OPTIMIZED INDUSTRIAL SOLUTIONS

Pumps and systems for today’s process and water challenges
OPTIMIZED SOLUTIONS FOR THE ENTIRE INDUSTRIAL PLANT

Grundfos and its legacy brands provide a comprehensive range of optimized industrial solutions for the North American process and utility market. Grundfos is a full-line supplier of reliable products and robust service offerings for both process applications and general applications, including the following:

- **FOOD & BEVERAGE**
  For every conceivable pump application in food processing and manufacturing, the full-line Grundfos range gives you better peace of mind and optimal compatibility. With features including stable temperature control and process control.

- **CHEMICALS**
  The complex liquid composition – for example with varying viscosity, chemicals and temperature – in many industrial processes puts pumps at risk. Grundfos’ and Labour Taber’s wide range of material variants and pumps for specialized applications, such as dosing, protects against corrosion and cavitation in the pump.

- **GENERAL INDUSTRY**
  Grundfos supplies a broad range of pump systems and solutions to maintain industrial processes, pumping water and other media as required. Customization and engineering are one of our strengths, and we supply different material variants as required, such as CIP process or complex liquid composition.

- **OIL & GAS**
  The full-line Grundfos range caters to the specific needs of oil and gas applications. Our range has models specifically designed to handle viscous, hazardous substances and sensitive processes – all with maximum care and effectiveness.

- **BOILER FEED**
  Grundfos’ thoroughly tested, variable frequency drive pumps optimize the boiler feed process. Customized 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.

- **WASHING & CLEANING**
  Offering a wide temperature range and suitable for the pumping of corrosive media. Grundfos’ reliable, compact pumps are ideal for washing and cleaning applications. High efficiency, smart motors perfectly control the process with low energy consumption.

- **COOLING & THERMAL**
  The range includes numerous pump types for cooling and heating applications, water-borne as well as various other media. Solutions for high-temperature applications are also available. All pumps can be supplied with variable frequency drive motors, offering major advantages in terms of dimensioning and energy savings.

- **WATER & WASTEWATER TREATMENT**
  All pumps in water and wastewater treatment can be combined in an intelligent way, offering highly accurate dosing of additives prior to or during the treatment process and are state-of-the-art and highly energy efficient. What makes Grundfos pumps outstanding in treatment processes is their ability to operate flawlessly, even when continuously exposed to aggressive media or demanding environments.

- **FIRE PROTECTION**
  Grundfos designs and delivers fire protection solutions ranging from simple pump-driven systems to highly innovative engineered and packaged systems that comply with all relevant fire standards, including ULFM and NFPA 20 certifications.
From water supply and wastewater treatment to boiler, cooling and thermal control, washing and cleaning, fire and water treatment, Grundfos is a full-line supplier of reliable products and robust service offerings for each process application; including, but not limited to food and beverage, oil and gas, power, machine tool, refrigeration, chemicals and mining. The applications on the left can be utilized in many Industrial settings, including the examples shown below.

Grundfos Engineered Systems (GES) can provide integrated pumping system solutions using any of the products in our Industrial portfolio, available in skidded and non-skidded versions. By combining our industry leading pump controllers with pumps and systems from our wide range of brands, Grundfos creates optimized, packaged solutions for the most demanding application and environmental needs. GES provides the most efficient and cost effective solutions to customers' unique pumping requirements, meaning Grundfos has a perfect offering for every Industry demand.

**GES offers comprehensive support and services, including:**
- Application expertise across multiple markets and industries
- Complete, single source responsibility
- State-of-the-art engineering designs
- Value added services
- Reduced installation costs
- Worldwide technical support
### OVERVIEW OF PROCESS APPLICATIONS

<table>
<thead>
<tr>
<th><strong>BM, BMS</strong></th>
<th>Booster module with directly coupled pump and variable frequency drive</th>
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<tr>
<td><strong>CM, CME</strong></td>
<td>Non-self-priming, horizontal, multistage, end-suction centrifugal pumps</td>
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<td><strong>CR, CRE</strong></td>
<td>Energy efficient vertical inline multi-stage pumps</td>
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<td><strong>CRN</strong></td>
<td>High pressure, multipurpose pump</td>
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<tr>
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<td>Intelligent dosing pumps with a new drive and adjustments mechanisms</td>
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<td>Dosing pumps that combine perfect precision with user-friendliness for large dosing quantities from 15.9 to 248gph</td>
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<td>Robust dosing pumps for reliable and high pressure applications up to 2900 psi</td>
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### FOOD & BEVERAGE

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<td><strong>LF, LFE</strong> Frame mounted end suction PACO pumps available with integrated MLE variable speed motor to optimize energy efficiency</td>
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<td><strong>Hydro MPC BoosterpaQ</strong></td>
<td><strong>CR, CRE</strong> Energy efficient vertical inline multi-stage pumps</td>
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<td><strong>CRN</strong></td>
<td><strong>CR-H, CRN-H, CRE-H, CRNE-H</strong> Inline multi-stage pumps for an ANSI dimensional solution</td>
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<td><strong>TPE</strong> Vertical in-line pump featuring a motor with built-in frequency converter</td>
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<td><strong>Peerless 8196</strong></td>
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<td><strong>Peerless Fire Systems</strong></td>
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<td><strong>TU, TUT</strong> Multi-stage, single suction, horizontal pumps</td>
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<td><strong>VT</strong> Highly efficient vertical turbine pump provides a wide range of hydraulic and mechanical coverage; offered in numerous material and design</td>
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**General Industry** Including Machine Tool & Refrigeration

**OIL & GAS**

- **Peerless 8196**
  Heavy duty ANSI process pump that withstands abrasive and corrosive liquids

- **LVA, TFA**
  ANSI process pumps that withstand corrosive and abrasive liquids

  Inline multi-stage pumps for an ANSI dimensional solution

- **CR, CRE**
  Energy efficient vertical inline multi-stage pumps

- **Peerless 8796**
  Self-priming industrial pumps

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

- **CRN MAGdrive**
  Vertical inline multi-stage pump with magnetic drive for aggressive liquids

- **VT**
  Highly efficient vertical turbine pump provides a wide range of hydraulic and mechanical coverage, offered in numerous material and design

- **SMART Digital**
  Intelligent dosing pumps with a new drive and adjustments mechanisms

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

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

- **SP**
  Submersible pumps renowned for high efficiency and reliability

- **Taber Vertical**
  Self priming vertical process pump

- **CR, CRE**
  Energy efficient vertical inline multi-stage pumps

  Inline multi-stage pumps for an ANSI dimensional solution

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

- **DMX**
  Mechanical diaphragm metering pumps

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

- **SMART Digital**
  Intelligent dosing pumps with a new drive and adjustments mechanisms

- **AEF**
  Peerless horizontal split-case fire pump

- **LF, LFE**
  Frame mounted end suction PACO pumps available with integrated MLE variable speed motor to optimize energy efficiency

- **VT**
  Highly efficient vertical turbine pump provides a wide range of hydraulic and mechanical coverage, offered in numerous material and design

- **LC, LCS, LCSE**
  Compact single stage, end suction, split coupled PACO pump with integrated Grundfos MLE motor, drive and control

- **LF, LFE**
  Frame mounted end suction PACO pumps available with integrated MLE variable speed motor to optimize energy efficiency

- **AEF**
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<td>VL, VLS</td>
<td>Space-saving PACO inline pumps with integrated motor, variable frequency drive and control with Grundfos sensor technology</td>
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<td>TP, TPE</td>
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<td>Multi-stage, single suction, horizontal pumps</td>
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<tr>
<td>Control MPC</td>
<td>Advanced controller for motoring and control of up to 6 pumps</td>
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*Grundfos product codes are used for specific product models.*
**WATER & WASTEWATER TREATMENT**

- **BM, BMS** Booster module with directly coupled pump and variable frequency drive
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- **SMART Digital** Intelligent dosing pumps with a new drive and adjustments mechanisms
- **DMX** Mechanical diaphragm metering pumps
- **OXIPERM PRO** Chlorine dioxide production systems for fighting Legionella and other germs in drinking water
- **Dosing Skid System** 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

**SL Range**

Submersible pumps designed to handle sewage, effluent and large volumes of surface and process water

**S Range**

Designed for pumping raw water, unscreened raw sewage, water containing sludge and industrial effluent

**SEG**

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

**Sewer Chewer**

Wastewater and sludge grinder featuring state-of-the-art twin-shaft design

**VT**

Highly efficient vertical turbine pump provides a wide range of hydraulic and mechanical coverage, offered in numerous material and designs

**SMD, SMG, SFG**

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

**SRG**

Created to handle large flows against low head

**Hydro MPC BoosterpaQ**

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

**FIRE PROTECTION**

- **AEF** Peerless horizontal split-case fire pump
- **TUF, TUTF** Peerless horizontal split-case multi-stage fire pump
- **PVF** Peerless inline fire pump
- **Peerless Fire Systems** Market-leading Peerless-brand fire pump units, systems, and housed packaged systems
- **VTF** Peerless vertical turbine fire pump
- **FireConnect** Cloud based monitoring system allows user to remotely monitor and manage fire pump systems

**Dosing Tank Station**

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GRUNDFOS TECHNICAL INSTITUTE

The Grundfos Technical Institute (GTI) offers busy professionals the opportunity to maintain their continuing education credits through a wide variety of flexible learning avenues.

Visit www.grundfos.us/training, to choose from a number of education possibilities that suit your needs and schedule, including face-to-face classes, group webinars and self-directed online courses.

GRUNDFOS PRODUCT CENTER

www.product-selection.grundfos.com

- Online sizing tool for quick pump selection and CAD drawings
- Easy-to-use service information on each pump
- Instant access to saved items, including complete projects
- Optimized for mobile devices

BEYOND THE PUMP

Grundfos and its legacy brands provide a comprehensive range of customizable solutions and a holistic approach to industrial solutions. Grundfos has served North America for more than 40 years, flourishing from one small factory in Fresno, Calif., to 17 manufacturing, logistics, sales and service facilities throughout the region. Together, Grundfos, Paco, Peerless, Yeomans, Labour Taber, Sewer Chewer and Morris provide a complete portfolio of products for the North American industrial market.

GRUNDFOS GO

The Grundfos GO Remote gives you intuitive handheld pump control and full access to the Grundfos online tools on the go. So get ready to save valuable time on pump control, data collection and reporting with the most comprehensive mobile platform on the market.

- Full control over pump performance
- Easy-to-access information and assistance
- Greater connectivity 24/7