

Pioneering for You

wilo

Information for consultants and contractors

The partner you can rely on
for tailored solutions in mining.





Wilo – Pioneering for You.

We are there for you worldwide.

Since 1872, we at Wilo have been turning visionary ideas into intelligent solutions that regularly set new standards in the industry. The goal of our company founder, Caspar Ludwig Opländer, was to use his *Kupfer- und Messing-warenfabrik* to improve and facilitate the supply of water to people. It was not long until the decisive step was made: In 1928, his son Wilhelm designed the world's first circulation accelerator.

We have continued this tradition ever since with pioneering innovations, such as the world's first high-efficiency pump in the heating, air-conditioning and cooling sector, and at the same time we have proven our commitment to using valuable resources such as energy and water responsibly. Today, with its headquarters in Dortmund, the Wilo Group is a complete system supplier of pumps and pumping systems for water management with worldwide presence.

Cooperative support on which you can rely on.

With over 7,500 employees and 60 production and sales companies all over the world, we personally see to it that the desires and requirements of our customers and users – whether specialist consultants, operators, or general contractors – are optimally met every day. This means making your life and work as easy as possible with the help of our products, solutions and services.

“Pioneering for You” is our commitment to a clear customer focus, strict quality orientation and strong passion for technology. In times of dwindling natural resources, the responsible management of water is an extremely important task, which is why we are committed to providing pioneering developments, sustainable product solutions, and cooperative support to ensure you can rely on our solutions for the daily management of water. That's what we call Pioneering for You.

Mining



Metal industry



Power industry



Food and beverage industry



Pune, India



Gimhae, South Korea



Beijing, China



Thomasville, USA



Hof, Germany

German Engineering for the highest standards.

Decentralised consulting, designing, development and production combined with global delivery. And all according to a central set of standards: German quality. This way, our specialists ensure a uniform standard of quality, from development right through to commissioning at your site. No matter where you need us: that's what we call Pioneering for You.

Top quality thanks to international quality management

Wilco focuses on excellent processing, perfection in every detail and lasting reliability in products. This commitment to the highest quality is evident in the approximately 20 patent applications we make each year, our internationally certified production sites

and our global range of services. Our employees around the world ensure Wilco's quality standards are met. See for yourself. Before we deliver any products, we put them through their paces in one of our test pits.



Production sites worldwide

- Dortmund, Germany
- Minden, Germany
- Oschersleben, Germany
- Hof, Germany
- Laval, France
- Pune, India
- Kolhapur, India
- Beijing, China
- Qinhuangdao, China
- Gimhae, South Korea
- Thomasville, USA



Testpits	Thomasville, USA	Hof, Germany	Pune, India	Beijing, China	Gimhae, South Korea
Volume flow	3.500 m ³ /h	20.000 m ³ /h	60.000 m ³ /h	23.400 m ³ /h	25.000 m ³ /h
Motor power	112 kW	1.600 kW	4.500 kW	2.000 kW	1.100 kW

Safety can be planned

with a wide range of solutions from Wilo.



Tailored solutions for your needs

As a system expert, we fulfil your needs with a comprehensive range of products and a wide variety of materials. All our pumps and systems offer maximum reliability, flexibility, efficiency and profitability.

But Wilo offers you much more than that: you will experience the full benefit of our services if you need individual support for important requirements from planning to delivery. With many years of experience and know-how, our specialists around the world can solve even the trickiest of tasks whether it's dimensioning, demand-oriented product configuration, or delivery – even over difficult terrain.

All units and components are documented in detail and, it goes without saying, you also receive any and all certificates necessary. You can rely on Wilo.



Wilo centrifugal pump, the mighty one

- High efficiency IE3 motor with standard IEC flange
- Complies with ErP Directive with MEI over 0.4
- Maximum reliability thanks to high quality materials and modular and robust design
- Extra compact and space-saving for easy installation and maintenance
- Vertical and horizontal designs available



Wilo submersible pump, the precise one

- High pump efficiency thanks to precision cast technology
- Resistant to corrosion due to stainless steel design
- Resistant to abrasion in case of increased sand content
- Broad performance range and universal application
- Easy maintenance and repair
- Standard material design stainless steel V4 A, stainless steel – duplex as option

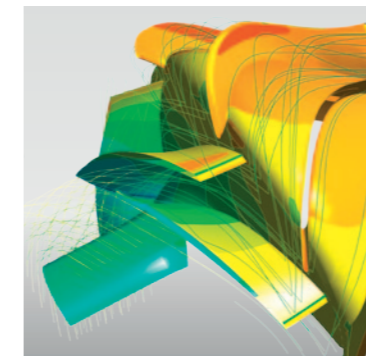


Wilo polder pump, the hard-wearing one

- Can be used in very low process water
- Easy installation on the ascending pipe
- Custom adaptation to duty point
- Standard-equipped with two mechanical seals for high operational reliability
- Wear-resistant design due to different material versions
- Optional Ceram CT coating increases efficiency

Simple visualisation of complex flow processes

Our Competence Center experts support you in your dimensioning with computer-aided calculation methods.



Ideal for your designing

With the selection software Wilo-Select you will find the right pump including product description, operating manual, tender texts and amortisation time.



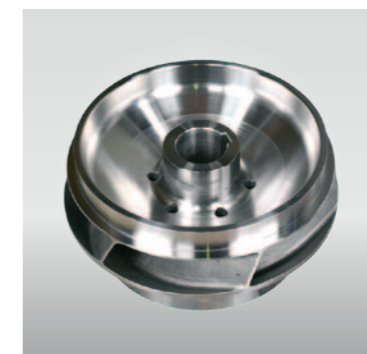
Reducing the costs of initial installation

Due to their internal active cooling, the CoolAct motors do not need an external cooling jacket. This reduces the motor diameter and the investment costs.



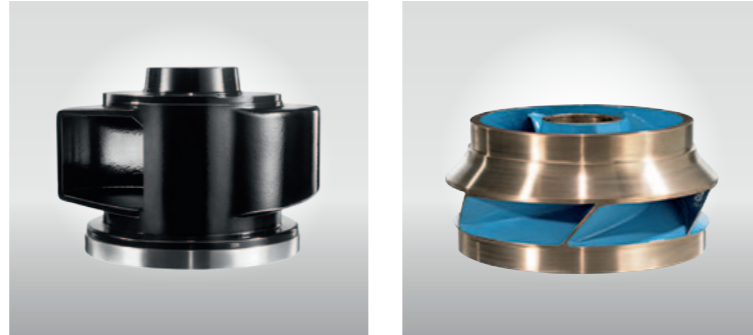
Outstanding service life

For demanding chemical and mechanical loads, we use special materials like Duplex, Super Duplex or nickel aluminium bronze.



The right materials used cost-effectively worldwide.

Using pumps underground poses special challenges, requiring maximum operational reliability and constant system availability. The unique Wilo coatings Ceram and Ceram CT ensure longer lifetimes and a marked increase in efficiency.



Ceram coating

Solvent-free, extremely abrasion-proof and corrosion-resistant coating for protection against aggressive fluids and wear.

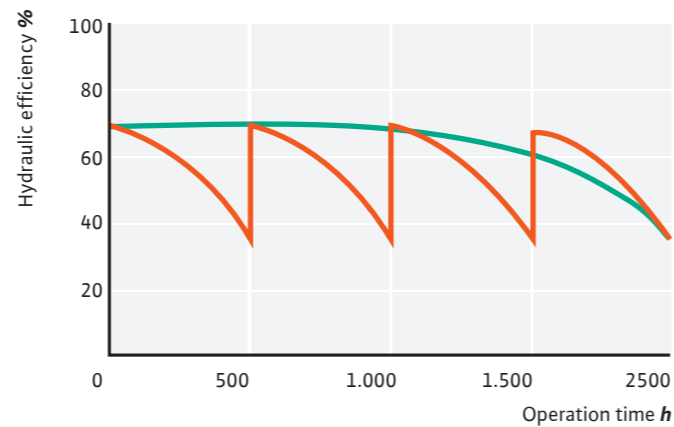
Ceram CT coating

For additional efficiency improvements and energy cost savings, in addition to optimum anti-clogging properties.

Highest efficiency due to optimised service life in a kaolin plant in Sweden

In a kaolin plant, the fluid is so abrasive due to the large amount of very small-grain sand that a cast-iron impeller already has to be replaced after 500 hours of operation (usual operating time about 100,000 h). In a test run over 15 months, four cast-iron impellers have to be replaced.

This causes investment expenses, efficiency loss and, in consequence, higher energy costs, plus standstill phases due to deinstallation of the old impeller and installation of the replacement. Simultaneously, a Ceram coated impeller is put to the same test. It can withstand the high mechanical load for a total operating time of 2,000 h. Comparing the overall costs shows that the investment costs for a Ceram coating are less than 11% higher and thus negligible, even more so as they are amortised within 500 operating hours.



- The impeller with Ceram coating will be replaced after 2,000 hrs only – and that with relatively stable efficiency course.
- The cast iron impeller must be already replaced after 500 hrs.



Metallurgy, Kazakhstan



Coal mining Maharashtra, India



Metallurgy Trekkopje, Namibia



Coal mining Chattisgarh, India



Coal-tip irrigation, Germany



Copper mine, Mufulira, Zambia



Mineral mines, Peru



Coal mining, Hail Creek, Australia



Open pit mine, Kolubara, Serbia



Worldwide service guaranteed wherever and whenever you need Wilo.

Greater operational reliability thanks to efficient technology and reliable service

Operational reliability is crucial in mining. Depending on the installation situation and the cause of the error, any repairs necessary are made to the system on site or at a Wilo factory site. After the repair work is complete, there is a test run and everything is documented in a comprehensive service report. Wilo spare parts provide the highest quality and are available quickly in an emergency. Our international structure means that we're available on site almost anywhere. Whenever you need us, we can help quickly and in person in any phase of project planning, even years after initial commissioning. Make the most of the range of services that we can provide almost anywhere in the world.

Initial commissioning together with experts from the manufacturer

Having specialists from Wilo commission your system puts your mind at ease right from the start. All installation work is carried out using the latest technology and with strict adherence to all the necessary formalities. The results of the subsequent functional inspections and test runs are documented for you in detail.

Practical user training provides know-how for everyday use

With our individualised on-site training or in one of our Wilo Academies we will prepare your employees for daily operations and reliable supervision of new pumps and systems.

Thoroughly examining each detail in the regular system check

Regular maintenance of the pumps in the system often prevents unnecessary costs for expensive repairs or even standstill. Functional checks carried out by professionals identify faults and wear in good time. In addition, regular inspections ensure optimum energy use, increase operational reliability and overall convenience, and lengthen the system's service life.



The advantages for you: Wilo Service worldwide

- more than 1500 Wilo technicians
- available in more than 60 countries
- customer driven solutions
- excellent supply performance
- fast and in best quality



Our pumps are installed and fully connected by qualified construction personnel with many years of experience.

Customised solutions

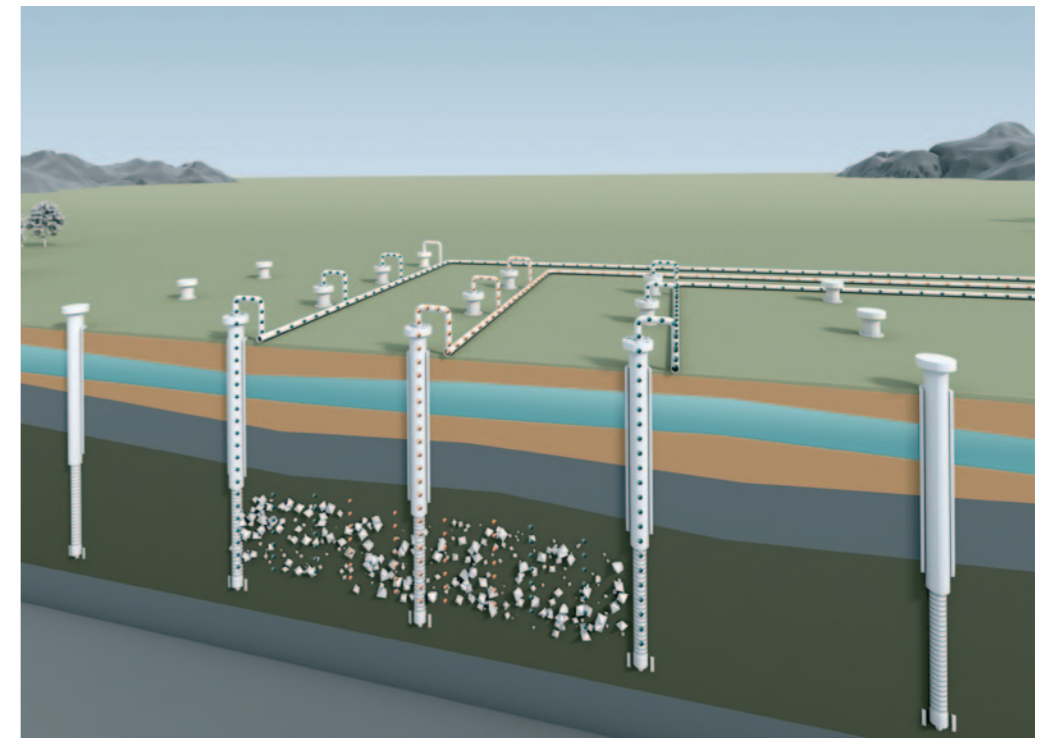
an optimal system for each application.



- 1 Raw Water Intake
- 2 Water Treatment
- 3 Leaching Processing
- 4 In-situ Leaching Mining
- 5 Wastewater Treatment
- 6 Underground Dewatering/Drainage
- 7 Open Pit Drainage
- 8 Dust Suppression
- 9 Settlement Pond
- 10 Dewatering

In-situ leaching

We offer a wide range of submersible pumps from the Wilo-Sub TWI product series for use in this process. Made of stainless steel, these multistage pumps are particularly suited to challenging requirements. They can be used either in a vertical or horizontal installation. The integrated non-return valve guarantees maximum safety. The pumps are especially easy to maintain thanks to their rapid installation and dismantling.



Product solutions for mining applications

thanks to excellent technology from Wilo.



Product range	Submersible pumps	Submersible pumps	Sectional pumps	Axially split case pumps	Standard glanded pumps	Submersible pump	Submersible sewage pumps
Series	Wilo-EMU polder pumps	Wilo-Sub TWI 4- 10 ... Wilo-EMU 6"-24"	Serie RN, HS, IPB, PJ, STD PLURO, FG/FH	Wilo-SCP	Wilo-CronoNorm NL/NLG, Wilo-VeroNorm-NPG	Series Norma V	Wilo-EMU FA 30 ... to FA 60 ...
Design	Polder pump	Submersible pump	Multistage high-pressure centrifugal pump in sectional construction, mounted on baseplate	Low-pressure centrifugal pump with axially split housing mounted on a baseplate	Single-stage low-pressure centrifugal pump with axial suction, according to EN 733, mounted on a baseplate	Single-stage submersible pump with pump hydraulics as per EN 733	Submersible sewage pump with glanded motors or self-cooling motors
Application	1 3 6 7 10	1 2 3 4 10	1 3 6 7 10	1 3 5 6 7	1 3 6 7	3 5 6 7 8 9 10	3 5 6 7 8 9 10
Volume flow Q max.	1,200 m³/h	2,400 m³/h	1,000 m³/h	3,400 m³/h	3,000 m³/h	200 m³/h	7,950 m³/h
Delivery head H max.	160 m	560 m	1.800 m	245 m	140 m	100 m	87 m



Product range	Submersible mixers	Submersible drainage pumps	Pedestal pumps	Vertical, multistage centrifugal pumps	Vertical turbine pumps	Pressure boosting system for fire fighting	Control devices
Series	Wilo-Sevio MIX DM 50-2	Wilo-EMU KS	Wilo-Drain VC	Wilo-Helix EXCEL	Serie VMF, CNE, VAF	Wilo-SiFire EN	Wilo-Control
Design	Submersible mixer with single-stage planetary gear	Submersible drainage pumps in rugged design for use on building sites	Vertical drainage pumps	Non-self-priming, highly efficient, fully stainless steel, high-pressure multistage centrifugal pump with EC motor in vertical design with integrated high-efficiency drive and in-line connections	Vertical turbine pumps for dry well installation with submerged axial or semi-axial hydraulics	Designed specifically for sprinkler systems, with 1 or 2 base plate pumps equipped with electrical or diesel motors, and fully compatible with EN 12845	Wilo-Control products for the connection of pumps to building or process automation. Switch gears for controlling one or more pumps with or without integrated variable speed control.
Application	3 5 9	6 7 9 10	6 7 9 10	1 2 3	1 7 10		
Volume flow Q max.	Thrust: 1010 N	340 m³/h	14 m³/h	800 m³/h	40.000 m³/h	750 m³/h	
Delivery head H max.		71 m	20 m	160 m	450 m	130 m	

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