

**STAINLESS STEEL PUMPS** Upgrade your industrial applications



be think innovate

# CORROSION BECOMES A THING OF THE PAST

If you are looking to eliminate the risk of corrosion in pumps and in turn reduce costly downtime, the answer is stainless steel. With its excellent corrosion-resistant properties, stainless steel is by far the best choice for use in industrial applications either where high standards of hygiene are required or when the liquid pumped is troublesome.

#### Full range in stainless steel

As one of the leading global manufacturers, Grundfos offers one of the market's most comprehensive ranges of stainless steel pumps. Back in 1968, we were the first company to use stainless steel intensively. We continue to improve our products to ensure that they remain second to none. Today, our stainless steel solutions cover every conceivable applications across the production floor – from the process line to utilities – in a variety of industries, including:

- Food and beverage
- Pharmaceutical
- Biotechnology
- Water treatment systems
- Semi-conductor manufacturing
- Oil and gas/offsh
- Mining.

In addition to its superior corrosion resistance, stainless steel provides a number of other benefits. Its hygienic, non-porous surface is easy to clean and the protective chromium oxide film prevents the pumped liquid from becoming contaminated with undesirable particles. In addition to chromium, other elements such as nickel, molybdenum and nitrogen are added to give the steel special properties. Finally, stainless steel may be polished to a mirror surface to provide unsurpassed cleanability. All Grundfos' stainless steel products are available in two grades of stainless steel (EN 1.4401 and EN 1.4517 standards).

#### Built-in energy efficiency

Grundfos is renowned for producing energy-efficient products and the stainless steel range is no exception. We build energy efficiency into each and every pump. Any of our pumps can be further optimised if you choose to equip it with one of our advanced motors carrying the Grundfos Blueflux<sup>®</sup> label. In actual fact, you can cut energy consumption by as much as 50% when you use our innovative technology.



BLUEFLUX® The Grundfos Blueflux® label guarar chat a Grundfos motor or frequ converter meets or exceeds the direc and legislative efficiency requiremen the future.



PLEASE FIND REFERENCES AT GRUNDFOS.COM

#### **Outstanding global service**

Team up with Grundfos. We guarantee unsurpassed service anywhere in the world. As a truly global company, Grundfos operates in 56 different countries and has 600 authorised service partners worldwide.

Our unique global set-up provides you with benefits, including:

- technical assistance to dimension your pumping system
- expert know-how and support in your local language
- fast spare parts delivery on every continent.

# WHATEVER YOU NEED WHEREVER YOU NEED IT

No matter what part of your industrial process you are seeking to equip with stainless steel pumps, there is a high-quality Grundfos solution to meet your requirements.

Water treatment

maintenance.

Stainless steel pumps require no or little

1

### Wastewater

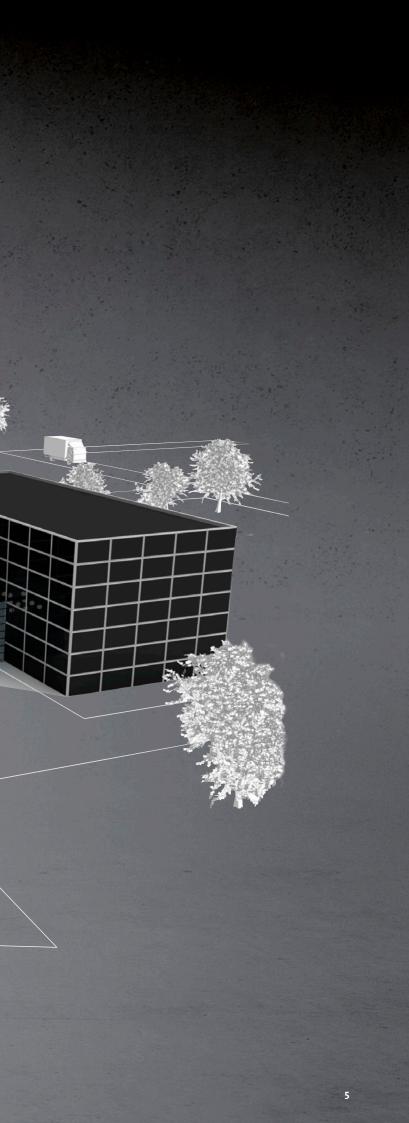
Stainless steel pumps offer excellent corrosion resistance which is important in all applications, including wastewater.

#### Water supply

In domestic water applications it is important that there is no contamination or leaching of undesired elements from the metal. Stainless steel pumps have a protective chromium oxide surface film that effectively eliminates this risk. Production

Stainless steel pumps with hygienic non-porous surfaces eliminate the risk of contamination of the pumped product.







# THE CR RANGE – ENERGY EFFICIENCY AT ITS BEST

The CR range is the most comprehensive stainless steel multistage pump programme on the market and remains second to none. Superior reliability and the lowest possible cost of ownership due to unsurpassed energy efficiency are just two of the benefits we have built into our CR pumps.

#### Shaft seals

We offer a range of shaft seals, including double shaft seals, for optimum handling of different media. The double shaft seal has been developed specially for circulation of aggressive, hazardous and toxic media to offer perfectly safe work environments.

#### MAGdrive

The CR pump can be coupled with a MAGDrive to offer a completely leak-free pump. The magnetic coupling effectively disposes of the need for a shaft seal. The result is a virtually maintenance-free pump, which is ideal when pumping abrasive, crystallising or flammable liquids.

#### Technical data

Flow rate: max. 180 m<sup>3</sup>/h Head: max. 330 m Liquid temp.: -40 °C to +180 °C Operating pressure: max. 33 bar

# THE NBG/NKG RANGE – UNSURPASSED RELIABILITY

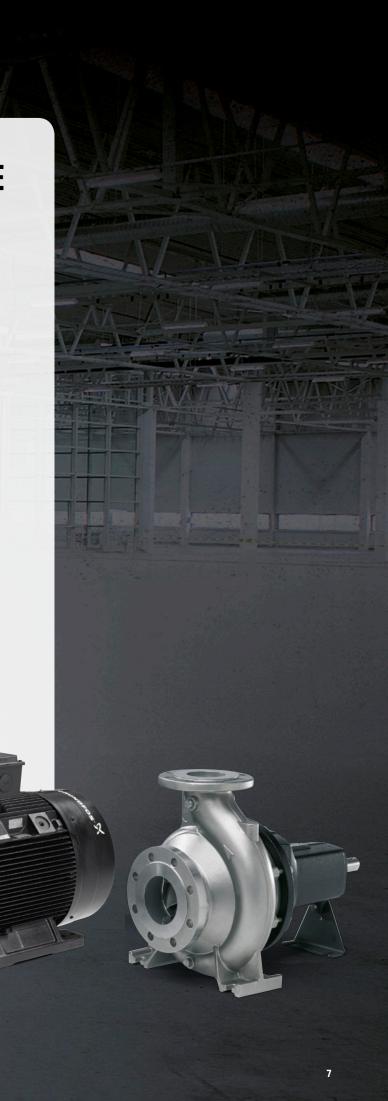
In demanding industrial environments where only the fittest pumps survive in the long run, Grundfos' range of stainless steel end-suction pumps is your guarantee of reliability. The NBG/NKG pumps have been specially designed and built for moving large volumes of water and other liquids. They effortlessly circulate up to 1,200 m<sup>3</sup>/h at 25 bar – at liquid temperatures ranging from -40 °C to +220 °C. without compromising performance.

Additional benefits include:

- Loose flanges for easy installation and maintenance (available in DIN, ISO and ANSI)
- Reduced life cycle costs
- Full range in stainless steel
- Unmatched reliability and efficiency
- Dedicated shaft seal solutions to accommodate most liquids encountered in industrial applications.

#### **Technical data**

Flow rate: max. 1,200 m<sup>3</sup>/h Head: max. 250 m Liquid temp.: -40 °C to +220 °C Operating pressure: max. 25 bar



# **FLAWLESS OPERATION IN STAINLESS STEEL**

As a full-line supplier Grundfos' impressive stainless steel range comprises pumps for all application areas. Combine general process pumps, sanitary pumps, dosing pumps and utility pumps create a production floor that is unsurpassed when it comes to reliability and performance.



### HYDRO BOOSTERS Complete booster systems. Technical data Flow rate: max. 1,080 m<sup>3</sup>/h Head: max. 155 m



### CM PUMPS Horizontal, multistage centrifugal Technical data Flow rate: max. 36 m<sup>3</sup>/h

SE PUMPS

Technical data

#### DOSING PUMPS

Technical data Capacity, Q: max. 30 l/h



### CONTRA PUMPS Single- and multistage, end-suction sanitary pumps. Technical data Flow rate: max. 55 m<sup>3</sup>/h Operating temp: +95 °C (+150 °C on request)

Operating pressure: max. 25 bar

#### RC PUMPS

Canned motor refrigerant circulation pumps, specially designed for Technical data Flow, Q: max. 8.8 m<sup>3</sup>/h Operating pressure: max. 52 bar

#### NOVALOBE PUMPS

Rotary-lobe, positive displacement pumps designed for high viscos liquids Technical data Max. diff. pressure: 16 bar Viscosity: max. 1,000,000 cP Operating temp: +95 °C Operating pressure: up to 16 bar



#### MTR PUMPS

SP PUMPS

Technical data

Liquid temp.: 0 °C to +60 °C

a tank top. Technical data Head: max. 238 m Liquid temp.: -10 °C to +90 °C Operating pressure: max. 25 bar











#### **BM/BME PUMPS**

Booster systems with energy recovery. Designed for seawater reverse osmosis (SWRO). Technical data Permeate per day: 500 to 2,500 m<sup>3</sup> Head: max. 810 m Ambient temp.: +40 °C Operating pressure: max. 80 bar

#### NBG/NKG PUMPS

Single-stage, end-suction, closeand long-coupled standard pumps according to EN 733 and ISO 2858. Special designed for industrial processes.

#### Technical data

Flow rate: up to max. 1,200 m<sup>3</sup>/h Head: up to max. 250 m Operating temp: +120 °C (+220 °C as option) Operating pressure: max. 25 bar

#### F&B-HYGIA<sup>®</sup> PUMPS

Single-stage, end-suction sanitary pumps. Technical data Flow rate: max. 108 m<sup>3</sup>/h Head: max. 70 m Operat. temp.: +95 °C (+150 °C on request) Operating pressure: max. 16 bar

# TAKING CONTROL AND ENERGY EFFICIENCY TO THE NEXT LEVEL



The Grundfos portfolio comprises an advanced E-solution programme, which makes available an array of motors and speed controls specially designed to reduce energy consumption of entire systems. By regulating pump speed to meet demand and using integrated frequency converters, operating costs are significantly reduced. E-solutions will typically provide annual savings of up to 50% compared to conventional fixed-speed pump solutions.

All Grundfos E-solutions naturally comply as a minimum with future EU energy consumption directives and many even exceed them.

#### MGE/Motor with integrated frequency converter

The MGE motors are part of the E-solutions programme and consist of an MG motor with integrated frequency converter. The motors can operate at different speeds to optimise pump efficiency and performance.

#### **CUE/Wall-mounted frequency converter**

CUE is a series of variable frequency drives designed for speed control of various Grundfos pumps, including the stainless steel range. Typically used in pressure boosting, water treatment and industrial applications, the CUE series is a supplement to the E-pump range and features similar control functionalities.

#### Customised software

Grundfos can provide customised software solutions to maximise the benefits of an integrated converter and to make the solution match even the most specific requirements.

### WEBCAPS – YOUR ONLINE TOOLBOX

### **WEBCAPS – FEATURES**

- Catalogues 92,000 visitors per month
- Documents 87,000 documents downloaded per month
- Service 17,900 visitors per month
- Dimensioning 33,600 visitors per month
- Exchange 14,400 visitors per month
- CAD drawings 17,300 downloads per month

 $\bigcirc$ 

WebCAPS is an online toolbox, offering you easy access to a pool of Grundfos information in 24 languages. It includes a full catalogue of all available products and features a sizing function, which efficiently assists you in selecting the right pump for the job.

WebCAPS also includes a service section with a spare parts overview, written service instructions and exploded views and sectional drawings of the products. Downloading 3D drawings of a wide variety of pumps is also an option. In addition, short service videos are available to show you exactly how to dismantle and assemble products in the right way.

### **GRUNDFOS INDUSTRIAL SOLUTIONS**

Grundfos has developed and produced high-quality industrial pumps for more than half a century. Throughout our long history, our focus has always been on product performance and reliability. We strive to provide our customers with the best possible solution, regardless of the application. This dedication to customer needs makes us a preferred pump partner for industries all over the world.

GRUNDFOS Holding A/S Poul Due Jensens Vej 7 DK-8850 Bjerringbro Tel: +45 87 50 14 00 www.grundfos.com/industry

