

# Solutions for water treatment partners and original equipment manufacturers with a huge impact for end-users

For builders of low-pressure systems up to 15 bar, these standardised intelligent reverse osmosis kits are suitable for applications in a number of industries that require reliable water quality, for example:

FOOD & BEVERAGE

PHARMA-CEUTICAL

ELECTRONICS FABRICATION

BOILERS AND COOLING TOWERS

PAINTING SHOPS

CAR WASH

## Reverse osmosis systems gain intelligence and save 70% energy per m3 water produced

*“We’ve worked with Grundfos iSOLUTIONS to take a unit that was already successful and made it better.”*

*Justin Underhill, Sales Manager, IWE Ltd.*



Grundfos supplied its CRIE multistage, centrifugal pumps and DDA with Flow Control monitoring dosing pumps to Industrial Water Equipment (IWE), Matlock, United Kingdom, enabling real-time monitoring, remote control, fault prediction and system optimisation in their reverse osmosis (RO) water treatment systems.

FIND OUT MORE ON  
[www.grundfos.com/cases](http://www.grundfos.com/cases)

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### Grundfos Industrial Water Treatment

Grundfos supplies a broad range of pump systems and solutions for our industrial water treatment partners. Customisation and engineering are one of our strengths, matching the requirement to mass-produce quality pumps for industrial water treatment processes and utilities, and using different material variants as required for the application in question.

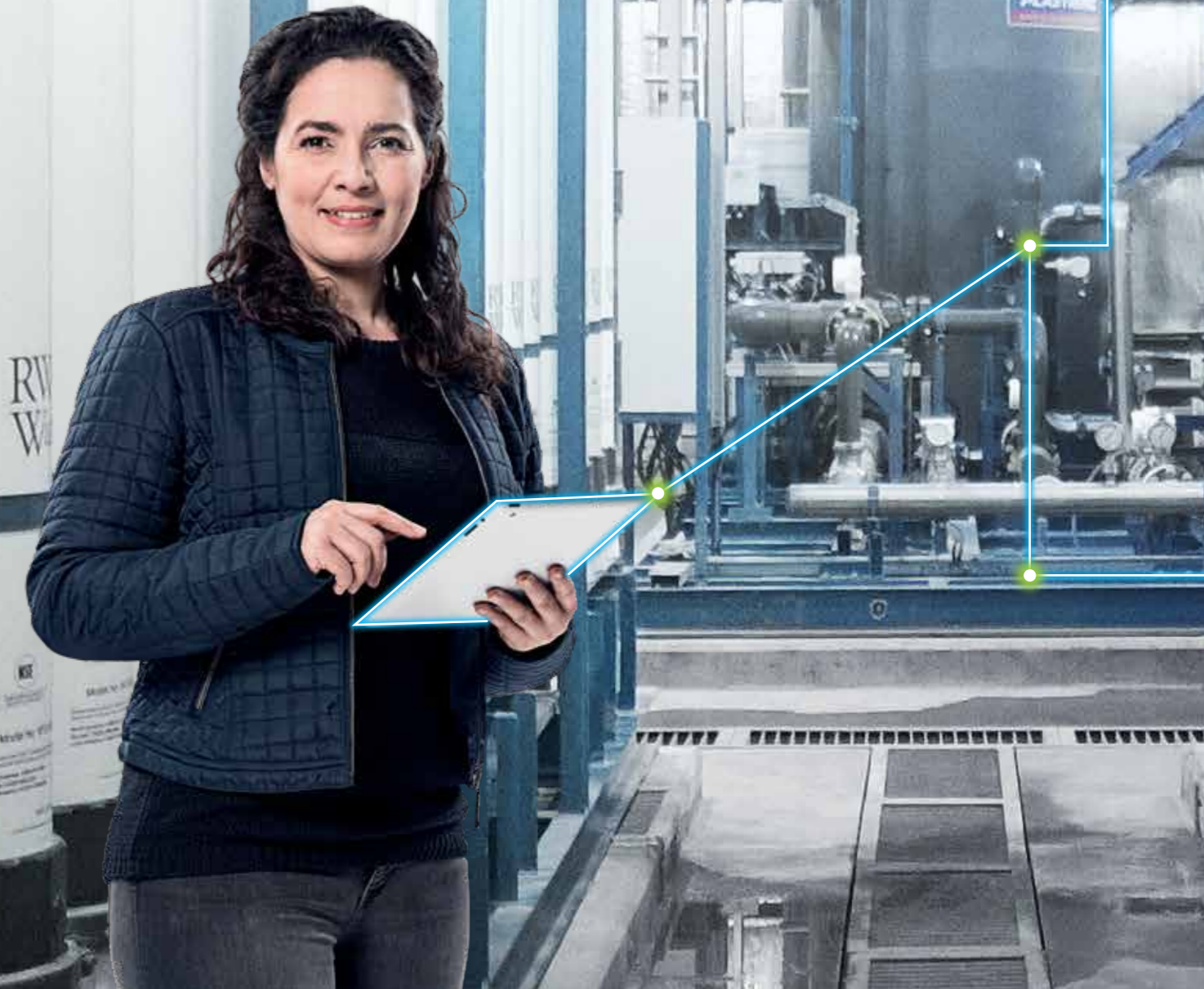
For industry, Grundfos iSOLUTIONS delivers intelligent pumps, cloud connectivity and digital services for industrial applications like water treatment, industrial cooling, boilers and wash & clean. Grundfos iSOLUTIONS brings a new era of intelligence to pump systems and water technology with solutions that look beyond individual components and optimise the entire system.

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GRUNDFOS

### INTELLIGENT REVERSE OSMOSIS KITS FOR IMPROVED EFFICIENCY AND REDUCED COMPLEXITY

#### GRUNDFOS iSOLUTIONS



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GRUNDFOS INDUSTRIAL WATER TREATMENT

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# Standardised plug-and-play kits for low pressure reverse osmosis systems

These kits are the intelligent way to improve efficiency and reduce complexity in low-pressure reverse osmosis systems. Standardised solutions are available in six pre-packaged kits consisting of Grundfos components selected to cover the requirements of different flow and pressure systems. In addition, a range of optional add-ons and accessories, for example for antiscalant dosing or remote monitoring, are available.


## GRUNDFOS iRO ISOLUTIONS CAN HELP YOU SPECIFICALLY ON:



**EASY  
INTEGRATION**



**OPTIMISED  
PROCESSES**



**DECREASE  
PRODUCTION  
TIMES**

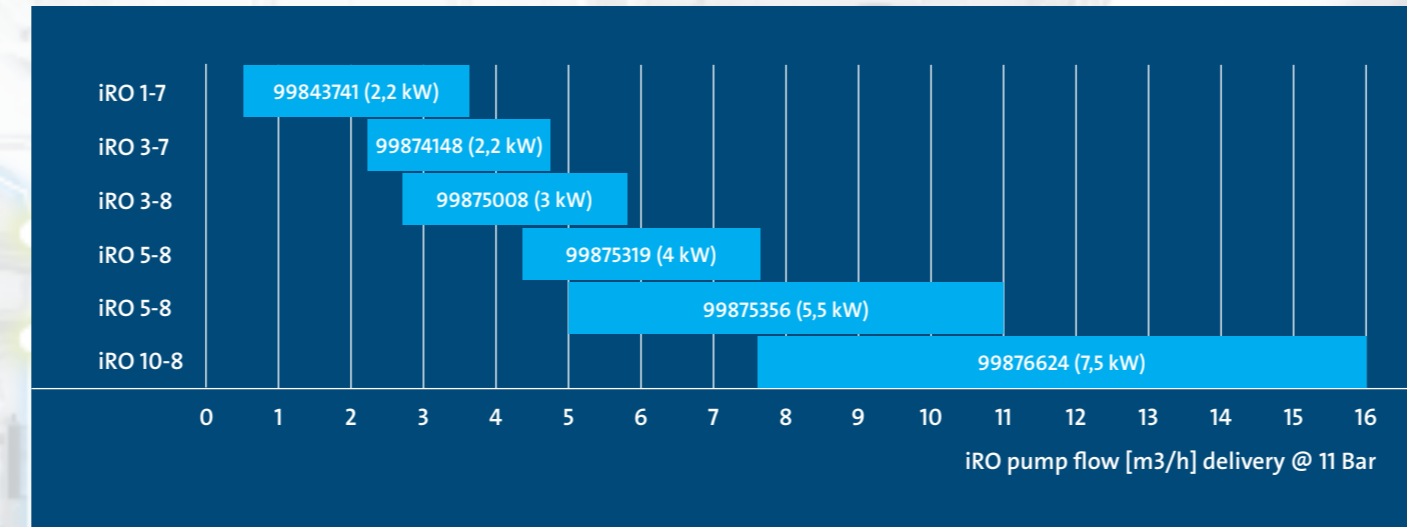
## SEE HOW THIS GRUNDFOS SOLUTION DIFFERENTIATES YOUR OFFERING:

- Simplify your supply chain**  
 Key components for your system are delivered as a standardised solution available in six pre-packaged kits
- Optimise your assembly to reduce time and costs spent**  
 The standardised solution includes ready-to-go commissioning parameters
- Reduce your system's footprint and complexity**  
 Eliminate the need for a PLC or controller and reduce the overall system's size, thanks to the intelligent, speed controlled CRIE centrifugal pump.
- Differentiate your system in the market**  
 Obtain market differentiating system capabilities with significant energy savings (lower cost per m3 treated) and advanced intelligent system control

# Standardised pre-packaged kits consisting of Grundfos components

Pre-packaged kits of hardware and application factory configured parameters provide the minimum of equipment required to fulfil operations in standard reverse osmosis systems, with the opportunity to add equipment for more features and/or specific applications coverage.

Select the standard kit that matches your needs – depending on your flow and pressure requirements:



### CRIE intelligent pressure pump

- Intelligence embedded, no need for external controller.
- Pre-programmed parameters, plug-and-play installation and easy commissioning
- High speed pump for reduced footprint
- Stainless steel material for longer lifetime in aggressive media
- HMI display included for operational values visualisation.

### Inlet pressure switch

- Protect the system from running dry
- Range 0.22 to 4 bar

### Permeate and concentrate flowmeter

- Based on the Grundfos Direct Sensors® vortex principle with no moving or wear parts
- Fully compatible with wet, aggressive liquids with stainless steel flow body
- Precise digital measurement for optimal system operation and setup

### Membrane differential pressure sensor

- Differential pressure and temperature transmitter in one package
- Accurate, linearised and temperature compensated
- Activate forward flush for improved membrane cleaning

### Permeate tank level

- Automatic start/stop of the system based on permeate tank water level
- Floating switch suitable for use in small tanks with limited space

# Add optional dosing and remote monitoring solutions

### Antiscalant dosing pump

- Smart Digital Dosing pump with Flow Control monitoring
- Suction lance with level sensor
- Low-level and empty-tank indication

### Alternative pre-assembled Dosing Tank Station (DTS)

- Includes a 60 litre PE tank with the above-mentioned accessories

### Grundfos Remote Monitoring

- Enable mobile supervision
- Remote visualisation of operating data, such as measured values and setpoints
- SIM card is required

### Grundfos GO remove remote

- Mobile pump control and pump selection
- Sizing tools and product catalogue
- Real-time monitoring of system status

## Components in the Grundfos iRO iSOLUTIONS packages

- CRIE intelligent multistage Pump
- Inlet Pressure Switch
- Permeate Flowmeter
- Concentrate Flowmeter
- Membrane Differential Pressure Sensor
- Permeate Tank Level Switch
- Antiscalant dosing pump
- Grundfos Remote Monitoring (GRM)
- Grundfos GO

