**GRUNDFOS INDUSTRY** 

# OPTIMIZED INDUSTRIAL SOLUTIONS

Pumps and systems for today's process and water challenges





# **OPTIMIZED SOLUTIONS** FOR THE ENTIRE INDUSTRIAL PLANT

Grundfos provides a comprehensive range of optimized solutions for the North American process and industrial markets. Grundfos is a full-line supplier of reliable products and robust service offerings for an array of applications, including the following:

### **APPLICATIONS:**

WATER

BOILER

INDUSTRIAL

WASHING &

CLEANING

MACHINE

TOOL

COOLING

FEED

TREATMENT

WATER TREATMENT:

The process of water treatment is vital to us all. With the shift toward decentralized water treatment, Grundfos' extensive product portfolio empowers industrial customers to move and treat water efficiently and effectively across every type of building and industry. In Grundfos, you gain more than a pump supplier, you gain a partner focused on solving the challenges of your operations and delivering higher accuracy, efficiency, and reliability than you thought possible. Additionally, as businesses and industries become more water conscious, Grundfos is a leader in optimized sustainable solutions to treat water for reuse in a range of applications.

### **TEMPERATURE CONTROL:**

Grundfos' thoroughly tested, variable frequency drive pumps optimize the boiler feed process. Designed with low NPSH, these solutions cater to systems with poor inlet conditions. This ensures cavitation-free operation even outside the pump's normal duty range. Grundfos' air-cooled top shaft seal solution eliminates the need for external cooling in high-temperature applications.

As the demand for industrial production grows globally, so too does the demand for cooling. In almost every industrial facility, ensuring the right temperature for machines and processes is essential to production efficiency, reliability and quality. Grundfos offers a number of pumps and solutions equipped with variable frequency drive motors and sensors to create a complete solution that can improve operational efficiency, and achieve greater OPEX savings.

### **INDUSTRIAL PROCESS:**

Grundfos' reliable, compact pumps are suitable for pumping corrosive media at high pressures where space is limited. Additionally, their ability to operate across a wide temperature range makes them ideal for pressure boosting in washing and cleaning applications. High-efficiency VFDs perfectly control the process with low energy consumption.

When you choose a Grundfos immersible pump, you get a pump that has proven its worth throughout decades of use in the metal processing industry. In addition, the Grundfos range of MTR, MTA, MTC and MTS immersible pumps include size and material variants that fit general industry applications, so an even wider number of applications can benefit from their reliability and precision.

### GRUNDFOS PUMPS AND SERVICES ARE LEVERAGED ACROSS ALL INDUSTRIES WITH A FOCUS ON THE ABOVE APPLICATIONS FOR THE FOLLOWING MARKETS:

Automotive

- - Chemicals
- Energy
- Food and Beverage

- General Industry
- Mining

• Biofuels

- Pharmaceutical
- Power
  - Washers and Coolers

# **PIONEERING** THE **EUTURE** OF INDUSTRY

# **GRUNDFOS** iSOLUTIONS

Pumps do not exist in isolation, so optimizing the entire pump system is key to maximizing efficiency. Grundfos iSOLUTIONS provide a holistic approach. Through integrating pumps, VFDs and sensors, Grundfos iSOLUTIONS are able to adapt precisely to system demands and deliver optimal energy efficiency and reliability for every application. With Grundfos iSOLUTIONS, you can be certain you always get the optimal solution for your specific application.

# **GRUNDFOS** ENGINEERED SYSTEMS

With no two projects exactly the same, you deserve a pumping solution as unique as your project. At Grundfos, we leverage our experience and pumping expertise to design and engineer your perfect fit, plug-and-pump Grundfos Engineered System (GES).

Systems begin with any number and combination of Grundfos pumps to best suit the operating conditions. Then, controls and monitoring components are integrated. All GES packages are constructed on a steel base and can be enclosed in a fiberglass or steel structure. GES packages arrive on site pre-wired, pre-piped and pre-commissioned, eliminating the scheduling challenges and cost overruns of a site-built system.



# **OVERVIEW OF APPLICATIONS**



### **BOOSTER PUMPS**

**BM. BMS** 



CM, CME Non-self-priming, horizontal, multistage, end-suction centrifugal pumps with magnetic drive

Booster module with directly coupled

pump and variable frequency drive



**INLINE PUMPS** 

CR, CRE Vertical inline multistage pumps offering industry-leading performance, efficiency and reliability

### **DOSING PUMPS**



DME Dosing pumps that combine perfect precision with userfriendliness for large dosing

DMH



Robust dosing pumps for reliable and high-pressure applications up to 2900 psi.

quantities from 15.9 to 248 gph



**SMART Digital** Intelligent dosing pumps offering unparalleled precision, accuracy and reliability







**OXIPERM PRO** Chlorine dioxide production systems for fighting Legionella and other germs in drinking water







Digital sensor and controller for dosing pumps, dosing systems, and systems for the generation or dosing of chlorine dioxide and hypochlorite

### **SEWAGE PUMPS**

Submersible pumps designed

large volumes of surface and

to handle sewage, effluent and

**SL Range** 

process water

**BOILER** 

**FEED** 





### SE Pumps designed to handle sewage, effluent and large volumes of surface and process water in dry and submerged applications

**S** Range Designed for pumping raw water, unscreened raw sewage,

### SEG





applications

SRG Created to handle large flows against low head

### **PUMP SYSTEMS**

### Hydro MPC **BoosterpaQ**

Our premier fully integrated pre-engineered packaged pumping system with advanced control capability and energy efficient vertical inline multistage pumps

### Grundfos **Engineered Systems**

Complete, custom plug-andpump systems solutions designed to include any combination of Grundfos pumps, motors, controls and monitoring equipment on a steel base or in a custom enclosure.







Non-self-priming, horizontal, multistage, end-suction centrifugal pumps with magnetic drive

**INDUSTRIAL** 

COOLING

### **INLINE PUMPS**

frequency drive

CM, CME



CR, CRE Vertical inline multistage pumps offering industry-leading performance, efficiency and reliability

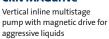


A simplex energy efficient vertical inline multistage plug-and-pump system with control capability through an integrated VFD

### CR-H, CRN-H, CRE-H, CRNE-H

Inline multistage pumps for an ANSI dimensional solution







Space-saving inline pumps with integrated motor, variable frequency drive and control with Grundfos sensor technology



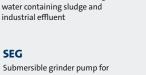
### TP, TPE Single-stage, inline centrifugal pumps



### **MAGNA3**







Submersible grinder pump for pumping effluent and sewage in small communities or areas without sewer systems

### SMD, SMG, SFG

Mixers and flowmakers prevent sedimentation and support processes in a variety of

## **END-SUCTION PUMPS**

### LCS, LCSE

Compact single-stage, endsuction, split-coupled pump with integrated Grundfos MLE motor, drive and control

### LF, LFE



Frame mounted end-suction pumps available with integrated MLE variable speed motor to optimize energy efficiency

### **SPLIT-CASE PUMPS**

**KP. KPV, KPVS** Horizontal and vertical split-case pumps. KPVS offers vertical splitcoupled design in a small footprint.

### **CONTROLS & MONITORING**



Control MPC Advanced controller for monitoring and control of up to 6 pumps

### **DOSING PUMPS**



**SMART** Digital Intelligent dosing pumps offering unparalleled precision, accuracy and reliability



### **Dosing Skid Systems** Complete chemical-feed packaged systems featuring the latest technology from Grundfos Dosing



### **Dosing Tank Station**

Intended for storing and dosing liquid chemicals. Many different configurations can be selected and applied flexibly to fulfill various dosing tasks

### **PUMP SYSTEMS**



Hydro MPC BoosterpaQ Our premier fully integrated

pre-engineered packaged pumping system with advanced control capability and energy efficient vertical inline multistage pumps

### Grundfos **Engineered Systems**

Complete, custom plug-and pump systems solutions designed to include any combination of Grundfos pumps, motors, controls and monitoring equipment on a steel base or in a custom enclosure.

### **DOSING PUMPS**

**WASHING & CLEANING** 

### DMF

Dosing pumps that combine perfect precision with userfriendliness for large dosing quantities from 15.9 to 248 gph



### DMH Robust dosing pumps for reliable and high-pressure applications up to 2900 psi



DMX Mechanical diaphragm metering pumps

**SMART Digital** 

Intelligent dosing pumps

accuracy and reliability

offering unparalleled precision,

### **Dosing Skid Systems**

Complete chemical-feed packaged systems featuring the latest technology from Grundfos Dosing

### **Dosing Tank Station** Intended for storing and dosing

liquid chemicals. Many different configurations can be selected and applied flexibly to fulfill various dosing tasks



### DID

Digital sensor and controller for dosing pumps, dosing systems, and systems for the generation or dosing of chlorine dioxide and hypochlorite

















Complete, custom plug-and-pump systems solutions designed to include any combination of Grundfos pumps, motors, controls and monitoring equipment on a

## EDUCATION ON DEMAND WITH **GRUNDFOS TECHNICAL INSTITUTE**

Register with Grundfos Technical Institute (GTI) for a wide variety of technical training at a time that's right for you. Visit grundfos.us/training for a wealth of content, including:

- Self-paced online courses, webinars and face-to-face classes
- YouTube library of How-To pump application videos
- CEU or PDH qualifying credits on most courses
- 24/7 accessibility from any device

### **BOOSTER PUMPS**

**BM, BMS** 

Booster module with directly coupled pump and variable frequency drive

MACHINE

TOOL

### CM, CME

Non-self-priming, horizontal, multistage, end-suction centrifugal pumps with magnetic drive

### **INLINE PUMPS**

### CR, CRE

Vertical inline multistage pumps offering industry-leading performance, efficiency & reliability

### **CRE Plus**

A simplex energy efficient vertical inline multistage plug-and-pump system with control capability through an integrated VFD

### **IMMERSIBLE PUMPS**



Low-pressure pumps specifically designed for filtering systems in the machine tool industry

### MTR, MTRE, MTC

Vertical, multistage pumps designed for cooling lubricants and condensate transfer

**PUMP SYSTEMS** 

### Hydro MPC BoosterpaQ

Our premier fully integrated pre-engineered packaged pumping system with advanced control capability and energy efficient vertical inline multistage pumps

### **Grundfos Engineered Systems**

steel base or in a custom enclosure.

# OVERVIEW OF FOCUS MARKETS



### **BOOSTER PUMPS**

**BM, BMS** 



CM, CME Non-self-priming, horizontal, multistage, end-suction centrifugal pumps with magnetic drive

Booster module with directly coupled

pump and variable frequency drive

### **INLINE PUMPS**

CR, CRE Vertical inline multistage pumps offering industry-leading performance, efficiency and reliability



VL, VLS Space-saving inline pumps with integrated motor, variable frequency drive and control with Grundfos sensor technology

### **END-SUCTION PUMPS**



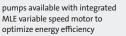
LCS, LCSE

Compact single-stage, end- suction, split-coupled pump with integrated Grundfos MLE motor, drive and control



# Frame mounted end-suction

LF. LFE



### **PUMP SYSTEMS**

### Hydro MPC BoosterpaQ

Our premier fully integrated pre-engineered packaged pumping system with advanced control capability and energy efficient vertical inline multistage pumps



### **Grundfos Engineered Systems**

Complete, custom plug-and-pump systems solutions designed to include any combination of Grundfos pumps, motors, controls and monitoring equipment on a steel base or in a custom enclosure.

### **SPLIT-CASE PUMPS**



### **KP, KPV, KPVS**

Horizontal and vertical split-case pumps. KPVS offers vertical splitcoupled design in a small footprint.

### **DOSING PUMPS**

**SMART Digital** 

Intelligent dosing pumps

offering unparalleled precision, accuracy and reliability







perfect precision with userfriendliness for large dosing quantities from 15.9 to 248 gph

### DMH

Robust dosing pumps for reliable and high-pressure applications up to 2900 psi.



## **Dosing Skid Systems**

Complete chemical-feed Grundfos Dosing

liquid chemicals. Many different configurations can be selected various dosing tasks

### DID

Digital sensor and controller for and hypochlorite



### **CHEMICALS**

### **BOOSTER PUMPS**

### CM, CME

Non-self-priming, horizontal, multistage, end-suction centrifugal pumps with magnetic drive

### **INLINE PUMPS**



CR, CRE Vertical inline multistage pumps offering industry-leading performance, efficiency and reliability

Single-stage, inline centrifugal pumps

TP, TPE

### CR-H, CRN-H, CRE-H, CRNE-H

Inline multistage pumps for an ANSI dimensional solution



### **CRN MAGdrive**

Vertical inline multistage pump with magnetic drive for aggressive liquids

### **DOSING PUMPS**

### DMH

Robust dosing pumps for reliable and high-pressure applications up to 2900 psi





**Dosing Skid Systems** Complete chemical-feed packaged systems featuring the latest technology from Grundfos Dosing



### **SMART Digital**

Intelligent dosing pumps offering unparalleled precision, accuracy and reliability





### packaged systems featuring the latest technology from

**Dosing Tank Station** Intended for storing and dosing

# and applied flexibly to fulfill



dosing pumps, dosing systems, and systems for the generation or dosing of chlorine dioxide



# **GENERAL INDUSTRY**



CR, CRE Vertical inline multistage performance, efficiency and reliability



pumps offering industry-leading

**CRN MAGdrive** Vertical inline multistage pump with magnetic drive for aggressive liquids



**INLINE PUMPS** 

### **DOSING PUMPS**

**SMART Digital** Intelligent dosing pumps offering unparalleled precision, accuracy and reliability



### **IMMERSIBLE PUMPS**

ΜΤΑ Low-pressure pumps specifically designed for filtering systems in the machine tool industry



MTRE, MTR, MTC Vertical, multistage pumps designed for cooling lubricants and condensate transfer

### **SPLIT-CASE PUMPS**

**KP, KPV, KPVS** Horizontal and vertical split-case pumps. KPVS offers vertical splitcoupled design in a small footprint.

### **END-SUCTION PUMPS**



## LCS, LCSE

Compact single-stage, end-suction, split-coupled pump with integrated Grundfos MLE motor, drive and control

### LF. LFE

Frame mounted end-suction pumps available with integrated MLE variable speed motor to optimize energy efficiency

### SUBMERSIBLE PUMPS

### SP

Submersible pumps renowned for high efficiency and reliability

### **INLINE PUMPS**

CRN High pressure, multistage pump



CR, CRE Vertical inline multistage pumps offering industry-

leading performance, efficiency and reliability

CR-H, CRN-H, CRE-H, CRNE-H Inline multistage pumps for an ANSI dimensional solution

### **DOSING PUMPS**



Robust dosing pumps for reliable and high-pressure applications up to 2900 psi.



DMX Mechanical diaphragm metering pumps



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### **SUBMERSIBLE PUMPS**

### SP

Submersible pumps renowned for high efficiency and reliability





Need to configure, size or select a product? From performance data to submittal documents and everything in between, Grundfos can help you find the perfect-fit pumping solution. To learn more about our selection tools for standard pumps and systems, digital dosing and engineered-to-order solutions, visit: grundfos.us/select



DMH

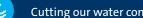


WE ARE IN THE WATER BUSINESS WITH YOU

As a pioneer and global leader in water pump technology, Grundfos creates intelligent, sustainable solutions to help solve the world's water and climate challenges. Through our heritage, we have the experience and innovative capabilities to help our partners, customers and communities move water in an increasingly energy and water efficient manner. We see this as not only a great business opportunity, but as an obligation to ensure the world heads toward a more sustainable tomorrow. Our complete portfolio of pumps and solutions are designed for commercial, residential, groundwater, municipal and industrial applications with emphasis in trendsetting, energy efficient technologies such as permanent magnet motors and advanced pump controls and monitoring.

### BECAUSE WATER MATTERS, AND SO DOES YOUR BUSINESS.

As a company we will contribute by:



Cutting our water consumption in half by 2025



Providing safe drinking water to 300 million people in need by 2030



Becoming climate positive by 2030

To learn more, visit **grundfos.us** or follow us on Facebook and LinkedIn.

Visit grundfos.us/pei to learn more about Department of Energy (DOE) pump energy index (PEI) requirements and PEI ratings on specific Grundfos models.

