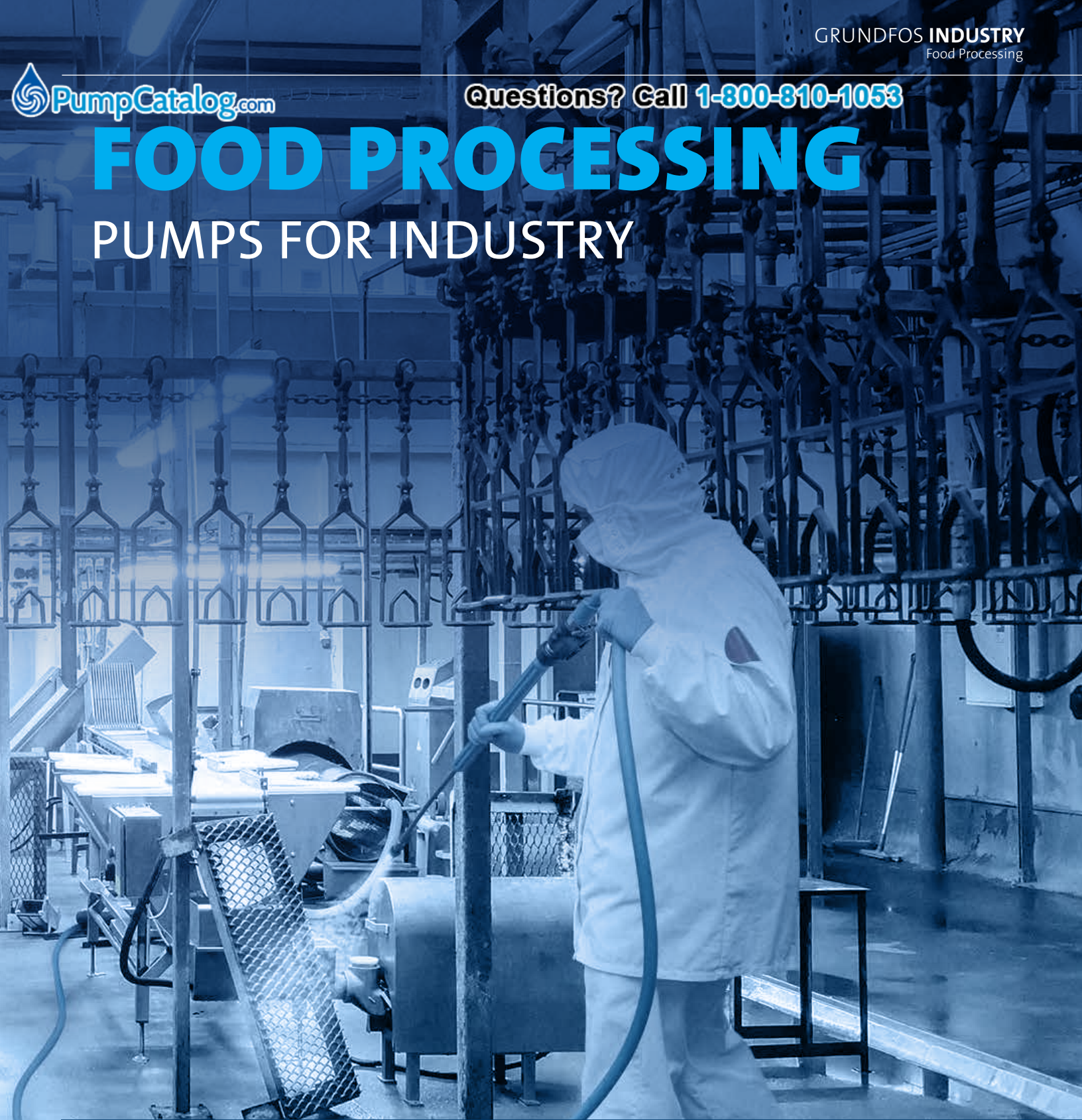


FOOD PROCESSING

PUMPS FOR INDUSTRY



**THERE'S ALREADY A WAY TO SOLVE YOUR
WATER AND EFFICIENCY CHALLENGES**

be
think
innovate

GRUNDFOS 

COMPLETE, EFFICIENT SOLUTIONS

TO MEET PROCESSING PLANT DEMANDS



At Grundfos, we understand the demanding environment of food processing plants.

Managing a plant means optimizing processes, maximizing uptime, managing resources, and ensuring the safety of workers and products to meet government regulations. With Grundfos, you gain more than a pump supplier, you gain a partner focused on solving the challenges of your operation, and delivering higher efficiency and reliability than you thought possible.

Dedicated to innovation and a pioneer in water technology, Grundfos continuously advances our products and capabilities to meet the increasing need for connectivity, accuracy and efficiency in our ever-evolving industry.



PRESSURE BOOSTING

The World's Leader

The Grundfos CR is the world's number one inline vertical multistage centrifugal pump, known for its reliability, efficiency and adaptability. The CR pump range is the broadest range available, and through our modular approach, you are able to pick and choose pump elements to cover practically any non-standard situation, including handling difficult or high-temperature liquids. By integrating a variable-speed MLE motor and sensor, the Grundfos CRE becomes a fully integrated, intelligent plug-and-pump solution that can adapt to changes in the entire process system.

HIGH-EFFICIENCY CRE
DESIGN CUTS ENERGY
CONSUMPTION BY UP TO
50% COMPARED TO
FIXED SPEED PUMPS.

Moving the Limits – The New Range of Grundfos CRs

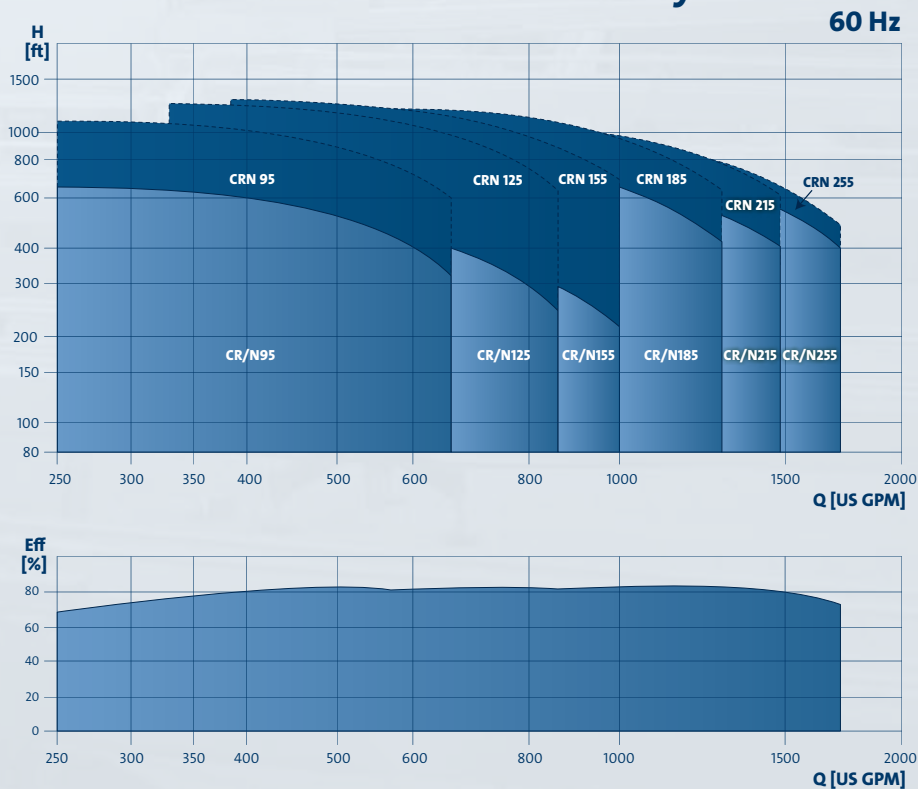
More efficient, reliable and durable than ever before, the new range of Grundfos CRs moves the limits for vertical inline multistage centrifugal pumps. State-of-the-art technology, simulation-driven design, and optimized pump hydraulics come together to offer unmatched efficiency and reliability. The new CR 95-185 vastly increases the performance coverage of the previous range, offering more than 1,280 gpm and 1,235 ft. of head.



Multipump Solutions

The CR range forms the backbone of the Grundfos plug-and-play Hydro MPC booster systems. These performance-optimized systems are available in configurations with up to six CR pumps, allowing for flows of up to 5,400 gpm.

Expanded Performance and Increased Efficiency



DOSING AND DISINFECTION

The Grundfos dosing and disinfection product range covers everything from the disinfection of drinking water to antimicrobial washes. With one of the most extensive product ranges of pumps, packages and accessories in the market, Grundfos dosing and disinfection products deliver accuracy, reliability and safety in an area where processing plants can't afford errors.

SMART Digital Dosing™

Traditional dosing pumps regulate the dosed quantity by adjusting stroke length and/or frequency. However, reducing the stroke length adversely affects dosing accuracy. In cases where the dosing pump cannot operate at 100% stroke length, valves will suffer from reduced performance leading to inefficient dosing. Digital Dosing™ offers a clear advantage. By using a stepper motor, the volume dosed is altered by the discharge stroke speed while continuously utilizing 100% of the stroke length. This results in optimum dosing accuracy and better handling of off-gassing liquids.

DDA

The top-of-the-line DDA pump is designed as the perfect solution for complex and demanding applications. Its auto-deaeration feature easily handles off-gassing liquids. The control variants offer a range of intelligent options, including selective fault diagnosis; built-in pressure monitoring; integrated flow measurement; and AutoFlowAdapt, which allows for the setpoint to remain constant even when discharge conditions, such as pressure, change. This ensures the desired amount of chemical is consistently added to the process.

The DDA range offers performance up to 52.8 gph (200 l/h) and is the ideal solution to deliver high flows accurately.



DDE

The DDE pump offers the same drive strategy as a DDA, but at a cost-effective solution with basic functions for simple applications. Setting the dosing capacity from 0.1% to 100% is easy. A logarithmic scale adjustment dial enables precise low-flow settings up to 52.8 gph (200 l/h).



DDA INFORMATION

Maximum flow, Q:	52.8 gph (200 l/h)
Maximum pressure, P:	232 psi (16 bar)
Turn-down ratio:	3,000:1

DDE INFORMATION

Maximum flow, Q:	52.8 gph (200 l/h)
Maximum pressure, P:	145 psi (10 bar)
Turn-down ratio:	1,000:1

DOSING SKID SYSTEMS

Complete dosing skids tailored to your application

Grundfos' complete chemical feed systems make dosing technology available as a plug-and-play package with all necessary pipework, valves and dosing pumps. We can deliver standardized packaged systems or build custom solutions to meet your unique specifications. In our custom systems, you can select dimensions, connection locations and installation options, choice of materials, and accessories including electrical controls, containment systems and optional measurement and control instruments.

8,000 HOURS
OF OPERATION BEFORE
WEAR PARTS NEED SERVICE
BECAUSE UPTIME AND
DURABILITY MATTER.

Find your complete chemical dosing solution at grundfos.us/dosingskids.

APPLICATIONS

- Peracetic acid
- Sodium hypochlorite
- Sodium bisulfate
- Alum
- Potassium permanganate
- Sodium hydroxide
- Acids
- Anti-scalants



WASHING AND CLEANING

CIP (Cleaning In Place) and SIP (Sterilization In Place) systems are ideal in industries where hygiene is of the utmost importance and contamination must be avoided at all costs. Grundfos accurate dosing pumps add the exact amount of disinfectant, detergent or chemical required to optimize the flushing cycles of the CIP system, reducing unnecessary downtime.

CIP and SIP Processes

Grundfos CIP pumps can handle high temperatures and are made of stainless steel, so they can withstand the aggressive chemicals, disinfectants and detergents encountered in cleaning processes. Because the CIP system is never in contact with the actual process, sanitary pumps are not required. Additionally, CIP pumps are electropolished to make sure no residue sticks to the inside. Tanks, pipes or process lines can be efficiently cleaned without dismantling any equipment, saving time and money.

For the more demanding SIP process, Grundfos range multistage pumps are used to feed the boiler that produces the steam and efficiently cleans at very high temperatures.

Hydro HP Washdown System

The all new Grundfos Hydro HP is a fully integrated high-pressure booster system that offers a more reliable and energy-efficient solution for clean and wash applications. The system features the industry-leading CR vertical multistage inline pumps, which deliver superior hydraulic performance and bulletproof reliability in a space-saving footprint. The integrated VFD control offers consistent system pressure, whether the system is used to clean with one spray wand or do a full facility washdown, all without the need for a recirculation line. A low-flow jockey pump efficiently maintains system pressure to meet low-flow cleaning demands. Additionally, with the easily serviced Grundfos Hydro HP, plants can expect to realize full ROI after the first few maintenance cycles.



Choosing a Grundfos pump or system for your washdown needs guarantees outstanding performance. Both stationary and mobile solutions can be customized to meet your pressure and size requirements.



CM/CME

Innovation is at the heart of all Grundfos product solutions and the CM is no exception. This horizontal inline multistage pump is a compact, reliable and efficient pumping solution. By integrating a variable-speed MLE motor and sensor, the Grundfos CME becomes a fully integrated, intelligent plug-and-pump solution that can adapt to changes in the entire process system.

From end to end, Grundfos' proven quality and attention to detail is the difference between the CM/CME and the competition. Grundfos has created a robust design to ensure secure clamping of the pump impellers by using the Nordlock® washer. Additionally, the Grundfos engineered shaft seal has been designed to eliminate industry-wide problems with shafts seals sticking where SIC-SIC seal faces are used.

The Grundfos CM/CME is designed to be used in a variety of applications, including:

- Washing and cleaning
- Temperature control
- Water treatment

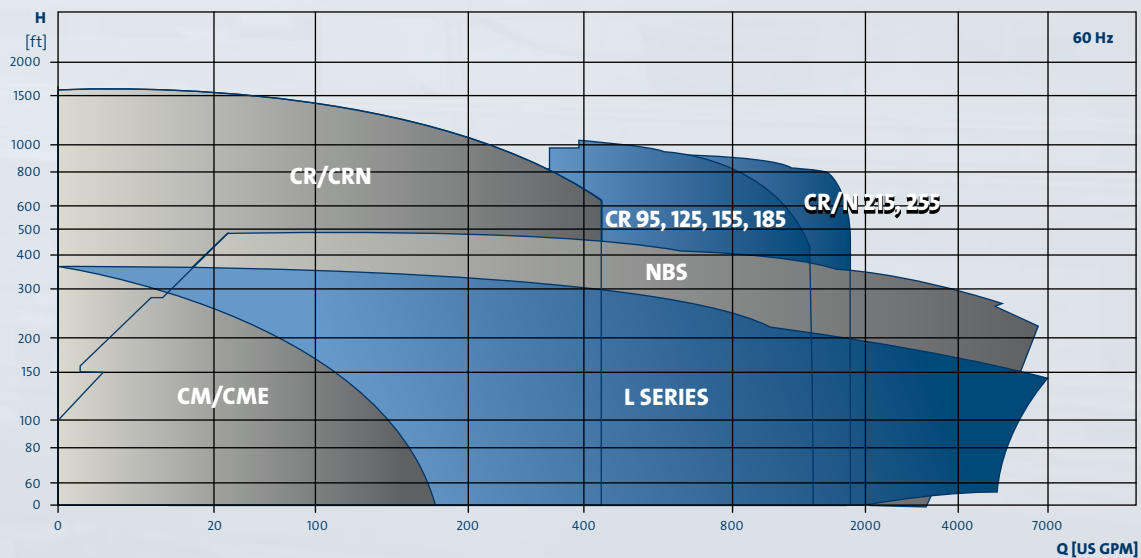


NBS/L SERIES

The Grundfos line of end-suction pumps serve as the industry standard in performance, quality and durability. They feature low life-cycle costs and a selection of various sizes to meet your precise application needs. Additionally, the innovative pump and impeller design produce an increase in operating efficiency with up to a 35% smaller footprint.



A Complete Range of Pumping Solutions



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.

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.