

INTELLIGENT PUMP SOLUTIONS **ON DEMAND**

DEMAND MORE

DEMAND **GRUNDFOS iSOLUTIONS**



be
think
innovate

GRUNDFOS 

YOUR DEMANDS, OUR ANSWER: — A NEW LEVEL OF PERFORMANCE

INCREASING DEMANDS FOR BETTER PERFORMANCE, RELIABILITY AND ENERGY EFFICIENCY, REQUIRES A NEW APPROACH TO PUMP OPTIMISATION

The key is better system control and design. We must move away from conventional component thinking and instead apply a system approach based on intelligently controlled pump operation that delivers on your demands.

PUSH THE LIMITS

As the innovative frontrunner, Grundfos constantly challenges convention, demands more and pushes the limits of pump engineering. The vast majority of pumps installed today do not perform optimally and waste money. We want to fight back. With state-of-the-art pump intelligence we are raising the bar to do just that. Based on intelligent technology we offer a new level of pump performance to fulfil your requirements optimally. Our intelligent solutions also lead to lower failure rates and reduced downtime with perfect integration and control. Meaning you get a pump solution that is developed exactly for its purpose, based on your demands.

Demand more from Grundfos. Join the fight for intelligent pump solutions



JOIN THE FIGHT FOR INTELLIGENT PUMP SOLUTIONS

The fight for intelligence means demanding more from Grundfos, so that together we can push the limits of pump engineering. These are the demands we believe the pump industry should live up to:

- ▶ **DEMAND**
PIONEERING ELECTRONICS FOR AUTOMATIC CONTROL
- ▶ **DEMAND**
TOTAL ADAPTABILITY THROUGH SENSOR MEASUREMENT
- ▶ **DEMAND**
TOTAL ENERGY EFFICIENCY FOR ULTIMATE SAVINGS
- ▶ **DEMAND**
OPTIMAL CO-OPERATION
- ▶ **DEMAND**
EASY CONNECTIVITY FOR FULL PROCESS MANAGEMENT
- ▶ **DEMAND**
A DEDICATED PUMP SYSTEM SUPPLIER



To stay at the forefront of world-class pump solutions, Grundfos is driven by your needs. We want to hear your demands regarding modern pump solutions, so join the conversation at www.facebook.com/GrundfosEngineering

THE FRONT LINE OF SYSTEM CONTROL

OUR ANSWER TO BETTER SYSTEM CONTROL AND DESIGN IS GRUNDFOS iSOLUTIONS

Grundfos iSOLUTIONS is a holistic system approach with components that adapt to requirements in all application areas. By deploying Grundfos iSOLUTIONS we deliver optimal performance, energy efficiency and ultimate reliability.

INTELLIGENT WEAPONS FOR EFFICIENT PERFORMANCE

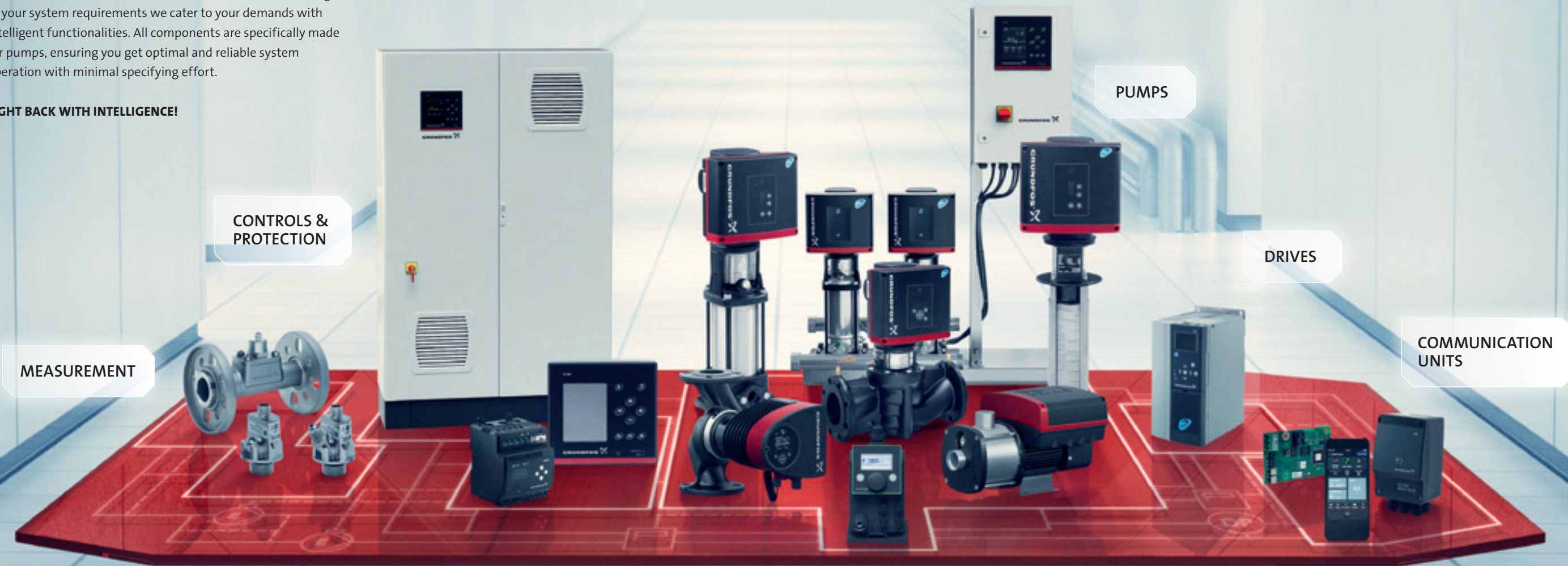
Our latest integrated pump solutions and flexible modular systems include pumps, drives, controls and protection, and measurement and communication units. Combined according to your system requirements we cater to your demands with intelligent functionalities. All components are specifically made for pumps, ensuring you get optimal and reliable system operation with minimal specifying effort.

FIGHT BACK WITH INTELLIGENCE!



GRUNDFOS SERVICE & SOLUTIONS

Grundfos Service & Solutions covers all your service needs throughout the entire lifecycle of your system – from selection and installation, commissioning to operation and replacement. Our sales and service teams will be there for you when you need us with professional service and solutions on your demand.



CONTROLS & PROTECTION

MEASUREMENT

PUMPS

DRIVES

COMMUNICATION UNITS

INTELLIGENCE STARTS FROM WITHIN

DEMAND PIONEERING ELECTRONICS FOR AUTOMATIC CONTROL

The mastery of advanced electronics creates supreme control of Grundfos iSOLUTIONS and is the gateway to optimal performance.

CUSTOMISED ELECTRONIC INTELLIGENCE

Our variable frequency drives (VFDs), combined with our pumps perform based on the load profile and operational parameters of your system. This dramatically reduces stress on the pump system and conserves energy.

The modular approach to Grundfos iSOLUTIONS ensures an exact match between system demands and applied electronic components. In addition, excellent system compatibility and intelligent control modes means Grundfos iSOLUTIONS will integrate seamlessly with all industry standard applications.

NEXT GENERATION ELECTRONIC CONTROL

Building on the unique technology and integrated VFDs of the Grundfos motor (MGE), the next generation motor, the new MGE, has optional intelligent functionalities including:

- ▶ Multi-pump function: Can run two pumps, one on duty, one on standby, or, one on duty and the other supporting
- ▶ Pipe filling: Without the risk of water hammer

The new MGE is specifically designed for pump operation and optimised speed control. It delivers outstanding energy efficiency that even exceeds the projected IE4 efficiency level in IEC60034-30-1 Ed. 1 (CD). It is now installed as standard in integrated solutions such as the in-line pump TPE and multi-stage pumps like the CRE.

So with integrated Grundfos iSOLUTIONS our latest electronic intelligence comes to you at no extra cost. The new MGE is currently available for solutions up to 2.2 kW. For Grundfos iSOLUTIONS catering to larger dimensions between 2.2 and 45 kW we also offer the option of IE4 standard motor technology from Siemens, completing our comprehensive offering.



INSTANT REACTION WITH PATENTED GRUNDFOS SENSORS

DEMAND TOTAL ADAPTABILITY THROUGH SENSOR MEASUREMENT

A high performance pump needs to adapt according to changes in flow, temperature and pressure. With Grundfos iSOLUTIONS we can offer robust sensors designed to achieve precise transmission of system data in multiple applications. Intuitive adaptability through intelligent sensors guarantees continual, reliable operation.

THE KEY TO INTELLIGENT ADAPTABILITY

With Grundfos sensors you can anticipate problems in your system before they occur.

Our sensors are made with patented Silicoat® technology ensuring the sensing element can be in direct contact with the media in your system 24/7. This guarantees the fastest response to variations and any subsequent changes needed in the system.

Grundfos iSOLUTIONS also incorporate integrated sensors, ideal for system builders who want an affordable solution with reliable flow and differential/relative pressure measurement in their solutions.

SENSORS THAT KEEP ADAPTING



DPI/DPI+T

With the DPI/DPI+T, you benefit from reliable differential pressure measurement with a unique direct sensor. It can be delivered as a combined differential pressure and temperature sensor.



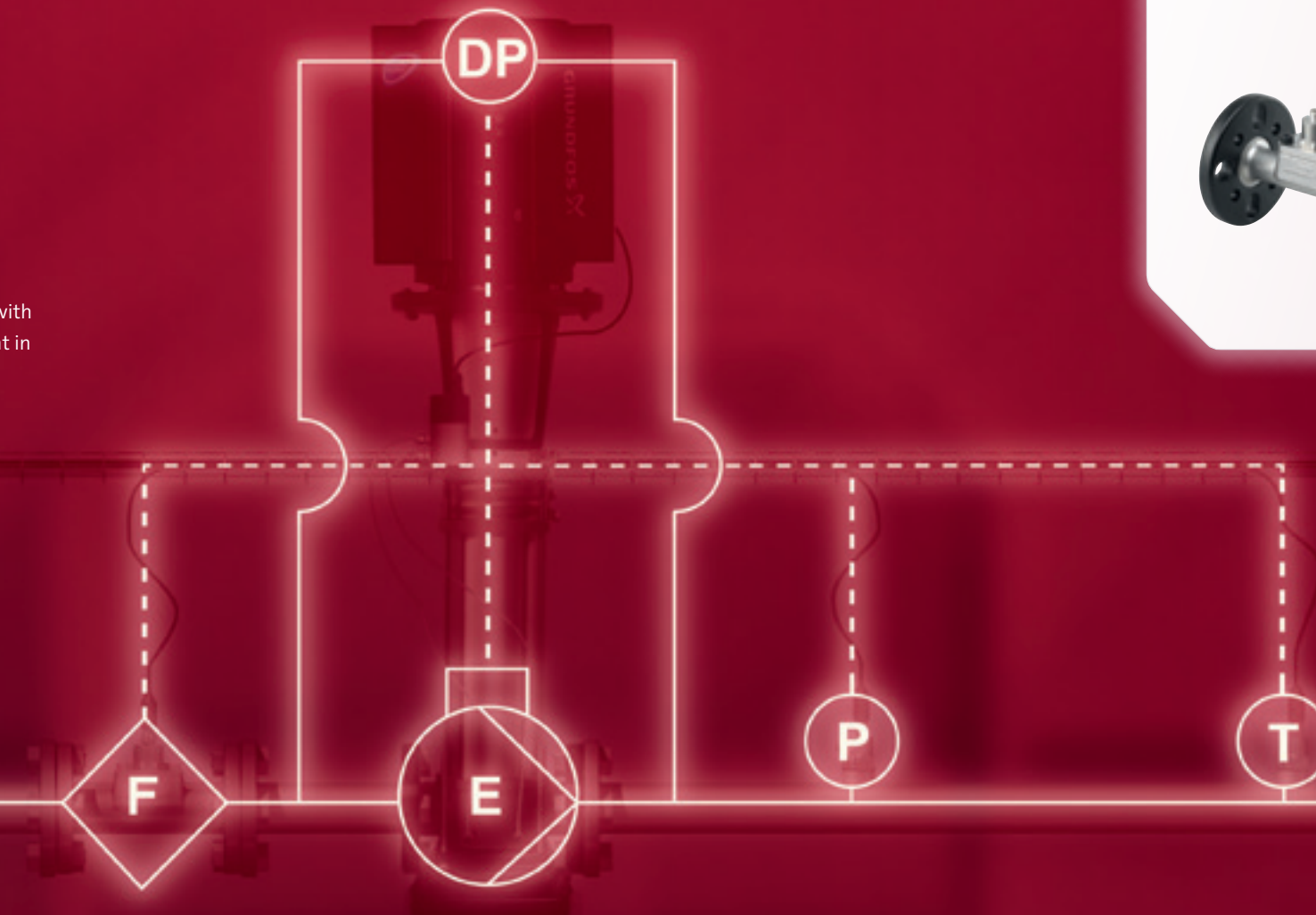
RPI/RPI+T

This pressure sensor efficiently combines pressure and temperature measurement in just one sensor. Transforming the pressure and temperature of the media into electrical signals, the sensor offers very accurate measurement in almost any liquid.



FLOW (VFI)

The flow sensor successfully combines the established vortex principle with patented Silicoat® technology. The result is an affordable and accurate direct flow sensor designed for reliable operation in aggressive media.



SYSTEMATIC EFFICIENCY AT ITS BEST

DEMAND ENERGY EFFICIENCY FOR ULTIMATE SAVINGS

Efficiency through innovation is in our DNA at Grundfos. With Grundfos iSOLUTIONS we bring a new intelligent standard to speed control that adapts to system requirement – creating efficiency intuitively.

Up to 85% of a pump's life cycle costs are attributed to energy consumption. Applying efficient Grundfos iSOLUTIONS can yield huge savings, with a considerable return on investment. Moreover, the range of intelligent control modes and built-in measurement features in several of our pumps lead to a reduction of system components – saving both money and time when specifying.



“ I DEMAND MORE
ENERGY EFFICIENT
PERFORMANCE ”



GRUNDFOS BLUEFLUX® – GUARANTEED ‘BEST-IN-CLASS’ MOTOR EFFICIENCY

The Grundfos Blueflux® label is your guarantee of the most energy efficient motor from Grundfos. Our latest range of motors (available up to 2.2 kW) even outperforms the projected IE4 efficiency level in IEC60034-30-1 Ed. 1 (CD). For larger dimensions between 2.2 and 45 kW, Grundfos iSOLUTIONS offer IE4 standard motor technology from Siemens as an option completing our comprehensive motor offering. All will carry the Grundfos Blueflux® ≥ IE4 label.

GRUNDFOS AUTOADAPT – SELF-SETTING FOR MINIMAL ENERGY USE

The unique Grundfos AUTOADAPT function ensures correct configuration of the system for maximum efficiency. The pump continually and automatically analyses variations in system requirements and then adjusts the performance accordingly, maximising the overall system efficiency.

INSIDER INTELLIGENCE

GRUNDFOS iSOLUTIONS IS DRIVEN BY THE DEMANDS OF YOU, THE CUSTOMER

We constantly push the limits of what is possible, but can only do this with your input. By staying close and listening to your demands for intelligent pump solutions, we will keep Grundfos iSOLUTIONS at the forefront of innovation.

SHARE YOUR DEMANDS

To keep our development in line with the latest customer challenges and requirements we have set up a social forum for you to exchange knowledge and share experiences in pump technology. Here we will also keep you updated with the latest information on Grundfos iSOLUTIONS products and technologies.



DELIVERING ON DEMAND

DEMAND OPTIMAL CO-OPERATION

With the holistic approach of Grundfos iSOLUTIONS we can offer a new standard in flexibility and integration meaning you benefit from the best possible pump systems.

Whether a flexible system, or an integrated solution, it is the co-operation between Grundfos and the customer that completes Grundfos iSOLUTIONS. In this way we deliver on your demands, designing a system tailored to your needs.

We have been developing electronic pumps as pioneers in the field over the last 40 years. Creating today's most innovative pump solutions and the components that go into them, is what all our engineering expertise centres on. Quite simply, your pump solutions are our DNA.

So now, with Grundfos iSOLUTIONS, specifying and designing your pump system has never been easier, as built-in system components and functionalities have made various components obsolete. In short, this means you get the most reliable and high performing pump system solution on the market.



24/7 PROJECT ASSISTANCE

With 200,000 unique site-visits per month, Grundfos CAPS is the ultimate online tool to assist you in achieving the right products for your system needs. Accessed via your PC or through Grundfos GO (our mobile platform for pump system communication and information via your smart phone), the user-friendly interface gives access to the latest product literature and CAD drawings. It also provides detailed service videos and a tool for sizing pumps. With a unique overview tool Grundfos CAPS offers assistance throughout your entire installation project. Furthermore, the replacement tool shows you the benefit of Grundfos iSOLUTIONS in comparison with current installations.



FULL ACCESS IN THE PALM OF YOUR HAND

DEMAND EASY CONNECTIVITY FOR FULL PROCESS MANAGEMENT

Seamless connectivity relays the intelligence of Grundfos iSOLUTIONS. With a comprehensive range of communication offerings for both system integration and remote management, the user gets control and monitoring solutions that minimise time spent on data collection and maintenance.

FULL ACCESS WITH YOUR SMARTPHONE

A mobile toolbox for professional users on the go, Grundfos GO is the most comprehensive mobile platform on the market. The access to live pump performance data means refurbishment is based on accurate real-time measurements. Grundfos GO further allows you to size, select, and compare products through access to the full range of Grundfos online tools. This way you can always be sure to recommend the optimal and most efficient solution for your customers' needs.

“ I DEMAND MORE
ACCESS TO VALUABLE
SYSTEM DATA ”



COMPLETE CONTROL WITH GRUNDFOS iSOLUTIONS

Grundfos iSOLUTIONS provide user interfaces for all application areas offering you complete control for your system. The CIM/CIU control module and unit enable optimisation of energy use by processing data from a number of sources. They enable connection to standard fieldbus networks, minimising time spent on reporting and data collection and are compatible with any SCADA, PLC and BMS system. The application of Industrial Ethernet creates further optimal communication and control through open protocols.



DOWNLOAD GRUNDFOS GO



ALL-ROUND RELIABILITY – FROM CONCEPT TO IMPLEMENTATION

DEMAND A DEDICATED PUMP SYSTEM SUPPLIER

Grundfos is a full-line pump supplier, with hundreds of engineers dedicated to ongoing research and development. This has progressed and evolved over the last 65 years in multiple fields.

All components and functionalities of Grundfos iSOLUTIONS are designed specifically for pump operation, creating the highest possible reliability within your pump systems.

Our responsibility extends to the entire production of Grundfos iSOLUTIONS, meaning you need just one supplier to ensure reliable operations. Grundfos iSOLUTIONS is your guarantee for a system tailored to the task at hand leading to energy efficient operation, less downtime and failure rates, and easier specifying.

GLOBAL INTELLIGENCE

Represented globally by over 80 companies in more than 55 countries. Grundfos guarantees flawless sales and service offerings.

IN OVER
55
COUNTRIES



SERVICING THE LIFE CYCLE OF YOUR PUMPS

The Grundfos Energy Check and Pump Audit are integrated service offerings that enable evaluation of the Life Cycle Cost of your pump system and provide calculations to determine optimisation or replacement.

PERFORMANCE

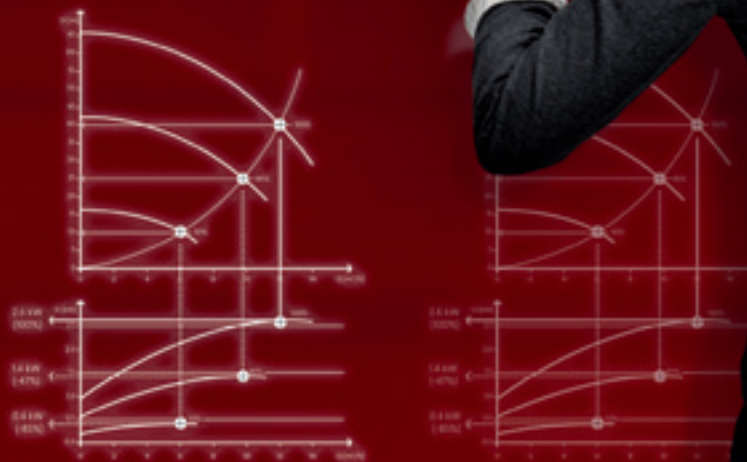


DOWN TIME



THE EXPERT IN VARIABLE SPEED CONTROL

Grundfos lead in the development of pump solutions, which adapt perfectly to requirements. Our intelligent solutions provide seamless operations at minimum energy expenditure.



ONE SUPPLIER
FROM CREATING MICROSCOPIC
CIRCUITS...

...TO REALISING THE COMPLETE
SOLUTION



THOROUGH PRODUCT TESTING

- IN DEVELOPMENT
- IN PRODUCTION
- IN FIELD OPERATION

FOR EVERY INDIVIDUAL
PRODUCT*

*During production

TESTED IN EXTREME CONDITIONS

VIBRATION TESTED



POST-TEST STATUS: **OPTIMAL OPERATION**

6% OF TURNOVER SPENT ON
R&D

YOUR WEAPONS IN THE FIGHT FOR INTELLIGENCE

COMPONENTS THAT FIT PRECISELY WITH YOUR NEEDS

All components, which are part of Grundfos iSOLUTIONS are designed to function optimally within your system. Regardless of your demands they deliver seamless functionality – so you can fight back with a full system approach.

CONTROLS AND PROTECTION

Grundfos controls and protection keep your pump systems running according to requirements and with maximum efficiency. Our software is designed to enhance specific applications and the available protection functionalities avoid the risk of downtime.



PUMPS

Grundfos supplies perfectly engineered pumps, suitable across all sectors, for a wide range of applications. Without question our pumps are optimised for outstanding performance, total energy efficiency and ultimate reliability.



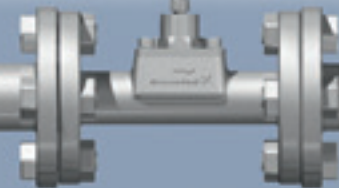
DRIVES

Grundfos variable frequency drives for automatic speed control, CUE, are configured for one purpose only: optimal, energy efficient pump operation. The most common operation failures in standard variable frequency drives come from incorrect configuration. Our dedicated approach to pump applications, including the pre-programmed functionalities and easy-to-use start-up guide, leads to significantly lower failure rates and flawless commissioning.



MEASUREMENT

At the heart of Grundfos iSOLUTIONS, measurement is paramount. Grundfos sensors are robust components with patented technology that measure flow, pressure and temperature in a wide range of media in a variety of applications.



COMMUNICATION UNITS

Our communication units enable data communication via open and interoperable networks. In addition our mobile platform Grundfos GO provides accessible, valuable product and performance data on the go. Key features include easy installation and commissioning, user-friendliness, and great value for money in the long term.

SERVICE PRODUCTS

Our service portfolio starts with Installation & Operation, guaranteeing your system is installed correctly and performs perfectly from day one. Service Contracts give you the freedom to focus on your business and with Surveillance & Mobility, you can control pump settings remotely and anticipate problems with your system, before they occur.



YOUR APPLICATION DEMANDS, YOUR GRUNDFOS iSOLUTIONS

OPTIMISING THE SYSTEM WHATEVER YOUR DEMAND

Grundfos iSOLUTIONS are available for a multiple range of systems for both commercial buildings and industrial processes. So no matter whether you have a requirement for cooling, heating, water treatment or boosting, boiler feed or wash and clean, you can rest assured Grundfos has a solution that is optimised precisely to your demands.



**HOSPITAL
HEATING**



**HOTEL
PRESSURE
BOOSTING**



**WATER WORKS
FILTRATION**



**FACTORY
BOILER FEED**

**JOIN THE FIGHT FOR
INTELLIGENT PUMP SOLUTIONS**

**DEMAND MORE WITH
GRUNDFOS iSOLUTIONS**

www.grundfos.co.uk/isolutions
