

Efficient solutions – 50 Hz General Overview 2021

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



WILO WINS GERMAN SUSTAINABILITY AWARD 2021

The Wilo Group has been awarded the renowned German Sustainability Award (Deutscher Nachhaltigkeitspreis, DNP) in the "Climate" transformation field. The German Sustainability Award honours companies for which sustainability is part of their business model. Sustainability is an integral part of the Wilo Group, Climate protection is part of Wilo's DNA. By 2025, for example, 100 million people are to have better access to clean water.



Pioneering for You

WINNER

German Sustainability Award 2021 Service and support Practical support for your daily work.

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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 pressing 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 increasingly 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.





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.

ENERGY AND EMISSIONS

We are reducing CO₂ emissions by 50 million tonnes.

Climate change is becoming increasingly visible andtangible thanks to global wa rming and the accompanying extreme weather conditions. Action is required worldwide to stop, or at least limit, climate change and its consequences. One important measure is the reduction of greenhouse gases. Wilo is also making a significant contribution in this area with its products.

"Mati, Mati": sustainable and reliable water supply for 6,000 people every day

In Pembane, Mozambique, the prolonged drought forces the inhabitants to walk for miles to obtain clean water. Still, more than half of the rural population in the East African country has no or limited access to the precious resource. In cooperation with ENTERIA and partners, German-based pump manufacturer Wilo has participated in a pilot project, for continuous and sustainable water supply and beyond. How a water supply method can add sustainability, education and employment:

"Mati Mati" means "Water Water", which is what the inhabitants of Pembane lack of. A long coastline, vast river delta and volatile weather conditions make Mozambique susceptible to climate change. Flooding, heat waves, cyclones and drought are all getting more frequent and severe. "The idea behind our pilot project is transforming sunlight into electricity and electricity then into water. Together, we have developed an approach on how to connect sustainable energy supply with fair drinking water production and distribution in Pembane" says Marc-Oliver Bruckhaus, CEO of ENTERIA.

The Mati Mati project was born out of this approach and stands for cross-regional climate justice, technology transfer and fair engineering. For every kWh of energy shared in the cloud, ENTERIA buys 1 liter of water from the "Mati Mati" project. In spring 2020, a solar well was put into operation. It pumps the groundwater into a 10-metre-high water tower. From there, the water can be distributed to eight different water dispensers all over the village of Pembane. Thanks to intelligent calculation technology from ENTERIA, the amount of water is adapted to the needs of every respective region. By using a rechargeable chip card, the residents can now tap inexpensive and pre-filtered fresh water. This process does not only eliminate strenuous procedures, like long walks with a heavy vessel, it also increases the quality of life enormously. The time can now be used for several activities and duties, like the education of children. Mati Mati also creates new opportunities: with the establishment of a new water supply method, people needed to be trained and employed in order to ensure a reliable and uninterrupted operation on site.

Sustainable development of utmost importance

"Sustainable action is deeply rooted in Wilo's DNA and a central part of the Group-wide sustainability strategy. Which is why one of our seven sustainability goals is to supply more people with clean water", says Gero Böhmer Group Director, Government & Public Affairs at Wilo. The new units already provide clean drinking water to over 6,000 people per day.



A higher benefit will be created, as the surplus water will be used for agricultural irrigation. Due to the high-efficiency of the Wilo-pump, more than 25,000 litres of water are conveyed each day.

Sustainability is becoming more important for all companies, across all sectors. It is a business approach to creating long-term value by taking into consideration how a given organization operates in the ecological, social and economic environment. Sustainability is built on the assumption that developing such strategies foster company longevity. The Mati Mati project lays a foundation stone for further sustainable development by linking solar energy and water, two of the most important foundations of life, together in a sustainable and scalable economic cycle.

Series	Wilo-Stratos PICO	Wilo-Yonos PICO Wilo-Yonos PICO-D	Wilo-Varios PICO-STG	
Product photo		Series modification	e with e section e section	
Construction	Glandless circulator with screwed con- nection, EC motor with automatic power adjustment	Glandless circulator with screwed con- nection, EC motor with automatic power adjustment	Glandless circulator with screwed con- nection, EC motor and automatic power adjustment	
Application	Hot-water heating systems of all kinds, air-conditioning applications, industrial circulation systems	Hot-water heating systems of all kinds, air-conditioning applications, industrial circulation systems	Hot-water heating systems of all kinds, air-conditioning applications, industrial circulation systems, primary circuits of solar and geothermal systems	
Duty chart	H/m 6 5 15, 25, 30/1-6 15, 25, 30/1-6 15, 25, 30/1-4 10 0 1 2 3 0/m ³ /m	H/m 8 7 6 4 Vonos PICO Wilo-Yonos PICO-D 6 4 Vonos PICO Vonos PICO-D 0 1 2 3 4 5 0 0 1 2 3 4 5 0 0 0 0 0 0 0 0 0 0 0 0 0	H/m 14 12 10 15/1-13 15/1	
Volume flow <i>Q_{max}</i>	4 m³/h	7 m³/h	4.4 m³/h	
Delivery head H _{max}	6 m	8 m	13 m	
Technical data	 → Fluid temperature +2 °C to +110 °C → Mains connection 1~230 V, 50 Hz → Energy Efficiency Index (EEI) ≤ 0.20 → Screwed connection Rp ½, Rp 1, Rp 1¼ → Max. operating pressure 10 bar 	 → Fluid temperature -10 °C to +95 °C → Mains connection 1~230 V, 50 Hz → Energy efficiency index (EEI) ≤ 0.20 (Yonos PICO/1-8 ≤ 0.23) → Screwed connection Rp ½, Rp 1, Rp 1¼ → Max. operating pressure 10 bar 	 → Fluid temperature: -20 °C to +110 °C → Mains connection 1~230 V, 50/60 Hz → Energy Efficiency Index (EEI): 7 m: ≤ 0.20, 8 m / 13 m: ≤ 0.23 → Screwed connection Rp ½, Rp 1, Rp 1¼ → Max. operating pressure 10 bar 	
 Special features → Maximum energy efficiency thanks to the combination of the EC motor, Dynamic Adapt and precise settings → High reliability through self-protect- ing automatic routines → Intuitive setting by activating func- tions and modes shown on LC display 		 Maximum operating convenience with new intelligent settings, intuitive user interfaces and new functions Optimised energy efficiency thanks to EC motor technology, precise set- tings of 0.1 m Quick installation/replacement thanks to improved, compact design Easier maintenance thanks to au- tomatically and manually triggered restart or pump venting functions 	 A highly compatible replacement solution for all applications thanks to compact dimensions, new control modes e.g. iPWM and the new Sync function Highest comfort in handling with one push button for control mode and one for preset curves and the LED display Easy installation through adaptable connections and maintenance func- tions like air venting 	
Equipment/function	 Control modes: Δp-c and Δp-v (Dy-namic Adapt) Automatic setback operation, venting routine, restart and dry-running protection Display of the current power consumption or flow and cumulative kWh Reset function for the electricity meter or to factory settings Hold function (Key lock) Wilo-Connector Options: stainless steel pump housing 	 Control modes: Δp-c, Δp-v and constant speed (3 characteristic curves) Setting of operating mode according to application, delivery head or constant speed Automatic deblocking function Manual restart and pump venting function LED display for setting the setpoint, displaying current consumption and flow Wilo-Connector Twin-head pump for individual operation (Δp-c, Δp-v, 3 speed stages) or parallel operation (Δp-c, 3 speed stages) 	 Control modes: Δp-c, Δp-v and constant speed External control (iPWM GT and iPWM ST) Sync function (manual manual programming mode) Air venting function Manual restart LED display and 2 push buttons for settings and functions activation Dual electrical connection (Molex and Wilo-Connector) Front access to motor screws 	



Series	Stratos GIGA2.0–I Stratos GIGA2.0–D	Wilo-Stratos GIGA Wilo-Stratos GIGA-D	Wilo-Stratos GIGA B
Product photo	NEW IE5	IE5	IES
Construction	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	High–efficiency monobloc pump with EC motor and electronic power adjustment in glanded pump design, with flange connection and mechanical seal
Application	Pumping of heating water, cold water and water-glycol mixtures without abra- sive substances in heating, cold water and cooling systems	Pumping of heating water, cold water and water-glycol mixtures without abra- sive substances in heating, cold water and cooling systems	Pumping of heating water, cold water and water-glycol mixtures without abra- sive substances in heating, cold water and cooling systems
Duty chart	H/m 35 30 25 20 15 0 50 100 150 200 250Q/m ³ /h	H/m 60 50 40 30 20 10 0 100 200 300 400 500 Q/m³/h	H/m 80 60 40 20 0 50 100 150 200 250 300 20/m ³ /h
Volume flow Q _{max}	260 m³/h	680 m³/h	340 m³/h
Delivery head H _{max}	37 m	65 m	80 m
Technical data	 → Fluid temperature -20 °C to +140 °C → Mains connection: 3~400 V - 3~440 V (±10 %) - 3~380 V (+10 %), 50/60 Hz → Minimum efficiency index (MEI): ≥ 0.7 → Nominal diameter DN 40 to DN 125 → Max. operating pressure 16 bar up to +120 °C, 13 bar up to +140 °C 	 → Fluid temperature -20 °C to +140 °C → Mains connection: 3~380 V - 3~480 V (±10 %), 50/60 Hz → Minimum efficiency index (MEI): up to 6.0 kW: MEI ≥ 0.7, from 11 kW: MEI ≥ 0.4 → Nominal diameter DN 40 to DN 200 → Max. operating pressure 16 bar up to +120 °C, 13 bar up to +140 °C 	 → Fluid temperature -20 °C to +140 °C → Mains connection: 3~380 V -3~480 V (±10 %), 50/60 Hz → Minimum efficiency index (MEI): up to 6.0 kW: MEI ≥ 0.7, from 11 kW: MEI ≥ 0.4 → Nominal diameter DN 32 to DN 125 → Max. operating pressure 16 bar up to +120 °C, 13 bar up to +140 °C
Special features	 High-efficiency EC motor with efficiency class IE5 acc. IEC 60034-30-2 Optimal control through application-guided setting assistant Innovative controlling functions such as Dynamic Adapt plus and Multi-Flow Adaption Remote access and multi-pump control via Wilo Net Highest operational data transparency for optimisation of the pump and overall system 	 → Innovative high-efficiency pump for maximum overall efficiency → High-efficiency EC motor with effi- ciency class IE5 acc. IEC 60034-30-2 → Optional IF module interfaces for bus communication with building automation 	 → Innovative high-efficiency pump for maximum total-system efficiency, with principal dimensions in accord- ance with EN 733 → High-efficiency EC motor (efficiency class IE5 acc. IEC 60034-30-2) → Optional IF module interfaces for bus communication with building automa- tion
Equipment/function	 → Control modes: Dynamic Adapt plus, Δp-c, Δp-v, n-const, T-const, ΔT- const and Q-const → Multi-Flow Adaptation → Remote control via Bluetooth interface → Selection of the field of application in the setting assistant → Heat and cold metering → Dual pump management → Retrofitable interface modules for communication 	 Control modes: Δp-c, Δp-v, PID control, n=constant Manual functions: e.g. differential pressure setpoint setting, manual control mode, error acknowledgement External control functions: e.g. Overriding Off, external cyclical pump cycling (twin-head pump operation), analogue input 0-10 V / 0-20 mA for constant speed (DDC) 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 Manual functions: e.g. differential pressure setpoint setting, manual control mode, error acknowledgement External control functions: e.g. Overriding Off, external cyclical pump cycling, analogue input 0-10 V/0-20 mA for constant speed (DDC) Remote control via infrared interface (IR-Stick), plug position for IF modules for connection to building automation

Series	Wilo-VeroLine-IP-E Wilo-VeroTwin-DP-E	Wilo-CronoLine-IL-E Wilo-CronoTwin-DL-E	Wilo-CronoBloc-BL-E
Product photo		IE4	
Construction	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 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 centrifu- gal pump with flange connection and mechanical seal
Application	Pumping of heating water, cold water and water-glycol mixtures without abra- sive substances in heating, cold water and cooling systems	Pumping of heating water, cold water and water-glycol mixtures without abra- sive substances in heating, cold water and cooling systems	Pumping of heating water, cold water and water-glycol mixtures without abra- sive substances in heating, cold water and cooling systems
Duty chart	H/m 25 20 15 VeroLine-IP-E VeroTwin-DP-E 10 5 0 0 20 40 60 80 100 120 140 Q/m ³ /n	H/m 60 50 40 30 20 CronoLine-IL-E Wilo-CronoLine-IL-E Wilo-CronoTwin-DL-E CronoTwin-DL-E 0 0 100 200 300 400 500 600 Q/m³/n	H/m 80 70 60 50 10 0 50 100 150 200 250 300 Q/m³/h
Volume flow Q _{max}	170 m³/h	800 m³/h	380 m³/h
Delivery head H _{max}	30 m	65 m	80 m
Technical data	 → Fluid temperature -20 °C to +120 °C → Mains connection: 3~440 V ±10 %, 50/60 Hz3~400 V ±10 %, 50/60 Hz 3~380 V -5 %/+10 %, 50/60 Hz → Minimum efficiency index (MEI) ≥ 0.4 → Nominal diameter DN 32 to DN 80 → Max. operating pressure 10 (16) bar 	 → Fluid temperature -20 °C to +140 °C → Mains connection: 3~440 V ±10 %, 50/60 Hz 3~400 V ±10 %, 50/60 Hz 3~380 V -5 %/+10 %, 50/60 Hz → Minimum efficiency index (MEI) ≥ 0.4 → Nominal diameter DN 40 to DN 200 → Max. operating pressure 16 bar up to +120 °C, 13 bar up to +140 °C 	→ Fluid temperature -20 °C to +140 °C → Mains connection: $3 \sim 440 \text{ V} \pm 10 \%$, $50/60 \text{ Hz}$, $3 \sim 400 \text{ V} \pm 10 \%$, $50/60 \text{ Hz}$, $3 \sim 380 \text{ V} -5 \%/+10 \%$, $50/60 \text{ Hz}$ → Minimum efficiency index (MEI) ≥ 0.4 → Nominal diameter DN 32 to DN 125 → Max. operating pressure 16 bar up to +120 °C, 13 bar up to +140 °C
Special features	 Optional interfaces for bus communication using plug-in IF modules Simple operation with Green Button Technology and display Integrated dual pump management Integrated full motor protection with trip electronics Motors with efficiency class IE4 	 Optional interfaces for bus communication using plug-in IF modules Simple operation with Green Button Technology and display Integrated dual pump management Integrated full motor protection with trip electronics Motors with efficiency class IE4 	 Optional interfaces for bus communication using plug-in IF modules Simple operation with Green Button Technology and display Integrated full motor protection with trip electronics Meets user requirements due to performance and main dimensions in accordance with EN 733 Motors with efficiency class IE4
Equipment/function	 → Control modes: Δp-c, Δp-v, PID control, n=constant → Manual functions: e.g. differential pressure setpoint setting, manual control mode, error acknowledgement → External control functions: e.g. Overriding Off, external cyclical pump cycling (twin-head pump operation), analogue input 0-10 V / 0-20 mA for constant speed (DDC) → 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 Manual functions: e.g. differential pressure setpoint setting, manual control mode, error acknowledgement 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) 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 Manual functions: e.g. differential pressure setpoint setting, manual control mode, error acknowledgement External control functions: e.g. Overriding Off, analogue input 0-10 V / 0-20 mA for constant speed (DDC) Remote control via infrared interface (IR-Stick), plug position for IF modules for connection to building automation

Series	Wilo-VeroLine-IPL Wilo-VeroTwin-DPL	Wilo-CronoLine-IL Wilo-CronoTwin-DL	Wilo-VeroLine-IPH-W Wilo-VeroLine-IPH-O
Product photo			
Construction	Glanded pump/twin-head pump in in- line design with screwed connection or flange connection	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
Application	Pumping of heating water, cold water and water-glycol mixtures without abra- sive substances in heating, cold water and cooling systems	Pumping of heating water, cold water and water-glycol mixtures without abra- sive substances in heating, cold water and cooling systems	IPH–W: For hot water in closed industrial circulation systems, district heating, closed heating systems IPH–O: For heat transfer oil in closed industrial circulation systems
Duty chart	H/m 50 40 30 20 VeroLine-IPL VeroTwin-DPL 10 0 50 100 150 200Q/m³/h	H/m 100 80 60 40 CronoTwin-DL 0 200 400 600 800 1000Q/m³/h	H/m 35 30 25 20 15 0 0 10 20 30 40 50 60 Q/m ³ /h
Volume flow <i>Q_{max}</i>	245 m³/h	1,170 m³/h	80 m³/h
Delivery nead H _{max}	 → Fluid temperature -20 °C to +120 °C → Mains connection 3~400 V, 50 Hz → Minimum efficiency index (MEI) ≥ 0.4 → Nominal diameter Rp 1 to DN 100 → Max. operating pressure 10 bar (special version: 16 bar) 	 → Fluid temperature -20 °C to +140 °C → Mains connection 3~400 V, 50 Hz → Minimum efficiency index (MEI) ≥ 0.4 → Nominal diameter DN 32 to DN 250 → 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) → Fluid temperature IPH-O: -10 °C to +350 °C (at max. 9 bar) → Mains connection 3~400 V, 50 Hz → Nominal diameter DN 20 to DN 80
Special features	 High standard of corrosion protection Standard condensate drainage holes in motor housings and lanterns Series design: motor with one-piece shaft Version N: Standard motor B5 or V1 with stainless steel plug shaft Bidirectional, force-flushed mechani- cal seal DPL: Main-/standby operation or peak-load operation (via additional external device) 	 Can be used flexibly in air-conditioning and cooling systems, with application benefits due to direct draining of condensate High standard of corrosion protection Worldwide availability of standard motors (according to Wilo specifications) and standard mechanical seals Main/standby mode or peak-load operation (by means of external auxiliary device) 	 → Self-cooled mechanical seal, independent of direction of rotation → Great variety of applications due to a wide fluid temperature range without additional wearing parts
Equipment/function	 → Single-stage, low-pressure centrifugal pump in in-line design with → Mechanical seal → Flange connection with pressure measuring connection R ½ → Motor with one-piece shaft → DPL with switchover valve → Motors with efficiency class IE3 for motors ≥ 0.75 kW 	 → Single-stage, low-pressure centrifugal pump in in-line design with → Mechanical seal → Flange connection with pressure measuring connection R ½ → Lantern → Coupling → IEC standard motor → DL with switchover valve → Motors with efficiency class IE3 for motors ≥ 0.75 kW 	 → Single-stage, low-pressure centrifugal pump in in-line design with → Mechanical seal → Flange connection → Lantern → Motor with special shaft

Series	Wilo-CronoBloc-BL	Wilo-BAC	Wilo-Yonos GIGA-N
Product photo			
Construction	Glanded pump in monobloc design with flange connection	Glanded pump in monobloc design with screwed connection or Victaulic con- nection	Electronically controlled, single-stage low-pressure centrifugal pump with axial suction. Mounted on a baseplate with flange connection and automatic power adjustment.
Application	Pumping of heating water, cold water and water-glycol mixtures without abra- sive substances in heating, cold water and cooling systems	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.
Duty chart	H/m 160 140 120 100 80 60 40 20 0 200 400 600 800 Q/m³/h	H/m 25 20 15 10 5 0 0 10 20 30 40 50 60 70 Q/m³/h	H/m 70 60 40 30 20 10 0 100 200 300 400 500Q/m³/h
Volume flow <i>Q_{max}</i>	1100 m³/h	81 m³/h	520 m³/h
Delivery head H _{max}	158 m	25 m	70 m
Technical data	 → Fluid temperature -20 °C to +140 °C → Mains connection 3~400 V, 50 Hz → Minimum efficiency index (MEI) ≥ 0.4 → Nominal diameter DN 32 to DN 150 → Max. operating pressure 16 bar up to +120 °C, 13 bar up to +140 °C (25 bar on request) 	 → Fluid temperature -15 °C to +60 °C → Mains connection 3~400 V, 50 Hz → Minimum efficiency index (MEI) ≥ 0.4 → Nominal diameter G2/G 1½ (only BAC 40/S) or Victaulic connection Ø 60.3/48.3 mm (BAC 40/R) Ø 76.1/76.1 mm (BAC 70/R) → Max. operating pressure 6.5 bar 	 → Fluid temperature -20 °C to +140 °C → Mains connection: 3~440 V ±10 %, 50/60 Hz, 3~400 V ±10 %, 50/60 Hz, 3~380 V -5 %/+10 %, 50/60 Hz → Minimum efficiency index (MEI) ≥ 0.4 → Nominal diameter DN 32 to DN 150 → Max. operating pressure 16 bar
Special features	 → High corrosion protection through cataphoresis coating of the cast iron components → Standard condensate drainage holes in the motor housings → High worldwide availability of standard motors (according to Wilo specifications) and mechanical seals → Performance and main dimensions in accordance with EN 733 	 Pump housing in composite design Version with Victaulic or threaded connection (BAC 70/135 only with Victaulic connection) 	 Efficient pump with IE4 motors Cataphoretic coating of all cast components for high corrosion resistance and long service life Standard dimensions in accordance with EN 733 Easy adjustment and operation with Green Button Technology Easy maintenance thanks to user-friendly spacer coupling in back pullout design Optional interfaces for connection to building automation using insertable IF modules
Equipment/function	 → Single-stage low-pressure centrifugal pump in monobloc design, with axial suction port and radially arranged pressure port with → Mechanical seal → Flange connection with pressure measuring connection R ½ → Lantern → Coupling → Motors with efficiency class IE3 for motors ≥ 0.75 kW 	 → Single-stage low-pressure centrifugal pump in monobloc design, with axial suction port and radially arranged pressure port → Motors with efficiency class IE3 	 Control modes: Δp-c, PID control, n=constant Manual functions: E.g. differential pressure setpoint setting, manual control mode, error acknowledgement External control functions: E.g. Over- riding Off, analogue input 0-10 V/0- 20 mA for constant speed (DDC) Remote control via infrared interface (IR-Stick), plug-in position for IF modules for connection to building automation

Series	Wilo-Atmos GIGA-N	Wilo-CronoNorm-NLG Wilo-VeroNorm-NPG	Wilo-Atmos TERA-SCH
Product photo			Series extension
Construction	Single–stage, low–pressure centrifugal pump with axial suction, mounted on a baseplate	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
Application	Pumping of heating water (in accordance with VDI 2035), cold water, water-glycol mixtures in heating, cold water and cooling systems	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
Duty chart	H/m 200 100 50 30 201 50 30 201 50 4 56 810 20 30 50 100150 600 Q/m³/n	H/m 140 120 100 80 40 20 500 1000 1500 2000 Q/m³/h	H/m 100 50 30 20 10 100 200 300 500 1000 2000 Q/m³/h
Volume flow <i>Q</i> _{max}	1000 m³/h	2,800 m³/h	4,675 m³/h
Delivery head $H_{_{max}}$	 → Fluid temperature -20 °C to +140 °C → Mains connection 3~400 V, 50 Hz → Protection class IP55 → Nominal diameter DN 32 to DN 150 → Max. operating pressure 16 bar 	 140 m → Fluid temperature -20 °C to +120 °C (depending on type) → Mains connection 3-400 V, 50 Hz → Nominal diameters: DN 150 to DN 500 (depending on type) → Operating pressure: depending on type and application – up to 16 bar 	 → Fluid temperature -20 °C to +120 °C → Mains connection 3~400 V, 50 HzNominal diameters - Suction side: DN 150 to DN 500 - Discharge side: DN 150 to DN 400 → Max. operating pressure: PN 16, PN 25
Special features	 Energy-saving thanks to increased overall efficiency through improved hydraulics and the use of IE3 motors Cataphoretic coating of all cast com- ponents for high corrosion resistance and long service life Universally usable thanks to stand- ardised dimensions, a range of motor options and impellers made of differ- ent materials 	 NLG: → Reduced life cycle costs through optimised efficiency → Mechanical seal independent of the direction of rotation → Interchangeable casing wear ring → Permanently lubricated, generously dimensioned roller bearings NPG: → Suitable for temperatures up to 140 °C → Back pull-out version 	 Reduced energy costs through high overall efficiency Simplified alignment thanks to toler- ant coupling and motor adjusting device Increased operational reliability thanks to quiet-running hydraulics Reduced cavitation tendency through optimised NPSH values Also available as drinking water ver- sion
Equipment/function	 → Single-stage low-pressure centrifu- gal pump in monobloc design with coupling, coupling guard, motor and baseplate → Motors with efficiency class IE3 	 Single-stage horizontal spiral hous- ing pump with bearing bracket and exchangeable casing wear rings (NLG only) in process design Shaft sealing with mechanical seals in accordance with EN 12756 or stuffing box packing Spiral housing with cast pump bases Greased grooved ball bearings for bearing of pump shaft Motors with efficiency class IE3 	 → Centrifugal axially split case pump, available in single-stage design → Deliverable as complete unit or with- out motor or only pump hydraulics → Shaft sealing with mechanical seal or stuffing box → 4- and 6-pole motors; IE3 standard to 1000 kW (IE4 on request) → Welded steel frame

Series	Wilo-SCP	Wilo-SiFlux	Wilo-PlavisC
Product photo			
Construction	Low–pressure centrifugal pump with axially split housing mounted on a baseplate	Fully automatic, ready for connection multi-pump system for high volume flows in heating, cold water and cooling water systems. 3 to 4 electronically con- trolled in-line pumps switched in parallel	Automatic condensate lifting unit
Application	Pumping of heating water (acc. VDI 2035), cold water, process water, water-glycol mixtures in heating, cold water and cooling systems.	For pumping heating water, water-glycol mixtures and cooling and cold water without abrasive substances in heating, cold water and cooling water systems	For pumping condensate out of heat generators with condensing boiler technology, Air-conditioning and cooling systems
Duty chart	H/m 200 100 50 10 4 10 50 100 500 1000 Q/m*/h	H/m 50 40 30 20 10 0 0 100 200 300 400Q/m³/h	H/m 5 4 3 2 1 0 5 5 100 150 200 250 300 Q//h
Volume flow Q _{max}	3,400 m³/h	490 m³/h	330 l/h
Delivery head H _{max}	245 m	55 m	4 m
Technical data	 → Fluid temperature -8 °C to +120 °C → Mains connection 3~400 V, 50 Hz → Nominal diameters - Suction side: DN 65 to DN 500 → Pressure side: DN 50 to DN 400 → Max. operating pressure: 16 or 25 bar, depending on type 	 → VeroLine-IP-E or CronoLine-IL-E → 3~230/400 V, 50 Hz ±10 % → Fluid temperature: 0 °C to +120 °C → Pipe connections: DN 125 to DN 300 → Max. permissible operating pressure: 10 bar (IP-E), 16 bar (IL-E) 	 → Mains connection 1~ 100-240 V, 50/60 Hz → Max. fluid temperature 60 °C → Protection class IPX4 → Inlet connections 18/40 mm → Tank volume 0.7 I to 1.6 I
Special features	 → Higher volume flows up to 17,000 m³/h on request → Special motors and other materials on request 	 Number of pumps: 2+1 or 3+1 (2 or 3 pumps in operation, 1 standby pump each) Quick and easy installation Energy-saving: Operation in partial load area according to current needs Reliable system thanks to optimally matched components Compact design, good accessibility to all components 	 → Reliable level measurement via electrode level switching → Easy installation thanks to Plug & Pump with adjustable inlet → Quick and easy maintenance thanks to removable service cap and integrated non-return ball valve → Energy savings due to low electricity consumption (≤ 20 W) → Compact, modern construction and quiet operation (≤ 40 dBA)
Equipment/function	 1- or 2-stage, low-pressure centrifugal pump in monobloc design Deliverable as complete unit or without motor or only pump hydraulics Shaft sealing with mechanical seal or stuffing box packing 4-pole and 6-pole motors Materials: Pump housing: EN-GJL-250 Impeller: G-CuSn5 ZnPb Shaft: X12Cr13 	 Automatic pump control via Wilo-SCe Parts that come in contact with the fluid are corrosion-resistant Base frame made of galvanised steel, with height-adjustable vibration absorbers for insulation against structure-borne noise Distributor steel, with corrosion-resistant coating Shut-off valves, non-return valve, pressure gauge and premounted seals Differential pressure sensor 	 → Electric connecting cable with plug (1.5 m) → Detachable service cap; integrated non-return ball valve → 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 → 015-C: granulate chamber including granulate for pH-neutralisation

Series	Wilo-SiClean	Wilo-SiClean Comfort	Wilo-WEH
Product photo			
Construction	Compact particle separator kit, consist- ing of mechanical and hydraulic com- ponents. Manual emptying of the system	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.
Application	Removes particles from heating systems using natural physical phenomena in commercial properties and for district heating	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. For installation in commercial properties (office buildings, hotels,).
Duty chart			
Volume flow <i>Q_{max}</i>	4 m³/h	47 m³/h	-
Delivery head H _{max}	_		
Technical data	 → Fluid temperature: 0 °C to +95 °C → Mains connection: 1~230 V, 50 Hz 	 → Fluid temperature 0 °C to +95 °C → Mains connection: 3~400 V, 50 Hz 	 → Fluid temperature: 0 °C to + 90 °C → Mains connection: 1–230 V, 50 Hz → Mains connection: 3–400 V, 50 Hz → Max. operating pressure: 6 bar
Special features	 → Removal of magnetic and non-magnetic particles from the fluid, venting of micro bubbles → High cleaning efficiency due to physical effects (gravity, filtration) → Easy to use due to ease of installation, maintenance, and simplified settings → Corrosion-resistant thanks to stainless steel particle separator 	 → High efficiency via combination of physical effects → "Plug & Play" design; fully automated operation → Fully automated and adjustable disposal of collected particles in the desludging tank → Highly functional thanks to removal of all magnetic and non-magnetic particles, free air and micro bubbles in the fluid, support for the degasifica- tion process 	 System ready to connect Open tanks range in PPH, light and corrosion proof. Easy-to-adjust switchgear including safety features. High corrosion resistance materials including 304 stainless steel collectors. MHIL pumps with IE2 motor and stainless steel hydraulics Possibility to order non-standard versions in MSO
Equipment/function	 Anti-corrosive, hydraulic components Pre-assembled fabric-reinforced connecting hoses Pre-assembled venting unit for expulsion of micro bubbles Movable magnetic rods for separation of iron oxide particles Volume flow limiter Manual purge valve for draining of collected particles Switchbox for monitoring the circula- tor 	 Corrosion-resistant, hydraulic components Fabric-reinforced hoses connected to inlet and outlet of the particle separator Pre-assembled flushing device including electronic drain valve and additional safety valve Automatic draining of the particle collection chamber SC switchgear 	 → Fully-electronic central control unit with configurable parameters for pressure setting → MHIL-series multistage pump → Open composite vessels with excellent resistance to corrosion (to be ordered separately) → Two pipeworks, one on the pressure side and one on the suction side

Series	Wilo-WEV	Wilo-CC/CC-FC/CCe-HVAC system Wilo-SC/SC-FC/SCe-HVAC system	Wilo-EFC
Product photo		-1	
Construction	Compact pressure-maintaining system ready for connection for easy installation and commissioning. System comprising mechanical and hydraulic components as well as CE + switchgears.		Frequency converter
Application	Pressure-maintaining system designed to ensure constant and stable pressure in heating and cooling closed loops. For installation in commercial properties (office buildings, hotels,).	Switchgear for controlling 1 to 6 pumps	Wall-mounted frequency converter for fixed-speed pumps equipped with asyn- chronous or permanent magnet motors
Duty chart			
Volume flow <i>Q</i> _{max}	-	-	-
Delivery head H _{max}	_	_	-
Technical data	 → Fluid temperature: 0 °C to + 90 °C → Mains connection: 3-400 V, 50 Hz → Max. operating pressure: 8 bar 	_	 → Max. ambient temperature: 55°C (50°C without derating) up to 90 kW, 50°C (45°C without derating) from 110 kW → Environment protection class: IP55 up to 90 kW, IP54 from 110 kW
Special features	 System ready to connect Open tanks range in PPH, light and corrosion proof. Easy-to-adjust switchgear including safety features. High corrosion resistance materials including 304 stainless steel collectors. MVIL pumps with IE2 motor and stainless steel hydraulics Possibility to order non-standard versions in MSO 	→ Special versions on request	 Flexible and safe application Compact design with energy-saving cooling concept to reduce temperature losses Integrated energy-efficient harmonic reduction Additional energy-saving function in the partial load range of the pump Versatile use in pump applications thanks to several connection options and different control modes
Equipment/function	 → Fully-electronic central control unit with configurable parameters for pressure setting → MVIL-series multistage pump → Open composite vessels with excel- lent resistance to corrosion (to be ordered separately) → Two pipeworks, one on the pressure side and one on the suction side 	 → CC-HVAC for 1 to 6 pumps with fixed speed → CCe-HVAC for 1 to 6 pumps with integrated speed control or external frequency converter control → SC-HVAC for 1 to 4 pumps → SC and SC-FC for standard pumps with fixed speed → SCe for electronically controlled pumps or pumps with integrated frequency converter 	→ IF modules as an option: Profibus, Eth- ernet, DeviceNet, Profinet, Modbus



Series	Wilo-Stratos PICO-Z	Wilo-Stratos MAXO-Z	Wilo-Yonos MAXO-Z
Product photo		I	
Construction	Glandless circulator with screwed con- nection, EC motor and automatic power adjustment	Smart glandless circulator with screwed connection or flange connection, EC motor with integrated power adjustment	Glandless circulator with screwed con- nection or flange connection, EC motor with automatic power adjustment
Application	Domestic hot water circulation systems in industry and in building services	Domestic hot water circulation systems and similar systems in industry and in building services	Domestic hot water circulation systems in industry and in building services
Duty chart	H/m 6 20, 25/1-6 20, 25/1-6 20, 25/1-4 0 0 1 2 3 0/m ³ /h	H/m 12 10 8 6 4 2 0 0 10 20 30 40 Q/m ³ /h	H/m 12 10 8 6 4 2 0 5 10 15 20 25 30 Q/m ³ /h
Volume flow Q _{max}	3.5 m³/h	46 m³/h	39 m³/h
Delivery head H _{max}	6 m	12 m	12 m
Technical data	 → Fluid temperature: drinking water up to water hardness 3.57 mmol/l (20 °dH) max. +70 °C → Mains connection 1~230 V, 50 Hz → Screw connection Rp ¾, Rp 1 → Max. operating pressure 10 bar 	 → Fluid temperature: drinking water max. +80 °C → Heating water -10 °C to +110 °C → Mains connection 1~230 V, 50/60 Hz → Nominal diameter Rp 1 to DN 65 → Max. operating pressure 10 bar 	 → Permissible temperature range drink- ing water up to a water hardness of 3.57 mmol/l (20 °dH) max. +80 °C → Mains connection 1~230 V, 50/60 Hz → Nominal diameter Rp 1 to DN 65 → Max. operating pressure 10 bar
Special features	 → Manual and temperature-controlled mode for optimum operation → Identification of the thermal disinfec- tion of the drinking water tank → Display of the current consumption in Watts and the cumulative kilowatt hours or of the current flow and the temperature → Stainless steel pump housing protects against bacteria and corrosion 	 Operation by guided application settings with the setting assistant Maximum drinking water hygiene and energy efficiency by the new control function T-const. Optimum hygiene support thanks to thermal disinfection. Installation comfort by the Wilo-Connector Corrosion-resistant pump housing in stainless steel 	 Indication of set delivery head and fault codes Quick setting when replacing an uncontrolled standard pump with preset speed stages, e.g. TOP-Z Electrical connection with Wilo plug Collective fault signal ensures system availability Corrosion-resistant pump housing in red brass for systems where oxygen entry is possible
Equipment/function	 Control modes: Δp-c, temperature-controlled mode Temperature control for constant return temperature in drinking water circulation systems Thermal disinfection routine Reset function for the electricity meter or to factory settings "Hold" function (key lock) Automatic deblocking function Wilo-Connector 	 Control modes: Dynamic Adapt plus, Δp-c, Δp-v, n-const, T-const, ΔT- const and Q-const Multi-Flow Adaptation Remote control via Bluetooth interface Selection of application-based pre- settings in the setting assistant Heat measurement Disinfection detection Pump venting function Retrofittable interface modules for communication 	 Control modes: Δp-c, Δp-v, 3 speed stages LED display for setting the required delivery head Quick electrical connection with Wilo plug Motor protection, fault signal light and contact for collective fault signal Corrosion-resistant pump housing in red brass Combination flanges PN 6/PN 10 (for DN 40 to DN 65) Retrofitable interface module (Connect module) for connection to building automation

Series	Wilo-Star-Z Wilo-Star-ZD	Wilo-TOP-Z	Wilo-VeroLine-IP-Z
Product photo			
Construction	Glandless circulator with screwed con- nection	Glandless circulator with screwed con- nection or flange connection	Glanded circulator in in–line design with screwed connection
Application	Domestic hot water circulation systems in industry and in building services	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	H/m 6 4 3 5 5 4 3 5 5 5 4 3 5 5 4 3 5 5 5 4 3 5 5 5 7 2 9 5 5 5 5 7 2 9 5 5 7 2 9 7 5 1 7 2 9 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	H/m 8 6 4 2 0 0 10 20 30 40 50 Q/m³/h	H/m 5 4 3 2 1 0 0 1 2 3 4 5Q/m ³ /n
Volume flow Q _{max}	8.5 m³/h	67 m³/h	5 m³/h
Delivery head H _{max}	6.0 m	9 m	4.5 m
Technical data	 → Fluid temperature: drinking water up to water hardness 3.2 mmol/(18 °dH) max. +65 °C → Mains connection 1~230 V, 50 Hz, → Screwed connection Rp ½ (¾), Rp 1 → Max. operating pressure 10 bar 	 → Fluid temperature: drinking water max. +80 °C (+65°C for TOP-Z 20/4 and TOP-Z 25/6) → Mains connection 1~230 V, 50 Hz; 3~400 V, 50 Hz → Nominal diameter Rp 1 to DN 80 → Max. operating pressure 10 bar 	 → Fluid temperature: drinking water up to a water hardness of 4.99 mmol/l (28 °dH) max. +65 °C → Heating water -8 °C to +110 °C → Mains connection 1~230 V, 50 Hz, 3~230/400 V, 50 Hz → Nominal diameter Rp 1 → Max. operating pressure 10 bar
Special features	→ All plastic parts that come into contact with the fluid fulfil KTW recommendations	 → Thermal winding contact (WSK) as potential-free contact (depending on type) → Rotation control lamp indicates the correct direction of rotation (only for 3~) → Thermal insulation as standard 	 → High resistance to corrosive fluids due to stainless steel housing and Noryl impeller → Wide range of applications due to suitability for water hardness up to 5 mmol/l (28 °dH) → All plastic parts that come into contact with the fluid fulfil KTW recommendations
Equipment/function	 → Constant speed or 3 selectable speed stages (Star-Z3), → Quick electrical connection with spring clips → Star-ZD version as twin-head pump 	 → Pre-selectable speed stages → Thermal insulation as standard → All plastic parts that come into contact with the fluid fulfil KTW recommendations → Combination flange PN 6/PN 10 (DN 	 → Single-stage, low-pressure centrifugal pump in in-line design with → Mechanical seal → Screwed connection → Motor with one-piece shaft

40 to DN 65)

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/RSE 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-STG
Product photo	WILL CO
Construction	Glandless circulator with screwed con- nection
Application	Circulation in solar thermal and geother- mal energy systems
Duty chart	H/m 10 8 6 4 2 0 1 2 3 $Q/m^3/h$
Volume flow Q _{max}	3.8 m³/h
Delivery head H _{max}	11.0 m
Technical data	 → Fluid temperature -10 °C to +110 °C, in short-term duty (2 h) +120 °C → Mains connection 1~230 V, 50 Hz → Screwed connection Rp ½, Rp 1 → Max. operating pressure 10 bar
Special features	 → Special hydraulics for use in solar thermal and geothermal energy systems → Pump housing with wrench attachment point → Pump housing with cataphoretic (KTL) coating protects against corrosion due to condensate formation

Equipment/function	ightarrow 3 manually selectable speed stages
	ightarrow Wrench attachment point on pump
	housing
	ightarrow Blocking-current proof motor, motor
	protection not required
	Cable inlet on both sides for simple
	installation

- ightarrow Quick electrical connection with
- > Quick circuit connection with spring clips
 > Pump housing with cataphoretic coating

WATER

We enable better access to clean water for 100 million people.

The United Nations Environmental Report estimates that around 1.8 billion people will live in regions with severe water shortages by 2025, and this figure is on the rise. Accordingly, SDG 6 calls for access to safe and affordable drinking water for all by 2030. With its efficient water supply products, Wilo is making a contribution to achieving this goal.



Wilo circulation pumps and pressure booster system for fish processing company Korf Vis

In the Netherlands, fish and shellfish are very important export and consumer products. Professional fishing is therefore an essential part of the development of the Netherlands and the prosperity of its well-known fishing villages. One of the bestknown fishing villages in the Netherlands is Urk. That is where the fish processing company Korf Vis moved into their newly renovated premises. The installation company ToTec was commissioned to take care of the installations for drinking water, process water, climate and air conditioning. ToTec assigned all the pumping technology of the new building to Wilo. A renovation or new construction project poses challenges for installation engineering in every sector. For the fish processing sector, this involves a relatively large number of special challenges. On the basis of the company's certifications, certain rules with regard to sustainability, hygiene and food safety must be followed. For the growing family business Korf Vis in Urk, these are the MSC (Marine Stewardship Council), IFS (International Food Standards) and BRC (British Retail Consortium) certificates. These standards include the HACCP hygiene code, quality management, customer focus and design requirements. For Korf Vis, hygiene, sustainability, the quality of the process water and the air quality were therefore of paramount importance during the construction of the new premises.

Ensuring quality

Cornelis Woord from the sustainable installation company ToTec indicates: "From the meter connection to the tapping point, building owners are responsible for water quality. For both the drinking water installation and the process water installation, a well-considered choice and installation of pipes and pumps is of great importance in order to meet all the requirements and the standard limit values. We engineered the drinking water, process water, climate and air treatment installation with the requirements and risks for food safety and product quality in mind. We paid extra attention to the quality of the process water and the air quality in the processing areas. This has a direct impact on food safety and the quality of the fresh fish products during processing". Temperature is especially crucial. "Continuous monitoring of the process water and processing areas is therefore necessary," says Cornelis Woord. ToTec relies on Wilo's pump systems for this.

Energy-efficient intelligent pumps and distinctive technical support

Cornelis Woord explains more about choosing Wilo pumps: "Because of the several adjustment options on the pump itself, Wilo pumps are very suitable for monitoring the water and air quality in the building". Wilo's intelligent pumps are switched on when critical limit values are approaching and adjustments are required. For Korf Vis, the Wilo-Stratos variable speed pumps, the Wilo-Stratos GIGA and the Wilo-SiBoost Smart Helix series were selected in particular for optimum performance of the processes within the systems. "With their optimized and innovative energy-saving functions, Wilo pumps constantly set new standards for commercial HVAC and drinking water applications. Wilo is truly progressive in this area. The technical support is also good, which is an important differentiator in this type of project. Moreover, the knowledge and experience within Wilo is always easily and quickly accessible," says Cornelis Woord.



Series	Wilo-RAIN1 Wilo-RAIN3	Wilo-RainSystem AF 150	Wilo-RainSystem AF 400
Product photo			
Construction	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 rain- water storage tanks or reservoirs	Hybrid system for commercial and indus- trial rainwater utilisation for saving drink- ing water in conjunction with rainwater storage tanks or reservoirs
Duty chart	H/m 50 40 3 20 0 0 0 1 2 3 4 3 3 3 3 3 3 3 3	H/m 50 40 30 20 10 0 2 4 6 8 10 12 14 Q/m³/h	H/m 50 40 30 20 10 0 2 4 6 8 10 12 14 Q/m³/h
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 → Suction head max. 8 m → Fluid temperature +5 °C to +35 °C → Max. operating pressure 8 bar → Replenishment reservoir 11 I → Protection class IPX4 	 → Mains connection 1~230 V, 50 Hz → Suction head max. 8 m → Fluid temp. +5 °C to +35 °C → Max. operating pressure 8 bar → Replenishment reservoir 150 I → Protection class IP41 	 → Mains connection 3~400 V, 50 Hz → Fluid temp. +5 °C to +35 °C → Max. operating pressure 10 bar → Replenishment reservoir 400 I → Protection class IP54
Special features	 Backflow prevention according to DIN 1989 and EN 1717 Low noise, encapsulated multistage centrifugal pump Ready to plug with variety of hydrau- lic connections Compact modular construction Touch screen (RAIN3), user friendly designed interface Integrated features: dry-running protection, automatic water periodic refresh, adjustable starting pressure 	 Low-noise due to multistage pumps Components that come in contact with the fluid are corrosion-free Maximum operational reliability due to fully electronic controller (RCP) Demand-oriented fresh water replen- ishment High reliability due to flow-optimised and noise-optimised replenishment reservoir 	 Low-noise due to multistage pumps Components that come in contact with the fluid are corrosion-free Maximum operational reliability due to a fully electronic controller (RCH) Demand-oriented fresh water replen- ishment Automatic feeding pump control System/level control in the low- voltage range
Equipment/function	 Connection-ready module on vibration-insulated base frame Discharge-side pipework Rp 1 1.5 m power supply cable and mains plug Menu-prompted operation and display Monitoring of rainwater storage levels Connection for external failure reporting Integrated overflow warning sensor (RAIN3) 	 Connection-ready module on vibration-insulated tubular frame Discharge-side pipework R 1½, pres- sure vessel, shut-off device Pressure gauge 0-10 bar Central switchgear (RCP) Menu-prompted operation and display Pump cycling/test run Automatic fault-actuated switchover, peak-load operation, water exchange in replenishment reservoir 	 Connection-ready module on vibration-insulated baseplate Discharge-side pipework R 1½, pres- sure vessel, shut-off device Pressure gauge 0-10 bar Hybrid tank with all connections, calmed inlets and overflow with siphon Central switchgear (RCH) Pump cycling/test run Automatic fault-actuated switchover, peak-load operation, water exchange in replenishment reservoir

Series	Wilo-Jet WJ Wilo-Jet HWJ	Wilo-HiMulti 3 (P) Wilo-HiMulti 3 C (P) /HiMulti 3 H (P)	Wilo-Isar BOOST5
Product photo			NEW
Construction	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 pump- ing, irrigation and sprinkling. As emergency pump for overflows	For domestic drinking water supply, sprinkling, irrigation, spraying and rain- water utilisation	Water supply, irrigation, rainwater utilisa- tion, raw water intake
Duty chart	H/m 40 30 20 10 0 0 1 2 3 4 5Q/m ³ /h	H/m 50 40 30 20 10 0 0 1 2 3 4 5 6 Q/m ³ /h	H/m 50 40 30 20 10 0 1 2 3 4 5 6 Q/m ³ /h
Volume flow <i>Q_{max}</i>	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 → Inlet pressure max. 1 bar → Fluid temperature +5 °C to +35 °C → Max. operating pressure 6 bar → Protection class IP44 	 → Mains connection 1~230 V, 50 Hz → Inlet pressure max. 3 bar → Fluid temperature 0 °C to +40 °C (+55 °C for max. 10 minutes) → Operating pressure max. 8 bar → Protection class IPX4, IP54 	 → Mains connection: 1~230 V, 50/60 Hz → Perm. fluid temperature: to +40 °C → Perm. ambient temperature: to +40 °C → Max. permissible operating pressure: 10 bar → Max. suction head: 6 m → Protection class: IPX4 → Suction side connection: G 1" → Connection on discharge side: G 1"
Special features	 → Ideal for portable outdoor applications (hobby, garden) → HWJ version with diaphragm pressure vessel and pressure switch → FWJ version with fluid control for system control 	 → Easy: Electrical Wilo-connector, on/ off switch, enlarged foot fastening → Efficient and economical: highly ef- ficient hydraulics, extremely compact → HiMulti 3 C (P): Dry-running protec- tion and automation rotatable by 360° for easier installation → HiMulti 3 H (P): Automation and fluid hammer protection 	 Easy installation, thanks to ready-to-plug design Compact and modern design User-friendly operation due to LED display and push buttons Low-noise operation thanks to noise-blocking covers Built-in frequency converter for a comfortable constant pressure control and a soft start Safe operation thanks to extensive integrated protection functions
Equipment/function	 → With or without carrying frame, depending on the version (WJ, FWJ) → Connection cable with plug → On/Off switch → Thermal motor protection switch 	 → Directly flanged motor → Thermal motor protection switch for 1~230 V version → HiMulti 3 C (P): Automatic pump con- trol, low-water cut-out switch → HiMulti 3 H (P): Pressure switch, dia- phragm pressure vessel 50 I/100 I 	 Directly flanged motor Thermal motor protection switch Embedded variable speed Integrated protection functions (dry- running, over-pressure and excessive temperature detection, overcurrent, over- and undervoltage)

Series	Wilo-HiPeri 1	Wilo-PB	Wilo-EMHIL
Product photo		Series modification	
Construction	Non-self-priming peripheral pump	Non self–priming single–stage centrifu– gal pump of in–line design	Non self-priming water-supply unit with frequency converter
Application	Water supply/pressure boosting, raw water intake, sprinkling and spraying, rainwater utilisation	Automatic water supply/pressure boost- ing for residential properties from a tank feeding extraction points located beneath	Water supply Rainwater utilisation Irrigation and spraying
Duty chart	H/m 50 40 30 20 10 0 5 10 15 20 25 30 35 Q//min	H/m 25 20 15 10 5 0 0 1 2 3 4 Q/m ³ /h	H/m 50 40 30 20 10 0 1 2 3 4 5 6 7 Q/m ³ /h
Volume flow Q _{max}	50 m³/h	4.8 m³/h	8 m³/h
Delivery head H _{max}	3 m	22 m	55 m
Technical data	 → Mains connection 1~230 V, 50 Hz → Max. inlet pressure 1.5 bar → Fluid temperature +5 °C to +60 °C → Max. operating pressure 6.5 bar → Suction/discharge side connections: Rp 1 	 → Mains connection 1~230 V, 50 Hz → Suction/pressure side connections: G ¼, Rp 1, Rp 1¼ → Fluid temperature +5 °C to +80 °C → Max. inlet pressure: 3.0 bar → Max. operating pressure: 5.0 bar 	 → Mains connection: 1~230 V, 50/60 Hz → Max. operating pressure: 10 bar → Fluid temperature: 0 °C to +40 °C → Max. ambient temperature: 50 °C
Special features	 → Simple handling thanks to low weight, perfectly suited for permanent operation → Brass impeller for fluids up to 60 °C → Efficient thanks to low power consumption at maximum delivery head and volume flow → Expandable with the electronic pump control Wilo-FluidControl/HiControl 1 	 Stable water pressure due to automatic operation High operational reliability and dry-running protection due to the integrated flow switch Integrated thermal motor protection as standard Extremely low-noise operation Corrosion protection through coated pump hydraulics 	 → Heavy-duty multistage pump with stainless steel hydraulics → Easy operation and adjustment: Large display screen; LEDs for status display → Plug & Pump → Functions: PID, frost protection, restart after a fault → Float switch can be connected as an option
Equipment/function	 → Single-stage circulator with a radial impeller → Can be supplemented by the Wilo- FluidControl resp. HiControl 1 	 → Directly flanged glanded motor → Shaft sealing with mechanical seal → Thermal motor protection → Flow switch, on the discharge side for automatic operation and dry-running protection → Operating options Auto/Off/Manual 	 → Including 1.4 m mains connection cable and plug → Including EMC filter → With built-in pressure and flow controllers



Series	Wilo-Helix V	Wilo-Helix FIRST V	Wilo-Zeox FIRST H Wilo-Zeox FIRST V
Product photo			
Construction	Non-self-priming multistage pump	Non-self-priming multistage pump	Non-self-priming, high-efficiency multi- stage high-pressure centrifugal pump in vertical or horizontal design with off-line connections
Application	Water supply and pressure boosting, industrial circulation systems, process water, closed cooling circuits, washing systems, irrigation	Water distribution and pressure boost- ing, industrial circulation systems, process water, closed cooling circuits, washing systems, irrigation	Professional irrigation/agriculture Water supply/pressure boosting Firefighting Heating, air conditioning, cooling
Duty chart	H/m 280 240 200 160 120 80 40 0 10 20 30 40 50 60 70 Q/m ³ /n	H/m 280 240 200 160 120 80 40 0 10 20 30 40 50 60 70 Q/m³/h	H/m 400 300 200 200 200 200 200 200 200 200 2
Volume flow Q _{max}	80 m³/h	80 m³/h	280 m³/h
Delivery head H _{max}	280 m	280 m	495 m
Technical data	 → Fluid temperature -30 to +120 °C with EPDM (-10 to +90 °C with FKM) → Max. operating pressure 16/25/30 bar → Max. inlet pressure 10 bar → Protection class IP55 → Minimum efficiency index MEI ≥0.7 (Helix V 16: MEI ≥0.5) 	 → Fluid temperature: -20 to +120 °C → Max. operating pressure: 16/25/30 bar → Protection class: IP55 → Minimum efficiency index MEI ≥0.7 (Helix FIRST V 16: MEI ≥0.5) 	 → Fluid temperature: -5 °C to +90 °C → Max. suction pressure: Zeox FIRST V/ H: 6/16 bar Max. operating pressure: Zeox FIRST V: 27 bar Zeox FIRST H (DN65 to DN100): 50 bar; Zeox FIRST H (DN150): 40 bar → Protection class: IP55
Special features	 → Efficiency-optimised, laser-welded 2D/3D hydraulics, flow and degassing optimised → Corrosion-resistant impellers, guide vanes and stage housings → Maintenance-friendly design with particularly robust coupling guard → Drinking water approval 	 Efficiency-optimised, laser-welded, optimised 2D/3D hydraulics Corrosion-resistant impellers, guide vanes and stage housings Flow and degassing-optimised hydraulic parts Reinforced pump housing, flow and NPSH-optimised Space-saving and easy maintenance thanks to compact design 	 → High-efficiency hydraulics and high-efficiency IE3 motor → Standard rinsing device for the sealing system → Additional flange alignments and stuffing box packing on request → Bronze impeller on request
Equipment/function	 → Impellers, stage chambers and pump housing made of stainless steel 1.4301/1.4404 (AISI 304L/AISI 316L) → Helix V 2 - 16, PN16 with oval flanges, PN25 with round flanges → Helix V 22 - 36, with round flanges → IEC standard motor 	 → Corrosion-resistant impellers, guide vanes and stage housings → Helix FIRST V 2 - 16, PN16 with oval flanges, PN25 with round flanges → Helix FIRST V 22 - 36, with round flanges → IEC standard motor 	 → IE3 high-efficiency motor as standard → Flushing by-pass device to ensure a long service life → Packing gland on request, exchange-able without disassembling the pump

Series	Wilo-Multivert MVIE 70, 95	Wilo-Multivert MVI 70, 95	Wilo-Medana CV1-L
Product photo			NEW
Construction	Non-self-priming multistage pump with integrated frequency converter	Non-self-priming multistage pump	Non-self-priming vertical multistage pump in in-line design
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, washing systems, irrigation	Water supply and pressure boosting / Industrial recirculation systems / Process water / Closed cooling circuits / Fire- extinguishing systems / Washing systems / Irrigation / Rainwater utilisation
Duty chart	H/m 100 80 60 40 20 0 20 40 60 80 100 120 140 Q/m ³ /h	H/m 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 Q/m ³ /h	H/m 160 120 80 40 0 5 10 15 20Q/m ³ /h
Volume flow Q _{max}	145 m³/h	140 m³/h	24 m³/h
Delivery head H _{max}	100 m	172 m	158 m
Technical data	 → Fluid temperature -15 to +120 °C → Max. operating pressure 16 bar/25 bar → Max. inlet pressure 10 bar → Protection class IP55 → Minimum efficiency index MEI ≥0.4 	 → Fluid temperature -15 to +120 °C → Max. operating pressure 16/25 bar → Max. inlet pressure 10 bar → Protection class IP55 → Minimum efficiency index MEI ≥0.4 	 → Fluid temperature of -20 to +120 °C with EPDM → Ambient temperature of -15 to +50 °C → Operating pressure max. 10 bar or max. 16 bar → Max. inlet pressure 6 bar or max. 10 bar → Protection class IP55
Special features	 → Easy commissioning → Integrated frequency converter with large control range → Full motor protection 	→ MVI 7095 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 → Space-saving, compact and robust pump design → Suitable for use in ambient tempera- tures of up to 50 °C and expanded field of application especially for system integration
Equipment/function	 → Stainless steel hydraulics with pump housing made of cast iron → MVIE 70 to 95 PN16/25 with round flange → IEC standard motor → Integrated frequency converter with Green Button Technology and LCD display for status indication 	 → MVI 70 to 95 PN16/PN25 with round flange → IEC standard motor, 2-pole 	 Pump in in-line design, with a continuous motor pump shaft Hydraulics and pump housing in 1.4301 (AISI 304) Oval flange connection Single-phase or three-phase AC motor Single-phase AC motor equipped with capacitor and built-in thermal motor protection (with automatic restart)

Series	RN, HS, IPB, PJ, STD PLURO, FG/FH	Wilo-Multivert MVISE	Wilo-Multivert MVIS
Product photo			
Construction	High–pressure multistage centrifu– gal pump in sectional construction, mounted on baseplate	Non-self-priming multistage pump with glandless pump motor and integrated frequency converter	Non-self-priming multistage pump with glandless pump motor
Application	Metal industry, mine dewatering, desali– nation plants, boiler supply, firefighting, high–pressure cleaning, water supply	Water supply and pressure boosting	Water supply and pressure boosting
Duty chart		H/m 100 80 60 40 20 0 2 4 6 8 10 12 Q/m ³ /h	H/m 100 80 60 40 20 0 2 4 6 8 10 Q/m ³ /m
Volume flow <i>Q_{max}</i>	1,000 m³/h	14 m³/h	14 m³/h
Delivery head H _{max}	1800 m	110 m	110 m
Technical data	 → Permitted temperature range up to +80 °C, or up to +160 °C on request → Max. operating pressure 180 bar → Nominal diameter on discharge side DN32 to DN250 → 2- or 4-pole 50 Hz motors, 60 Hz on request 	 → Fluid temperature -15 to +50 °C → Max. operating pressure 16 bar → Max. inlet pressure 16 bar → Protection class IP44 	 → Fluid temperature -15 to +50 °C → Max. operating pressure 16 bar → Max. inlet pressure 10 bar → Protection class IP44
Special features	 → Modular design ensures pump versions in a variety of materials and versions which can be adapted to meet customer demands precisely → Hydraulic pressure compensation relieves load on bearings and ensures a longer service life → Multiple optional pressure connections allow different pressures to be supplied from a single pump 	 → Glandless pump technology → Virtually noiseless operation (up to 20 dB [A] quieter than conventional pumps) → Space-saving, compact design → Virtually maintenance-free thanks to a design which does not feature any mechanical seals → Drinking water approval for all components that come in contact with the fluid (EPDM version) 	 → Glandless pump technology → Virtually noiseless operation (up to 20 dB [A] quieter than conventional pumps) → Space-saving, compact design → Virtually maintenance-free thanks to a design which does not feature any mechanical seals → Drinking water approval for all components that come in contact with the fluid (EPDM version)
Equipment/function	 → 2 to 15-stage industrial version → Screwed segments → Hydraulic axial compensation → Shaft sealing with mechanical seal or stuffing box packing → Optionally with multiple pressure outlets for e.g. fire-extinguishing applications → Supplied as a complete unit: with pump, coupling, motor mounted on baseplate or without motor or as pump only, with free shaft end 	 → Multistage, non-self-priming, vertical high-pressure centrifugal pump in in-line design → Glandless three-phase motor with integral water-cooled frequency converter → 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 → Glandless three-phase motor → Hydraulic connection with oval flanges PN16, counter flanges made of stain- less steel with female thread, screws and gaskets (scope of delivery)
Series	Wilo-Economy MHIE	Wilo-Medana CH1-L	Wilo-Medana CH1-LC
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Product photo		Series extension	
Construction	Non-self-priming multistage pump with integrated frequency converter	Multistage horizontal centrifugal pumps	Multistage horizontal centrifugal pumps
Application	Water supply and pressure boosting, industrial circulation systems, cooling water circulation systems, washing systems	Pumping of process water and drinking water for: irrigation, pressure boosting, industrial applications (e. g. cooling circuits, car wash)	Pumping of process water for: irrigation, pressure boosting, industrial applications (e.g. cooling circuits, car wash)
Duty chart	H/m 80 60 40 20 0 4 8 12 16 20 24 Q/m ² /h	H/m 80 60 40 20 0 5 10 15 20 25Q/m ² /n	H/m 80 60 40 20 0 5 10 15 20 25Q/m ³ /h
Volume flow Q _{max}	32 m³/h	18 m³/h	18 m³/h
Delivery head H _{max}	88 m	78 m	78 m
Technical data	 → Fluid temperature -15 to +110 °C → Max. operating pressure 10 bar → Inlet pressure max. 6 bar → Protection class IP54 	 → Mains connection: 1~230 V, 50/60 Hz - 3~380/400/460 V, 50/60 Hz → Rated pressure: 10 bar → Fluid temperature: -20 °C to 120 °C → Ambient temperature: -15 °C to 50 °C → Protection class: IPX5 	 → Mains connection: 1~230 V, 50/60 Hz - 3~380/400/460 V, 50/60 Hz → Rated pressure: 10 bar → Fluid temperature: -20 °C to 90 °C → Ambient temperature: -15 °C to 50 °C → Protection class: IPX5
Special features	 Easy commissioning All parts that come in contact with the fluid are made of stainless steel Compact design Integrated frequency converter Full motor protection WRAS/KTW/ACS approval for all parts that come in contact with the fluid (EPDM version) 	 Captive nuts on connections (option) Cataphoretic-coated lantern Oblong hole for fixation Compact design ACS approval 	 Cataphoretic-coated lantern New closed hole fixation for vertical position
Equipment/function	 → Stainless steel in monobloc design → Threaded connection → Integrated frequency converter → Single-phase or three-phase AC motor → Three-phase version with LCD → Display for status indication → Integrated thermal motor protection 	 → Pump housing and impellers made of stainless steel → AC motor: 3~ > 0.75 AC IE3, 3~ < 0.75 AC IE2 → AC motor: 1~ AC IE1/IE2 → Threaded connection 	 → Pump housing made of cast iron and impellers made of stainless steel → AC motor: 3~ > 0.75 AC IE3, 3~ < 0.75 AC IE2 → AC motor: 1~ AC IE1/IE2

Series	Wilo-Multivert MVIL	Wilo-SiBoost Smart 1 Helix VE SiBoost Smart 1 MVISE	Wilo-Economy CO-1 MVI(S)/ER Economy CO-1 Helix V/CE+
Product photo		Series modification	
Construction	Non-self-priming multistage pump	Water-supply units with a non-self- priming, high-pressure multistage centrifugal pump with integrated speed control of the series Helix VE or MVISE	Water supply systems with a non-self- priming, high-pressure multistage centrifugal pump of the series MVIS, MVI or Helix V
Application	Water supply and pressure boosting, commerce and industry, washing and spraying systems, rainwater utilisation, cooling and cold water circuits	Full automatic water supply from public water supply network or reservoir For pumping drinking/process water, cooling water, water for firefighting	Full automatic water supply from public water supply network or reservoir. For pumping drinking/process water, cooling water, water for firefighting
Duty chart	H/m 120 100 80 60 40 20 0 2 4 6 8 10 12 Q/m ³ /h	H/m 140 120 100 80 60 40 20 0 10 20 30 40 50 60 70 Q/m ³ /h	H/m 160 140 120 100 80 60 40 20 0 20 40 60 80 100 0 0 20 40 60 80 100 0 0 0 0 0 0 0 0 0 0 0 0
Volume flow Q _{max}	13 m³/h	90 m³/h	135 m³/h
Delivery head H _{max}	135 m	142 m	160 m
Technical data	 → Fluid temperature -15 to +90 °C → Max. operating pressure or max. 10 or 16 bar, depending on type → Max. inlet pressure 6 or 10 bar, depending on type → Protection class IP54 → Minimum efficiency index MEI ≥0.4 	 → Mains connection 3~400 V, 50 Hz → Max. fluid temperature 50 °C → Operating pressure 16 bar → Inlet pressure 6/10 bar → Protection class IP44/IP54 	 → Mains connection 3~230 V /400 V, 50 Hz → Max. fluid temperature 50 °C → Operating pressure 10/16 bar → Inlet pressure 6/10 bar → Switching stage 6/10/16 bar → Protection class IP41/IP54
Special features	→ Space-saving, compact monobloc design	 → For systems with MVISE pump applies: Up to 20 dB(A) quieter than comparable systems → For systems with Helix VE pump → Optimised hydraulics → Cartridge mechanical seal → IE4 standard motor 	 For systems with MVIS pump applies: Up to 20 dB(A) quieter than comparable systems For systems with Helix V pump Optimised hydraulics Cartridge mechanical seal IE3 standard motors for Helix V

Equipment/function	 → Pump in in–line design → Hydraulics in 1.4301, pump housing 	→ New innovative pressure-variable control	→ Components with fluid contact are corrosion-resistant
	in EN–GJL–250 → Oval flange	→ Components with fluid contact are corrosion-resistant	 Base frame with height-adjustable vibration absorbers for insulation
	Single-phase or three-phase AC	Pipework made of stainless steel	against structure-borne noise
	motor	ightarrow Shut–off device, on the discharge	ightarrow Pipework stainless steel
		side	\rightarrow Shut-off device, on the discharge side
		→ Non-return valve, on the discharge side	→ Non-return valve, on the discharge side
		→ Diaphragm pressure vessel 8 l, PN16, on the discharge side	→ Diaphragm pressure vessel 8 l, PN16, on the discharge side

Series	Wilo-Economy CO/T-1 Helix V/CE Comfort-Vario COR/T-1 Helix VEGE	Wilo–SiBoost Smart MVISE SiBoost Smart (FC) Helix V,VE,EXCEL	Wilo-Comfort-(N)-CORMVI(S)/CC Comfort-CORHelix V(E)/CC(e)
Product photo	Series modification	Series modification	
Construction	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	Pressure-boosting system with speed control and 2 to 6 non-self-priming, stainless steel, high-pressure, multistage centrifugal pumps switched in cascade
Application	Fully automatic water supply from the public water supply mains. For pumping drinking/process water, cooling water, water for firefighting	Fully automatic water supply in residen- tial/office buildings & industrial systems. For pumping drinking/process water, cooling water, water for firefighting	Fully automatic water supply in residen- tial/office buildings & industrial systems. For pumping drinking/process water, cooling water, water for firefighting
Duty chart	H/m 100 80 60 40 20 0 2 4 6 8 10Q/m³/h	H/m 140 120 100 80 60 40 20 0 50 100 150 200 250 300 Q/m³/h	H/m 160 140 120 100 80 60 40 20 0 100 200 300 400 500 600 700 Q/m³/h
Volume flow <i>Q_{max}</i>	10 m³/h	360 m³/h	800 m³/h
Delivery head H _{max}	120 m	158 m	160 m
Technical data	 → Mains connection 3~230 V/400 V, 50 Hz (other versions on request) → Max. fluid temperature 40 °C → Operating pressure 16 bar → Inlet pressure 6 bar → Protection class CO/T=IP54, COR/ T=IP55 	 → Mains connection Helix V: 3-230 V/400 V, 50 Hz Helix VE & EXCEL: 3-400 V, 50 Hz → Max. fluid temperature 70 °C → Operating pressure 16/25 bar → Inlet pressure 10 bar → Protection class IP54 	 → Mains connection 3~230 / 400 V, 50 Hz → Max. fluid temperature 50 °C → Operating pressure 10/16 bar → Inlet pressure 6/10 bar → Protection class IP54
Special features	 New innovative pressure-variable control for Helix VE Compact system, ready for connec- tion, for all applications that require system separation High-efficiency pump hydraulics Helix V with IE3 standard motors Helix VE with IE4 standard motors 	 → High-efficiency pump hydraulics → Helix V with IE3 standard motors, Helix VE with IE4, Helix EXCEL with High-efficiency EC motor (IE5 acc. to IEC 60034-30-2) → Hydraulics of entire system are pressure-loss optimised → Integrated dry-running detection and low water cut-out switch → Systems with MVISE: Up to 20 dB(A) quieter than comparable systems 	 → Compact system in accordance of DIN 1988 (EN 806) → Series with Helix VE integrated fre- quency converter → For systems with MVIS pumps: Up to 20 dB(A) quieter than comparable systems
Equipment/function	 PE break tank, atmospherically ventilated (150 I) Components with fluid contact are corrosion-resistant Pipework stainless steel Shut-off device, on discharge side Non-return valve, on discharge side Break tank with float-valve and float switch Diaphragm pressure vessel 8 I, PN16, on discharge side Low-water cut-out switchgear 	 Automatic pump control via Smart Controller SC Innovative pressure-variable control for Helix VE, EXCEL, MVISE Components with fluid contact are corrosion-resistant Shut-off device on suction and dis- charge sides of each pump Non-return valve, pressure sensor, diaphragm pressure vessel 8 I, PN16, on discharge side Low-water sensor standard for VE, EXCEL, MVISE 	 Base-load pump continuous auto controlled via frequency converter in the CC controller Components with fluid contact are corrosion-resistant Pipework stainless steel 1.4571 Shut-off device at each pump, on the suction and discharge sides Non-return valve, on the discharge side Diaphragm pressure vessel 8 l, PN16, on discharge side Pressure sensor, on the discharge side

Series	Wilo-Comfort-Vario CORMHIE/ECe	Comfort-(N)-COMVI(S) or Helix V/CC	Wilo-Isar MODH1 Wilo-Isar MODV1
Product photo			NEW
Construction	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 Economy 2 to 4 respectively Comfort 2 to 6 non-self-priming, stainless steel, high- pressure, multistage centrifugal pumps switched in cascade	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 residen- tial/office buildings & industrial systems. For pumping drinking/process water, cooling water or other industrial water	Fully automatic water supply in residen- tial/office buildings & industrial systems. For pumping drinking/process water, cooling water, water for firefighting	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	H/m 80 60 40 20 0 20 40 60 80 Q/m³/h	H/m 160 120 100 80 60 40 20 0 100 200 300 400 500 600 700 Q/m³/h	H/m 140 120 100 80 60 40 20 0 10 15ar-MODV1 1-3 15ar-MODV1 1-3 15ar-MODV1 1-3 100 15ar-MODV1 1-3 100 100 100 100 100 100 100 10
Volume flow Q _{max}	102 m³/h	800 m³/h	62 m³/h
Delivery head H _{max}	96 m	160 m	158 m
Technical data	 → Mains connection 3~380/400/440 (1~230) V, 50/60 Hz → Max. fluid temperature 50 °C (70 °C) → Max. ambient temperature 40 °C → Operating pressure 10 bar → Inlet pressure 6 bar → Protection class IP 54 	 → Mains connection 3~230 V / 400 V, 50 Hz → Max. fluid temperature 50 °C → Operating pressure 10/16 bar → Inlet pressure 6/10 bar → Protection class IP54 	 → Mains connection 3~380/400/440 V, 50/60 Hz → Max. fluid temperature 50 °C, option- ally 70 °C → Max. ambient temperature 40 °C → Operating pressure 10 bar → Inlet pressure 6 bar → Protection class IP54
Special features	 Compact system due to MHIE pumps with air-cooled frequency converters Super proportionally large control range Integrated full motor protection with thermistor sensor (PTC) Integrated dry-running detection with automatic deactivation in the event of low water via the motor control electronics Drinking water approval (ACS, KTW, WRAS) 	 Compact system in accordance of DIN 1988 (EN 806) For systems with MVIS pumps: Up to 20 dB(A) quieter than comparable systems 	 High operational reliability with horizontal multistage pumps (Medana CH1-L or Medana CV1-L) with stain- less steel hydraulics Easy installation and maintenance thanks to flexibly adjustable connec- tions Easy commissioning and operation with the Easy Controller Drinking water approval (ACS and UBA)
Equipment/function	 → 2-3 MHIE pumps per system → Infinitely variable control mode via ECe-control with microprocessor and pumps with integrated frequency converters → Components with fluid contact are corrosion-resistant → Shut-off valve at each pump, on the suction and discharge sides → Non-return valve, pressure sensor, pressure gauge on discharge side → Diaphragm pressure vessel 8 l, PN10, on the discharge side 	 Components with fluid contact are corrosion-resistant Pipework made of stainless steel 1.4571 Shut-off device at each pump, on the suction and discharge sides Non-return valve, on the discharge side Diaphragm pressure vessel 8 l, PN16, on the discharge side Pressure sensor, on the discharge side 	 → 1, 2 or 3 pumps (CH1-L or CV1-L) per system → Components with fluid contact are corrosion-resistant → Galvanised base frame with vibration absorbers → Stop valve on every pump on the suction and discharge sides → Non-return valve, pressure sensor, pressure gauge on discharge side → EC-control with microprocessor in IP54 plastic housing

Series	Wilo-FLA	Wilo-FLA Compact	Wilo-SiFire EN SiFire Easy
Product photo			
Construction	Pressure-boosting system for firefight- ing applications with 1 to 2 autono- mously operating, non-self-priming, stainless steel, high-pressure, multistage centrifugal pumps	Pressure-boosting system for firefight- ing, 1 to 2 autonomously operating, non-self-priming, stainless steel, high- pressure, multistage centrifugal pumps with break tank	Pressure-boosting system for firefight- ing, 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	H/m 140 120 100 80 60 40 20 0 10 20 30 40 50 60 70 80 90Q/m ³ /h	H/m 160 140 120 100 80 60 40 20 0 5 10 15 20 25 Q/m ³ /n	H/m 120 100 80 60 40 20 0 100 200 300 400 500 600 Q/m³/h
Volume flow <i>Q_{max}</i>	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 → Max. fluid temperature 50 °C → Max. operating pressure 16 bar → Inlet pressure 6 bar → Protection class IP54 	 → Mains connection 3~400 V, 50 Hz → Fluid temperature max. 50 °C → Operating pressure up to 16 bar → Inlet pressure from break tank < 1 bar → Protection class of operating device IP54 → Round break tank (540 I) 	 → Mains connection 3~400 V, 50 Hz (1~230 V, 50 Hz switchgear diesel pump) → Fluid temperature max. +40 °C → Max. operating pressure 10/16 bar → Max. inlet pressure 6 bar → Protection class of the switchgear IP54
Special features	 → Compact system in accordance of DIN 14462 → Variants → Single-pump system → Double-pump systems in a base frame → 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 Variants Single-pump system Double-pump system with two redundant single-pump systems on a base frame Comes as standard with pump protection by means of minimum volume discharge via bypass circuit without auxiliary energy 	 Compact system (just one base frame) in accordance with EN 12845 Jockey pump for maintaining the required pressure in the system; with automatic start/stop function Sized diaphragm at the pump outlet for a minimum bypass line so that the pump is protected at a low volume flow The cables are hidden in the construc- tion and are thus protected from shocks or cuts
Equipment/function	 → Components that come in contact with fluid are corrosion-resistant → Pipework made of stainless steel → Shut-off device at each pump, on the suction and discharge sides → Non-return valve, on the discharge side → Diaphragm pressure vessel 8 I, PN16, on the discharge side → Pressure switch, on the discharge side 	 Components with fluid contact are corrosion-resistant Pipework stainless steel Ball shut-off valve on discharge side Gate valve between pump and break tank with free outlet according to DIN EN 17077, type AB according to DIN EN 1717 Non-return valve, on discharge side Diaphragm pressure vessel 8 l, PN16, on discharge side 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 Pipework in steel; painted with epoxy resin. Distributor with flanges Shutting gate with safety lock on the discharge side of the pump Non-return valve on the discharge side of every pump DN2" connection for the priming tank of the pumps Pressure measuring on discharge side

Series	Wilo-SiFire FIRST	Wilo-FireSet UL FM	Wilo-GEP Fire
Product photo	NEW	NEW	
Construction	Pressure-boosting system for firefight- ing in accordance with EN 12845	Pressure-boosting system for firefight- ing 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 firefight- ing 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 build- ings, 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	H/m 80 60 40 20 0 50 100 150 200 250 Q/m³/h	H/m 200 100 80 60 40 200 50 100 150 200 300 400 Q/m²/h	H/m 250 200 150 100 50 0 200 400 600 800 1000 Q/m ³ /h
Volume flow Q	320 m³/h	568 m³/h	certified up to 1000 m ³ /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) → Fluid temperature max. +25 °C → Flow from 10 to 320 m³/h → Maximum head 95 m → Protection class IP55 	 → Mains connection 3~400 V, 50 Hz → Fluid temperature max. +30 °C → Ambient temperature max. +5/10 °C to +25 °C → Operating pressure 16 to 25 bar → Power 200 kW electric/224 kW diesel → Protection class IP55 electric/IP54 switchgear 	 → TÜV, DEKRA, DVGW, SVGW certified → Hygienic safety by free outlet (EN 1717) → Stainless steel run-down tank → Automatic function test up to redundancy stage 3 → 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 flex- ibility in designing → Long lifetime thanks to robust design → Easy transport, installation and maintenance thanks to an universal baseplate → Intuitive handling on specific fire- fighting switchgear 	 Certified according to NFPA standards for the highest level of design flex- ibility Robust pumps for a wide field of ap- plication and long service life Compact design for easy transport, installation and maintenance Power reserve for a high level of safety Modularity for an individual tailored configuration 	 Room air cooling, full fairing Split version for installation/transport Pressure-maintaining pump or pilot pump as an option Combination with industrial water system Real pressure method and VR control- ler for high-rise buildings and large properties 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 → Diaphragm, to avoid over heating at zero flow, directly installed on the main pump housing → Jockey pump from MVIL-1 series → 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 → Flexible bolt coupling or universal joint → Switchgear with a WiZiTouch controller by Tornatech → Pressure transducer for automatic starting → Air vent valve and pressure gauge → Motor cooling, fuel tank, 2 or 4 batteries for diesel motor 	 → Drainage or pump emergency drainage (EN12056) for total volume flow → Installation possible below backflow level → No valves for reducing pressure in the main flow of the fire-extinguishing system → Effective maintenance management and permanent information on the operation via smartphone, tablet or PC



Series	Wilo–Sub TWU 3 Plug & Pump Wilo–Sub TWU 4 Plug & Pump	Wilo-Sub TWI 4/6/8/10	Wilo-EMU sprinkler pumps
Product photo			
Construction	Water–supply unit with submersible pump, control and complete accessories	Submersible multistage pump	Submersible pump with sectional con- struction
Application	For water supply, sprinkling, irrigation with water without long-fibre or abra- sive components from boreholes, wells, rainwater storage	Pumping of (drinking) water from bore- holes, wells, rainwater storage for water supply, sprinkling, irrigation, lowering ground water level	Supply of sprinkler systems
Duty chart	H/m 100 Wilo-Sub TWU 3P&P, TWU 4P&P 80 60 40 20 0 1 2 3 4 5 Q/m³/h	H/m 440 360 280 200 120 40 0 1 5 10 20 Q/m³/h 200	H/m 140 120 100 80 60 40 20 0 30 50 70 100 200 300 Q/m³/h
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 → Fluid temperature: 3-30 °C → Max. sand content: 50 g/m³ → 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 → Fluid temperature: 3-20 °C or 3-30 °C → Max. sand content: 50 g/m³ → Max. immersion depth: 100-350 m 	 → Mains connection: 3~400 V/50 Hz → Max. fluid temperature: 25 °C or on request → Max. sand content: 35 g/m³ → Max. immersion depth: 100 m or 300 m
Special features	 → Easy installation thanks to pre- mounted and pre-wired components → Parts in contact with the fluid are corrosion-resistant → Integrated non-return valve 	 → Corrosion-resistant thanks to stain-less steel version → Flexible installation thanks to vertical and horizontal installation → Easy installation due to integrated non-return valve → Large performance range → ACS approval for TWI 4 for drinking water application 	 → VdS certification → Sturdy version in cast iron or bronze → Pressure shroud in corrosion-resistant and hygienic stainless steel version with rubber bearing for minimising noise and vibrations → VdS certified non-return valve is avail- able as an accessory
Equipment/function	 → Submersible multistage pump with radial impellers → Integrated non-return valve → NEMA coupling → Single-phase AC motor → Integrated thermal motor protection → Dry-running protection (only for TWU 4P&P with Wilo-Sub-I package) 	 → Submersible multistage pump with radial or semi-axial impellers → Integrated non-return valve → NEMA coupling → Single-phase or three-phase AC motor 	 → Submersible multistage pump → Radial or semi-axial impellers → NEMA coupling (depending on type) → Three-phase motor for direct or star- delta start → Rewindable motors

Series	Wilo-EMU 12" 24" Wilo-Actun ZETOS-K	Wilo-EMU polder pumps	Series VMF, CNE, VAF
Product photo			Ī
Construction	Submersible pump with sectional con- struction	Polder pump	Vertical turbine pumps for dry well instal– lation 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/indus- trial/geothermal/offshore use	Industrial or municipal water supply Irrigation, firefighting Cooling water supply Dewatering, flood control
Duty chart	H/m 560 480 480 480 480 480 480 480 48	H/m 140 120 100 80 60 40 20 0 10 20 30 40 50 100 100 100 100 100 100 100 1	
Volume flow <i>Q</i> _{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 → Max. fluid temperature: 20 30 °C → Max. sand content: 35 g/m³ or 150 g/m³ → Max. immersion depth: 100/300/350 m 	 Mains connection: 3~400 V, 50 Hz Max. fluid temperature: 20 °C Minimum flow across outside shroud: not necessary Max. sand content: 35 g/m³ Max. immersion depth: 300 m 	 → Permitted temperature range up to 80 °C, or up to 105 °C on request → Nominal diameter on pressure side DN 100 to DN 2000
Special features	 Pressure shroud in corrosion-resistant and hygienic stainless steel version Hydraulic in stainless steel precision casting (Actur ZETOS-K) Maintenance-friendly, rewindable motors Optionally with Ceram CT coating for increasing the efficiency Optionally with ACS approval for drinking water application 	 Deep water lowering thanks to self-cooling motors Sturdy version in cast iron or bronze Compact construction Maintenance-friendly, rewindable motors Optionally with Ceram CT coating for increasing the efficiency 	 → Minimum surface area needed → High hydraulic efficiency → Submerged pump hydraulics → Design to order as per customer specifications
Equipment/function	 Submersible multistage pump Radial or semi-axial impellers Hydraulics and motor freely configur- able according to power requirements Integrated non-return valve (depending on type) NEMA coupling or standardised con- nection Three-phase motor for direct or star- delta start 	 Submersible multistage pump Semi-axial impellers Hydraulics and motor freely configur- able according to power requirements Three-phase motor for direct or star- delta start Motors rewindable as standard 	 For types of installation with pressure port, for concealed floor, floor-mounted or twin-ceiling installation Design: As removable or permanent installation With axial or semi-axial, single or multistage hydraulics Open shaft for bearing lubrication with the fluid, or with shaft trim for separate bearing lubrication Drive options: Electric motor, diesel motor or steam turbine

Series	Wilo-Yonos GIGA-N	Wilo-Atmos GIGA-N	Wilo-CronoNorm-NLG Wilo-VeroNorm-NPG
Product photo			
Construction	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, according to ISO 5199, mounted on a baseplate
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 heating water, cold water, water-glycol mixtures in municipal water supply, general industry, power stations etc.
Duty chart	H/m 70 60 50 40 30 20 0 100 200 300 400 500Q/m ³ /h	H/m 200 150 100 50 30 20 15 10 8456 810 20 30 50 100150 6000/m ³ /h	H/m 140 120 100 80 40 20 0 500 1000 1500 2000 Q/m³/h
Volume flow <i>Q_{max}</i>	520 m³/h	1000 m³/h	2,800 m³/h
Delivery head H _{max}	70 m	150 m	140 m
Technical data	 → Fluid temperature -20 °C to +140 °C → Mains connection: 3~440 V ±10 %, 50/60 Hz, 3~400 V ±10 %, 50/60 Hz, 3~380 V -5 %/+10 %, 50/60 Hz → Minimum efficiency index (MEI) ≥ 0.4 → Nominal diameter DN 32 to DN 150 → Max. operating pressure 16 bar 	 → Fluid temperature -20 °C to +140 °C → Mains connection 3~400 V, 50 Hz → Protection class IP55 → Nominal diameter DN 32 to DN 150 → Max. operating pressure 16 bar 	 → Fluid temperature -20 °C to +120 °C (depending on type) → Mains connection 3~400 V, 50 Hz → Nominal diameters: DN 150 to DN 500 (depending on type) → Operating pressure: depending on type and application – up to 16 bar
Special features	 Efficient pump with IE4 motors Cataphoretic coating of all cast components for high corrosion resistance and long service life Standard dimensions in accordance with EN 733 Easy adjustment and operation with Green Button Technology Easy maintenance thanks to userfriendly spacer coupling in back pull-out design 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 Cataphoretic coating of all cast com- ponents for high corrosion resistance and long service life Universally usable thanks to stand- ardised dimensions, a range of motor options and impellers made of differ- ent materials 	 NLG: → Reduced life cycle costs through optimised efficiency → Mechanical seal independent of the direction of rotation → Interchangeable casing wear ring → Permanently lubricated, generously dimensioned roller bearings NPG: → Suitable for temperatures up to 140 °C → Back pull-out version
Equipment/function	 Control modes: Δp-c, PID control, n=constant Manual functions: e.g. differential pressure setpoint setting, manual control mode, error acknowledgement External control functions: e.g. Overriding Off, analogue input 0-10 V/0-20 mA for constant speed (DDC) Remote control via infrared interface (IR-Stick), plug-in position for IF modules for connection to building automation 	 → Single-stage low-pressure centrifu- gal pump in monobloc design with coupling, coupling guard, motor and baseplate → Motors with efficiency class IE3 	 Single-stage horizontal spiral hous- ing pump with bearing bracket and exchangeable casing wear rings (NLG only) in process design Shaft sealing with mechanical seals in accordance with EN 12756 or stuffing box packing Spiral housing with cast pump bases Greased grooved ball bearings for bearing of pump shaft Motors with efficiency class IE3

Series	Wilo-Atmos TERA-SCH	Wilo-SCP	NOLH
Product photo	Series extension		
Construction	Axially spilt case pump mounted on a base frame.	Low-pressure centrifugal pump with axially split housing mounted on a baseplate	Single-stage low-pressure centrifugal pump with axial suction connection and radial, upwards-facing pressure connec- tion, mounted on a baseplate
Application	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	H/m 100 50 30 20 100 200 300 500 1000 2000 Q/m ³ /h	H/m 200 100 50 10 4 10 50 100 500 1000 Q/m ³ /h	H/m 150 100 50 20 10 5 2 2 5 10 50 20 10 5 2 2 5 10 50 20 10 50 20 10 50 20 20 10 50 20 20 20 20 20 20 20 20 20 2
Volume flow Q _{max}	4,675 m³/h	3,400 m³/h	1,800 m³/h
Delivery head H _{max}	150 m	245 m	140 m
Technical data	 → Fluid temperature -20 °C to +120 °C → Mains connection 3~400 V, 50 HzNominal diameters - Suction side: DN 150 to DN 500 - Discharge side: DN 150 to DN 400 → Max. operating pressure: PN 16, PN 25 	 → Fluid temperature -8 °C to +120 °C → Mains connection 3~400 V, 50 Hz → Nominal diameters - Suction side: DN 65 to DN 500 → Discharge side: DN 50 to DN 400 → Max. operating pressure: 16 or 25 bar, depending on type 	 → Permitted temperature range -20 °C to +120 °C → Mains connection 3~400 V, 50 Hz → Nominal diameter on pressure side DN 32 to DN 125 → Max. operating pressure PN 16
Special features	 Reduced energy costs through high overall efficiency Simplified alignment thanks to toler- ant coupling and motor adjusting device Increased operational reliability thanks to quiet-running hydraulics Reduced cavitation tendency through optimised NPSH values Also available as drinking water version 	 → Higher volume flows up to 17,000 m³/h on request → Special motors and other materials on request 	 Impeller diameter is adjusted to the desired duty point Many version options for the shaft seal 60 Hz or ATEX version on request Pumping of clean or slightly muddy fluids without solid material
Equipment/function	 Centrifugal axially split case pump, available in single-stage design. Deliverable as complete unit or without motor or only pump hydraulics Shaft sealing with mechanical seal or stuffing box 4 - and 6-pole motors; IE3 standard to 1000 kW (IE4 on request) Welded steel frame 	 1- or 2-stage, low-pressure centrifugal pump in monobloc design Deliverable as complete unit or without motor or only pump hydraulics Shaft sealing with mechanical seal or stuffing box packing 4-pole and 6-pole motors Materials: Pump housing: EN-GJL-250 Impeller: G-CuSn5 ZnPb Shaft: X12Cr13 	 Dimensions and hydraulic output as per EN 733 Hydraulics:cast iron (ML) or stainless steel (MX) depending on version Sealed by uncooled mechanical seal With or without spacer coupling 2 or 4-pole IEC standard motor Baseplate: steel or cast iron Supplied as complete unit with pump, coupling, coupling guard, motor and baseplate or without motor or pump only, with free shaft end

Series	Series NESD Series NESE	Series NFCH	Wilo-Drain LP Wilo-Drain LPC
Product photo			
Construction	Single-stage low-pressure centrifugal pump with axial suction connection and radial, upwards-facing pressure connec- tion mounted on a baseplate	Single-stage low-pressure centrifugal pump with axial suction connection and radial, upwards-facing pressure connec- tion, mounted on a baseplate	Non-submersible self-priming drainage pump
Application	For heat transfer or circulating hot water in industrial processes, for power gen- eration or in building services	For pumping mineral or synthetic heat carrier fluids up to 350 °C, e.g.: in indus- trial processes or power generation	Pumping of → Wastewater → Process water
Duty chart	H/m 100 50 20 10 5 0 5 10 5 10 50 100 5000/m³/h	H/m 100 50 20 10 5 2 2 5 10 50 100 500 20 10 50 2 2 5 10 500 20 10 50 20 10 50 20 10 50 20 10 50 20 10 50 20 10 50 20 10 50 20 10 50 20 10 50 20 10 50 20 10 50 10 10 10 10 10 10 10 10 10 1	H/m 30 25 20 15 10 5 0 10 20 30 40 50 Q/m ² /n
Volume flow <i>Q_{max}</i>	600 m³/h	1,000 m³/h	60 m³/h
Delivery head H _{max}	90 m	90 m	29 m
Technical data	 → Max. permitted fluid temperature → NESD: 120 °C 207 °C; NESE: 0 °C 120 °C (40 bar), 120 °C 200 °C (35 bar), 200 °C 230 °C (32 bar) → Discharge side-Ø: DN 32 - 125 → Max. operating pressure → 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) → Nominal diameter on pressure side DN 32 to DN 125 → Max. operating pressure PN 16 	 → Mains connection: 1~230 V, 50 Hz or 3~400 V, 50 Hz → Operation mode: S1 → Fluid temperature: max. 35 °C
Special features	 → Impeller diameter is adjusted to the desired duty point → 60 Hz or ATEX version on request → 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 → 60 Hz or ATEX version on request → Self-cooling design with double temperature barrier allows the use of an uncooled shaft seal and reduces heat loss 	 → Long service life → Sturdy construction → Easy operation → Flexible use
Equipment/function	 → Dimensions and hydraulic output as per EN 22858 → Hydraulics in spheroidal cast iron EN- GS400 (MG version) 	 → Dimensions and hydraulic output as per EN 733 → Standard mechanical seal corre- sponding to the heat carrier fluid 	→ Self-priming

- → Flange according to EN 1092-1
 → With or without spacer coupling
- ightarrow 2 or 4–pole IEC standard motor
- ightarrow Baseplate: steel or cast iron
- → Baseplate: steel of cast non
 → Supplied as complete unit with pump, coupling, coupling guard, motor and baseplate or without motor or pump
 - only, with free shaft end
- → Version with or without spacer coupling
 → 2 or 4-pole IEC standard motor
- ightarrow Supplied as a complete unit with pump, coupling, coupling guard, mo-tor and baseplate **or** without motor **or** pump only, with free shaft end



 \rightarrow Customised versions are possible

ightarrow Heavy-duty version made of cast iron Equipment/function

DIGITALIZATION Up to 10 MWh Energy Savings per year and pump.

In order to further improve the system efficiency of its products, Wilo is focusing on digitalisation and began developing and launching smart products, particularly smart pumps, some years ago.

We set high standards for this new product category. Wilo only describes a product as smart when it offers a combination of state-of-the-art sensor technology, innovative control functions, bidirectional connectivity and excellent user friendliness. It goes without saying that the product must also meet and exceed the existing standards in terms of high efficiency and resilience.



A saviour during the monsoon

India's monsoon is both, a curse and a blessing. While the agriculture depends on the natural water supply, Mumbai's inhabitants and infrastructure suffer from the enormous deluge of water. Nearly thirty Wilo axial submersible pumps operate in four different water-pumping stations, facing the challenge during rainfall season.

Mumbai is big. It is manifold. The city, formerly known as Bombay, is not only India's economic hub; it also combines a prolific film industry, seedy quarters as well as luxurious residences and a tropical forest inside an urban zone. Located on a peninsular site on Bombay Island, Mumbai is one of the largest and most densely populated mega metropolis in the world. The city's climate usually is warm and humid - from June to September however, heavy winds coming from the southwest bring the Monsoon season. This phenomenon is perceived in different ways - while it revitalises the dried out environment and restores the beauty of nature, regions are getting hit by floods and heavy monsoon rains cause devastating landslides, damaging public infrastructure. Today, Mumbai is the only city in India with storm water pumping stations. At high water levels, these stations release water from a drain or nullah into the sea, while the flood gates prevent seawater from entering the city. According to the "Brihanmumbai



Storm Water Disposal" (Brimstowad) project, Wilo India has currently equipped four of eight stations. "Wherever the land level is lower than the sea level, water logging is bound to happen. Pumping stations are responsible for two main things: they pump out rainwater and prevent high tides from seeping into the city. Each pump can push out 6,000 litres of water per second", says Rajesh Unde from Wilo India. "We are more than delighted to have designed, manufactured, tested, erected and commissioned our axial flow submersible pumps for the stations."

Axial submersible pumps as a solution

Tidal control gates should be designed to operate automatically, which means they open or close depending upon the tide and flow conditions. When the tide is low, the tidal control gates must remain open so that flood water can flow through the drain into the sea. However, during rising tide conditions the flood control gates will be closed and the water enters the proposed storm water pumping station through the inlet bay and screens. The flood water shall then be pumped into the discharge channel of the pumping station towards sea.

In the event of flooding, the flow is restricted and tidal flaps must be installed to prevent the water from entering the outflow and the pumping station. Wilo India has been involved in the project from the designing stage, to support the scheme and cover the smooth operation and performance of all pumps provided on site. "Our axial submersible pump was the optimal solution for the requirements within the project. Its own weight ensures self-centering seating in the discharge tube and despite the size it is easy to install", explains Rajesh Unde from Wilo India. "Temperature monitoring, vibration sensors, thermal motor protection as well as leakage sensors in the motor ensure the high reliability even under difficult operational conditions." While providing the complete pump technology for the pumping

stations, Wilo also carries out the complete Service. The engineer's visits are scheduled on a quarterly basis, while in addition Wilo conducts pre- and post-monsoon checks, post monsoon to ensure a smooth operation of all pumping systems. Wilo Service engineers are on standby, in case of potential emergencies and will also monitor the pumps on a regular base.

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Series	Wilo-Drain LP Wilo-Drain LPC	Wilo-Drain VC	Wilo-Drain TMT
Product photo		T	
Construction	Non-submersible self-priming drainage pump	Non-submersible pedestal pump with standard motor	Submersible drainage pump
Application	Pumping of → Wastewater → Process water	Pumping of → Wastewater → Industrial wastewater	Pumping of → Wastewater → Industrial wastewater
Duty chart	H/m 30 25 20 15 10 5 0 10 20 30 40 50 Q/m ³ /h	H/m 20 16 12 8 4 0 0 2 4 6 8 10 12 Q/m ² /h	H/m 16 14 12 10 8 6 4 2 0 0 4 8 12 16 20 Q/m ¹ /h
Volume flow <i>Q</i> _{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 → Operation mode: S1 → Fluid temperature: max. 35 °C 	 → Mains connection: 1~230 V, 50 Hz or 3~400 V, 50 Hz → Operation mode: S1 → Fluid temperature: max. 95 °C 	 → Mains connection: 3~400 V, 50 Hz → Immersed operating mode: S1 → Non-immersed operating mode: S3 25 % → Max. immersion depth: 7 m → Fluid temperature: max. 95 °C
Special features	 → Long service life → Sturdy construction → Easy operation → Flexible use 	 For fluids up to 95 °C Long service life Easy operation thanks to attached float switch Long standstill times possible Integrated motor protection with thermal relay 	 → For fluids up to 95 °C → Sealed cable inlet

Equipment/function \rightarrow Self-priming

ightarrow Attached float switch

→ Housing and impeller made of grey cast iron
 → Thermal motor monitoring



ightarrow "C" version with sheath flow cooling







General overview – Edition 2021 – 50 Hz – Subject to change without prior notice



Series	Wilo-Rexa NORM	Wilo-EMU FARF	Wilo-EMU FAWR
Product photo	Series extension		
Construction	Non-submersible sewage pump with standard motor, fully mounted on baseplate	Submersible sewage pump made of cast stainless steel	Submersible sewage pump with me- chanical stirring apparatus
Application	Pumping of → Untreated sewage → Sewage containing faeces → Wastewater → Process water	 Pumping of → Highly abrasive sewage without long-fibre components → Sewage containing faeces 	 Pumping of → Highly abrasive sewage without long-fibre components → Sewage containing faeces
Duty chart	H/m 32 24 16 8 0 400 800 1200 Q/m³/h	H/m 40 20 10 5 1 1 2 3 4 5 10 15 Q//s	H/m 60 50 40 30 20 0 20 40 60 80 10 0 20 40 60 80 100 0 20 40 60 80 100 0 20 40 50 80 100 20 40 50 80 100 20 50 50 50 50 50 50 50 50 50 50 50 50 50
Volume flow Q _{max}	1,660 m³/h	72 m³/h	450 m³/h
Delivery head H _{max}	32 m	27 m	36 m
Technical data	 → Mains connection: 3~400 V, 50 Hz → Operating mode: S1 → Fluid temperature: max. 70 °C → Ambient temperature: max. 40 °C → Motor efficiency class: IE3, IE4 	 → Mains connection: 3~400 V, 50 Hz → Immersed operating mode: S1 → Non-immersed operating mode: S2 → Max. immersion depth: 20 m → Fluid temperature: max. 40 °C 	 → Mains connection: 3~400 V, 50 Hz → Immersed operating mode: S1 → Non-immersed operating mode: S2 → Max. immersion depth: 20 m → Fluid temperature: max. 40 °C
Special features	 → 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 → Shut "back pull-out" unit: Disman- tling without draining the oil in the sealing chamber 	 → Sturdy version completely in stainless steel casting 1.4581 for the use in corrosive fluids → Longitudinal watertight cable inlet 	 Mechanical mixing device made of Abrasit material to avoid deposits in the pump chamber Longitudinal watertight cable inlet Customised versions are possible
Equipment/function	 → Optional thermal motor monitoring → Optional external sealing chamber monitoring 	 → Heavy-duty version made of cast stainless steel → Optional external sealing chamber monitoring 	 → Mechanical stirring apparatus is fastened directly to the impeller → Mixer head made of Abrasit (chilled cast iron) → Optional external sealing chamber monitoring



Explosion-proof float switch

External lubrication of bearing

Pressure connection below

baseplate

 → DS model: Double-pump system with micro-processor controlled switchgear



→ Thermal motor monitoring with bimetallic strip

Series	Wilo-DrainLift SANI-M	Wilo-DrainLift SANI-L	Wilo-DrainLift SANI-XL
Product photo			
Construction	Ready for connection and fully submers- ible single pump lifting unit	Compact, ready for connection and fully submersible double pump lifting unit	Ready for connection and fully submers- ible double-pump lifting unit
Application	Pumping of sewage containing faeces	Pumping of sewage containing faeces	Pumping of sewage containing faeces
Duty chart	H/m 24 20 16 12 8 4 0 0 10 20 30 40 50 60 70 Q/m³/h	H/m 24 20 16 12 8 4 0 0 10 20 30 40 50 60 70 Q/m³/h	H/m 24 20 16 12 8 4 0 10 20 30 40 50 60 70 Q/m³/h
Volume flow Q _{max}	77 m³/h	77 m³/h	77 m³∕h
Delivery head H _{max}	20 m	20 m	20 m
Technical data	 → Mains connection: 1~230 V, 50 Hz or 3~400 V, 50 Hz → Operating mode: S3 10%/S1 → Fluid temperature: 3 40 °C, max. 65 °C for 5 min → Tank volume: 99 I → Max. usable volume: 74 I → Pressure connection: DN 80 	 → Mains connection: 1~230 V, 50 Hz or 3~400 V, 50 Hz → Operating mode: S3 10%/S1 → Fluid temperature: 3 40 °C, max. 65 °C for 5 min → Tank volume: 122 I → Max. usable volume: 91 I → Pressure connection: DN 80 	 → Mains connection: 3~400 V, 50 Hz → Operating mode: S3 10%/S1 → Fluid temperature: 3 40 °C, max. 65 °C for 5 min → Tank volume: 358 I → Max. usable volume: 286 I → Pressure connection: DN 80
Special features	 → Very easy to install and transport due to compact construction and light weight → Operational reliability provided by the large switching volume, thermal motor protection and mains-inde-pendent alarm → Universal use thanks to several variants (continuous duty or intermittent periodic duty, version for aggressive fluids) → Transparent tank cover and cleaning opening in the non-return valve ensure easy maintenance 	 Easy installation and transport due to compact construction and light weight High operational reliability thanks to the double-pump system, high switching volume, thermal motor protection and mains-independent alarm Universal use thanks to several vari- ants (continuous duty or intermittent periodic duty, version for aggressive fluids) Transparent tank cover and cleaning opening in the non-return valve ensure easy maintenance 	 → Easy installation and transport thanks to light weight → High operational reliability thanks to double-pump system, a very large switching volume, thermal motor protection and mains-independent alarm → Universal use thanks to several variants (continuous duty or intermittent periodic duty, version for aggressive fluids) → Transparent reservoir cover and cleaning opening in the non-return valve ensure easy maintenance
Equipment/function	 Switchgear with mains-independent alarm and collective fault signal Ready-to-plug Tank with inspection opening and transparent cover Analogue level measurement (4 20 mA) Non-return valve with inspection opening Thermal motor monitoring with bimetallic strip 	 Switchgear with mains-independent alarm and collective fault signal Ready-to-plug Tank with inspection opening and transparent cover Analogue level measurement (4 20 mA) Non-return valve with inspection opening Thermal motor monitoring with bimetallic strip 	 Switchgear with mains-independent alarm and collective fault signal Ready-to-plug Tank with inspection opening and transparent cover Analogue level measurement (4 20 mA) Non-return valve with inspection opening Thermal motor monitoring with bimetallic strip

Series	Wilo-DrainLift XXL	Wilo-EMUport CORE Wilo-EMUport FTS	Wilo-DrainLift WS 40/50
Product photo			
Construction	Sewage lifting unit Double–pump system	Sewage lifting unit with solids separa- tion for floor-mounted and underground installation (in a chamber)	Pump chamber as concealed pumping station or floor-mounted lifting unit
Application	Pumping of sewage containing faeces	Pumping of sewage containing faeces	Pumping of sewage containing faeces that cannot be returned to the sewer system using natural falls
Duty chart	H/m 20 16 12 8 4 0 0 20 40 60 80 100 120 Q/m ³ /h	H/m 28 24 20 16 12 8 4 0 0 10 20 30 40 50 60 70 Q/m ² /h	
Volume flow Q _{max}	140 m³/h	80 m³/h	
Delivery head H _{max}	21 m	28 m	
Technical data	 → Mains connection: 3~400 V, 50 Hz → Operating mode: S1 → Fluid temperature: max. 40 °C → Pressure port: DN 80, DN 100 → Gross volume: 400/800 I → Switching volume: 305 630 I 	 → Mains connection: 3~400 V, 50 Hz → Operation mode: S1 → Fluid temperature: max. 40 °C → Pressure port: DN 80, DN 100 → Gross volume: 440 I, 1200 I → Switching volume: 295 I, 900 I 	 → Pressure port: DrainLift WS 40/50 Basic: G 2/ Ø50mm, G 2½/Ø63 mm DrainLift WS 40/50: R 1½, R 2 → Inlet connection: DN 100/150/200Gross volume: DrainLift WSE: 255 I DrainLift WSD: 400 I
Special features	 → Flexible use thanks to one or two tanks → Optimum tank drainage with deep suction function → Operationally reliable thanks to large performance range and a reliable level detection → Continuous duty thanks to the use of self-cooling motors 	 → Long service life and corrosion resist- ance thanks to PE/PUR material → Maintenance-friendly as all parts are accessible from outside → High operational reliability thanks to a pre-filtering of solid matter, the pumps deliver only the cleaned sewage → Retrofit system for the economic reconstruction of old pump stations 	 Pressure-tight pump chamber for floor-mounted or concealed floor installation Flexible thanks to freely selectable inlets Large tank volume WS Basic: including pipework, level control, switchgear and pump(s)
Equipment/function	 Thermal motor monitoring and leak-age detection Level control with level sensor Menu-guided switchgear with potential-free contact Hose connection for venting diaphragm hand pump Kit for pressure pipe connection Installation material 	 Sewage lifting unit with solids separation system Collection reservoir 2x solids separation reservoirs 2x sewage pumps Complete pipework including inlet and pressure connection and non-return valve 	Wilo sewage pumps which can be used: → DrainLift WS 40: Rexa UNI → DrainLift WS 50: Rexa CUT → DrainLift WS 40 Basic: Rexa MINI3 → DrainLift WS 50 Basic: Rexa MINI3/UNI

Series	Wilo-Port 600 Wilo-Port 800	Wilo-DrainLift WS 1100	Wilo-Flumen OPTI-TR 22-1 40-1 Wilo-Flumen EXCEL-TRE 20 40
Product photo			
Construction	Pump chamber with synthetic tank, as single or double-pump system	Pump chamber with synthetic tank, as single– or double–pump system	Directly driven submersible mixer
Application	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	Swirling of deposits and solids; destruc- tion of floating sludge layers
Duty chart			
Volume flow <i>Q_{max}</i>			Max. thrust: 185 – 950 N
Delivery head H _{max}			
Technical data	 → Pressure port: R1¼, R1½ → Inlet connection: DN 100, DN 150, DN 200 → Discharge connection pump: R1¼, R1½ → Gross volume: 340 900 I 	 → Pressure port: G2 → Inlet connection: DN 150 → Discharge connection: Rp1½, Rp2, Rp2½, DN 80 → Gross volume: 1215 I 	 → Mains connection: 3~400 V, 50 Hz → Immersed operating mode: S1 → Max. immersion depth: 20 m → Fluid temperature: max. 40 °C
Special features	 → Universal use thanks to chamber extension up to 2.75 m → Max. operational reliability: anti- buoyant without weights for ground water levels up to the surface of the ground → Covers up to load class D 400 → Easy maintenance thanks to surface coupling → Long service life thanks to chamber made of corrosion-free polyethylene 	 → Flexible installation → Anti-buoyant → High stability 	 → Low clogging rate and reliable operation thanks to optimised hydraulics → Low-wearing, due to the use of stainless steel precision-cast propellers with the lowest cavitation tendency → A wide range of possible uses in diverse applications, even at high-interval running times → Reduction of the energy and operating costs due to the standard use of IE3 motors (EXCEL-TRE) for the best possible thrust coefficient
Equipment/function	Wilo sewage pumps which can be used: → Drain TMW 32 → Drain TS 40 → Rexa MINI3 → Drain MTC → Rexa CUT	Wilo sewage pumps which can be used: → Drain TS 40 → Rexa UNI → Drain TP 80 → Rexa FIT/PRO → Drain MTC → Rexa CUT	 → Stationary installation on wall and floor → Flexible installation through the use of lowering device or special pipe attachment → Can be swivelled vertically and horizontally when installed with a lowering device

Series	Wilo-EMU TR/TRE 50-2 to TR 120-1	Wilo-EMU TR/TRE 212 to TR/TRE 326-3	Wilo-EMU RZP 20 to RZP 80-2
Product photo		gie	
Construction	Submersible mixer with single–stage planetary gear	Submersible mixer with two–stage planetary gear	Submersible mixers with housing unit, directly driven or with single–stage planetary gear
Application	Flow generation, suspension of solids, homogenisation and prevention of float- ing sludge layers	Energetically optimised mixing and cir- culation of activated sludge; generation of flow rates	 → Pumping of large volume flows of wastewater and sewage → Flow generation in water channels
Duty chart			H/m 2 1 0.5 0.2 0.1 50 100 200 500 1000 Q//s
Volume flow Q _{max}	Max. thrust: 160 – 6620 N	Max. thrust: 390 - 4310 N	6,800 m³/h
Delivery head H _{max}			1.1 m
Technical data	 → Mains connection: 3~400 V, 50 Hz → Immersed operating mode: S1 → Max. immersion depth: 20 m → Fluid temperature: max. 40 °C 	 → Mains connection: 3~400 V, 50 Hz → Immersed operating mode: 51 → Max. immersion depth: 20 m → Fluid temperature: max. 40 °C 	 → Mains connection: 3~400 V, 50 Hz → Immersed operating mode: S1 → Max. immersion depth: 20 m → Fluid temperature: max. 40 °C
Special features	 → Secures your processes. The large planetary gear ensures that the mix- ing forces are absorbed efficiently. → Efficient energy usage. The innova- tive blade geometry and energy- efficient IE3 motors ensures the best possible specific thrust coefficient. → Works reliably. Thanks to entwining- free operation with backward-curved incoming flow edge. 	 → Efficient energy usage. The innovative blade geometry and energy-efficient IE3/IE4 motors ensure the best possible specific thrust coefficient. → Consistently reliable. The low-wearing GFK/PA6 propeller is durable and scores with its self-cleaning effect. → Smooth running thanks to the balanced propeller load, even in high thrust ranges and when incoming flow conditions are unfavourable. 	 → Vertical or in-line installation possible → Self-cleaning propeller to avoid clog- ging → Propeller in steel or PUR
Equipment/function	 → Stationary installation on walls → Flexible installation via lowering device → Can be swivelled horizontally when installed with a lowering device → Installation with stand allows free placement in basin 	 → Installation with stand allows free placement in basin → Flexible installation 	 → Stationary installation directly on the pipework → Flexible installation via lowering device → Vertical or in-line installation possible

Series	Wilo-Vardo WEEDLESS	Wilo-Sevio ELASTOX-D 09	Wilo-Sevio ELASTOX-D 12
Product photo	+		
Construction	Vertical mixer with standard gear motor	Aeration system consisting of disc dif- fuser and pipeline system for com- pressed air distribution.	Aeration system consisting of disc dif- fuser 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		Wilo-Sevio ELASTOX-D 09 Wilo-Sevio ELASTOX-D 09 19 19 19 19 19 19 19 19 19 1	Wilo-Sevio ELASTOX-D 12 (Typ B) 0 BD: 26% 20 BD: 6,5% 18 BD: 6,7% 16 A 14 1 2 3 4 5 6 7 Qln[Nm³/h]
Volume flow <i>Q_{max}</i>	Max. thrust: 6000 N		
Delivery head H _{max}	Max. circulation capacity: 7.5 m ³ /s		
Technical data	 → Propeller diameter: 2.50 m 1.50 m → Diameter of mixer shaft: 70 114 mm → Shaft length: from 2 m → Fluid temperature: 3 40 °C 	 → Perforation area: 370 cm² → Air load: 1.5 10 Nm³/h → Temperature, air intake: 5 100 °C → Fluid temperature: 5 35 °C 	 → Perforation area: 650 cm² → Air load: 1 12 Nm³/h → Temperature, air intake: 5 80 °C (up to 120 °C on request) → Fluid temperature: 5 35 °C
Special features	 Optimum agitation in basin with square or rectangular floor plan Operational reliability owing to wear- resistant propeller Easy installation for existing systems Floating version for basins with alter- nating water levels 	 High system efficiency thanks to high aeration capacity High flexibility in the plant control system through the air intake's large control range Maximum possible process-specific activation density by taking different basin geometries into account Long service life in municipal and industrial applications thanks to different membrane materials 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 Ideal adaptation of the air intake thanks to three different perforation patterns Greatest possible process-specific activation density by taking different basin geometries and installation conditions into account High flexibility in the system control through very wide control range of the air intake
Equipment/function	Version with → Float for floating installation → Two propeller platforms → Ex rating → 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.	Compressed air generators input air into the pipepipesystem via the air intake pipe. The pipepipesystem evenly distrib- utes the supplied air to individual diffus- ers. Air is evenly input to the fluid free from coalescence via a sewage-resistant membrane. Connection down pipe Distribution pipe Diffuser pipeline Connection drain pipe Membrane diffuser Support for pipeline system

Series	Wilo-Sevio ELASTOX-P	Wilo-Sevio ELASTOX-S	Wilo-Sevio ELASTOX-T
Product photo			
Construction	Aeration system consisting of plate	Aeration system consisting of strip	Aeration system consisting of tube dif-
	pressed air distribution.	pressed air distribution.	air distribution.
Application	For fine bubble aeration of various	For fine bubble aeration of various	For fine bubble aeration of various
	fluids such as wastewater and sewage	fluids such as wastewater and sewage	fluids such as wastewater and sewage
	oxygen and mixing.	oxygen and mixing.	oxygen and mixing.
Duty chart	Wilo-Sevio ELASTOX-P	Wilo-Sevio ELASTOX-S	Wilo-Sevio ELASTOX-T
	BD: 35,2%		
	22 BD: 13,6%	24	22 BD: 8,7%
	18	22 20 BD: 20% BD: 10%	18
	16	18	16
	¹⁴ 0 2 4 6 8 10 12 Qin[Nm³/h*m]	¹⁴ 0 5 10 15 20 Qin[Nm³/h*m]	¹⁴ 0 1 2 3 4 5 6 7 8 Qln[Nm ³ /h]
Volume flow <i>Q_{max}</i>			
Delivery head H _{max}			
Technical data	\rightarrow Perforation area: 1200 cm ²	→ Perforation area: 2400 6400 cm ²	→ Perforation area: 640 1600 cm ²
	\rightarrow Air load: 4 15 Nm ³ /h*m \rightarrow Temperature, air intake: 5 80 °C (up	\rightarrow Air load: 1 19 Nm ³ /h*m \rightarrow Temperature, air intake: 5 60 °C	→ Air load: 1.5 10 Nm³/h*m → Temperature, air intake: 5 80 °C
	to 120 °C on request)	→ Fluid temperature: 5 35 °C	\rightarrow Fluid temperature: 5 35 °C
	7 Fluid temperature. 5 55 C		
Special features	→ Increased operational reliability	→ Maximum possible energy efficiency	\rightarrow High flexibility of configuration thank
- 1	thanks to hoist restriction of the	through micro-perforation and large	to different lengths and wide control
	plate membrane to evenly expand the membrane for ideal air intake.	→ High process reliability through low-	range of air intake → Low-buovancy behaviour
	ightarrow Thanks to its special design the air	wearing and clogging-free membrane	\rightarrow Low requirements for specific piping
	intake reduces fluid penetrating the pipeline system when the membrane	and integrated non-return valve → High operational reliability thanks to	thanks to installation of tube diffuser in pairs
	is not loaded	division into small aeration fields	
	→ Specific airflow rate generates higher air intake	High flexibility in the plant control system through the air intake's large	
	\rightarrow Low requirements for specific piping	control range	
	thanks to installation of plate diffus- ers in pairs		
Equipment/function	Compressed air generators input air	Compressed air generators input air	Compressed air generators input air into
	intake pipe. The pipepipesystem evenly	intake pipe. The pipepipesystem evenly	pipe. The pipepipesystem evenly distrib-
	distributes the supplied air to individual	distributes the supplied air to individual	utes the supplied air to individual diffus-
	free from coalescence via a sewage-	free from coalescence via a sewage-	from coalescence via a sewage-resistant
	resistant membrane.	resistant membrane.	membrane.
	ightarrow Connection down pipe	ightarrow Connection down pipe	ightarrow Connection down pipe
	Distribution pipe Diffusor pipeling	Distribution pipe Diffusor connection	Distribution pipe Diffusor pipeling
	 Connection drain pipe 	\rightarrow Membrane diffuser	\rightarrow Connection drain pipe
	→ Membrane diffuser	→ Support for pipeline system	\rightarrow Membrane diffuser
	→ Support for pipeline system → Consulting documents	Consulting documents	 Support for pipeline system Consulting documents
	ightarrow Consulting documents	-	→ Consulting documents



Volume flow <i>Q_{max}</i>	
Delivery head H _{max}	
Technical data	 → Drainage quantity: 200 1000 m³/h → Discharge pipe: DN 200 DN 300 → Drain pipe: DN 200 DN 400 Drainage quantities greater than 1000 m³/h upon request.
Special features	 → Effective and safe clear water removal to ensure the sewage is cleaned to a high quality → High process reliability owing to permanently installed system which is decoupled from the fluid → No contamination thanks to process- related cycling of the decanting process → Individually system-tailored design
Equipment/function	→ Discharge and drainage unit, joint, wal

bracket and supports ightarrow Electric winch

Service and support

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 partner ship: 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 can not 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
- \rightarrow Installation
- → Commissioning
- \rightarrow Individual and reliable maintenance concepts
- \rightarrow Optimisation and replacement
- → Competent repair service
- \rightarrow Fast spare parts supply
- → Extended warranty
- → Service packages

Service-Package S

Installation Commissioning Maintenance Basic WiloCare Basic Wilo-Live Assistant

Supervision
Energy Solutions
System Optimisation
Extended Warranty*
Repairs
Spare Parts

Service-Package M

Supervision Installation Commissioning Maintenance Comfort WiloCare Comfort Wilo-Live Assistant

Optional Add-ons

Energy Solutions
System Optimisation
Extended Warranty*
Repairs
Spare Parts

Service-Package L

Energy Solutions Supervision Installation Commissioning Maintenance Premium WiloCare Premium Wilo-Live Assistant

System Optimisation
Extended Warranty*
Repairs
Spare Parts

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

OUR TOOLS AND TRAINING: COMPREHENSIVE AND PRACTICE-ORIENTATED.

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

DESIGN AND SELECTION

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

Our services at a glance:

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


TRAINING AND SEMINARS

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

Our services at a glance:

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



50 SUSTAINABILITY & CLIMATE LEADERS

A RACE WE CAN WIN





Pioneering for You