

Pioneering for You

wilo

Product information

Wilo-Actun ZETOS.

Your universal raw water intake solutions.



Wilo, your partner.

Solutions you can rely on at all times.

Our promise to you.

The Wilo Group is one of the world's leading premium suppliers of pumps and pump systems for building services, water management and the industrial sector.

In the last decade, we have evolved from a hidden to a visible and connected champion. Wilo employs around 8,200 people around the globe today.

With innovative solutions, smart products and individual services, we provide the intelligent, efficient and environmentally-friendly service of keeping water flowing. On top of this, with our sustainability strategy and together with our partners, we're making an important contribution to climate action. We are consistently driving forward the digital transformation of the Wilo Group. We are already the digital pioneer within the industry with our products and solutions, processes and business models.

Sustainably better for you.

One of the most pressing tasks in times of limited natural resources is the responsible use of water, which is becoming increasingly scarce. Efficiency, connectivity and safety will be more important than ever in the future.

We aspire to offer you sustainable, user-friendly 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 meet their requirements and are rounded off with convenient services. In this way, we provide holistic solutions that you can rely on at all times.



More is more: in-depth digital content

Our added bonus for you: images featuring the AR symbol in this brochure can be scanned for more information using the Wilo-Assistant app AR scanner. Simply scan the corresponding photo with your smartphone camera to find out more about our products and solutions.

1



Download the
Wilo-Assistant app.

2



Launch the Wilo-Assistant app, tap
on the AR logo and scan the content
with your smartphone camera.

For responsible water use.

Efficient water supply with Wilo.

Climate change demands more flexibility.

Climate change demands ever more flexibility. Climate change, urbanisation, globalisation and the ensuing scarcity of important resources such as water and energy call for new approaches and innovative solutions to ensure fast and uninterrupted supply for the world's growing population. It calls for reliable products with exceptional energy efficiency.

To make raw water intake efficient and cost effective, Wilo has developed innovative solutions – such as the Wilo-Actun ZETOS, which has been designed to be universally deployable and can be used in applications from municipal water supply to agriculture and the mining industry. The high efficiency level and the robust, precision-cast material make it suitable for a wide range of fluids and processes of all kinds. Its pressure shroud enables dry well installation as well.

The Wilo solution.

The pump can be configured to each application and features outstanding hydraulic efficiency. If operated with a permanent magnet motor, the combination of highly efficient hydraulics and a high-efficiency motor enables the pumping of water with minimal energy input. As such, the Wilo-Actun ZETOS provides great cost savings. The reduction in operating costs means that the amortisation period is reduced to a minimum – sometimes to less than two years.

Fields of application:

- 1 Raw water intake
- 2 Water distribution and boosting
- 3 Water treatment
- 4 Professional irrigation and agriculture
- 5 Industry/Offshore
- 6 Mining/Drainage



Meet Wilo-Actun ZETOS.

Excellent energy efficiency you can rely on.

What makes the Wilo-Actun ZETOS stand out?

The Wilo-Actun ZETOS hydraulics are made entirely of stainless steel investment casting. It has a high wear resistance and is suitable for pumping water with sand content of up to 150 g/m³. The particularly corrosion-resistant 1.4408 stainless steel even enables operation in salt water.

This makes it particularly robust and suited to demanding applications. Excellent energy efficiency is achieved with permanent magnet motors specially selected for the pump's hydraulics.

The benefits at a glance:

- A pump efficiency of up to 86 percent allows for energy-efficient water supply.
- Highest overall efficiency in its class with a permanent magnet motor for cost-efficient operation.
- High reliability as a result of the particularly corrosion-resistant hydraulics made completely of 1.4408 (AISI 316) stainless steel investment casting.
- High wear resistance:
Max. sand content up to 150 g/m³.
- ACS approval for use with drinking water.
- Straightforward maintenance, easy installation and dismantling.



Scan this QR code with your smartphone to find out more about Wilo-Actun ZETOS products.



Wilo-Actun
ZETOS-K8

Wilo-Actun
ZETOS-K10

Wilo-Actun
ZETOS-K12

Multistage hydraulics make it possible.

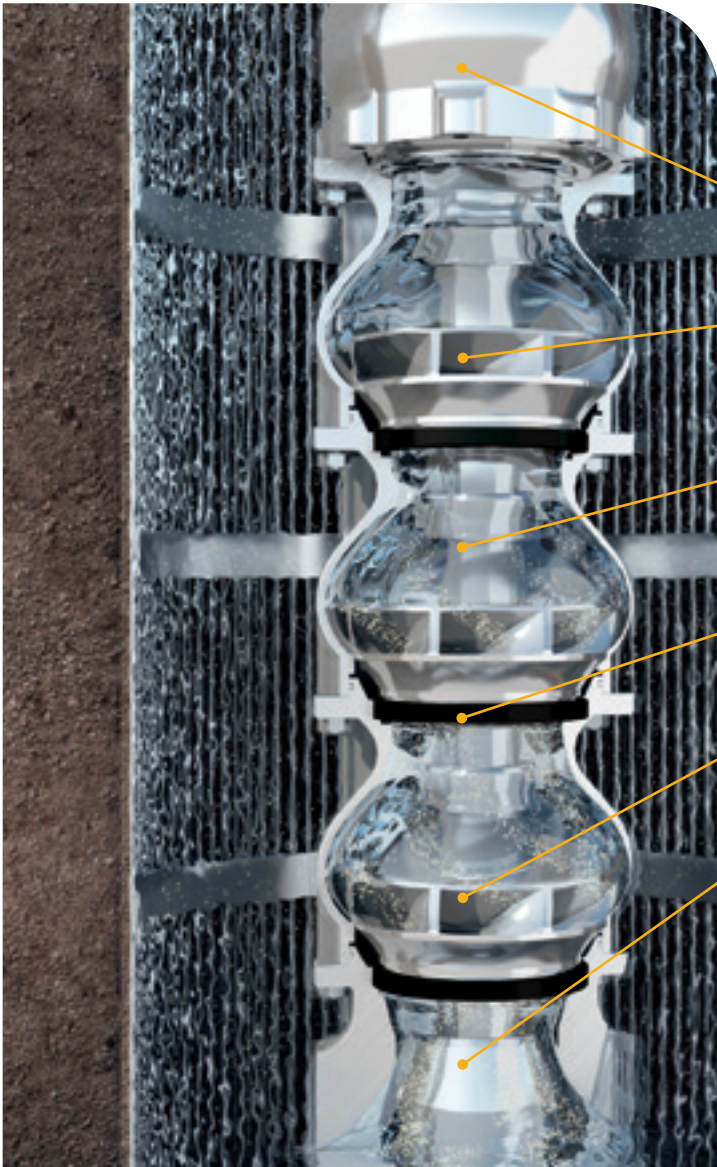
High reliability and smooth operation.

The benefits of the hydraulics.

Wilo-Actun ZETOS features multistage hydraulics with semi-axial impellers. The housing parts are made of stainless steel investment casting. An optimised impeller design with a cast balancing material ensures especially smooth operation. The discharge port can optionally be equipped with an integrated non-return valve.

Technical data for the hydraulics:

- Max. volume flow: 775 m³/h
- Max. delivery head: 640 m
- Max. fluid temperature: 70 °C
- Max. sand content: up to 150 g/m³
- Discharge port optionally threaded or flange connection



With or without integrated non-return valve.

Particularly corrosion-resistant hydraulics made completely of stainless steel investment casting ensure high reliability.

Multistage hydraulics with semi-axial impellers and maximum efficiency.

Neck rings made of EPDM (-K8 and -K10) or stainless steel (-K12) for a long service life

Balancing material cast onto the impeller for an exceptionally smooth operation.

NEMA/EMU connection for freely configurable motors.



Reliability in all areas.

High-performance motors for every application.

Wide variety of configuration options.

The multiple stages and impellers trimmed to the duty point allow you to configure the Wilo-Actun ZETOS to your needs and to achieve maximum sustainability. These benefits are also apparent when it comes to submersible motors. The high-performance drives can be perfectly aligned to the needs of each field of application. The Wilo-Actun ZETOS is available in an encapsulated version for high thermal loads, as a rewindable model for a wide range of configuration options, and in a highly efficient version with a permanent magnet motor.

Design			
	Permanent magnet motor	Rewindable	Encapsulated
Size	6-8"	6-16"	6-8"
Power	7.5 – 150 kW	5.5-580 kW	5.5-150 kW
Efficiency	90-94%	83-91%	75-88%
Product benefits	<ul style="list-style-type: none"> → Maximum efficiency → Outstanding performance in the partial load range 	<ul style="list-style-type: none"> → Repairable → Wide range of options 	<ul style="list-style-type: none"> → Highest insulation class → High temperature resistance → High power density

Innovative CoolAct generation motor.

9", 12" and 16" rewindable motors with internal active cooling.

With a constantly driven impeller on the motor shaft, the cooling fluid is conducted directly through the bearing and winding. This allows the waste heat to be optimally absorbed and passed on to the circulating fluid via the outer motor jacket in a targeted way. This innovative technology allows a much higher energy density to be achieved while simultaneously reducing operating temperatures. The small installation diameter also reduces the investment and construction costs of wells and water pumping systems.

Benefits:

- Performance increase of up to 25 percent
- Active internal cooling
- Higher delivery rates in small well diameters
- No external cooling jacket required

Technical data:

- Vertical and partially horizontal installation possible
- Variety of models in different materials
- Warm water version for temperatures up to 70 °C.
- Voltage of 200 to 1000 V; 50/60 Hz



Innovative coatings.

The latest technology for economical operation.

Ceram CP coating.

For a longer service life and lower maintenance costs.

Our innovative Ceram CP coating with a perfluoroalkoxy and polytetrafluoroethylene (PTFE) base protects your Wilo-Actun ZETOS against ochre formation for a longer service life so you can benefit from lower maintenance costs.

The benefits of CP coating at a glance:

- Outstanding non-stick properties prevent deposits from building up on the pump
- Longer service life and lower maintenance costs
- Good chemical resistance
- Physiologically harmless
- FDA-approved

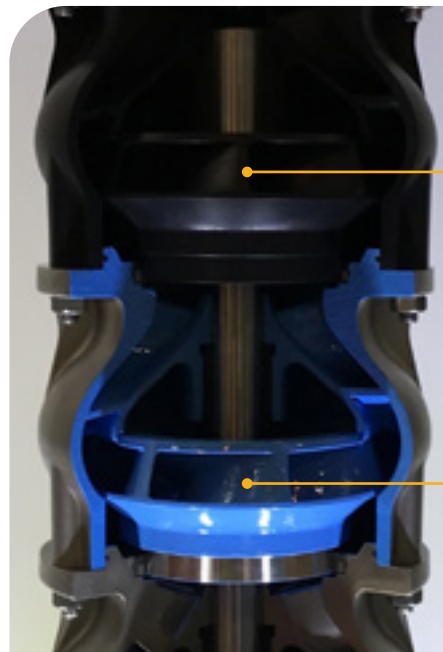
Ceram CT coating.

For higher efficiency and lower operating costs.

The Ceram CT coating increases the efficiency of the Wilo-Actun ZETOS, thus significantly reducing energy costs and, in turn, the overall life cycle costs. This coating is suitable for drinking water and was specifically conceived for borehole technology applications. It is applied to the impeller blades and to the inner contour and the inside of the stage housing. The low surface roughness of the special coating increases the pump's efficiency by up to two percent. The Ceram CT coating has UBA and ACS approval for use in drinking water applications. It is possible to add the coating later in the life cycle of the pump.

The benefits of CT coating at a glance:

- Very short amortisation period
- Highly resistant to abrasion
- ACS approval
- UBA approval



Less ochre formation
The Ceram CP coating reduces ochre formation for a longer service life and low maintenance costs

Lower flow losses
The Ceram CT coating allows for up to 2% higher pump efficiency

Count on maximum economy.

Cost efficiency analysis for Wilo-Actun ZETOS-K8.

Extremely effective, highly economical.

Choose the Wilo-Actun ZETOS for a variable system solution that sets energy efficiency standards for submersible pumps. This is made possible by its ideal combination of innovative motors and sophisticated hydraulics. You'll benefit from impressively low energy costs alongside an effective water supply with a continually optimised duty point configuration. The life cycle cost accounting demonstrates the pump's impressive cost effectiveness.

Pump			
	Wilo-EMU NK 86-4 NU 611-2/34	Wilo-Actun ZETOS -K8.70-4 / NU611-2/26	Wilo-Actun ZETOS -K8.70-4 / NU612-4/26
Motor	Asynchronous	Asynchronous	Permanent magnet motor
Running time h per day/year	24/10	24/10	24/10
Calculation of energy cost savings			
Motor efficiency %	81.5	81.3	92.2
Pump efficiency %	71.5	83.8	83.8
Total efficiency %	58.3	68.1	75.3
Annual energy costs €	73,832	63,404	57,140
Annual energy savings in €*		10,428	16,692

*Load profile: "full load operation" (24 hr/day), electricity price: €0.30,
assumed annual electricity price increase 5%, period under review 10 years

Save up to
16,000 euros



Optimal water supply and energy efficiency.

Wilo-Actun ZETOS-K8 in the Bad Überkingen waterworks.

Since 1990, the Bad Überkingen waterworks has supplied around 825 households, numerous agricultural businesses and a golf course with around 268,000 cubic metres of water annually.

After 30 years in operation, the efficiency of the high-pressure multistage centrifugal pumps in sectional construction originally installed in the waterworks was steadily decreasing. The old machinery was replaced with two Wilo-Actun ZETOS-K8.50-15 and two Wilo-Sub TWI 6.30 pumps. The pressure shroud pumps now ensure the safe and efficient transport of potable water to the elevated tanks – with a delivery head of up to 335 metres.

The compact design of the pumps enables a highly space-saving, simple and therefore cost-effective installation. The submersible motors are encased in a pressure shroud, allowing the units to be integrated into the existing system through a horizontal dry well installation. In addition to this, the Wilo pressure shroud pumps are also flood-proof.

With an overall efficiency of up to 76 percent, the good hydraulics and built-in permanent magnet motors with a control and speed regulation system, energy savings of up to 100,000 kilowatt hours per year are possible. The low-maintenance operation also leads to additional cost savings for the operator.

Built-in products

2x Wilo-Actun ZETOS-K8.50-15 + NU 711/-4/100 motor
Flow rate $Q = 15.3 \text{ l/s}$
Delivery head $H = 333.9 \text{ mWG}$

2x Wilo-Sub TWI 6.30-35 + NU 611T-2/30 motor
Flow rate $Q = 5 \text{ l/s}$
Delivery head $H = 329.3 \text{ mWG}$



The solution for every application.

More Wilo solutions from our portfolio.



Wilo-EFC: Variable speed control allows for energy-efficient adjustment to changing operating conditions

The benefits at a glance:

- User-friendly operation assistant enables quick and efficient commissioning.
- High efficiency of up to 98 percent allows for a compact design and great energy efficiency
- A cost-effective solution that only requires minimal cooling.
- Comprehensive coverage of pump applications provided by adjustable control modes.
- Flexible connectivity with optional connection to a variety of bus systems.



Wilo-EMU 12..14..24"

The benefits at a glance:

- Hydraulics adapted to the duty point enable energy-efficient operation
- Individually configurable motors and materials to ensure reliable operation in all applications.
- Drinking water versions with ACS approval.
- Motors with sheath flow cooling (CoolAct technology) for greater power density.
- Rewindable motors with easy maintenance.
- Application as a pressure-boosting system in the pressure shroud.



Wilo-Sub TWI

The benefits at a glance:

- Corrosion-resistant stainless steel for a long service life (optionally in V4A quality).
- Individually configurable motors and materials for reliable operation in all types of application.
- Drinking water versions with ACS approval.
- 4", 6", 8" and 10" models for a high degree of flexibility.
- Volume flow range from 1 to 250 m³/h.

Bespoke service.

Your very own full-service package.

With Wilo as your partner you can be sure not only of choosing high-quality product solutions, but also of benefiting from a comprehensive, carefree package of individual service offers. That means reliable support from Wilo at every phase of your project – from design and configuration right through to commissioning and maintenance.

We don't want you to choose any old solution. We want you to find the one that meets your exact requirements. For this reason, we will discuss your requirements with you before any purchase and develop the most economical, individual product solution for you based on your information.

BEFORE YOUR PURCHASE

We make the design and selection process simple for you.

- Local support
- Consulting support
- Product selection
- Select programmes
- Pipe calculation
- Installation drawings
- Documentation

DURING YOUR PURCHASE

Get your purchase right with Wilo.

- Certification
- Acceptance testing at the factory
- Configuration
- Commissioning
- Start-up

AFTER YOUR PURCHASE

We are here for you – Even after your purchase.

- Extensive testing and training period with qualified plant engineers
- Customised, reliable maintenance plans
- Rapid repair service in 60 countries
- Quick, customer-focused spare part solutions
- Efficiency check
- Specialised training courses



WiloCare Our comprehensive full-service package

Our service offer for guaranteed operational reliability and cost certainty at a fixed monthly rate. Monthly reports keep you up to date on how your system is doing: system status, energy consumption, possible optimisations and pending maintenance intervals.



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