low-voltage range |
| Equipment/function | → Connection-ready module on vibration-insulated base frame<br>→ Discharge-side pipework Rp 1<br>→ 1.5 m power supply cable and mains plug<br>→ Menu-prompted operation and display<br>→ Monitoring of rainwater storage levels<br>→ Connection for external failure reporting<br>→ Integrated overflow warning sensor (RAIN3) | → Connection-ready module on vibration-insulated tubular frame<br>→ Discharge-side pipework R 1½, pressure vessel, shut-off device<br>→ Pressure gauge 0–10 bar<br>→ Central switchgear (RCP)<br>→ Menu-prompted operation and display<br>→ Pump cycling/test run<br>→ Automatic fault-actuated switchover, peak-load operation, water exchange in replenishment reservoir | → Connection-ready module on vibration-insulated baseplate<br>→ Discharge-side pipework R 1½, pressure vessel, shut-off device<br>→ Pressure gauge 0–10 bar<br>→ Hybrid tank with all connections, calmed inlets and overflow with siphon<br>→ Central switchgear (RCH)<br>→ Pump cycling/test run<br>→ Automatic fault-actuated switchover, peak-load operation, water exchange in replenishment reservoir |

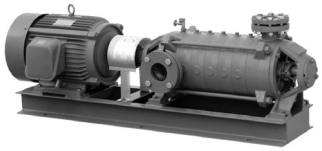
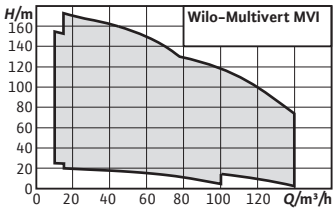
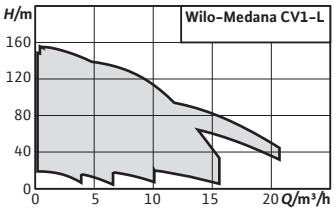
| Series | Wilo-Jet WJ<br>Wilo-Jet HWJ | Wilo-HiMulti 3 (P)<br>Wilo-HiMulti 3 C (P) / HiMulti 3 H (P) | Wilo-Isar BOOST5 |
|---|---|---|---|
| Product photo |  |  |  |
| Design | Self-priming single-stage centrifugal pumps | Self-priming (version P) and non-self-priming multistage pumps and pump systems | Plug & Pump self-priming multistage centrifugal home booster |
| Application | For pumping water from wells for filling, pumping empty, transferring by pumping, irrigation and sprinkling.<br>As emergency pump for overflows | For domestic drinking water supply, sprinkling, irrigation, spraying and rainwater utilisation | Water supply, irrigation, rainwater utilisation, raw water intake |
| Duty chart |  |  |  |
| Volume flow $Q_{max}$ | 5 m³/h | 7 m³/h | 7.2 m³/h |
| Delivery head $H_{max}$ | 50 m | 55 m | 55 m |
| Technical data | → Mains connection 1~230 V, 50 Hz<br>→ Inlet pressure max. 1 bar<br>→ Fluid temperature +5 °C to +35 °C<br>→ Max. operating pressure 6 bar<br>→ Protection class IP44 | → Mains connection 1~230 V, 50 Hz<br>→ Inlet pressure max. 3 bar<br>→ Fluid temperature 0 °C to +40 °C (+55 °C for max. 10 minutes)<br>→ Operating pressure max. 8 bar<br>→ Protection class IPX4, IP54 | → Mains connection: 1~230 V, 50/60 Hz<br>→ Perm. fluid temperature: 0 to +40 °C<br>→ Perm. ambient temperature: 0 to +40 °C<br>→ Max. permissible operating pressure: 10 bar<br>→ Max. suction head: 6 m<br>→ Protection class: IPX4<br>→ Suction side connection: G 1"<br>→ Connection on discharge side: G 1" |
| Special features | → Ideal for portable outdoor applications (hobby, garden)<br>→ HWJ version with diaphragm pressure vessel and pressure switch<br>→ FWJ version with fluid control for system control | → Easy: Electrical Wilo-Connector, on/off switch, enlarged foot fastening<br>→ Efficient and economical: highly efficient hydraulics, extremely compact<br>→ HiMulti 3 C (P): Dry-running protection and automation rotatable by 360° for easier installation<br>→ HiMulti 3 H (P): Automation and fluid hammer protection | → Easy installation, thanks to ready-to-plug design<br>→ Compact and modern design<br>→ User-friendly operation due to LED display and push buttons<br>→ Low-noise operation thanks to noise-blocking covers<br>→ Built-in frequency converter for a comfortable constant pressure control and a soft start<br>→ Safe operation thanks to extensive integrated protection functions |
| Equipment/function | → With or without carrying frame, depending on the version (WJ, FWJ)<br>→ Connection cable with plug<br>→ On/Off switch<br>→ Thermal motor protection switch | → Directly flanged motor<br>→ Thermal motor protection switch for 1~230 V version<br>→ HiMulti 3 C (P): Automatic pump control, low-water cut-out switch<br>→ HiMulti 3 H (P): Pressure switch, diaphragm pressure vessel 50 l/100 l | → Directly flanged motor<br>→ Thermal motor protection switch<br>→ Embedded variable speed<br>→ Integrated protection functions (dry-running, overpressure and excessive temperature detection, overcurrent, over- and undervoltage) |

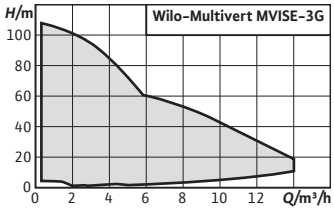
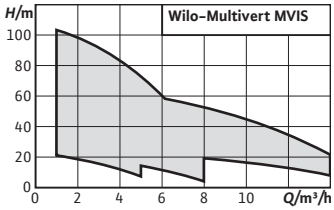
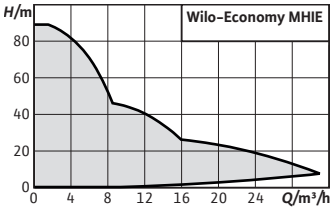
| Series | Wilo-HiPeri 1 | Wilo-PB BOOST First | Wilo-PB |
|---|---|---|---|
| Product photo |  |  NEW |  Series modification |
| Design | Non-self-priming peripheral pump | Non-self-priming single-stage glandless pump | Non-self-priming single-stage centrifugal pump in in-line design |
| Application | Water supply/pressure boosting, raw water intake, sprinkling and spraying, rainwater utilisation | Automatic water supply/pressure boosting in residential properties | Automatic water supply/pressure boosting for residential properties from a tank feeding extraction points located beneath |
| Duty chart |   |   |   |
| Volume flow $Q_{max}$ | 50 m³/h | 2.7 m³/h | 4.8 m³/h |
| Delivery head $H_{max}$ | 3 m | 12.8 m | 22 m |
| Technical data | → Mains connection 1~230 V, 50 Hz<br>→ Max. inlet pressure 1.5 bar<br>→ Fluid temperature +5 °C to +60 °C<br>→ Max. operating pressure 6.5 bar<br>→ Suction/discharge side connections: Rp 1 | → Mains connection: 1~230 V, 50 Hz<br>→ Threaded connection: G1<br>→ Fluid temperature: +1 °C to +90 °C<br>→ Ambient temperature: max. 40 °C<br>→ Max. operating pressure: 10 bar<br>→ Flow rate detection: 1.5 L/min<br>→ Noise level: < 43 dBA<br>→ Insulation class: H<br>→ Protection class: IPX4D | → Mains connection 1~230 V, 50 Hz<br>→ Suction/discharge side connections: G ¾, Rp 1, Rp 1¼<br>→ Fluid temperature +5 °C to +80 °C<br>→ Max. inlet pressure: 3.0 bar<br>→ Max. operating pressure: 5.0 bar |
| Special features | → Simple handling thanks to low weight, perfectly suited for permanent operation<br>→ Brass impeller for fluids up to 60 °C<br>→ Efficient thanks to low power consumption at maximum delivery head and volume flow<br>→ Expandable with the electronic pump control Wilo-FluidControl/HiControl 1 | → Low power consumption thanks to highly sensitive flow switch and automatic control<br>→ Very silent operation due to glandless pump technology<br>→ Compact design for easy replacement<br>→ Easy start thanks to automatic operation and plug-in<br>→ Maintenance-free | → Stable water pressure due to automatic operation<br>→ High operational reliability and dry-running protection due to the integrated flow switch<br>→ Integrated thermal motor protection as standard<br>→ Extremely low-noise operation<br>→ Corrosion protection through coated pump hydraulics |
| Equipment/function | → Single-stage circulator with a radial impeller<br>→ Can be supplemented by the Wilo-FluidControl resp. HiControl 1 | → Automatic operation with flow switch.<br>→ The pump starts and stops depending on the flow rate.<br>→ Low-noise glandless motor<br>→ Flow swich, on the discharge side for automatic operation and dry-running protection<br>→ Connection cable with pug or Wilo-Connector<br>→ Thermal motor protection | → Directly flanged glanded motor<br>→ Shaft sealing with mechanical seal<br>→ Thermal motor protection<br>→ Flow switch, on the discharge side for automatic operation and dry-running protection<br>→ Operating options Auto/Off/Manual |

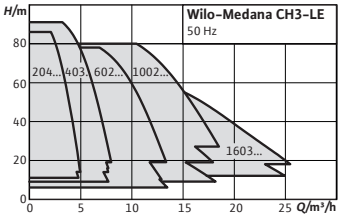
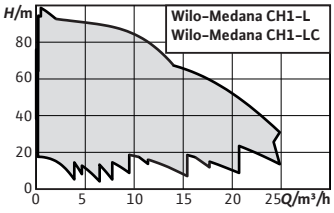
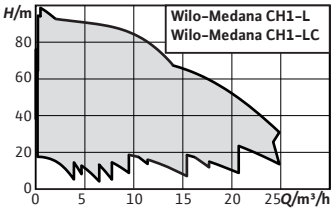
| Series | Wilo-EMHIL | Wilo-Sub TWI 5/TWI 5-SE<br>Wilo-Sub TWI 5-SE PnP | Wilo-Helix EXCEL |
|---|---|---|---|
| Product photo |  |  |  |
| Design | Non-self-priming water-supply unit with frequency converter | Submersible pumps | Non-self-priming, highly efficient, fully stainless steel high-pressure multistage centrifugal pump with EC motor and integrated high-efficiency drive |
| Application | Water supply<br>Rainwater utilisation<br>Irrigation and spraying | For domestic water supply from wells, rainwater storage tanks, and reservoirs. For irrigation, sprinkling, rainwater utilisation or for pumping out water | Water supply and pressure boosting, industrial circulation systems, process water, closed cooling circuits, washing systems, irrigation |
| Duty chart |  |  |  |
| Volume flow $Q_{max}$ | 8 m³/h | 16 m³/h | 80 m³/h |
| Delivery head $H_{max}$ | 55 m | 88 m | 240 m |
| Technical data | → Mains connection: 1~230 V, 50/60 Hz<br>→ Max. operating pressure: 10 bar<br>→ Fluid temperature: 0 °C to +40 °C<br>→ Max. ambient temperature: 50 °C | → Mains 3~400 V or 1~230 V ±10% 50 Hz<br>→ Fluid temperature max. +40 °C<br>→ Max. operating pressure 10 bar<br>→ Protection class IP68<br>→ Discharge side Rp 1¼<br>→ Suction side (SE version) Rp 1¼ | → Fluid temperature -30 to +120 °C with EPDM (-10 to +90 °C with FKM)<br>→ Max. operating pressure 16/25 bar<br>→ Protection class IP55<br>→ Minimum efficiency index MEI ≥0.7 (Helix EXCEL 16: MEI ≥0.5) |
| Special features | → Heavy-duty multistage pump with stainless steel hydraulics<br>→ Easy operation and adjustment: Large display screen; LEDs for status display<br>→ Plug & Pump<br>→ Functions: PID, frost protection, restart after a fault<br>→ Float switch can be connected as an option | → Ready-to-plug in EM version (1~230 V)<br>→ Pump (housing, stages, impellers) made entirely of stainless steel 1.4301 (AISI 304)<br>→ Self-cooling motor enables installation outside water | → High-efficiency EC motor (energy efficiency class IE5 acc. to IEC 60034-30-2)<br>→ Integrated electronic control “High-Efficiency Drive”<br>→ Easy operation thanks to proven Green Button Technology and clear display<br>→ User-friendly cartridge mechanical seal “X-Seal” and spacer coupling (from 5.5 kW)<br>→ Drinking water approval |
| Equipment/function | → Including 1.4 m mains connection cable and plug<br>→ Including EMC filter<br>→ With built-in pressure and flow controllers | → Connection cable, 20 m<br>→ TWI 5 version with standard intake strainer<br>→ Variants:<br>→ SE: with lateral inlet connecting piece<br>→ FS: with built-in float switch<br>→ Thermal motor protection for EM version (1~230 V) | → Impellers, stage chambers and pump housing made of stainless steel 1.4301/1.4404 (AISI 304L/AISI 316L)<br>→ Helix EXCEL 2 - 16, PN16 with oval flanges, PN25 with round flanges<br>→ Helix EXCEL 22 - 36, with round flanges<br>→ EC IE5 motor<br>→ Integrated electronic control |

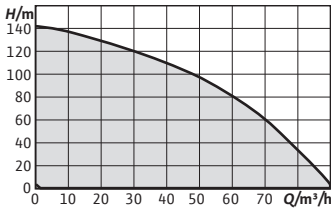
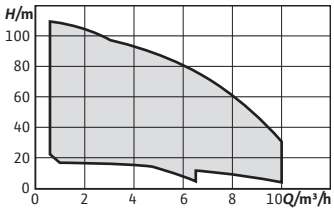
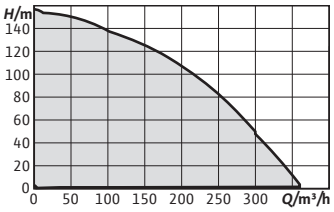
| Series | Wilo Helix VE | Wilo Helix2.0-VE | Wilo Helix V |
|---|---|---|---|
| Product photo |  |  NEW |  |
| Design | Non-self-priming multistage pump with integrated frequency converter | Highly efficient, non-self-priming high-pressure multistage centrifugal pump in vertical design and in-line connections, equipped with electronically controlled EC motor of energy efficiency class IE5 in accordance with IEC 60034-30-2. | Non-self-priming multistage pump |
| Application | Water supply and pressure boosting, industrial circulation systems, process water, closed cooling circuits, washing systems, irrigation | Water supply and pressure boosting, industrial circulation systems, process water, closed cooling circuits, heating, washing systems, irrigation | Water supply and pressure boosting, industrial circulation systems, process water, closed cooling circuits, washing systems, irrigation |
| Duty chart |  |  |  |
| Volume flow $Q_{max}$ | 80 m³/h | 80 m³/h | 80 m³/h |
| Delivery head $H_{max}$ | 240 m | 240 m | 280 m |
| Technical data | → Fluid temperature -30 to +120 °C with EPDM (-10 to +90 °C with FKM)<br>→ Max. operating pressure 16/25/30 bar<br>→ Max. inlet pressure 10 bar<br>→ Protection class IP55<br>→ Minimum efficiency index MEI ≥0.7 (Helix V 16: MEI ≥0.5) | → Fluide temperature : -15...120 ℃<br>→ Motor power : 1.1~22 kW<br>→ IP class : IP55<br>→ Max. operating pressure : 16/25 bar | → Fluid temperature -30 to +120 °C with EPDM (-10 to +90 °C with FKM)<br>→ Max. operating pressure 16/25/30 bar<br>→ Max. inlet pressure 10 bar<br>→ Protection class IP55<br>→ Minimum efficiency index MEI ≥0.7 (Helix V 16: MEI ≥0.5) |
| Special features | → Multistage, speed-configurable stainless steel high-efficiency pump with 2D/3D hydraulics<br>→ Optimised design for easy operation, transportation and installation with handles, lantern adjustment and rotatable free flanges<br>→ User-friendly display with Green Button<br>→ Technology and full text menu<br>→ IF plug-in module for quick communication with the BMS<br>→ Drinking water approval | → Efficiency-optimised, laser-welded 2D/3D<br>→ Easy pump replacement without pipe modification<br>→ WRAS/KTW/ACS approval for hydraulic parts(EPDM version) | → Efficiency-optimised, laser-welded 2D/3D hydraulics, flow and degassing optimised<br>→ Corrosion-resistant impellers, guide vanes and stage housings<br>→ Maintenance-friendly design with particularly robust coupling guard<br>→ Drinking water approval |
| Equipment/function | → Impellers, stage chambers and pump housing made of stainless steel 1.4301/1.4404 (AISI 304L/AISI 316L)<br>→ Helix VE 2 – 16, PN16 with oval flanges, PN25 with round flanges<br>→ Helix VE 22 – 36, with round flanges<br>→ IEC standard motor<br>→ Integrated frequency converter | → 2" coloured LCD display<br>→ Wilo Green Button Technology and soft button with return function for menue navigation and manual pump setting<br>→ Green LED indicates pump status<br>→ Blue LED indicates pump is influenced externally via an interface<br>→ Impellers, guide vanes and stage housings made of corrosion-resistant material | → Impellers, stage chambers and pump housing made of stainless steel 1.4301/1.4404 (AISI 304L/AISI 316L)<br>→ Helix V 2 – 16, PN16 with oval flanges, PN25 with round flanges<br>→ Helix V 22 – 36, with round flanges<br>→ IEC standard motor |

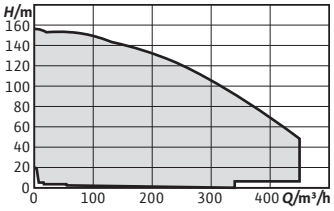
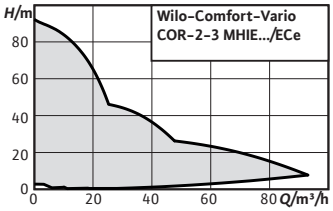
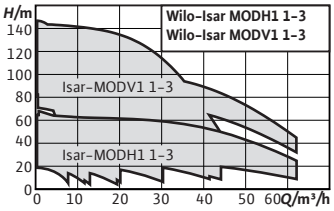
| Series | Wilo-Helix FIRST V | Wilo-Zeox FIRST H<br>Wilo-Zeox FIRST V | Wilo-Multivert MVIE 70, 95 |
|---|---|---|---|
| Product photo |  |  |  |
| Design | Non-self-priming multistage pump | Non-self-priming, high-efficiency multistage high-pressure centrifugal pump in vertical or horizontal design with off-line connections | Non-self-priming multistage pump with integrated frequency converter |
| Application | Water distribution and pressure boosting, industrial circulation systems, process water, closed cooling circuits, washing systems, irrigation | Professional irrigation/agriculture<br>Water supply/pressure boosting<br>Firefighting<br>Heating, air conditioning, cooling | Water supply and pressure boosting, industrial circulation systems, process water, closed cooling circuits,washing systems, irrigation |
| Duty chart |  |  |  |
| Volume flow $Q_{max}$ | 80 m³/h | 280 m³/h | 145 m³/h |
| Delivery head $H_{max}$ | 280 m | 495 m | 100 m |
| Technical data | → Fluid temperature: -20 to +120 °C<br>→ Max. operating pressure: 16/25/30 bar<br>→ Protection class: IP55<br>→ Minimum efficiency index MEI ≥0.7 (Helix FIRST V 16: MEI ≥0.5) | → Fluid temperature: -5 °C to +90 °C<br>→ Max. suction pressure: Zeox FIRST .. V/ .. H: 6/16 bar Max. operating pressure: Zeox FIRST V: 27 bar Zeox FIRST H (DN65 to DN100): 50 bar; Zeox FIRST H (DN150): 40 bar<br>→ Protection class: IP55 | → Fluid temperature -15 to +120 °C<br>→ Max. operating pressure 16 bar/25 bar<br>→ Max. inlet pressure 10 bar<br>→ Protection class IP55<br>→ Minimum efficiency index MEI ≥0.4 |
| Special features | → Efficiency-optimised, laser-welded, optimised 2D/3D hydraulics<br>→ Corrosion-resistant impellers, guide vanes and stage housings<br>→ Flow and degassing-optimised hydraulic parts<br>→ Reinforced pump housing, flow and NPSH-optimised<br>→ Space-saving and easy maintenance thanks to compact design | → High-efficiency hydraulics and high-efficiency IE3 motor<br>→ Standard rinsing device for the sealing system<br>→ Additional flange alignments and stuffing box packing on request<br>→ Bronze impeller on request | → Easy commissioning<br>→ Integrated frequency converter with large control range<br>→ Full motor protection |
| Equipment/function | → Corrosion-resistant impellers, guide vanes and stage housings<br>→ Helix FIRST V 2 - 16, PN16 with oval flanges, PN25 with round flanges<br>→ Helix FIRST V 22 - 36, with round flanges<br>→ IEC standard motor | → IE3 high-efficiency motor as standard<br>→ Flushing by-pass device to ensure a long service life<br>→ Packing gland on request, exchangeable without disassembling the pump | → Stainless steel hydraulics with pump housing made of cast iron<br>→ MVIE 70 ... to 95 ... PN16/25 with round flange<br>→ IEC standard motor<br>→ Integrated frequency converter with Green Button Technology and LCD display for status indication |

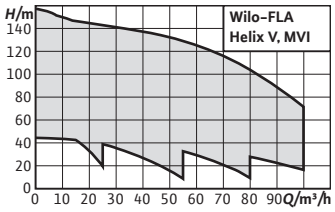
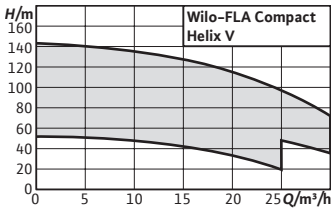
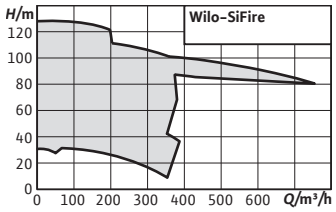
| Series | Wilo-Multivert MVI 70, 95 | Wilo-Medana CV1-L | RN, HS, IPB, PJ, STD PLURO, FG/FH |
|---|---|---|---|
| Product photo |  |  |  |
| Design | Non-self-priming multistage pump | Non-self-priming vertical multistage pump in in-line design | High-pressure multistage centrifugal pump in sectional construction, mounted on baseplate |
| Application | Water supply and pressure boosting, industrial circulation systems, process water, closed cooling circuits, washing systems, irrigation | Water supply and pressure boosting, industrial recirculation systems, process water, closed cooling circuits, fire-extinguishing systems, washing systems, irrigation, rainwater utilisation | Metal industry, mine dewatering, desalination plants, boiler supply, firefighting, high-pressure cleaning, water supply |
| Duty chart |  |  | |
| Volume flow $Q_{max}$ | 140 m³/h | 24 m³/h | 1,000 m³/h |
| Delivery head $H_{max}$ | 172 m | 158 m | 1800 m |
| Technical data | → Fluid temperature -15 to +120 °C<br>→ Max. operating pressure 16/25 bar<br>→ Max. inlet pressure 10 bar<br>→ Protection class IP55<br>→ Minimum efficiency index MEI ≥0.4 | → Fluid temperature of -20 to +120 °C with EPDM<br>→ Ambient temperature of -15 to +50 °C<br>→ Operating pressure max. 10 bar or max. 16 bar<br>→ Max. inlet pressure 6 bar or max. 10 bar<br>→ Protection class IP55 | → Permitted temperature range up to +80 °C, or up to +160 °C on request<br>→ Max. operating pressure 180 bar<br>→ Nominal diameter on discharge side DN32 to DN250<br>→ 2- or 4-pole 50 Hz motors, 60 Hz on request |
| Special features | → MVI 70..-95.. in stainless steel with pump housing made of cataphoretic-coated cast iron | → Suitable for drinking water and for special applications due to stainless steel structure<br>→ Space-saving, compact and robust pump design<br>→ Suitable for use in ambient temperatures of up to 50 °C and expanded field of application especially for system integration | → Modular design ensures pump versions in a variety of materials and versions which can be adapted to meet customer demands precisely<br>→ Hydraulic pressure compensation relieves load on bearings and ensures a longer service life<br>→ Multiple optional pressure connections allow different pressures to be supplied from a single pump |
| Equipment/function | → MVI 70 ... to 95 ... PN16/PN25 with round flange<br>→ IEC standard motor, 2-pole | → Pump in in-line design, with a continuous motor pump shaft<br>→ Hydraulics and pump housing in 1.4301 (AISI 304)<br>→ Oval flange connection<br>→ Single-phase or three-phase AC motor<br>→ Single-phase AC motor equipped with capacitor and built-in thermal motor protection (with automatic restart) | → 2 to 15-stage industrial version<br>→ Screwed segments<br>→ Hydraulic axial compensation<br>→ Shaft sealing with mechanical seal or stuffing box packing<br>→ Optionally with multiple pressure outlets for e.g. fire-extinguishing applications<br>→ Supplied as a complete unit: with pump, coupling, motor mounted on baseplate or without motor or as pump only, with free shaft end |

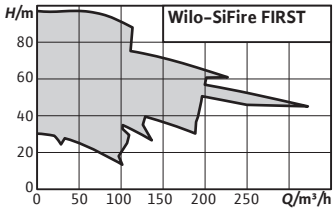
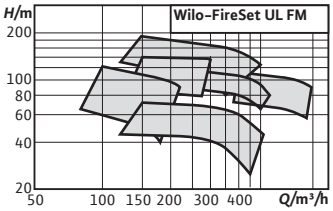
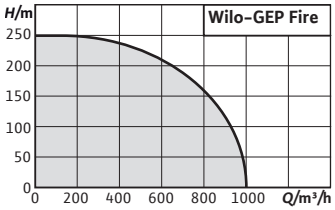
| Series | Wilo-Multivert MVISE | Wilo-Multivert MVIS | Wilo-Economy MHIE |
|---|---|---|---|
| Product photo |  |  |  |
| Design | Non-self-priming multistage pump with glandless pump motor and integrated frequency converter | Non-self-priming multistage pump with glandless pump motor | Non-self-priming multistage pump with integrated frequency converter |
| Application | Water supply and pressure boosting | Water supply and pressure boosting | Water supply and pressure boosting, industrial circulation systems, cooling water circulation systems, washing systems |
| Duty chart |  |  |  |
| Volume flow $Q_{max}$ | 14 m³/h | 14 m³/h | 32 m³/h |
| Delivery head $H_{max}$ | 110 m | 110 m | 88 m |
| Technical data | → Fluid temperature -15 to +50 °C<br>→ Max. operating pressure 16 bar<br>→ Max. inlet pressure 16 bar<br>→ Protection class IP44 | → Fluid temperature -15 to +50 °C<br>→ Max. operating pressure 16 bar<br>→ Max. inlet pressure 10 bar<br>→ Protection class IP44 | → Fluid temperature -15 to +110 °C<br>→ Max. operating pressure 10 bar<br>→ Inlet pressure max. 6 bar<br>→ Protection class IP54 |
| Special features | → Glandless pump technology<br>→ Virtually noiseless operation (up to 20 dB [A] quieter than conventional pumps)<br>→ Space-saving, compact design<br>→ Virtually maintenance-free thanks to a design which does not feature any mechanical seals<br>→ Drinking water approval for all components that come in contact with the fluid (EPDM version) | → Glandless pump technology<br>→ Virtually noiseless operation (up to 20 dB [A] quieter than conventional pumps)<br>→ Space-saving, compact design<br>→ Virtually maintenance-free thanks to a design which does not feature any mechanical seals<br>→ Drinking water approval for all components that come in contact with the fluid (EPDM version) | → Easy commissioning<br>→ All parts that come in contact with the fluid are made of stainless steel<br>→ Compact design<br>→ Integrated frequency converter<br>→ Full motor protection<br>→ WRAS/KTW/ACS approval for all parts that come in contact with the fluid (EPDM version) |
| Equipment/function | → Multistage, non-self-priming, vertical high-pressure centrifugal pump in in-line design<br>→ Glandless three-phase motor with integral water-cooled frequency converter<br>→ Hydraulic connection with oval flanges PN16. Counter flanges made of stainless steel with female thread, screws and gaskets (scope of delivery) | → Multistage, non-self-priming, vertical high-pressure centrifugal pump in in-line design<br>→ Glandless three-phase motor<br>→ Hydraulic connection with oval flanges PN16, counter flanges made of stainless steel with female thread, screws and gaskets (scope of delivery) | → Stainless steel in monobloc design<br>→ Threaded connection<br>→ Integrated frequency converter<br>→ Single-phase or three-phase AC motor<br>→ Three-phase version with LCD<br>→ Display for status indication<br>→ Integrated thermal motor protection |

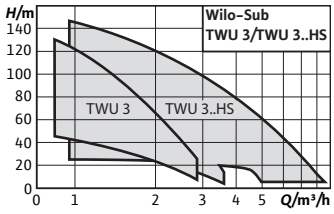
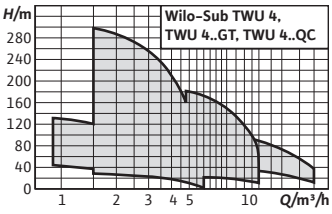
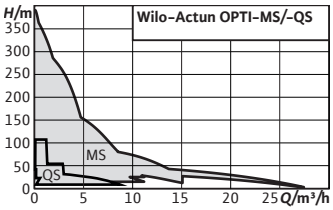
| Series | Wilo-Medana CH3-LE | Wilo-Medana CH1-L | Wilo-Medana CH1-LC |
|---|---|---|---|
| Product photo |   |  Series extension |  |
| Design | Highly efficient, non-self-priming multistage centrifugal pump in horizontal design, equipped with electronically controlled EC motor of energy efficiency class IE5 in accordance with IEC 60034-30-2 | Non-self-priming Multistage horizontal centrifugal pumps | Non-self-priming Multistage horizontal centrifugal pumps |
| Application | Water distribution/boosting, water treatment, prof. irrigation/agriculture, cooling, air conditioning | Pumping of process water and drinking water for:<br>irrigation, pressure boosting, industrial applications (e. g. cooling circuits, car wash) | Pumping of process water for:<br>irrigation, pressure boosting, industrial applications (e.g. cooling circuits, car wash) |
| Duty chart |   |   |   |
| Volume flow $Q_{max}$ | 24 m³/h | 24 m³/h | 18 m³/h |
| Delivery head $H_{max}$ | 100 m | 69 m | 78 m |
| Technical data | → Mains connection: 3~ 380 V ...440 V 50 Hz/60 Hz; TN,TT, IT<br>→ Motor power: 0.55~4 kW<br>→ Rated pressure: 10 bar<br>→ Fluid temperature: -20 °C to 120 °C<br>→ Ambient temperature: -15 °C to 50 °C<br>→ Protection class: IP55 | → Mains connection: 1~230 V, 50/60 Hz – 3~380/400/460 V, 50/60 Hz<br>→ Rated pressure: 10 bar<br>→ Fluid temperature: -20 °C to 90 °C<br>→ Ambient temperature: -15 °C to 50 °C<br>→ Protection class: IP55 | → Mains connection: 1~230 V, 50/60 Hz – 3~380/440 V, 50/60 Hz TN, TT, IT<br>→ Rated pressure: 10 bar<br>→ Fluid temperature: -20 °C to 120 °C<br>→ Ambient temperature: -15 °C to 50 °C<br>→ Protection class: IP55 |
| Special features | → IE5 EC motor and optimized hydraulics<br>→ Intelligent with various control modes (dp-v, dp-c, p-c, n-const, PID)<br>→ Double pump management<br>→ Connection options to BACnet, Modbus, CANopen, LON<br>→ WRAS/KTW/ACS approval for hydraulic parts (EPDM version) | → Captive nuts on connections (option)<br>→ Cataphoretic-coated lantern<br>→ Oblong hole for fixation<br>→ Compact design<br>→ ACS approval | → Cataphoretic-coated lantern<br>→ New closed hole fixation for vertical position |
| Equipment/function | → 2" coloured LCD display with a clearly structured menu navigation<br>→ LED indicators and operation buttons on panel<br>→ Integrated DI/DO, AI interfaces on converter<br>→ Various optional communication modules (CIF)<br>→ Stainless steel pump housing and hydraulics | → Pump housing and impellers made of stainless steel<br>→ AC motor: 3~ > 0.75 AC IE3, 3~ < 0.75 AC IE2<br>→ AC motor: 1~ AC IE1/IE2<br>→ Threaded connection | → Pump housing made of cast iron and impellers made of stainless steel<br>→ AC motor: 3~ > 0.75 AC IE3, 3~ < 0.75 AC IE2<br>→ AC motor: 1~ AC IE1/IE2 |

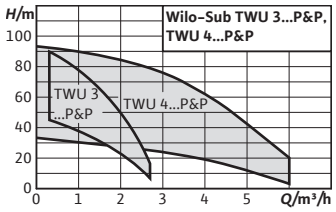
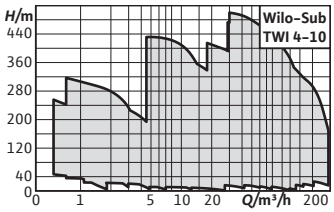
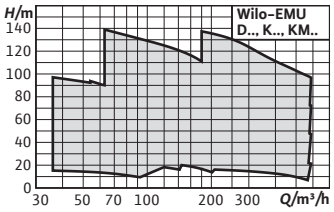
| Series | Wilo-SiBoost Smart 1 Helix VE...<br>SiBoost Smart 1 MVISE... | Wilo-Economy CO/T-1 Helix V ...<br>Comfort-Vario COR/T-1 Helix VE ...-GE | Wilo-SiBoost Smart MVISE<br>SiBoost Smart (FC) Helix V, ..VE, ..EXCEL |
|---|---|---|---|
| Product photo |  Series modification |  Series modification |  Series modification |
| Design | Water-supply units with a non-self-priming, high-pressure multistage centrifugal pump with integrated speed control of the series Helix VE or MVISE | Water supply systems with system separation and a non-self-priming, high-pressure multistage centrifugal pump of the Helix V or VE series | Highly efficient system with 2 to 4 stainless steel, non-self-priming, high-pressure multistage centrifugal pumps (Helix V, VE, EXCEL, MVISE) switched in cascade or synchronous motor speed |
| Application | Full automatic water supply from public water supply network or reservoir<br>For pumping drinking/process water, cooling water, water for firefighting | Fully automatic water supply from the public water supply mains.<br>For pumping drinking/process water, cooling water, water for firefighting | Fully automatic water supply in residential/office buildings & industrial systems.<br>For pumping drinking/process water, cooling water, water for firefighting |
| Duty chart |  |  |  |
| Volume flow $Q_{max}$ | 90 m³/h | 10 m³/h | 360 m³/h |
| Delivery head $H_{max}$ | 142 m | 120 m | 158 m |
| Technical data | → Mains connection 3~400 V, 50 Hz<br>→ Max. fluid temperature 50 °C<br>→ Operating pressure 16 bar<br>→ Inlet pressure 6/10 bar<br>→ Protection class IP44/IP54 | → Mains connection 3~230 V/400 V, 50 Hz (other versions on request)<br>→ Max. fluid temperature 40 °C<br>→ Operating pressure 16 bar<br>→ Inlet pressure 6 bar<br>→ Protection class CO/T=IP54, COR/T=IP55 | → Mains connection<br>– Helix V: 3~230 V/400 V, 50 Hz<br>– Helix VE & EXCEL: 3~400 V, 50 Hz<br>→ Max. fluid temperature 70 °C<br>→ Operating pressure 16/25 bar<br>→ Inlet pressure 10 bar<br>→ Protection class IP54 |
| Special features | → For systems with MVISE pump applies: Up to 20 dB(A) quieter than comparable systems<br>→ For systems with Helix VE pump<br>→ Optimised hydraulics<br>→ Cartridge mechanical seal<br>→ IE4 standard motor | → New innovative pressure-variable control for Helix VE<br>→ Compact system, ready for connection, for all applications that require system separation<br>→ High-efficiency pump hydraulics<br>→ Helix V with IE3 standard motors<br>→ Helix VE with IE4 standard motors | → High-efficiency pump hydraulics<br>→ Helix V with IE3 standard motors, Helix VE with IE4, Helix EXCEL with High-efficiency EC motor (IE5 acc. to IEC 60034-30-2)<br>→ Hydraulics of entire system are pressure-loss optimised<br>→ Integrated dry-running detection and low water cut-out switch<br>→ Systems with MVISE: Up to 20 dB(A) quieter than comparable systems |
| Equipment/function | → New innovative pressure-variable control<br>→ Components with fluid contact are corrosion-resistant<br>→ Pipework made of stainless steel<br>→ Shut-off device, on the discharge side<br>→ Non-return valve, on the discharge side<br>→ Diaphragm pressure vessel 8 l, PN16, on the discharge side | → PE break tank, atmospherically ventilated (150 l)<br>→ Components with fluid contact are corrosion-resistant<br>→ Pipework stainless steel<br>→ Shut-off device, on discharge side<br>→ Non-return valve, on discharge side<br>→ Break tank with float-valve and float switch<br>→ Diaphragm pressure vessel 8 l, PN16, on discharge side<br>→ Low-water cut-out switchgear | → Automatic pump control via Smart Controller SC<br>→ Innovative pressure-variable control for Helix VE, EXCEL, MVISE<br>→ Components with fluid contact are corrosion-resistant<br>→ Shut-off device on suction and discharge sides of each pump<br>→ Non-return valve, pressure sensor, diaphragm pressure vessel 8 l, PN16, on discharge side<br>→ Low-water sensor standard for VE, EXCEL, MVISE |

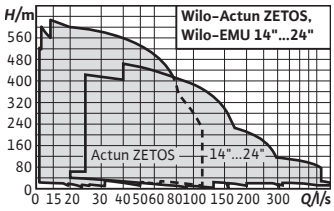
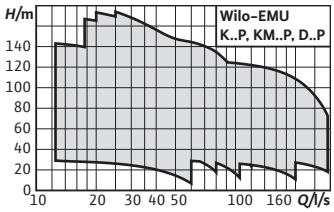
| Series | Comfort-COR..Helix V(E).../CC(e) | Wilo-Comfort-Vario COR..MHIE.../ECe | Wilo-Isar MODH1<br>Wilo-Isar MODV1 |
|---|---|---|---|
| Product photo |  |  |  |
| Design | Pressure-boosting system with speed control and 2 to 6 non-self-priming, stainless steel, high-pressure, multistage centrifugal pumps switched in cascade | Pressure-boosting system with 2 to 3 non-self-priming stainless steel high-pressure multistage centrifugal pumps switched in parallel with integrated frequency converter | Pressure-boosting system with 1, 2 or 3 non-self-priming stainless steel high-pressure multistage centrifugal pumps switched in parallel |
| Application | Fully automatic water supply in residential/office buildings & industrial systems. For pumping drinking/process water, cooling water, water for firefighting | Fully automatic water supply in residential/office buildings & industrial systems. For pumping drinking/process water, cooling water or other industrial water | Fully automatic water supply from the public water supply network or from a tank. For pumping drinking water, process water, cooling water or other industrial water |
| Duty chart |  |  |  |
| Volume flow $Q_{max}$ | 450 m³/h | 102 m³/h | 62 m³/h |
| Delivery head $H_{max}$ | 158 m | 96 m | 158 m |
| Technical data | → Mains connection 3~230 / 400 V, 50 Hz<br>→ Max. fluid temperature 50 °C<br>→ Operating pressure 10/16 bar<br>→ Inlet pressure 6/10 bar<br>→ Protection class IP54 | → Mains connection 3~380/400/440 (1~230) V, 50/60 Hz<br>→ Max. fluid temperature 50 °C (70 °C)<br>→ Max. ambient temperature 40 °C<br>→ Operating pressure 10 bar<br>→ Inlet pressure 6 bar<br>→ Protection class IP 54 | → Mains connection 3~380/400/440 V, 50/60 Hz<br>→ Max. fluid temperature 50 °C, optionally 70 °C<br>→ Max. ambient temperature 40 °C<br>→ Operating pressure 10 bar<br>→ Inlet pressure 6 bar<br>→ Protection class IP54 |
| Special features | → Compact system in accordance of DIN 1988 (EN 806)<br>→ Series with Helix VE integrated frequency converter<br>→ For systems with MVIS pumps: Up to 20 dB(A) quieter than comparable systems | → Compact system due to MHIE pumps with air-cooled frequency converters<br>→ Super proportionally large control range<br>→ Integrated full motor protection with thermistor sensor (PTC)<br>→ Integrated dry-running detection with automatic deactivation in the event of low water via the motor control electronics<br>→ Drinking water approval (ACS, UBA) | → High operational reliability with horizontal multistage pumps (Medana CH1-L or Medana CV1-L) with stainless steel hydraulics<br>→ Easy installation and maintenance thanks to flexibly adjustable connections<br>→ Easy commissioning and operation with the Easy Controller<br>→ Drinking water approval (ACS and UBA) |
| Equipment/function | → Base-load pump continuous auto controlled via frequency converter in the CC controller<br>→ Components with fluid contact are corrosion-resistant<br>→ Pipework stainless steel 1.4571<br>→ Shut-off device at each pump, on the suction and discharge sides<br>→ Non-return valve, on the discharge side<br>→ Diaphragm pressure vessel 8 l, PN16, on discharge side<br>→ Pressure sensor, on the discharge side | → 2-3 MHIE pumps per system<br>→ Infinitely variable control mode via ECe-control with microprocessor and pumps with integrated frequency converters<br>→ Components with fluid contact are corrosion-resistant<br>→ Shut-off valve at each pump, on the suction and discharge sides<br>→ Non-return valve, pressure sensor, pressure gauge on discharge side<br>→ Diaphragm pressure vessel 8 l, PN10, on the discharge side | → 1, 2 or 3 pumps (CH1-L or CV1-L) per system<br>→ Components with fluid contact are corrosion-resistant<br>→ Galvanised base frame with vibration absorbers<br>→ Stop valve on every pump on the suction and discharge sides<br>→ Non-return valve, pressure sensor, pressure gauge on discharge side<br>→ EC-control with microprocessor in IP54 plastic housing |

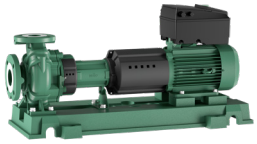
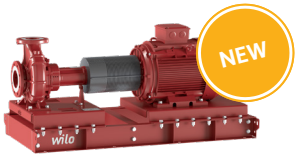
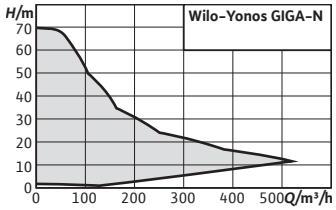
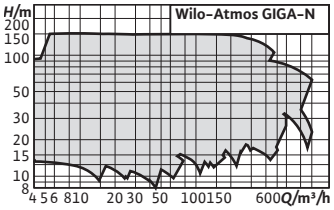
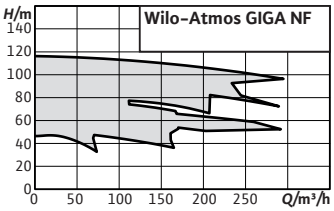
| Series | Wilo-FLA | Wilo-FLA Compact | Wilo-SiFire EN<br>SiFire Easy |
|---|---|---|---|
| Product photo |  |  |  |
| Design | Pressure-boosting system for firefighting applications with 1 to 2 autonomously operating, non-self-priming, stainless steel, high-pressure, multistage centrifugal pumps | Pressure-boosting system for firefighting, 1 to 2 autonomously operating, non-self-priming, stainless steel, high-pressure, multistage centrifugal pumps with break tank | Pressure-boosting system for firefighting, 1 or 2 pumps on horizontal base frame – EN 733 – spacer coupling, electro or diesel motor and multistage, electrical, vertical jockey pump |
| Application | For supply of firefighting water from fire hose reels and exterior floor hydrants in accordance with DIN 14462 | For supply of firefighting water from fire hose reels in accordance with DIN 14462 | Fully automatic water supply of fire-extinguishing systems with sprinkler system in accordance with EN 12845 |
| Duty chart |  |  |  |
| Volume flow $Q_{max}$ | 100 m³/h | 30 m³/h | 750 m³/h |
| Delivery head $H_{max}$ | 159 m | 142 m | 128 m |
| Technical data | → Mains connection 3~400 V, 50 Hz<br>→ Max. fluid temperature 50 °C<br>→ Max. operating pressure 16 bar<br>→ Inlet pressure 6 bar<br>→ Protection class IP54 | → Mains connection 3~400 V, 50 Hz<br>→ Fluid temperature max. 50 °C<br>→ Operating pressure up to 16 bar<br>→ Inlet pressure from break tank < 1 bar<br>→ Protection class of operating device IP54<br>→ Round break tank (540 l) | → Mains connection 3~400 V, 50 Hz (1~230 V, 50 Hz switchgear diesel pump)<br>→ Fluid temperature max. +25 °C<br>→ Max. operating pressure 10/16 bar<br>→ Max. inlet pressure 6 bar<br>→ Protection class of the switchgear IP54 |
| Special features | → Compact system in accordance of DIN 14462<br>→ Variants<br>→ Single-pump system<br>→ Double-pump system with redundant single-pump systems in a base frame<br>→ Comes as standard with pump protection by means of minimum volume discharge via bypass circuit without auxiliary energy | → Compact system with break tank in accordance with DIN 14462<br>→ Variants<br>→ Single-pump system<br>→ Double-pump system with two redundant single-pump systems on a base frame<br>→ Comes as standard with pump protection by means of minimum volume discharge via bypass circuit without auxiliary energy | → Compact system (just one base frame) in accordance with EN 12845<br>→ Jockey pump for maintaining the required pressure in the system; with automatic start/stop function<br>→ Sized diaphragm at the pump outlet for a minimum bypass line so that the pump is protected at a low volume flow<br>→ The cables are hidden in the construction and are thus protected from shocks or cuts |
| Equipment/function | → Components that come in contact with fluid are corrosion-resistant<br>→ Pipework made of stainless steel<br>→ Shut-off device at each pump, on the suction and discharge sides<br>→ Non-return valve, on the discharge side<br>→ Diaphragm pressure vessel 8 l, PN16, on the discharge side<br>→ Pressure switch, on the discharge side | → Components with fluid contact are corrosion-resistant<br>→ Pipework stainless steel<br>→ Ball shut-off valve on discharge side<br>→ Gate valve between pump and break tank with free outlet according to EN 13077, type AB according to DIN EN 1717<br>→ Non-return valve, on discharge side<br>→ Diaphragm pressure vessel 8 l, PN16, on discharge side<br>→ Pressure switch, on discharge side | → A circuit with double pressure switch, pressure gauge, non-return valve, valve for the main and standby pump for an automatic start<br>→ Pipework in steel; painted with epoxy resin. Distributor with flanges<br>→ Shutting gate with safety lock on the discharge side of the pump<br>→ Non-return valve on the discharge side of every pump<br>→ DN2" connection for the priming tank of the pumps<br>→ Pressure measuring on discharge side |

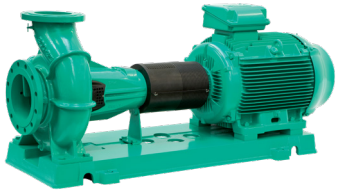
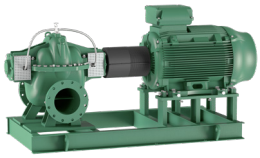
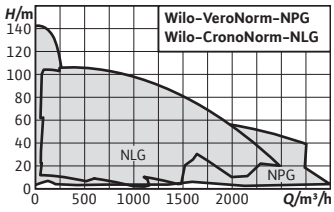
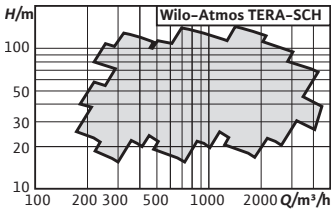
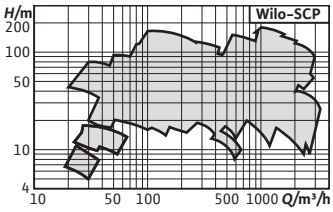
| Series | Wilo-SiFire FIRST | Wilo-FireSet UL FM | Wilo-GEP Fire |
|---|---|---|---|
| Product photo |   |   |  |
| Design | Pressure-boosting system for firefighting in accordance with EN 12845 | Pressure-boosting system for firefighting according to NPFA standards and with UL and FM certifications, consisting of 1 pump with electric or diesel motor and a switchgear on horizontal baseplate | Pressure-boosting system for firefighting applications with 1 to 12 multistage centrifugal pumps with/without break tank, with/without housing |
| Application | Fully automatic water supply for fire-extinguishing systems with sprinklers | Fully automatic water supply for fire-extinguishing systems with sprinklers in domestic, commercial and public buildings, hotels, hospitals, shopping centres, office blocks and industrial buildings | Supply of firefighting water of fire hose reels and exterior floor hydrant systems, for high-rise buildings & large properties – without valves for pressure reduction- as well as sprinkler/water spray systems |
| Duty chart |   |   |   |
| Volume flow $Q_{max}$ | 320 m³/h | 568 m³/h | Certified up to 1000 m³/h |
| Delivery head $H_{max}$ | 95 m | 179 m | 250 m, up to 450 m on request |
| Technical data | → Power supply 3~400 V, 50 Hz (1~230 V, 50 Hz for jockey pump and diesel pump switchgear)<br>→ Fluid temperature max. +25 °C<br>→ Flow from 10 to 320 m³/h<br>→ Maximum head 95 m<br>→ Protection class IP55 | → Mains connection 3~400 V, 50 Hz<br>→ Fluid temperature max. +30 °C<br>→ Ambient temperature max. +5/10 °C to +25 °C<br>→ Operating pressure 16 to 25 bar<br>→ Power 200 kW electric/224 kW diesel<br>→ Protection class IP55 electric/IP54 switchgear | → TÜV, DEKRA, DVGW, SVGW certified<br>→ Hygienic safety by free outlet (EN 1717)<br>→ Stainless steel run-down tank<br>→ Automatic function test up to redundancy stage 3<br>→ Small installation surface min. 0.64 m² |
| Special features | → Modular norm pump system with electric or diesel motor for a wide field of applications and high flexibility in designing<br>→ Long lifetime thanks to robust design<br>→ Easy transport, installation and maintenance thanks to an universal baseplate<br>→ Intuitive handling on specific fire-fighting switchgear | → Certified according to NFPA standards for the highest level of design flexibility<br>→ Robust pumps for a wide field of application and long service life<br>→ Compact design for easy transport, installation and maintenance<br>→ Power reserve for a high level of safety<br>→ Modularity for an individual tailored configuration | → Room air cooling, full fairing<br>→ Split version for installation/transport<br>→ Pressure-maintaining pump or pilot pump as an option<br>→ Combination with industrial water system<br>→ Real pressure method and VR controller for high-rise buildings and large properties<br>→ Monitoring of switchgear and ambient temperature |
| Equipment/function | → 1 horizontal baseplate pump per system from 32-200 to 100-200 series, with IE3 equivalent standard motor or diesel motor<br>→ Diaphragm, to avoid over heating at zero flow, directly installed on the main pump housing<br>→ Jockey pump from MVIL-1 series<br>→ One controller fixed on robust supports. Model E for electric motor and D for diesel engine, both equipped with a firefighing dedicated controller, plus additional control J for jockey pump, if present | → Pump with split housing<br>→ Flexible bolt coupling or universal joint<br>→ Switchgear with a WiZiTouch controller by Tornatech<br>→ Pressure transducer for automatic starting<br>→ Air vent valve and pressure gauge<br>→ Motor cooling, fuel tank, 2 or 4 batteries for diesel motor | → Drainage or pump emergency drainage (EN12056) for total volume flow<br>→ Installation possible below backflow level<br>→ No valves for reducing pressure in the main flow of the fire-extinguishing system<br>→ Effective maintenance management and permanent information on the operation via smartphone, tablet or PC |

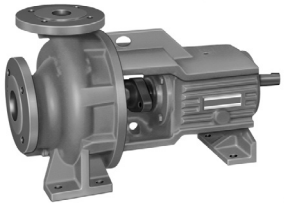
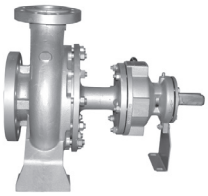
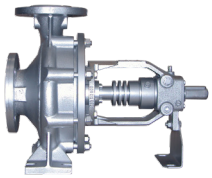
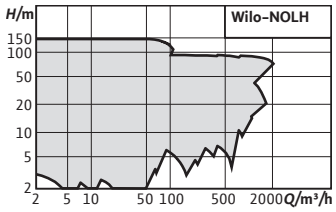
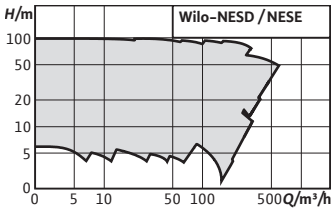
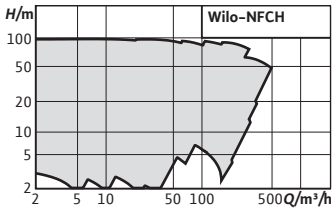
| Series | Wilo-Sub TWU 3<br>Wilo-Sub TWU 3-...-HS | Wilo-Sub TWU 4 ..., .../...-QC, .../...-GT | Wilo-Actun OPTI-MS<br>Wilo-Actun OPTI-QS |
|---|---|---|---|
| Product photo |  |  |  |
| Design | Submersible multistage pump | Submersible multistage pump | Submersible pump, multistage; in tie strap version (MSI, QSI) or as a helicoidal rotor pump (MSH, QSH) |
| Application | For water supply, sprinkling, irrigation with water without long-fibre or abrasive components from boreholes, wells, rainwater storage | Pumping of water from boreholes, wells, rainwater storage for water supply, sprinkling, irrigation, lowering ground water level | Pumping of water from boreholes, wells, rainwater tanks for water supply, sprinkling, irrigation. For operation with photovoltaic modules |
| Duty chart |  |  |  |
| Volume flow $Q_{max}$ | 6.5 m³/h | 22 m³/h | 25 m³/h |
| Delivery head $H_{max}$ | 130 m | 322 m | 375 m |
| Technical data | → Mains connection: 1~230 V, 50 Hz or 3~400 V, 50 Hz<br>→ Fluid temperature: 3–35 °C<br>→ Max. sand content: 50 g/m³<br>→ Max. immersion depth: 150 m | → Mains connection: 1~230 V, 50 Hz or 3~400 V, 50 Hz<br>→ Fluid temperature: 3–30 °C<br>→ Max. sand content: 50 g/m³<br>→ Max. immersion depth: 200 m | → Operating voltage:<br>– MSI/MSH: 90–400 VDC or 90–265 VAC<br>– QSI/QSH: 70–190 VDC<br>→ Fluid temperature max.: 35 °C<br>→ Max. sand content: 50 g/m³<br>→ Max. immersion depth: 150 m |
| Special features | → Parts in contact with the fluid are corrosion-resistant<br>→ Integrated non-return valve<br>→ Supply security with constant pressure thanks to extended pump performance due to a higher speed of up to 8,400 rpm (TWU 3/HS)<br>→ Frequency converter with integrated and menu-guided control<br>→ (TWU 3/HS) | → Parts in contact with the fluid are corrosion-resistant<br>→ Integrated non-return valve<br>→ Low wear due to floating impellers<br>→ Maintenance-friendly motor | → All parts in contact with the fluid are made of stainless steel<br>→ Integrated non-return valve<br>→ Low wear due to floating impellers<br>→ Types with helical rotor for high head at low speed<br>→ Permanent magnet motor<br>→ Built-in frequency inverter with MPPT function |
| Equipment/function | → Submersible multistage pump with radial impellers<br>→ Integrated non-return valve<br>→ NEMA coupling<br>→ Single-phase or three-phase AC motor<br>→ Thermal motor protection for single-phase motor<br>→ HS variant including external or internal frequency converter | → Submersible multistage pump with radial or semi-axial impellers<br>→ Integrated non-return valve<br>→ NEMA coupling<br>→ Single-phase or three-phase AC motor<br>→ Integrated thermal motor protection for single-phase motor<br>→ Hermetically sealed motors | → Type MSI/QSI: Submersible multistage pump with radial impellers in sectional construction<br>→ Type MSH/QSH: Hydraulics with helical rotor within double helix rubber stator<br>→ Integrated non-return valve<br>→ Permanent magnet motor, capsulated with water-glycol-filling<br>→ Integrated frequency converter |

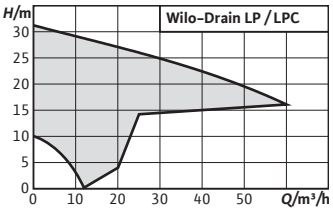
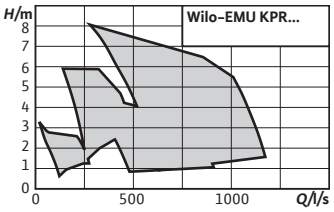
| Series | Wilo-Sub TWU 3 ... Plug & Pump<br>Wilo-Sub TWU 4 ... Plug & Pump | Wilo-Sub TWI 4/6/8/10 ... | Wilo-EMU sprinkler pumps |
|---|---|---|---|
| Product photo |  |  |  |
| Design | Water-supply unit with submersible pump, control and complete accessories | Submersible multistage pump | Submersible pump with sectional construction |
| Application | For water supply, sprinkling, irrigation with water without long-fibre or abrasive components from boreholes, wells, rainwater storage | Pumping of (drinking) water from boreholes, wells, rainwater storage for water supply, sprinkling, irrigation, lowering ground water level | Supply of sprinkler systems |
| Duty chart |  |  |  |
| Volume flow $Q_{max}$ | 6 m³/h | 165 m³/h | 580 m³/h |
| Delivery head $H_{max}$ | 88 m | 500 m | 140 m |
| Technical data | → Mains connection: 1~230 V, 50 Hz<br>→ Fluid temperature: 3–30 °C<br>→ Max. sand content: 50 g/m³<br>→ Max. immersion depth TWU 3/TWU 4: 150/200 m | → Mains: 1~230 V, 50 Hz (only TWI 4 ...) or 3~400 V, 50 Hz<br>→ Fluid temperature: 3–20 °C or 3–30 °C<br>→ Max. sand content: 50 g/m³<br>→ Max. immersion depth: 100–350 m | → Mains connection: 3~400 V/50 Hz<br>→ Max. fluid temperature: 25 °C or on request<br>→ Max. sand content: 35 g/m³<br>→ Max. immersion depth: 100 m or 300 m |
| Special features | → Easy installation thanks to pre-mounted and pre-wired components<br>→ Parts in contact with the fluid are corrosion-resistant<br>→ Integrated non-return valve | → Corrosion-resistant thanks to stainless steel version<br>→ Flexible installation thanks to vertical and horizontal installation<br>→ Easy installation due to integrated non-return valve<br>→ Large performance range<br>→ ACS approval for TWI 4 for drinking water application | → VdS certification<br>→ Sturdy version in cast iron or bronze<br>→ Pressure shroud in corrosion-resistant and hygienic stainless steel version with rubber bearing for minimising noise and vibrations<br>→ VdS certified non-return valve is available as an accessory |
| Equipment/function | → Submersible multistage pump with radial impellers<br>→ Integrated non-return valve<br>→ NEMA coupling<br>→ Single-phase AC motor<br>→ Integrated thermal motor protection<br>→ Dry-running protection (only for TWU 4- ... -P&P with Wilo-Sub-I package) | → Submersible multistage pump with radial or semi-axial impellers<br>→ Integrated non-return valve<br>→ NEMA coupling<br>→ Single-phase or three-phase AC motor | → Submersible multistage pump<br>→ Radial or semi-axial impellers<br>→ NEMA coupling (depending on type)<br>→ Three-phase motor for direct or star-delta start<br>→ Rewindable motors |

| Series | Wilo-EMU 12" ... 24"<br>Wilo-Actun ZETOS-K | Wilo-EMU polder pumps | Series VMF, CNE, VAF |
|---|---|---|---|
| Product photo |  |  |  |
| Design | Submersible pump with sectional construction | Polder pump | Vertical turbine pumps for dry well installation with submerged axial or semi-axial hydraulics |
| Application | (Drinking) water supply from boreholes, rainwater tanks; for sprinkling, irrigation, pressure boosting; municipal/industrial, geothermal, offshore use | Drinking/process water from boreholes, rainwater tanks; sprinkling, irrigation, groundwater lowering; municipal, industrial/geothermal, offshore use | Industrial or municipal water supply<br>Irrigation, firefighting<br>Cooling water supply<br>Dewatering, flood control |
| Duty chart |  |  | |
| Volume flow $Q_{max}$ | 2,400 m³/h | 1,200 m³/h | 40,000 m³/h |
| Delivery head $H_{max}$ | 640 m | 160 m | 450 m |
| Technical data | → Mains connection: 3~400 V, 50 Hz<br>→ Max. fluid temperature: 20 ... 30 °C<br>→ Max. sand content: 35 g/m³ or 150 g/m³<br>→ Max. immersion depth: 100/300/350 m | → Mains connection: 3~400 V, 50 Hz<br>→ Max. fluid temperature: 20 °C<br>→ Minimum flow across outside shroud: not necessary<br>→ Max. sand content: 35 g/m³<br>→ Max. immersion depth: 300 m | → Permitted temperature range up to 80 °C, or up to 105 °C on request<br>→ Nominal diameter on discharge side DN 100 to DN 2000 |
| Special features | → Pressure shroud in corrosion-resistant and hygienic stainless steel version<br>→ Hydraulic in stainless steel precision casting (Actun ZETOS-K)<br>→ Maintenance-friendly, rewindable motors<br>→ Optionally with Ceram CT coating for increasing the efficiency<br>→ Optionally with ACS approval for drinking water application | → Deep water lowering thanks to self-cooling motors<br>→ Sturdy version in cast iron or bronze<br>→ Compact construction<br>→ Maintenance-friendly, rewindable motors<br>→ Optionally with Ceram CT coating for increasing the efficiency | → Minimum surface area needed<br>→ High hydraulic efficiency<br>→ Submerged pump hydraulics<br>→ Design to order as per customer specifications |
| Equipment/function | → Submersible multistage pump<br>→ Radial or semi-axial impellers<br>→ Hydraulics and motor freely configurable according to power requirements<br>→ Integrated non-return valve<br>→ (depending on type)<br>→ NEMA coupling or standardised connection<br>→ Three-phase motor for direct or star-delta start | → Submersible multistage pump<br>→ Semi-axial impellers<br>→ Hydraulics and motor freely configurable according to power requirements<br>→ Three-phase motor for direct or star-delta start<br>→ Motors rewindable as standard | → For types of installation with pressure port, for concealed floor, floor-mounted or twin-ceiling installation<br>→ Design: As removable or permanent installation<br>→ With axial or semi-axial, single or multistage hydraulics<br>→ Open shaft for bearing lubrication with the fluid, or with shaft trim for separate bearing lubrication<br>→ Drive options: Electric motor, diesel motor or steam turbine |

| Series | Wilo-Yonos GIGA-N | Wilo-Atmos GIGA-N | Wilo-Atmos GIGA-NF |
|---|---|---|---|
| Product photo |  |  |   |
| Design | Electronically controlled, single-stage low-pressure centrifugal pump with axial suction. Mounted on a baseplate with flange connection and automatic power adjustment | Single-stage, low-pressure centrifugal pump with axial suction, mounted on a baseplate | Single-stage, low-pressure centrifugal pump with axial suction in accordance to EN 733 and VdS 2100-7 for installation on a base frame |
| Application | Pumping of heating water (in accordance with VDI 2035), cold water, water-glycol mixtures in heating, cold water and cooling systems. For irrigation, building services, general industry etc. | Pumping of heating water (in accordance with VDI 2035), cold water, water-glycol mixtures in heating, cold water and cooling systems | Pumping of firefighting water |
| Duty chart |   |   |   |
| Volume flow $Q_{max}$ | 520 m³/h | 1000 m³/h | 295 m³/h |
| Delivery head $H_{max}$ | 70 m | 150 m | 115 m |
| Technical data | → Fluid temperature -20 °C to +140 °C<br>→ Mains connection: 3~440 V ±10 %, 50/60 Hz, 3~400 V ±10 %, 50/60 Hz, 3~380 V -5 %/+10 %, 50/60 Hz<br>→ Minimum efficiency index (MEI) ≥ 0.4<br>→ Nominal diameter DN 32 to DN 150<br>→ Max. operating pressure 16 bar | → Fluid temperature -20 °C to +140 °C<br>→ Mains connection 3~400 V, 50 Hz<br>→ Protection class IP55<br>→ Nominal diameter DN 32 to DN 150<br>→ Max. operating pressure 16 bar | → Fluid temperature 20 °C ... 25 °C<br>→ Mains connection 3~400 V, 50 Hz<br>→ Protection class IP55<br>→ Nominal diameter DN 32 to DN 125<br>→ Max. operating pressure 16 bar |
| Special features | → Efficient pump with IE4 motors<br>→ Cataphoretic coating of all cast components for high corrosion resistance and long service life<br>→ Standard dimensions in accordance with EN 733<br>→ Easy adjustment and operation with Green Button Technology<br>→ Easy maintenance thanks to user-friendly spacer coupling in back pull-out design<br>→ Optional interfaces for connection to building automation using insertable IF modules | → Energy-saving thanks to increased overall efficiency through improved hydraulics and the use of IE3 motors<br>→ Cataphoretic coating of all cast components for high corrosion resistance and long service life<br>→ Universally usable thanks to standardised dimensions, a range of motor options and impellers made of different materials | → Reliable, durable, corrosion resistant thanks to cataphoretic coating of all cast components, bronze impeller and stainless steel slip rings<br>→ User-friendly “back pull-out” design for easy maintenance<br>→ Different drives depending on individual requirements |
| Equipment/function | → Control modes: Δp-c, PID control, n=constant<br>→ Manual functions: e.g. differential pressure setpoint setting, manual control mode, error acknowledgement<br>→ External control functions: e.g. Overriding Off, analogue input 0-10 V/0-20 mA for constant speed (DDC)<br>→ Remote control via infrared interface (IR-Stick), plug-in position for IF modules for connection to building automation | → Single-stage low-pressure centrifugal pump in monobloc design with coupling, coupling guard, motor and baseplate<br>→ Motors with efficiency class IE3 | → Single-stage low-pressure centrifugal pump base plate pump with standard motor (IE3) or diesel engine.<br>→ Base frame made of steel profiles with epoxy paint. |

| Series | Wilo-CronoNorm-NLG<br>Wilo-VeroNorm-NPG | Wilo-Atmos TERA-SCH | Wilo-SCP |
|---|---|---|---|
| Product photo |  |  |  |
| Design | Single-stage low-pressure centrifugal pump with axial suction, according to ISO 5199, mounted on a baseplate | Axially spilt case pump mounted on a base frame. | Low-pressure centrifugal pump with axially split housing mounted on a baseplate |
| Application | Pumping of heating water, cold water, water-glycol mixtures in municipal water supply, general industry, power stations etc. | Raw water intake, pressure boosting/ water transport in water-supply units, pumping of process/cooling water, heating water (in Germany acc. VDI 235), water-glycol mixtures, irrigation | Pumping of heating water (acc. VDI 2035), cold water, process water, water-glycol mixtures in heating, cold water and cooling systems |
| Duty chart |  |  |  |
| Volume flow $Q_{max}$ | 2,800 m³/h | 4,675 m³/h | 3,400 m³/h |
| Delivery head $H_{max}$ | 140 m | 150 m | 245 m |
| Technical data | → Fluid temperature -20 °C to +120 °C (depending on type)<br>→ Mains connection 3~400 V, 50 Hz<br>→ Nominal diameters: DN 150 to DN 500 (depending on type)<br>→ Operating pressure: depending on type and application – up to 16 bar | → Fluid temperature -20 °C to +120 °C<br>→ Mains connection 3~400 V, 50 HzNominal diameters<br>– Suction side: DN 150 to DN 500<br>– Discharge side: DN 150 to DN 400<br>→ Max. operating pressure: PN 16, PN 25 | → Fluid temperature -8 °C to +120 °C<br>→ Mains connection 3~400 V, 50 Hz<br>→ Nominal diameters – Suction side: DN 65 to DN 500<br>→ DIscharge side: DN 50 to DN 400<br>→ Max. operating pressure: 16 or 25 bar, depending on type |
| Special features | NLG:<br>→ Reduced life cycle costs through optimised efficiency<br>→ Mechanical seal independent of the direction of rotation<br>→ Interchangeable casing wear ring<br>→ Permanently lubricated, generously dimensioned roller bearings<br>NPG:<br>→ Suitable for temperatures up to 140 °C<br>→ Back pull-out version | → Reduced energy costs through high overall efficiency<br>→ Simplified alignment thanks to tolerant coupling and motor adjusting device<br>→ Increased operational reliability thanks to quiet-running hydraulics<br>→ Reduced cavitation tendency through optimised NPSH values<br>→ Also available as drinking water version | → Higher volume flows up to 17,000 m³/h on request<br>→ Special motors and other materials on request |
| Equipment/function | → Single-stage horizontal spiral housing pump with bearing bracket and exchangeable casing wear rings (NLG only) in process design<br>→ Shaft sealing with mechanical seals in accordance with EN 12756 or stuffing box packing<br>→ Spiral housing with cast pump bases<br>→ Greased grooved ball bearings for bearing of pump shaft<br>→ Motors with efficiency class IE3 | → Centrifugal axially split case pump, available in single-stage design.<br>→ Deliverable as complete unit or without motor or only pump hydraulics<br>→ Shaft sealing with mechanical seal or stuffing box<br>→ 4- and 6-pole motors; IE3 standard to 1000 kW (IE4 on request)<br>→ Welded steel frame | → 1- or 2-stage, low-pressure centrifugal pump in monobloc design<br>→ Deliverable as complete unit or without motor or only pump hydraulics<br>→ Shaft sealing with mechanical seal or stuffing box packing<br>→ 4-pole and 6-pole motors<br>→ Materials:<br>→ Pump housing: EN-GJL-250<br>→ Impeller: G-CuSn5 ZnPb<br>→ Shaft: X12Cr13 |

| Series | NOLH | Series NESD<br>Series NESE | Series NFCH |
|---|---|---|---|
| Product photo |  |  |  |
| Design | 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 | Single-stage low-pressure centrifugal pump with axial suction connection and radial, upwards-facing pressure connection, mounted on a baseplate |
| Application | | For heat transfer or circulating hot water in industrial processes, for power generation or in building services | For pumping mineral or synthetic heat carrier fluids up to 350 °C, e.g.: in industrial processes or power generation |
| Duty chart |  |  |  |
| Volume flow $Q_{max}$ | 1,800 m³/h | 600 m³/h | 1,000 m³/h |
| Delivery head $H_{max}$ | 140 m | 90 m | 90 m |
| Technical data | → Permitted temperature range -20 °C to +120 °C<br>→ Mains connection 3~400 V, 50 Hz<br>→ Nominal diameter on discharge side DN 32 to DN 125<br>→ Max. operating pressure PN 16 | → Max. permitted fluid temperature<br>→ NESD: 120 °C ... 207 °C; NESE: 0 °C ... 120 °C (40 bar), 120 °C ... 200 °C (35 bar), 200 °C ... 230 °C (32 bar)<br>→ Discharge side-Ø: DN 32 - 125<br>→ Max. operating pressure<br>→ NESD: PN 25; NESE: PN 40 | → Permitted temperature range: 0 °C ... 120 °C (16 bar), 120 °C ... 300 °C (13 bar), 300 °C ... 350 °C (16 bar)<br>→ Nominal diameter on discharge side DN 32 to DN 125<br>→ Max. operating pressure PN 16 |
| Special features | → Impeller diameter is adjusted to the desired duty point<br>→ Many version options for the shaft seal<br>→ 60 Hz or ATEX version on request<br>→ Pumping of clean or slightly muddy fluids without solid material | → Impeller diameter is adjusted to the desired duty point<br>→ 60 Hz or ATEX version on request<br>→ Special self-cooling design allows use of an uncooled shaft seal. Additional or external cooling devices are not required | → Impeller diameter is adjusted to the desired duty point<br>→ 60 Hz or ATEX version on request<br>→ Self-cooling design with double temperature barrier allows the use of an uncooled shaft seal and reduces heat loss |
| Equipment/function | → Dimensions and hydraulic output as per EN 733<br>→ Hydraulics:cast iron (ML) or stainless steel (MX) depending on version<br>→ Sealed by uncooled mechanical seal<br>→ With or without spacer coupling<br>→ 2 or 4-pole IEC standard motor<br>→ Baseplate: steel or cast iron<br>→ Supplied as complete unit with pump, coupling, coupling guard, motor and baseplate **or** without motor **or** pump only, with bare shaft end | → Dimensions and hydraulic output as per EN 22858<br>→ Hydraulics in spheroidal cast iron EN-GS400 (MG version)<br>→ Flange according to EN 1092-1<br>→ With or without spacer coupling<br>→ 2 or 4-pole IEC standard motor<br>→ Baseplate: steel or cast iron<br>→ Supplied as complete unit with pump, coupling, coupling guard, motor and baseplate **or** without motor **or** pump only, with bare shaft end | → Dimensions and hydraulic output as per EN 733<br>→ Standard mechanical seal corresponding to the heat carrier fluid<br>→ Version with or without spacer coupling<br>→ 2 or 4-pole IEC standard motor<br>→ Supplied as a complete unit with pump, coupling, coupling guard, motor and baseplate **or** without motor **or** pump only, with bare shaft end |

| Series | Wilo-Drain LP<br>Wilo-Drain LPC | Wilo-EMU KPR |
|---|---|---|
| Product photo |  |  |
| Design | Non-submersible self-priming drainage pump | Axial submersible pump for use in pipe chambers |
| Application | Pumping of<br>→ Wastewater<br>→ Process water | Pumping of<br>→ Sewage without faeces (EN 12050-2)<br>→ Wastewater<br>→ Process water |
| Duty chart |  |  |
| Volume flow $Q_{max}$ | 60 m³/h | 4,360 m³/h |
| Delivery head $H_{max}$ | 29 m | 8 m |
| Technical data | → Mains connection: 1~230 V, 50 Hz or 3~400 V, 50 Hz<br>→ Operation mode: S1<br>→ Fluid temperature: max. 35 °C | → Mains connection: 3~400 V, 50 Hz<br>→ Immersed operating mode: S1<br>→ Max. immersion depth: 20 m<br>→ Fluid temperature: max. 40 °C |
| Special features | → Long service life<br>→ Sturdy construction<br>→ Easy operation<br>→ Flexible use | → Installation directly in the pressure pipe<br>→ Angle of propeller blades adjustable<br>→ Process security thanks to extensive monitoring devices<br>→ Customised versions are possible |
| Equipment/function | → Self-priming | → Heavy-duty version made of cast iron |

# WATER

**We are facilitating better access to clean water for 100 million people.**

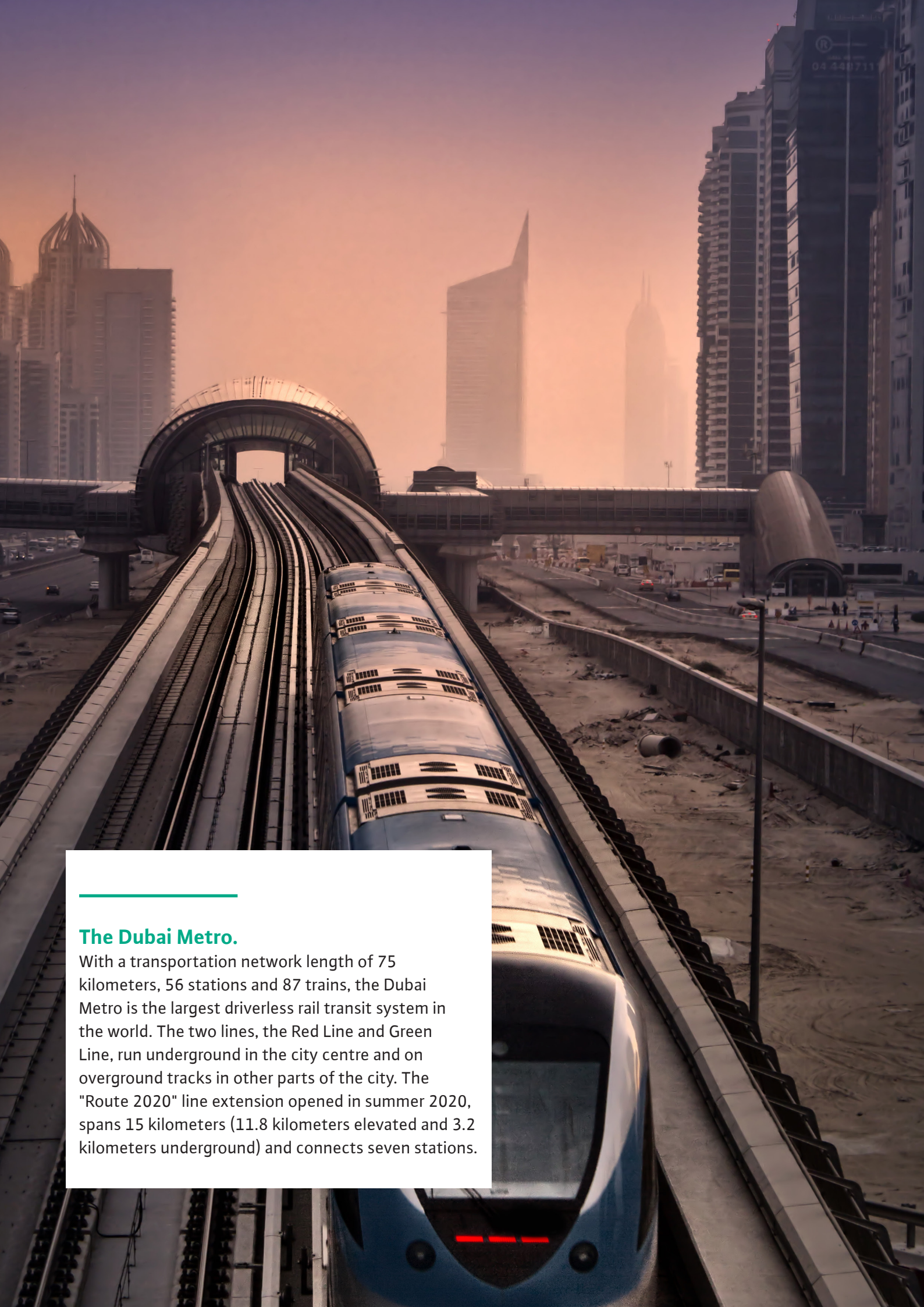
# Back to the Future

## More than 1,000 high-efficiency Wilo pumps keep the Dubai Metro running reliably.

**Rapid population growth** and rising tourist numbers pose a major challenge to Dubai's transport infrastructure. The solution: the Dubai Metro. Highly efficient Wilo pumps not only ensure reliable operation of the driverless rail transport system. In 2020, Wilo was also awarded the contract to equip the "Route 2020" line extension.

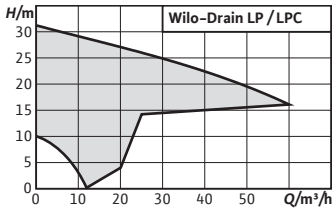
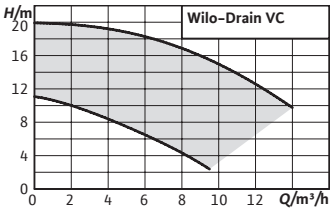
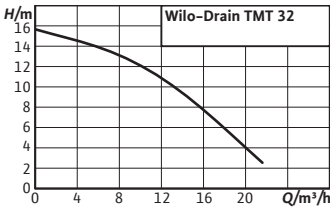
**To ensure air conditioning,** water supply and wastewater discharge at each of the Dubai Metro's 56 stations, Wilo supplied pressure-boosting systems as well as chilled water and submersible pumps. "The task was not only to select and supply the right products for the applications, but also to support the installation and commissioning over a period of one year," says Yasser Nagi, Managing Director Wilo UAE and Egypt.

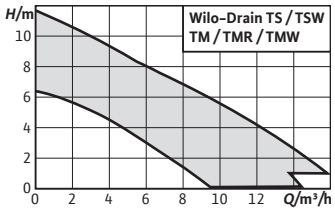
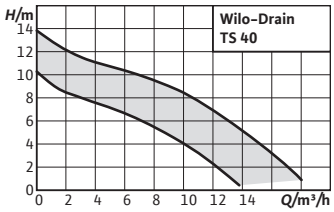
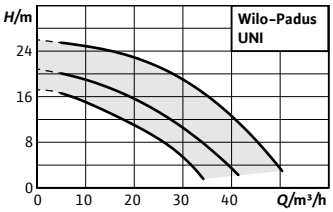
**With a three-minute frequency** at peak times, the metro has a capacity of around 13,000 passengers per direction per hour. The high passenger volume is a major challenge for the functionality of the sanitary facilities. The solution: nine sewage lifting units with solids separation system, from the Wilo-EMUport CORE series. These offer maximum operational reliability in the collection and transport of wastewater. The systems separate the wastewater into solids and pre-cleaned wastewater, so that larger solids do not have to be conveyed through the pump hydraulics. While the coarser particles are collected in solids separation tanks, the pre-cleaned wastewater flows back through the pump into a collection tank.

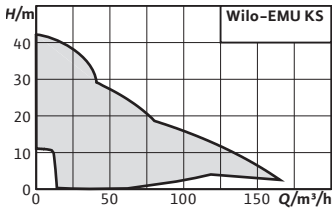
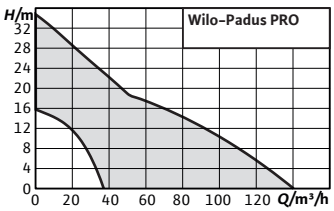
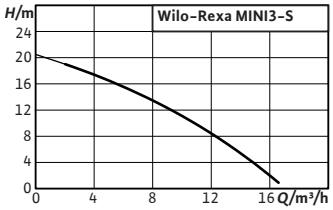


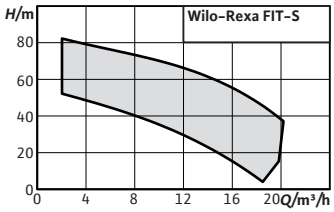
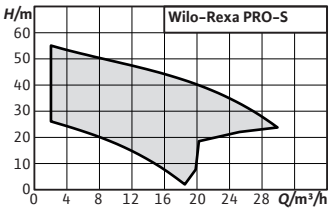
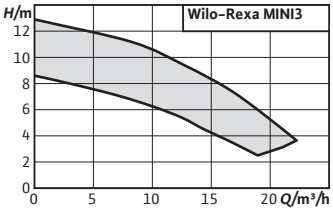
## The Dubai Metro.

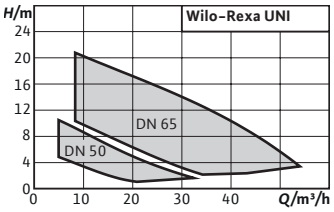
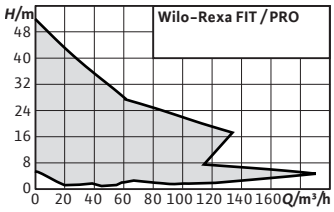
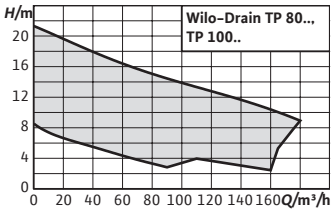
With a transportation network length of 75 kilometers, 56 stations and 87 trains, the Dubai Metro is the largest driverless rail transit system in the world. The two lines, the Red Line and Green Line, run underground in the city centre and on overground tracks in other parts of the city. The "Route 2020" line extension opened in summer 2020, spans 15 kilometers (11.8 kilometers elevated and 3.2 kilometers underground) and connects seven stations.

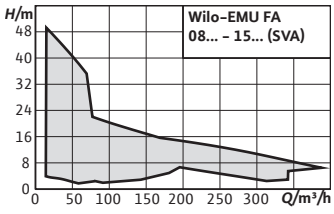
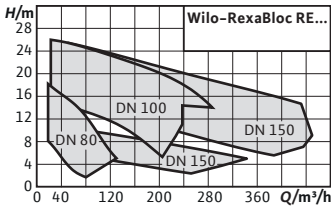
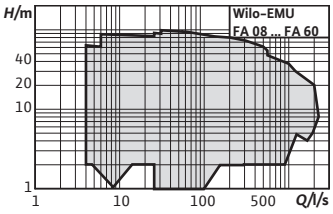
| Series | Wilo-Drain LP<br>Wilo-Drain LPC | Wilo-Drain VC | Wilo-Drain TMT |
|---|---|---|---|
| Product photo |  |  |  |
| Design | Non-submersible self-priming drainage pump | Non-submersible pedestal pump with standard motor | Submersible drainage pump |
| Application | Pumping of<br>→ Wastewater<br>→ Process water | Pumping of<br>→ Wastewater<br>→ Industrial wastewater | Pumping of<br>→ Wastewater<br>→ Industrial wastewater |
| Duty chart |  |  |  |
| Volume flow $Q_{max}$ | 60 m³/h | 14 m³/h | 22 m³/h |
| Delivery head $H_{max}$ | 31 m | 20 m | 15.5 m |
| Technical data | → Mains connection: 1~230 V, 50 Hz or 3~400 V, 50 Hz<br>→ Operation mode: S1<br>→ Fluid temperature: max. 35 °C | → Mains connection: 1~230 V, 50 Hz or 3~400 V, 50 Hz<br>→ Operation mode: S1<br>→ Fluid temperature: max. 95 °C | → Mains connection: 3~400 V, 50 Hz<br>→ Immersed operating mode: S1<br>→ Non-immersed operating mode: S3 25 %<br>→ Max. immersion depth: 7 m<br>→ Fluid temperature: max. 95 °C |
| Special features | → Long service life<br>→ Sturdy construction<br>→ Easy operation<br>→ Flexible use | → For fluids up to 95 °C<br>→ Long service life<br>→ Easy operation thanks to attached float switch<br>→ Long standstill times possible<br>→ Integrated motor protection with thermal relay | → For fluids up to 95 °C<br>→ Sealed cable inlet |
| Equipment/function | → Self-priming | → Attached float switch | → Housing and impeller made of grey cast iron<br>→ Thermal motor monitoring |

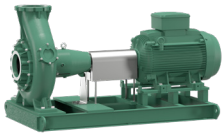
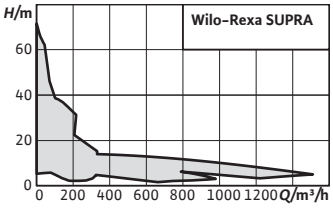
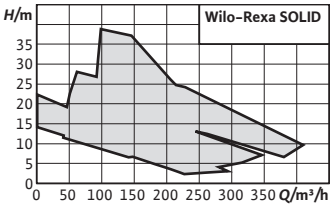
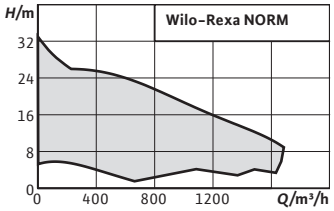
| Series | Wilo-Drain TM/TMW/TMR 32<br>Wilo-Drain TS/TSW 32 | Wilo-Drain TS 40 | Wilo-Padus UNI |
|---|---|---|---|
| Product photo |  |  |  |
| Design | Submersible drainage pump | Submersible drainage pump | Submersible drainage pump |
| Application | Pumping of<br>→ Sewage without faeces and long-fibre components<br>→ Wastewater | Pumping of<br>→ Sewage without faeces and long-fibre components<br>→ Wastewater | Pumping of<br>→ Sewage without faeces<br>→ Wastewater<br>→ Aggressive fluids (pH >3.5) |
| Duty chart |  |  |  |
| Volume flow $Q_{max}$ | 16 m³/h | 18 m³/h | 50 m³/h |
| Delivery head $H_{max}$ | 12 m | 14 m | 26 m |
| Technical data | → Mains connection: 1~230 V, 50 Hz<br>→ Immersed operating mode: S1<br>→ Non-immersed operating mode: S3 25 %<br>→ Max. immersion depth: TM/TMW/TMR = 1 m, TS/TSW = 7 m<br>→ Fluid temperature: max. 35 °C, for short periods up to 3 min. max. 90 °C | → Mains connection: 1~230 V, 50 Hz or 3~400 V, 50 Hz<br>→ Immersed operating mode: S1<br>→ Non-immersed operating mode: S3 25 %<br>→ Max. immersion depth: 5 m<br>→ Fluid temperature: max. 35 °C | → Mains connection: 1~230 V, 50 Hz or 3~400 V, 50 Hz<br>→ Immersed operating mode: S1Non-immersed operating mode:<br>– Standard version: S3 10 %<br>– “C” version: S1<br>→ Max. immersion depth: 7 m<br>→ Fluid temperature: max. 40 °C |
| Special features | → TMW, TSW with turbulator for constantly clean pump chamber<br>→ No generation of fluid-related odours<br>→ Easy installation<br>→ High operational reliability<br>→ Easy operation | → Low weight<br>→ Sealing chamber<br>→ Easy operation thanks to attached float switch and plug (A version) | → Reliability, thanks to corrosion-free hydraulics for various fluids<br>→ Easy installation due to its low weight, integrated capacitor and threaded flange<br>→ Quick maintenance facilitated by direct access to the sealing chamber and pump housing<br>→ Long maintenance intervals thanks to the double mechanical seal and large-volume sealing chamber |
| Equipment/function | → Motor monitoring via temperature<br>→ Sheath flow cooling<br>→ Hose connection<br>→ Turbulator (TMW, TSW)<br>→ Float switch (depending on type) | → Ready-to-plug versions also with float switch<br>→ Thermal motor monitoring<br>→ Integrated non-return valve<br>→ Hose connection | → Thermal motor monitoring<br>→ Single-phase variant with internal capacitor<br>→ A-model with plug and float switch<br>→ VA-model with plug and vertical float switch<br>→ P-model with plug<br>→ Material version “B” for aggressive fluids, e.g. lake/sea water, condensate, distilled water<br>→ “C” version with sheath flow cooling |

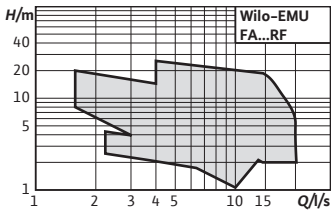
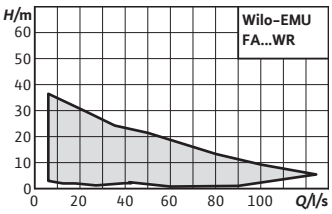
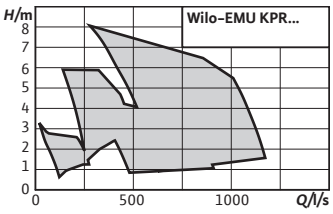
| Series | Wilo-EMU KS | Wilo-Padus PRO | Wilo-Rexa MINI3-S |
|---|---|---|---|
| Product photo |  |  |  NEW |
| Design | Submersible drainage pump | Submersible drainage pump | Submersible sewage pump with macera-tor |
| Application | Pumping of<br>→ Wastewater | Pumping of<br>→ Wastewater | For pumping in domestic areas of:<br>→ Sewage containing faeces<br>→ Wastewater (with small amounts of sand and gravel)<br><br>**Sewage pumping according to (DIN) EN 12050**<br>The pumps meet the requirements of EN 12050-1. |
| Duty chart |  |  |  |
| Volume flow $Q_{max}$ | 165 m³/h | 140 m³/h | 16.6 m³/h |
| Delivery head $H_{max}$ | 42 m | 34 m | 20.5 m |
| Technical data | → Mains connection: 1~230 V, 50 Hz or 3~400 V, 50 Hz<br>→ Immersed operating mode: S1<br>→ Non-immersed operating mode: S1<br>→ Max. immersion depth: 20 m<br>→ Fluid temperature: max. 40 °C | → Mains connection: 3~400 V, 50 Hz<br>→ Immersed operating mode: S1<br>→ Non-immersed operating mode: S1<br>→ Max. immersion depth: 20 m<br>→ Fluid temperature: max. 40 °C | → Mains connection: 1~230 V, 50 Hz oder 3~400 V, 50 Hz<br>→ Operation mode submerged: S1<br>→ Operation mode emerged: S3 20%<br>→ Max. immersion depth: 7 m<br>→ Fluid temperature: max. 40 °C |
| Special features | → Long service life<br>→ Sturdy construction<br>→ Slurping operation possible<br>→ Suitable for continuous duty (S1)<br>→ Ready-to-plug | → High reliability in abrasive media thanks to rubber-coated hydrau-lics and impeller made of hardened chrome steel<br>→ Easy installation thanks to low weight and flexible pressure connection (vertical/horizontal)<br>→ Active cooling for reliable continuous duty, particularly in slurping operation<br>→ Easy maintenance thanks to quick access to wearing parts | → Excellent anti-clogging reliability due to radial macerator with double shear effect<br>→ Optimised hydraulics/macerator combination for a wide coverage of delivery head at the lowest power requirement for domestic electrical installations<br>→ Low overall installation costs thanks to the use of smallest possible piping<br>→ Easy to use in domestic applications thanks to low weight.<br>→ Long service life due to high-quality motor with double sealing |
| Equipment/function | → Heavy-duty design<br>→ Slurping operation | → Sheath flow cooling<br>→ Slurping operation | → Radial macerator with double shear effect<br>→ Thermal motor moitoring<br>→ “A” version: with float and plug<br>→ “P” version: with plug |

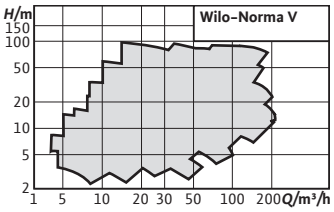
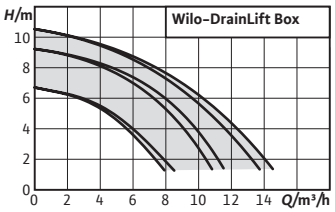
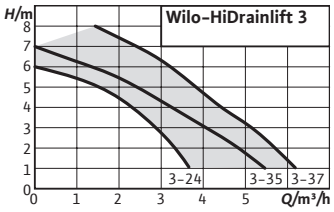
| Series | Wilo-Rexa FIT-S | Wilo-Rexa PRO-S | Wilo-Rexa MINI3 |
|---|---|---|---|
| Product photo |   |   |  |
| Design | Submersible sewage pump with macerator | Submersible sewage pump with macerator | Submersible sewage pump |
| Application | For pumping in commercial areas of:<br>→ Sewage containing faeces<br>→ Wastewater (with small amounts of sand and gravel)<br><br>**Sewage pumping according to (DIN) EN 12050**<br>The pumps meet the requirements of EN 12050-1. | For pumping in commercial areas of:<br>→ Sewage containing faeces<br>→ Wastewater (with small amounts of sand and gravel)<br><br>**Sewage pumping according to (DIN) EN 12050**<br>The pumps meet the requirements of DIN EN 12050-1. | Pumping of<br>→ Sewage without faeces<br>→ Wastewater |
| Duty chart |   |   |   |
| Volume flow $Q_{max}$ | 20 m³/h | 30 m³/h | 23 m³/h |
| Delivery head $H_{max}$ | 43 m | 57 m | 13 m |
| Technical data | → Mains connection: 1~230 V, 50 Hz oder 3~400 V, 50 Hz<br>→ Operation mode submerged: S1<br>→ Operation mode emerged: S3 10%<br>→ Max. immersion depth: 7 m<br>→ Fluid temperature: max. 40 °C | → Mains connection: 1~230 V, 50 Hz oder 3~400 V, 50 Hz<br>→ Operation mode submerged: S1<br>→ Operation mode emerged: S3 25%<br>→ Max. immersion depth: 20 m<br>→ Fluid temperature: max. 40 °C | → Mains connection: 1~230 V, 50 Hz or 3~400 V, 50 Hz<br>→ Immersed operating mode: S1<br>→ Non-immersed operating mode: S2-15 min, S3 10 %<br>→ Max. immersion depth: 7 m<br>→ Fluid temperature: max. 40 °C |
| Special features | → Excellent anti-clogging reliability due to radial macerator with double shear effect<br>→ Optimised hydraulics/macerator combination for a wide coverage of the delivery head<br>→ Low overall installation costs thanks to the use of smallest possible piping<br>→ Designed for an easy selection covering the needs of various building types<br>→ Long service life due to high-quality motor with two mechanical seals and optional sealing chamber monitoring | → Excellent anti-clogging reliability due to radial macerator with double shear effect<br>→ Optimised hydraulics/macerator combination for a wide coverage of delivery head<br>→ Low overall installation costs thanks to the use of smallest possible piping<br>→ Designed for an easy selection covering the needs of various building types<br>→ Long service life due to high-quality motor with two mechanical seals and optional sealing chamber monitoring | → Best efficiency and high operational reliability thanks to optimised hydraulics<br>→ Easy installation thanks to compact design with integrated condensor, light weight and threaded flange<br>→ Long maintenance intervals thanks to large sealing chamber and double sealing |
| Equipment/function | → Radial macerator with double shear effect<br>→ Thermal motor moitoring<br>→ "A" version: with float and plug<br>→ "P" version: with plug | → Radial macerator with double shear effect<br>→ Thermal motor monitoring<br>→ Motor thightness monitoring<br>→ Ex approval according to ATEX | → AC variant ready-to-plug and with internal capacitor<br>→ A-model including float switch<br>→ Thermal motor monitoring |

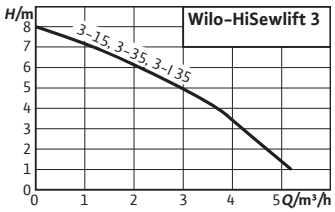
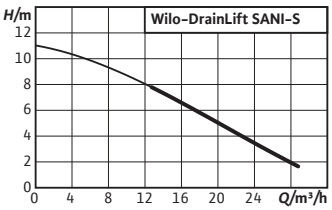
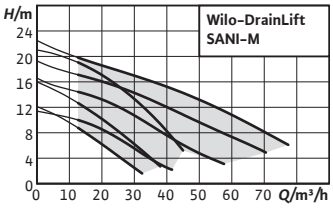
| Series | Wilo-Rexa UNI | Wilo-Rexa FIT<br>Wilo-Rexa PRO | Wilo-Drain TP 80<br>Wilo-Drain TP 100 |
|---|---|---|---|
| Product photo |  |  |  |
| Design | Submersible sewage pump | Submersible sewage pump | Submersible sewage pump |
| Application | Pumping of<br>→ Sewage containing faeces<br>→ Wastewater<br>→ Aggressive fluids (pH >3.5) | Pumping of<br>→ Sewage containing faeces<br>→ Wastewater | Pumping of<br>→ Sewage containing faeces<br>→ Wastewater<br>→ Process water |
| Duty chart |  |  |  |
| Volume flow $Q_{max}$ | 54 m³/h | 186 m³/h | 180 m³/h |
| Delivery head $H_{max}$ | 21 m | 52 m | 21 m |
| Technical data | → Mains connection: 1~230 V, 50 Hz or 3~400 V, 50 Hz<br>→ Immersed operating mode: S1<br>→ Non-immersed operating mode: S3 10 %<br>→ Max. immersion depth: 7 m<br>→ Fluid temperature: max. 40 °C | → Mains connection: 1~230 V, 50 Hz or 3~400 V, 50 Hz<br>→ Immersed operating mode: S1<br>→ Non-immersed operating mode: S3<br>→ Max. immersion depth: 7 m (FIT) or 20 m (PRO)<br>→ Fluid temperature: max. 40 °C | → Mains connection: 3~400 V, 50 Hz<br>→ Immersed operating mode: S1<br>→ Non-immersed operating mode: S1<br>→ Max. immersion depth: 20 m<br>→ Fluid temperature: max. 40 °C |
| Special features | → High reliability due to corrosion-free hydraulics for various fluids<br>→ Easy installation thanks to low weight of composite, integrated capacitor and integrated fixations in flanges<br>→ Larger inspection interval thanks to double sealing with large sealing chamber | → Low-weight version with stainless steel motor or sturdy version in cast iron<br>→ Also with IE3 motor technology (according to IEC 60034-30)<br>→ Motors with S1 operation mode for dry installation available | → Self-cooling motor for the use in wet well and dry well installations<br>→ Corrosion-resistant stainless steel motor housing in 1.4404<br>→ Patented non-clogging hydraulics<br>→ Longitudinal watertight cable inlet<br>→ Low weight |
| Equipment/function | → Thermal motor monitoring<br>→ Single-phase variant with internal capacitor<br>→ A-model with plug and float switch<br>→ P-model with plug<br>→ Material version “B” for aggressive fluids, e.g. lake/sea water, condensate, distilled water<br>→ “C” version with sheath flow cooling | → Thermal motor monitoring<br>→ Motor chamber monitoring (Rexa PRO)<br>→ Sealing chamber with optional external monitoring<br>→ ATEX approval (Rexa PRO) | → Thermal motor monitoring<br>→ Motor chamber monitoring<br>→ ATEX approval<br>→ Sheath flow cooling |

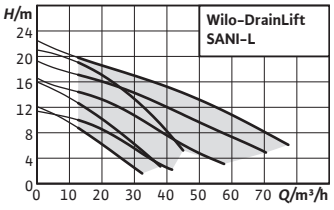
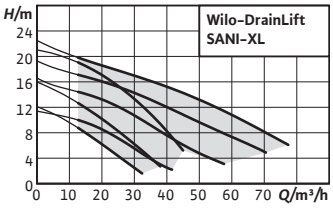
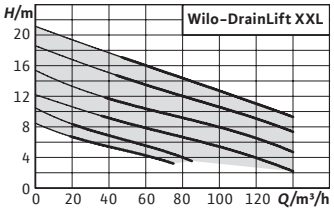
| Series | Wilo-EMU FA 08 to FA 15 (standard pumps) | Wilo-RexaBloc RE | Wilo-EMU FA 08 to FA 60 |
|---|---|---|---|
| Product photo |  |  Series extension |  |
| Design | Submersible sewage pump | Non-submersible sewage pump in monobloc design | Submersible sewage pump |
| Application | Pumping of<br>→ Sewage containing faeces<br>→ Wastewater | Pumping of<br>→ Sewage containing faeces<br>→ Wastewater | Pumping of<br>→ Untreated sewage<br>→ Sewage containing faeces<br>→ Wastewater<br>→ Process water |
| Duty chart |  |  |  |
| Volume flow $Q_{max}$ | 380 m³/h | 445 m³/h | 8,679 m³/h |
| Delivery head $H_{max}$ | 51 m | 26 m | 124 m |
| Technical data | → Mains connection: 3~400 V, 50 Hz<br>→ Immersed operating mode: S1<br>→ Non-immersed operating mode: S2<br>→ Max. immersion depth: 20 m<br>→ Fluid temperature: max. 40 °C | → Mains connection: 3~400 V, 50 Hz<br>→ Operating mode: S1<br>→ Fluid temperature: max. 70 °C<br>→ Ambient temperature: max. 40 °C<br>→ Motor efficiency class: IE3, IE4 | → Mains connection: 3~400 V, 50 Hz<br>→ Immersed operating mode: S1Non-immersed operating mode:<br>– S1 with self-cooling motor<br>– S2 with surface-cooled motor<br>→ Max. immersion depth: 20 m<br>→ Fluid temperature: max. 40 °C |
| Special features | → Operationally reliable thanks to Vortex hydraulics and single-channel hydraulics with large, free ball passage<br>→ Process reliability thanks to optional monitoring for the sealing chamber | → High reliability due to oil-filled sealing chamber and additional leakage chamber<br>→ 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<br>→ Closed bearing bracket design. This means that no oil needs to be drained during dismantling | → Self-cooling motors for the use in wet well and dry well installation<br>→ Process security thanks to extensive monitoring devices<br>→ Enhanced corrosion protection with the optional Ceram coating for a longer lifetime<br>→ Special versions for abrasive and corrosive fluids<br>→ Customised versions are possible |
| Equipment/function | → Optional external sealing chamber monitoring | → Optional external sealing chamber monitoring | → Heavy-duty version made of cast iron<br>→ Optional monitoring for<br>– motor bearing temperature<br>– motor winding temperature<br>– tightness of motor, terminals and sealing chamber |

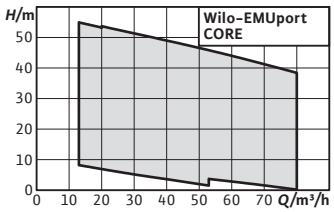
| Series | Wilo-Rexa SUPRA | Wilo-Rexa SOLID | Wilo-Rexa NORM |
|---|---|---|---|
| Product photo |  Series extension |  |  Series extension |
| Design | Submersible sewage pump | Submersible sewage pump | Non-submersible sewage pump with standard motor, fully mounted on baseplate |
| Application | Pumping of<br>→ Untreated sewage<br>→ Sewage containing faeces<br>→ Wastewater<br>→ Process water | Pumping of<br>→ Untreated sewage<br>→ Sewage containing faeces<br>→ Wastewater<br>→ Process water | Pumping of<br>→ Untreated sewage<br>→ Sewage containing faeces<br>→ Wastewater<br>→ Process water |
| Duty chart |  |  |  |
| Volume flow $Q_{max}$ | 1500 m³/h | 410 m³/h | 1,660 m³/h |
| Delivery head $H_{max}$ | 71 m | 38 m | 32 m |
| Technical data | → Mains connection: 3~400 V, 50 Hz<br>→ Immersed operating mode: S1Non-immersed operating mode:<br>– S1 with self-cooling motor<br>– S2 with surface-cooled motor<br>→ Max. immersion depth: 20 m<br>→ Fluid temperature: max. 40 °C | → Mains connection: 3~400 V, 50 Hz<br>→ Immersed operating mode: S1Non-immersed operating mode:<br>– S1 with self-cooling motor<br>– S2 with surface-cooled motor<br>→ Max. immersion depth: 20 m<br>→ Fluid temperature: max. 40 °C | → Mains connection: 3~400 V, 50 Hz<br>→ Operating mode: S1<br>→ Fluid temperature: max. 70 °C<br>→ Ambient temperature: max. 40 °C<br>→ Motor efficiency class: IE3, IE4 |
| Special features | → Self-cooling motors for the use in wet well and dry well installation<br>→ Process security thanks to extensive monitoring devices<br>→ Enhanced corrosion protection with the optional Ceram coating for a longer lifetime<br>→ Customised versions are possible | → Highest operational reliability and reduced service costs, especially for pumping untreated sewage thanks to the self-cleaning characteristics<br>→ Enhanced corrosion protection with the optional Ceram coating for a longer lifetime<br>→ Optional Digital Data Interface (DDI) with integrated vibration monitor, data logger and web server for convenient system monitoring<br>→ Integration of Nexos Intelligence | → Easy impeller replacement due to “back pull-out” design and spacer coupling as standard. Removal of the impeller without dismantling the hydraulics from the pipeline and the motor from the baseplate<br>→ Shut “back pull-out” unit: Dismantling without draining the oil in the sealing chamber |
| Equipment/function | → Heavy-duty version made of cast iron<br>→ Optional monitoring for<br>– motor bearing temperature<br>– motor winding temperature<br>– tightness of motor, terminals and sealing chamber | Optional Nexos Intelligence:<br>→ Reduced downtime and service call-outs thanks to automatic detection and removal of clogging<br>→ Convenient control and connectivity with the local network via the integrated web server and Ethernet interface with established protocols in the pump<br>→ Increased operational reliability in the event of a failure thanks to the integrated pump control in multiple execution | → Optional thermal motor monitoring<br>→ Optional external sealing chamber monitoring |

| Series | Wilo-EMU FA...RF | Wilo-EMU FA...WR | Wilo-EMU KPR |
|---|---|---|---|
| Product photo |  |  |  |
| Design | Submersible sewage pump made of cast stainless steel | Submersible sewage pump with mechanical stirring apparatus | Axial submersible pump for use in pipe chambers |
| Application | Pumping of<br>→ Highly abrasive sewage without long-fibre components<br>→ Sewage containing faeces | Pumping of<br>→ Highly abrasive sewage without long-fibre components<br>→ Sewage containing faeces | Pumping of<br>→ Sewage without faeces<br>→ Wastewater<br>→ Process water |
| Duty chart |  |  |  |
| Volume flow $Q_{max}$ | 72 m³/h | 450 m³/h | 4,360 m³/h |
| Delivery head $H_{max}$ | 27 m | 36 m | 8 m |
| Technical data | → Mains connection: 3~400 V, 50 Hz<br>→ Immersed operating mode: S1<br>→ Non-immersed operating mode: S2<br>→ Max. immersion depth: 20 m<br>→ Fluid temperature: max. 40 °C | → Mains connection: 3~400 V, 50 Hz<br>→ Immersed operating mode: S1<br>→ Non-immersed operating mode: S2<br>→ Max. immersion depth: 20 m<br>→ Fluid temperature: max. 40 °C | → Mains connection: 3~400 V, 50 Hz<br>→ Immersed operating mode: S1<br>→ Max. immersion depth: 20 m<br>→ Fluid temperature: max. 40 °C |
| Special features | → Sturdy version completely in stainless steel casting 1.4581 for the use in corrosive fluids<br>→ Longitudinal watertight cable inlet | → Mechanical mixing device made of Abrasit material to avoid deposits in the pump chamber<br>→ Longitudinal watertight cable inlet<br>→ Customised versions are possible | → Installation directly in the pressure pipe<br>→ Angle of propeller blades adjustable<br>→ Process security thanks to extensive monitoring devices<br>→ Customised versions are possible |
| Equipment/function | → Heavy-duty version made of cast stainless steel<br>→ Optional external sealing chamber monitoring | → Mechanical stirring apparatus is fastened directly to the impeller<br>→ Mixer head made of Abrasit (chilled cast iron)<br>→ Optional external sealing chamber monitoring | → Heavy-duty version made of cast iron |

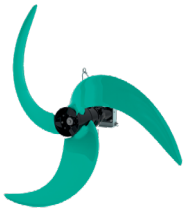
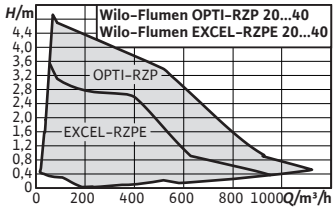
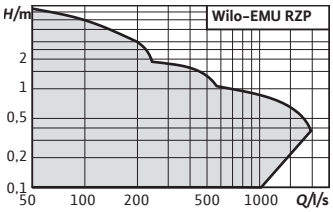
| Series | Norma V | Wilo-DrainLift Box... D<br>Wilo-DrainLift Box... DS | Wilo-HiDrainlift 3 |
|---|---|---|---|
| Product photo |  |  |  |
| Design | Non-submersible pedestal pump with standard motor | Sewage lifting unit for concealed floor installation | Sewage lifting unit |
| Application | Pumping of<br>→ Wastewater<br>→ Industrial wastewater | Pumping of sewage without faeces | Pumping of sewage without faeces |
| Duty chart |  |  |  |
| Volume flow $Q_{max}$ | 200 m³/h | 15 m³/h | 6 m³/h |
| Delivery head $H_{max}$ | 100 m | 10.5 m | 8 m |
| Technical data | → Fluid temperature: max 120 °C<br>→ Pressure connection: DN 32 to DN 100<br>→ Max. operating pressure: 16 bar<br>→ Max. viscosity: 150 cSt | → Mains connection: 1~230 V, 50 Hz<br>→ Operation mode: S3<br>→ Fluid temperature: max. 35/40 °C<br>→ Pressure port: Ø40 mm<br>→ Gross volume: 113 l<br>→ Switching volume: 22...31 l | → Mains connection: 1~230 V, 50 Hz<br>→ Operation mode: S3<br>→ Fluid temperature: 35 °C, for short periods (5 min) up to 60/75 °C<br>→ Pressure port: Ø32 mm<br>→ Tank volume: 3.9 ... 16 l<br>→ Switching volume: 0.7 ... 2 l |
| Special features | → Low-maintenance<br>→ No shaft sealing<br>→ Noise-free suction<br>→ Replaceable IEC standard motor<br>→ Semi-elastic coupling with the VTM version | → Easy to install due to integrated pump and non-return valve<br>→ Large tank volume<br>→ Easy maintenance<br>→ Pumps with pressure pipe removable<br>→ Stainless steel tile frame with trap | → Compact design for the installation into a wet cell or under a shower tray<br>→ Low-noise operation and integrated active carbon filter for a high user comfort<br>→ Reliable performance and low power consumption for an efficient waste-water disposal<br>→ Easy installation with flexible connection possibilities<br>→ Ready for connection |
| Equipment/function | → Pressure connection above baseplate in PN 10/16/25Different basic versions:<br>– VCS: adjustable baseplate/fixed coupling<br>– VEM: cast iron support/fixed coupling<br>– VTM: bearing block/semi-elastic couplingOptions:<br>– Explosion-proof float switch<br>– External lubrication of bearing<br>– Pressure connection below baseplate | → Single and double-pump system<br>→ Lifting unit with ready-mounted pump (with thermal motor monitoring), level control, pressure pipe and integrated non-return valve<br>→ Ready-to-plug system (single-pump system, double-pump system “D” model)<br>→ Thermal motor monitoring<br>→ DS model: Double-pump system with micro-processor controlled switchgear | → Ready-to-plug<br>→ Thermal motor monitoring<br>→ Level control with pneumatic pressure transducer<br>→ Integrated non-return valves<br>→ Active carbon filter |

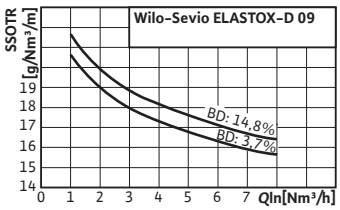
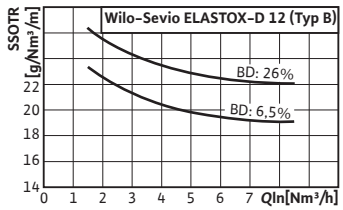
| Series | Wilo-HiSewlift 3 | Wilo-DrainLift SANI-S | Wilo-DrainLift SANI-M |
|---|---|---|---|
| Product photo |  |  |  |
| Design | Sewage lifting unit | Compact, ready for connection and fully submersible single pump lifting unit | Ready for connection and fully submersible single pump lifting unit |
| Application | Pumping of sewage containing faeces | Pumping of sewage containing faeces | Pumping of sewage containing faeces |
| Duty chart |  |  |  |
| Volume flow $Q_{max}$ | 5 m³/h | 29 m³/h | 77 m³/h |
| Delivery head $H_{max}$ | 8 m | 11 m | 20 m |
| Technical data | → Mains connection: 1~230 V, 50 Hz<br>→ Operation mode: S3<br>→ Fluid temperature: max. 35 °C<br>→ Pressure port: Ø32 mm<br>→ Gross volume: 14.4 l; 17.4 l<br>→ Switching volume: 1 l | → Mains connection: 1~230 V, 50 Hz or 3~400 V, 50 Hz<br>→ Operating mode: S3 10%<br>→ Fluid temperature: 3 … 40 °C, max. 65 °C for 5 min<br>→ Tank volume: 47 l<br>→ Max. usable volume: 32 l<br>→ Pressure connection: DN 80 | → Mains connection: 1~230 V, 50 Hz or 3~400 V, 50 Hz<br>→ Operating mode: S3 10% or S1<br>→ Fluid temperature: 3 … 40 °C, max. 65 °C for 5 min<br>→ Tank volume: 99 l<br>→ Max. usable volume: 74 l<br>→ Pressure connection: DN 80 |
| Special features | → Particularly narrow design for an easy front-wall installation<br>→ Low-noise operation and integrated active carbon filter for a high user comfort<br>→ Reliable performance and low power consumption for an efficient sewage disposal<br>→ Easy installation with flexible connection possibilities<br>→ Ready for connection | → Very easy to install and transport due to space-saving compact construction and very light weight<br>→ Operational reliability provided by the large switching volume, thermal motor protection and mains-independent alarm<br>→ Transparent tank cover and cleaning opening in the non-return valve ensure easy maintenance | → Very easy to install and transport due to compact construction and light weight<br>→ Operational reliability provided by the large switching volume, thermal motor protection and mains-independent alarm<br>→ Universal use thanks to several variants (continuous/intermittent duty, version for aggressive fluids)<br>→ Transparent tank cover and cleaning opening in the non-return valve ensure easy maintenance |
| Equipment/function | → Ready-to-plug<br>→ Thermal motor monitoring<br>→ Level control with pneumatic pressure transducer<br>→ Integrated non-return valves<br>→ Active carbon filter | → Switchgear with mains-independent alarm and collective fault signal<br>→ Ready-to-plug<br>→ Tank with inspection opening and transparent cover<br>→ Analogue level measurement (4 … 20 mA)<br>→ Non-return valve with inspection opening<br>→ Thermal motor monitoring with bimetallic strip | → Switchgear with mains-independent alarm and collective fault signal<br>→ Ready-to-plug<br>→ Tank with inspection opening and transparent cover<br>→ Analogue level measurement (4 … 20 mA)<br>→ Non-return valve with inspection opening<br>→ Thermal motor monitoring with bimetallic strip |

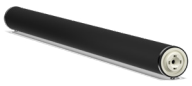
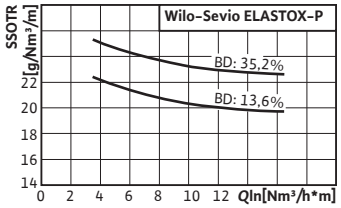
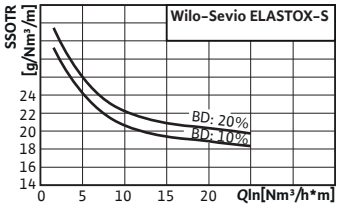
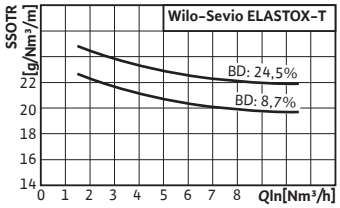
| Series | Wilo-DrainLift SANI-L | Wilo-DrainLift SANI-XL | Wilo-DrainLift XXL |
|---|---|---|---|
| Product photo |  |  |  |
| Design | Compact, ready for connection and fully submersible double-pump lifting unit | Ready for connection and fully submersible double-pump lifting unit | Sewage lifting unit<br>Double-pump system |
| Application | Pumping of sewage containing faeces | Pumping of sewage containing faeces | Pumping of sewage containing faeces |
| Duty chart |  |  |  |
| Volume flow $Q_{max}$ | 77 m³/h | 77 m³/h | 140 m³/h |
| Delivery head $H_{max}$ | 20 m | 20 m | 21 m |
| Technical data | → Mains connection: 1~230 V, 50 Hz or 3~400 V, 50 Hz<br>→ Operating mode: S3 10% or S1<br>→ Fluid temperature: 3 … 40 °C, max. 65 °C for 5 min<br>→ Tank volume: 122 l<br>→ Max. usable volume: 91 l<br>→ Pressure connection: DN 80 | → Mains connection: 1~230 V, 50 Hz or 3~400 V, 50 Hz<br>→ Operating mode: S3 10% or S1<br>→ Fluid temperature: 3 … 40 °C, max. 65 °C for 5 min<br>→ Tank volume: 358 l<br>→ Max. usable volume: 286 l<br>→ Pressure connection: DN 80 | → Mains connection: 3~400 V, 50 Hz<br>→ Operating mode: S1<br>→ Fluid temperature: max. 40 °C<br>→ Pressure port: DN 80, DN 100<br>→ Gross volume: 400/800 l<br>→ Switching volume: 305 … 630 l |
| Special features | → Easy installation and transport due to compact construction and light weight<br>→ High operational reliability thanks to the double-pump system, high switching volume, thermal motor protection and mains-independent alarm<br>→ Universal use thanks to several variants (continuous/intermittent duty, version for aggressive fluids)<br>→ Transparent tank cover and cleaning opening in the non-return valve ensure easy maintenance | → Easy installation and transport thanks to light weight<br>→ High operational reliability thanks to double-pump system, a very large switching volume, thermal motor protection and mains-independent alarm<br>→ Universal use thanks to several variants (continuous/intermittent duty, version for aggressive fluids)<br>→ Transparent reservoir cover and cleaning opening in the non-return valve ensure easy maintenance | → Flexible use thanks to one or two tanks<br>→ Optimum tank drainage with deep suction function<br>→ Operationally reliable thanks to large performance range and a reliable level detection<br>→ Continuous duty thanks to the use of self-cooling motors |
| Equipment/function | → Switchgear with mains-independent alarm and collective fault signal<br>→ Ready-to-plug<br>→ Tank with inspection opening and transparent cover<br>→ Analogue level measurement (4 … 20 mA)<br>→ Non-return valve with inspection opening<br>→ Thermal motor monitoring with bimetallic strip | → Switchgear with mains-independent alarm and collective fault signal<br>→ Ready-to-plug<br>→ Tank with inspection opening and transparent cover<br>→ Analogue level measurement (4 … 20 mA)<br>→ Non-return valve with inspection opening<br>→ Thermal motor monitoring with bimetallic strip | → Thermal motor monitoring and leakage detection<br>→ Level control with level sensor<br>→ Menu-guided switchgear with potential-free contact<br>→ Hose connection for venting diaphragm hand pump<br>→ Kit for pressure pipe connection<br>→ Installation material |

| Series | Wilo-EMUport CORE | Wilo-DrainLift WS 40/50 | Wilo-Port 600<br>Wilo-Port 800 |
|---|---|---|---|
| Product photo |  |  |  |
| Design | Sewage lifting unit with solids separation for floor-mounted and underground installation (in a chamber) | 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 | Pumping of sewage containing faeces that cannot be returned to the sewer system using natural falls | Pumping of sewage containing faeces that cannot be returned to the sewer system using natural falls. |
| Duty chart |  | | |
| Volume flow $Q_{max}$ | 80 m³/h | | |
| Delivery head $H_{max}$ | 55 m | | |
| Technical data | → Mains connection: 3~400 V, 50 Hz<br>→ Operation mode: S1<br>→ Fluid temperature: max. 40 °C<br>→ Pressure port: DN 80, DN 100<br>→ Gross volume: 440 l, 1200 l<br>→ Switching volume: 295 l, 900 l | → Pressure port:<br>– DrainLift WS 40/50 Basic: G 2/ Ø50mm, G 2½/Ø63 mm<br>– DrainLift WS 40/50: R 1½, R 2<br>→ Inlet connection:<br>DN 100/150/200Gross volume:<br>– DrainLift WS...E: 255 l<br>– DrainLift WS...D: 400 l | → Pressure port: R1¼, R1½<br>→ Inlet connection: DN 100, DN 150, DN 200<br>→ Discharge connection pump: R1¼, R1½<br>→ Gross volume: 340 ... 900 l |
| Special features | → Maximum operational safety with separation of solids from the sewage: Large solids do not have to pass through the pump - no clogging<br>→ Durable and corrosion-free due to the use of PE and PUR material<br>→ Easy maintenance, even during operation – thanks to hygienic dry well installation and easy access from outside and individual blocking<br>→ Future-proof even with increasing solid content in sewage<br>→ Flexible installation in buildings or in chambers from 1,500 mm diameter<br>→ Easy to integrate and ready-for-connection Plug&Pump system<br>→ Energy savings due to efficient submersible sewage pumps optionally with IE3 motors | → Pressure-tight pump chamber for floor-mounted or concealed floor installation<br>→ Flexible thanks to freely selectable inlets<br>→ Large tank volume<br>→ WS ... Basic: including pipework, level control, switchgear and pump(s) | → Universal use thanks to chamber extension up to 2.75 m<br>→ Max. operational reliability: anti-buoyant without weights for ground water levels up to the surface of the ground<br>→ Covers up to load class D 400<br>→ Easy maintenance thanks to surface coupling<br>→ Long service life thanks to chamber made of corrosion-free polyethylene |
| Equipment/function | → Sewage lifting unit with solids separation system<br>→ Collection reservoir<br>→ 2x solids separation reservoirs<br>→ 2x sewage pumps<br>→ Complete pipework including inlet and pressure connection and non-return valve | Wilo sewage pumps which can be used:<br>→ DrainLift WS 40: Rexa UNI<br>→ DrainLift WS 50: Rexa CUT<br>→ DrainLift WS 40 Basic: Rexa MINI3<br>→ DrainLift WS 50 Basic: Rexa MINI3/UNI | Wilo sewage pumps which can be used:<br>→ Drain TMW 32<br>→ Drain TS 40<br>→ Rexa MINI3<br>→ Drain MTC<br>→ Rexa CUT |

| Series | Wilo-DrainLift WS 1100 | Wilo-Flumen OPTI-TR 22-1 ... 40-1<br>Wilo-Flumen EXCEL-TRE 20 ... 40 | Wilo-Flumen OPTI-TR 50-3 ... 120-1<br>Wilo-Flumen EXCEL-TRE 50-3 ... 90-2 |
|---|---|---|---|
| Product photo |  |  Series extension |  NEW |
| Design | Pump chamber with synthetic tank, as single- or double-pump system | Directly driven submersible mixer | Submersible mixer with single-stage planetary gear |
| Application | Pumping of sewage containing faeces that cannot be returned to the sewer system using natural falls | Swirling of deposits and solids; destruction of floating sludge layers | Flow generation, suspension of solids, homogenisation and prevention of floating sludge layers |
| Duty chart | | | |
| Volume flow $Q_{max}$ | | Max. thrust: 105 – 950 N | Max. thrust: 160 – 6620 N |
| Delivery head $H_{max}$ | | | |
| Technical data | → Pressure port: G2<br>→ Inlet connection: DN 150<br>→ Discharge connection: Rp1½, Rp2, Rp2½, DN 80<br>→ Gross volume: 1215 l | → Mains connection: 3~400 V, 50 Hz<br>→ Immersed operating mode: S1<br>→ Max. immersion depth: 20 m<br>→ Fluid temperature: max. 40 °C | → Mains connection: 3~400 V, 50 Hz<br>→ Immersed operating mode: S1<br>→ Max. immersion depth: 20 m<br>→ Fluid temperature: max. 40 °C |
| Special features | → Flexible installation<br>→ Anti-buoyant<br>→ High stability | → Low clogging rate and reliable operation thanks to optimised hydraulics<br>→ Low-wearing, due to the use of stainless steel precision-cast propellers with the lowest cavitation tendency<br>→ A wide range of possible uses in diverse applications, even at high-interval running times<br>→ Reduction of the energy and operating costs due to the standard use of IE3 motors (EXCEL-TRE) for the best possible thrust coefficient | → Reliable continuous operation thanks to propellers that are non-susceptible to clogging and largely dimensioned gear bearings<br>→ High operational reliability by using stainless steel investment-cast propellers (TR/TRE 50-3, 60-3, 80-3)<br>→ Reduction of energy costs due to best thrust to power ratio possible thanks to optimised hydraulics with minimum cavitation tendency and standard-equipped IE3 motor (EXCEL-TRE)<br>→ Simple adaptation to the load cases due to operation with a frequency converter |
| Equipment/function | Wilo sewage pumps which can be used:<br>→ Drain TS 40<br>→ Rexa UNI<br>→ Drain TP 80<br>→ Rexa FIT/PRO<br>→ Drain MTC<br>→ Rexa CUT | → Stationary installation on wall and floor<br>→ Flexible installation through the use of lowering device or special pipe attachment<br>→ Can be swivelled vertically and horizontally when installed with a lowering device | → Stationary installation on walls<br>→ Flexible installation via lowering device<br>→ Can be swivelled horizontally when installed with a lowering device<br>→ Installation with stand allows free placement in basin |

| Series | Wilo-EMU TR/TRE 216 ... 326-3 | Wilo-Flumen OPTI-RZP 20 ... 40<br>Wilo-Flumen EXCEL-RZPE 20 ... 40 | Wilo-EMU RZP 50-2 ... 80-2 |
|---|---|---|---|
| Product photo |  |  |  |
| Design | Submersible mixer with two-stage planetary gear | Direct driven submersible mixers with housing unit | Submersible mixers with single-stage planetary gear and housing unit |
| Application | Energetically optimised mixing and circulation of activated sludge; generation of flow rates | → Pumping of large volume flows of wastewater and sewage<br>→ Flow generation in water channels | → Pumping of large volume flows of wastewater and sewage<br>→ Flow generation in water channels |
| Duty chart | |  |  |
| Volume flow $Q_{max}$ | Max. thrust: 380 – 4250 N | 1,130 m³/h | 2,221 – 6,926 m³/h |
| Delivery head $H_{max}$ | | 4.9 m | 2.6 m |
| Technical data | → Mains connection: 3~400 V, 50 Hz<br>→ Immersed operating mode: S1<br>→ Max. immersion depth: 20 m<br>→ Fluid temperature: max. 40 °C | → Mains connection: 3~400 V, 50 Hz<br>→ Immersed operating mode: S1<br>→ Max. immersion depth: 20 m<br>→ Fluid temperature: max. 40 °C | → Mains connection: 3~400 V, 50 Hz<br>→ Immersed operating mode: S1<br>→ Max. immersion depth: 20 m<br>→ Fluid temperature: max. 40 °C |
| Special features | → Efficient energy usage. The innovative blade geometry and energy-efficient IE3/IE4 motors ensure the best possible specific thrust coefficient.<br>→ Consistently reliable. The low-wearing GFK/PA6 propeller is durable and scores with its self-cleaning effect.<br>→ Smooth running thanks to the balanced propeller load, even in high thrust ranges and when incoming flow conditions are unfavourable. | → Reliable continuous operation due to low clogging propellers and flow housing that is pump in non-clog design.<br>→ High operational reliability by using stainless steel investment-cast propellers<br>→ Reduction of energy costs thanks to high pump efficiency and standard IE3 motor (EXCEL-RZPE)<br>→ Simple adaptation to the system parameters through operation with a frequency converter | → Vertical or in-line installation possible<br>→ Self-cleaning propeller to avoid clogging<br>→ Propeller in steel or PUR |
| Equipment/function | → Installation with stand allows free placement in basin<br>→ Flexible installation | → Stationary installation directly on the pipework<br>→ Flexible installation via lowering device | → Stationary installation directly on the pipework<br>→ Flexible installation via lowering device<br>→ Vertical or in-line installation possible |

| Series | Wilo-Vardo WEEDLESS | Wilo-Sevio ELASTOX-D 09 | Wilo-Sevio ELASTOX-D 12 |
|---|---|---|---|
| Product photo |  |  |  |
| Design | Vertical mixer with standard gear motor | Aeration system consisting of disc diffuser and pipeline system for compressed air distribution. | Aeration system consisting of disc diffuser and pipeline system for compressed air distribution. |
| Application | Energetically optimised mixing and circulation | For fine bubble aeration of various fluids such as wastewater and sewage or sludge, for the purpose of supplying oxygen and mixing. | For fine bubble aeration of various fluids such as wastewater and sewage or sludge, for the purpose of supplying oxygen and mixing. |
| Duty chart | |  |  |
| Volume flow $Q_{max}$ | Max. thrust: 6000 N | | |
| Delivery head $H_{max}$ | Max. circulation capacity: 7.5 m³/s | | |
| Technical data | → Propeller diameter: 2.50 m ... 1.50 m<br>→ Diameter of mixer shaft: 70 ... 114 mm<br>→ Shaft length: from 2 m<br>→ Fluid temperature: 3 ... 40 °C | → Perforation area: 370 cm² (57 in²)<br>→ Air load: 1.5 ... 10 Nm³/h<br>→ Temperature, air intake: 5 ... 100 °C (41 ... 212 °F)<br>→ Fluid temperature: 5 ... 35 °C (41 ... 95 °F) | → Perforation area: 650 cm² (100 in²)<br>→ Air load: 1 ... 12 Nm³/h<br>→ Temperature, air intake: 5 ... 80 °C, up to 120 °C on request (41 ... 176 °F, up to 248 °F on request)<br>→ Fluid temperature: 5 ... 35 °C (41 ... 95 °F) |
| Special features | → Optimum agitation in basin with square or rectangular floor plan<br>→ Operational reliability owing to wear-resistant propeller<br>→ Easy installation for existing systems<br>→ Floating version for basins with alternating water levels | → High system efficiency thanks to high aeration capacity<br>→ High flexibility in the plant control system through the air intake's large control range<br>→ Maximum possible process-specific activation density by taking different basin geometries into account<br>→ Long service life in municipal and industrial applications thanks to different membrane materials<br>→ Low installation and conversion costs of existing pipework | → Thanks to its special design, the air intake is sealed when the membrane is not loaded to prevent fluid penetrating the pipeline system<br>→ Ideal adaptation of the air intake thanks to three different perforation patterns<br>→ Greatest possible process-specific activation density by taking different basin geometries and installation conditions into account<br>→ High flexibility in the system control through very wide control range of the air intake |
| Equipment/function | Version with<br>→ Float for floating installation<br>→ Two propeller platforms<br>→ Ex rating<br>→ Integrated frequency converter | Compressed air generators input air into the pipepipesystem via the air intake pipe. The pipepipesystem evenly distributes the supplied air to individual diffusers. Air is evenly input to the fluid free from coalescence via a sewage-resistant membrane.<br><br>→ Connection down pipe<br>→ Distribution pipe<br>→ Diffuser pipeline<br>→ Connection drain pipe<br>→ Membrane diffuser<br>→ Support for pipeline system<br>→ Consulting documents | Compressed air generators input air into the pipepipesystem via the air intake pipe. The pipepipesystem evenly distributes the supplied air to individual diffusers. Air is evenly input to the fluid free from coalescence via a sewage-resistant membrane.<br><br>→ Connection down pipe<br>→ Distribution pipe<br>→ Diffuser pipeline<br>→ Connection drain pipe<br>→ Membrane diffuser<br>→ Support for pipeline system<br>→ Consulting documents |

| Series | Wilo-Sevio ELASTOX-P | Wilo-Sevio ELASTOX-S | Wilo-Sevio ELASTOX-T |
|---|---|---|---|
| Product photo |  |  |  |
| Design | Aeration system consisting of plate diffuser and pipeline system for compressed air distribution. | Aeration system consisting of strip diffuser and pipeline system for compressed air distribution. | Aeration system consisting of tube diffuser and pipeline system for compressed air distribution. |
| Application | For fine bubble aeration of various fluids such as wastewater and sewage or sludge, for the purpose of supplying oxygen and mixing. | For fine bubble aeration of various fluids such as wastewater and sewage or sludge, for the purpose of supplying oxygen and mixing. | For fine bubble aeration of various fluids such as wastewater and sewage or sludge, for the purpose of supplying oxygen and mixing. |
| Duty chart |  |  |  |
| Volume flow $Q_{max}$ | | | |
| Delivery head $H_{max}$ | | | |
| Technical data | → Perforation area: 1200 cm² (186 in²)<br>→ Air load: 4 ... 15 Nm³/h*m<br>→ Temperature, air intake: 5 ... 80 °C, up to 120 °C on request (41 ... 176 °F, up to 248 °F on request)<br>→ Fluid temperature: 5 ... 35 °C (41 ... 95 °F) | → Perforation area: 2400 ... 6400 cm² (372 ... 992 in²)<br>→ Air load: 1 ... 19 Nm³/h*m<br>→ Temperature, air intake: 5 ... 60 °C (41 ... 140 °F)<br>→ Fluid temperature: 5 ... 35 °C (41 ... 95 °F) | → Perforation area: 640 ... 1600 cm² (99 ... 248 in²)<br>→ Air load: 1.5 ... 10 Nm³/h*m<br>→ Temperature, air intake: 5 ... 80 °C (41 ... 176 °F)<br>→ Fluid temperature: 5 ... 35 °C (41 ... 95 °F) |
| Special features | → Increased operational reliability thanks to hoist restriction of the plate membrane to evenly expand the membrane for ideal air intake.<br>→ Thanks to its special design the air intake reduces fluid penetrating the pipeline system when the membrane is not loaded<br>→ Specific airflow rate generates higher air intake<br>→ Low requirements for specific piping thanks to installation of plate diffusers in pairs | → Maximum possible energy efficiency through micro-perforation and large membrane surface area<br>→ High process reliability through low-wearing and clogging-free membrane and integrated non-return valve<br>→ High operational reliability thanks to division into small aeration fields<br>→ High flexibility in the plant control system through the air intake's large control range | → High flexibility of configuration thanks to different lengths and wide control range of air intake<br>→ Low-buoyancy behaviour<br>→ Low requirements for specific piping thanks to installation of tube diffusers in pairs |
| Equipment/function | Compressed air generators input air into the pipepipesystem via the air intake pipe. The pipepipesystem evenly distributes the supplied air to individual diffusers. Air is evenly input to the fluid free from coalescence via a sewage-resistant membrane.<br><br>→ Connection down pipe<br>→ Distribution pipe<br>→ Diffuser pipeline<br>→ Connection drain pipe<br>→ Membrane diffuser<br>→ Support for pipeline system<br>→ Consulting documents | Compressed air generators input air into the pipepipesystem via the air intake pipe. The pipepipesystem evenly distributes the supplied air to individual diffusers. Air is evenly input to the fluid free from coalescence via a sewage-resistant membrane.<br><br>→ Connection down pipe<br>→ Distribution pipe<br>→ Diffuser connection<br>→ Membrane diffuser<br>→ Support for pipeline system<br>→ Consulting documents | Compressed air generators input air into the pipepipesystem via the air intake pipe. The pipepipesystem evenly distributes the supplied air to individual diffusers. Air is evenly input to the fluid free from coalescence via a sewage-resistant membrane.<br><br>→ Connection down pipe<br>→ Distribution pipe<br>→ Diffuser pipelineline<br>→ Connection drain pipe<br>→ Membrane diffuser<br>→ Support for pipeline system<br>→ Consulting documents |

| Series | Wilo-Savus OPTI-DECA |
|---|---|
| Product photo |  |
| Design | A positive control discharge unit that is decoupled from the fluid |
| Application | Unit to effectively discharge clear water in SBR systems |
| Duty chart | |
| Volume flow $Q_{max}$ | |
| Delivery head $H_{max}$ | |
| Technical data | → Drainage quantity: 200 ... 1000 m³/h (880 ... 4403 US gpm)<br>→ Discharge pipe: DN 200 ... DN 300<br>→ Drain pipe: DN 200 ... DN 400<br>Drainage quantities greater than 1000 m³/h (4403 US gpm) and flange connections according to ANSI B16.1 upon request. |
| Special features | → Effective and safe clear water removal to ensure the sewage is cleaned to a high quality<br>→ High process reliability owing to permanently installed system which is decoupled from the fluid<br>→ No contamination thanks to process-related cycling of the decanting process<br>→ Individually system-tailored design |
| Equipment/function | → Discharge and drainage unit, joint, wall bracket and supports<br>→ Electric winch |

# MATERIAL

**We are reducing the consumption of raw materials by 250 t.**

# THE WILO-SERVICE
# A PARTNERSHIP YOU CAN RELY ON


## WHATEVER YOUR PATH LOOKS LIKE: WE'RE GOING WITH YOU.

Wilo has a long tradition of working in partnership with professional installers, system manufacturers and operators. Our Wilo service is an essential component of this partnership: we work with you to develop a service concept tailored to your individual needs. With our expertise and personal consultation we ensure that the operation of your systems is as energy-efficient, reliable and economical as possible. Our professional Wilo service technicians are ready to assist you with fast, reliable and on-time support.

In other words, with Wilo as your partner, you can be sure of not only choosing high-quality product solutions, but also benefiting from a comprehensive portfolio of well thought-out services. This means reliable support from Wilo at every step of your project – starting from design and configuration right through to commissioning and maintenance.

**We call it: Pioneering for You.**

# THE WILO SERVICE OFFER:
## VERSATILE AND INDIVIDUALLY ACCESSIBLE.

### Wilo-Energy Solutions
Benefit from enormous savings potential by having your pumps checked and optimised in terms of efficiency, energy consumption and performance by a Wilo expert. Optimising or replacing existing systems with new, highly efficient solutions (products, services, know-how) primarily has a positive impact on your operating costs and operational reliability. In addition to the potential energy savings, we also take responsibility in the fight against climate change for future generations as well by being able to directly reduce $CO_2$ emissions through the application of our high-efficiency products.

### Wilo Service Packages
Wilo Service Packages offer you a high degree of flexibility and allow you to combine individual services with each other, thereby adapting the scope of the services to your individual needs. This way, you cannot only achieve financial security, but also operational reliability. You will receive expert and professional advice from our service colleagues and exactly the customised service range you need for your specific product. To make it easier for you we offer predefined service packages in three sizes. Of course, you can adapt these to your individual needs by adding further service modules.

### WiloCare
With WiloCare, we bundle all our maintenance services into a comprehensive package supplemented by remote maintenance of your system. We can take care of error messages, troubleshooting and optimisation thanks to the data transmitted by your pump or system. This way, we can always ensure optimum operation of the system – quickly, reliably and without complications.

### Wilo-Live Assistant
We prevent downtime and ensure operational reliability of your pumps and systems! Whether it's questions, errors or breakdowns, you can rely on rapid support from a Wilo expert. To provide interactive support, we have introduced facilities for live video chatting with our customers on site. This way, we can help you solve your problems as quickly as possible.

**Our services at a glance:**
- → Supervision
- → Installation
- → Commissioning
- → Individual and reliable maintenance concepts
- → Optimisation and replacement
- → Competent repair service
- → Fast spare parts supply
- → Extended warranty
- → Service packages

| Service-Package S | Service-Package M | Service-Package L |
|---|---|---|
| Installation | Supervision | Energy Solutions |
| Commissioning | Installation | Supervision |
| Maintenance Basic | Commissioning | Installation |
| WiloCare Basic | Maintenance Comfort | Commissioning |
| Wilo-Live Assistant | WiloCare Comfort | Maintenance Premium |
| | Wilo-Live Assistant | WiloCare Premium |
| | | Wilo-Live Assistant |

Optional Add-ons

| | | |
|---|---|---|
| Supervision | Energy Solutions | System Optimisation |
| Energy Solutions | System Optimisation | Extended Warranty* |
| System Optimisation | Extended Warranty* | Repairs |
| Extended Warranty* | Repairs | Spare Parts |
| Repairs | Spare Parts | |
| Spare Parts | | |

*Preconditions: Commissioning and Maintenance by Wilo, valid for new products

## OUR TOOLS AND TRAININGS: 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 selection 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

## TRAININGS 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

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Pioneering for You

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