



New generation Grundfos CR XL multistage pumps

FOR THOSE
WHO PUSH THE
BOUNDARIES

be
think
innovate

GRUNDFOS 



WE'VE PUSHED THE BOUNDARIES. **YOU CAN TOO.**



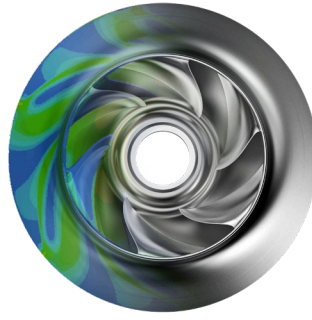
The new generation of Grundfos CR XL pumps extends the limits for high-capacity pumps with best-in-class energy efficiency, and flow rates up to 390 m³/h (1716 gpm). The three models of the CR XL range - CR/N 185, CR/N 215 and CR/N 255) - offer up to 40 bar (580 psi) pump pressure and significant energy efficiency enhancement. The CR XL range is the ideal choice for municipal water treatment applications, irrigation, water transfer and pressure boosting.

MARKET LEADING **EFFICIENCY**

Through comprehensive development of the superior hydraulics of the Grundfos CR XL pump, precision profiling of the leading-edges of its impeller vanes, and the introduction of a flow-guiding system to eliminate turbulence, the CR XL is designed to deliver world-class energy efficiency.

UNLIMITED **OPTIONS**

The Grundfos CR XL range gives you almost unlimited customisation options, including flow rate, mount orientation, materials, pressure rating, connection type and motor size. With millions of possible variables, you can always build a Grundfos CR XL pump or Hydro MPC pressure boosting system to match your exact specification – whatever the application.



VIRTUALLY UNSTOPPABLE

The CR XL multistage pump range is rooted in over four decades of continuous adjustment and refinement, helping to ensure that utilities, municipalities and agricultural users benefit from reliable and efficient water pumping solutions.

From improved component design, to operational simulation and field testing, every step has been taken to ensure Grundfos CR XL pumps are virtually unstoppable.

We test each and every CR XL pump thoroughly before it leaves the factory - not just a random sample.

TURNING SIMULATION INTO REALITY

Over 10,000 simulations were carried out during the design phase of the new generation of Grundfos CR XL pumps. They were then subjected to rigorous real-world testing before going into production, including:

- Hydraulic performance test
- Vibration test
- Start/stop test
- Corrosion test
- Water hammer test
- High temperature test
- High pressure test
- Shaft seal test
- Grundfos Thrust Handling Device (THD) test
- Field tests

APPROVALS AND CERTIFICATIONS

Approvals:

- Drinking water approvals from countries around the world

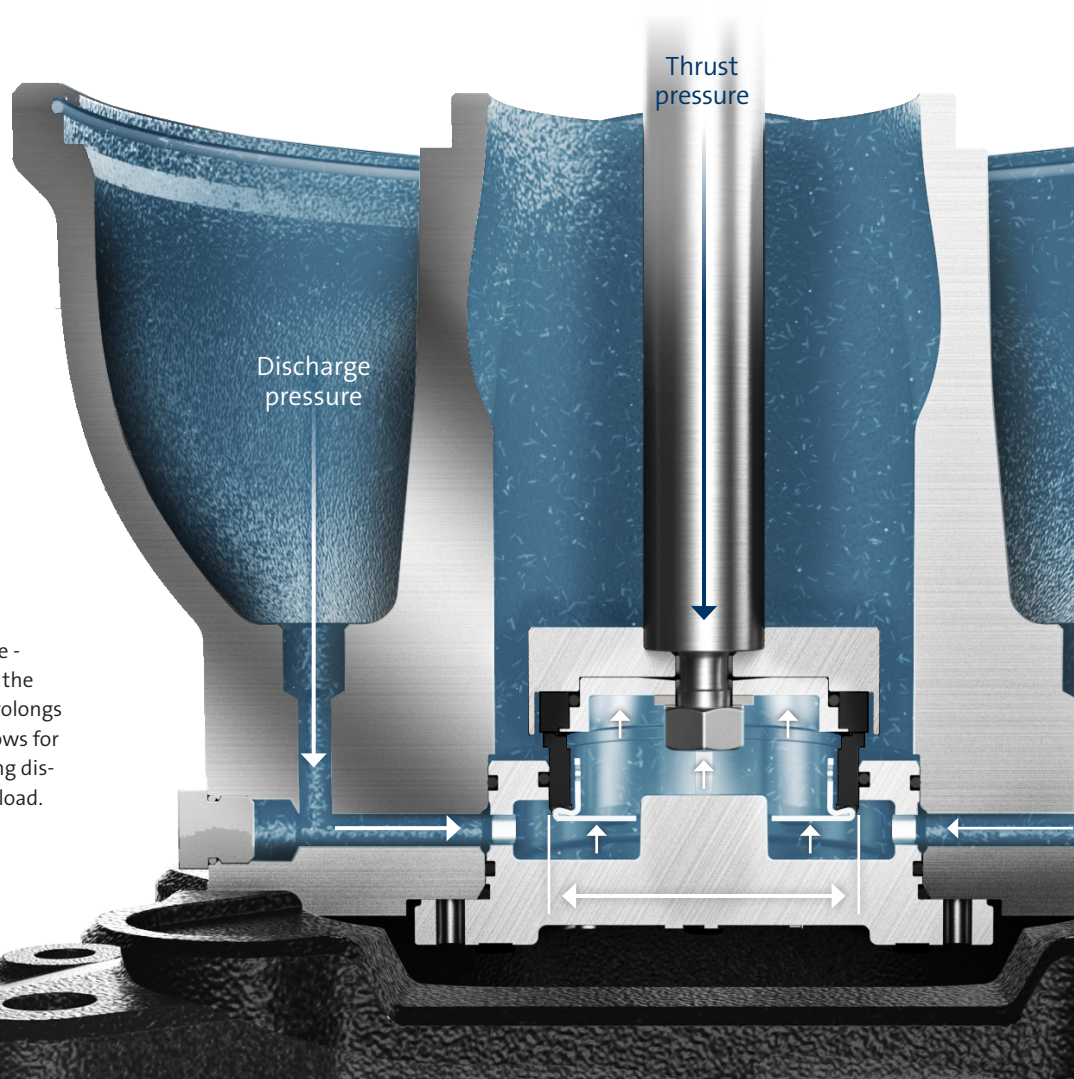
Certifications:

- ISO 9906:2012 Hydraulic performance standard - Grade 3B acceptance test, and duty point verification up to 1B acceptance
- ISO 10816 Mechanical vibration standard
- Static high-pressure test
- Surface roughness test
- Positive material identification
- Motor test report
- Cleaned and dried pump / vacuum-dried pump reports

For a complete list of approvals and certifications for your country, please contact your Grundfos representative.

THE PERFECT BALANCING ACT

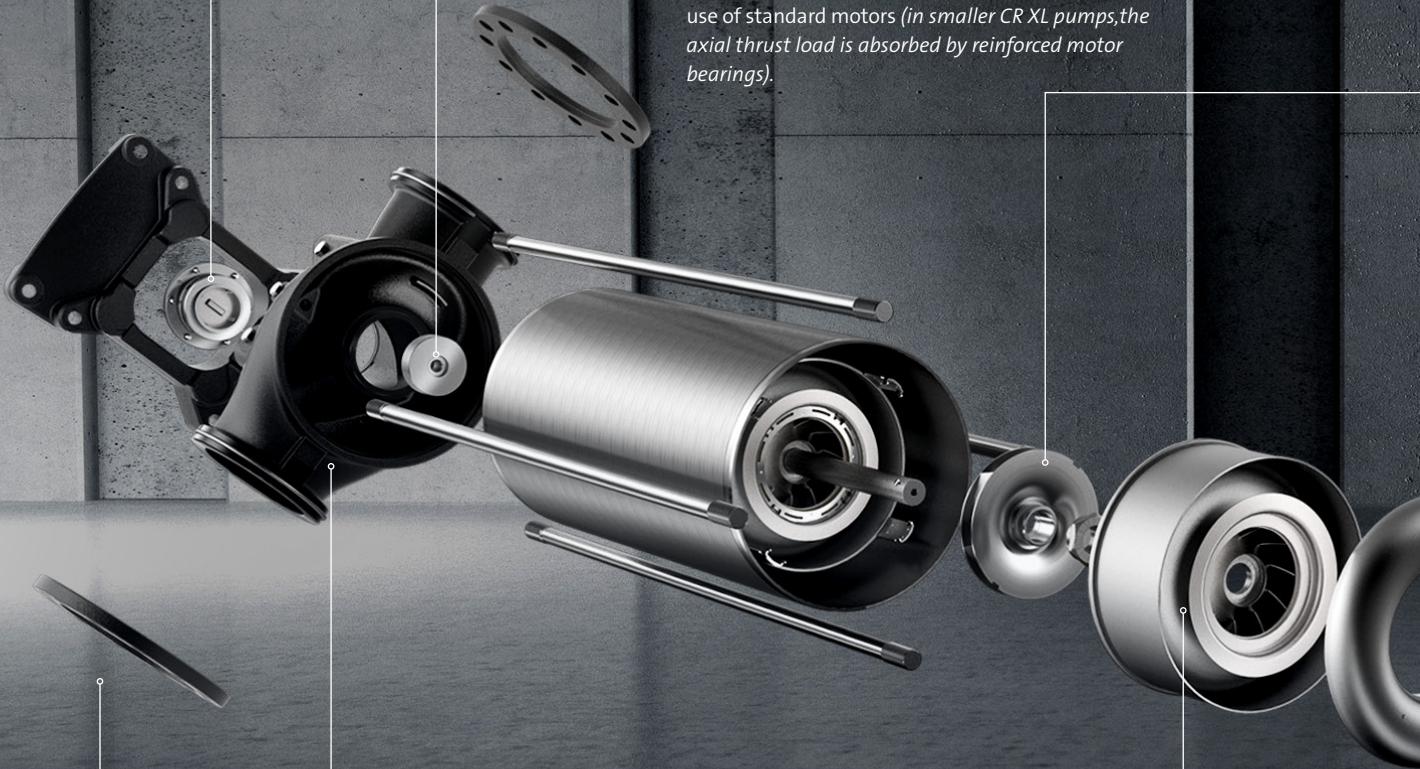
For the largest pumps in the CR XL range - 75kW/100kW - Grundfos has developed the Thrust Handling Device (THD), which prolongs the service life of pump motors and allows for the use of standard motors by employing discharge pressure to balance axial thrust load.





NEW THRUST HANDLING DEVICE (75KW/100KW)

The Thrust Handling Device (THD) uses discharge pressure to balance axial thrust load and allows for use of standard motors (*in smaller CR XL pumps, the axial thrust load is absorbed by reinforced motor bearings*).



FLANGES

A wide selection of flanges ensures that the Grundfos CR XL can be mounted in any type of pipework around the world.

PUMP BASE

The CR XL pump's optimised inlet, with minimal pressure loss, significantly lowers the net positive suction head required (NPSHR) for efficient operation, allowing for much more compact system design. The outlet port has been similarly optimised to improve hydraulic efficiency and overall pump performance.

CHAMBER

Precision profiled leading-edges on the CR XL pump impeller guide vanes reduce turbulence to prevent energy loss in the pumped liquid.

SEAL RINGS

New seal rings reduce pump recirculation to improve overall efficiency.



IMPELLER

By combining laser-welded impellers and chambers with profiled blades and guide vanes on the CR XL pump range, we ensure the highest efficiency possible.



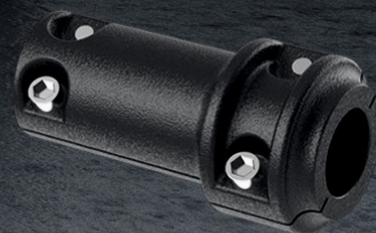
NEW SHAFT SEAL

All CR XL high-capacity pumps now use the field-proven Grundfos cartridge shaft seal, which is both highly durable and easy to replace.

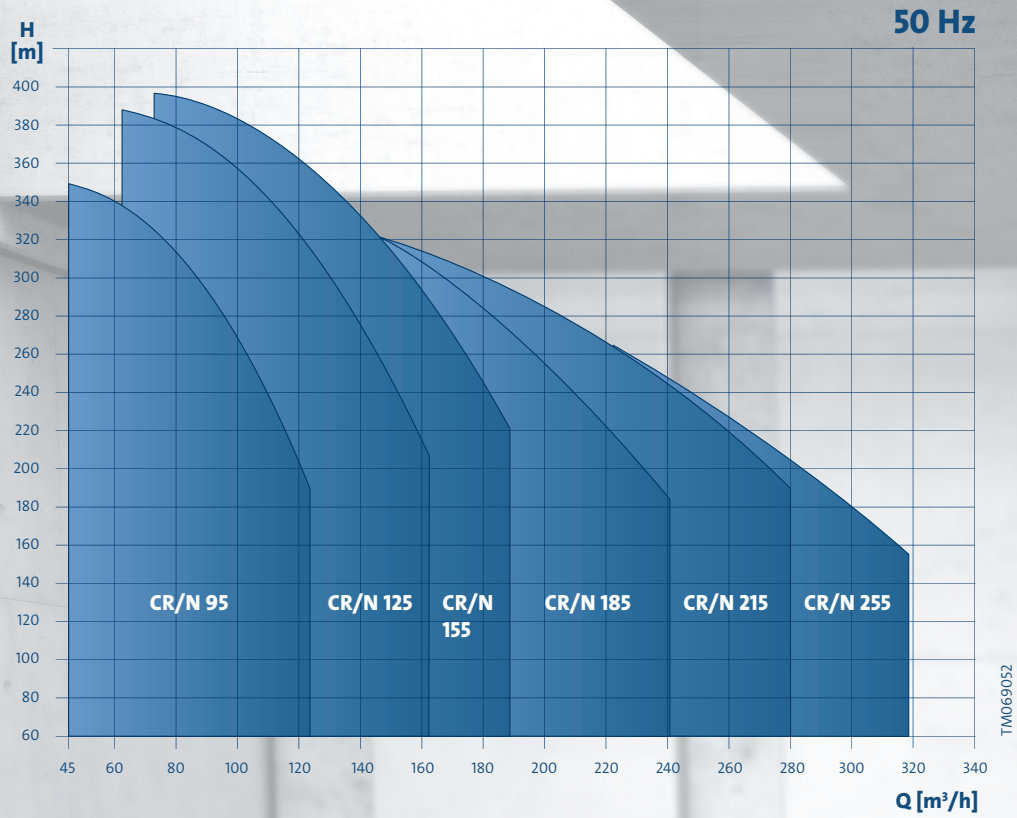


TOP COVER

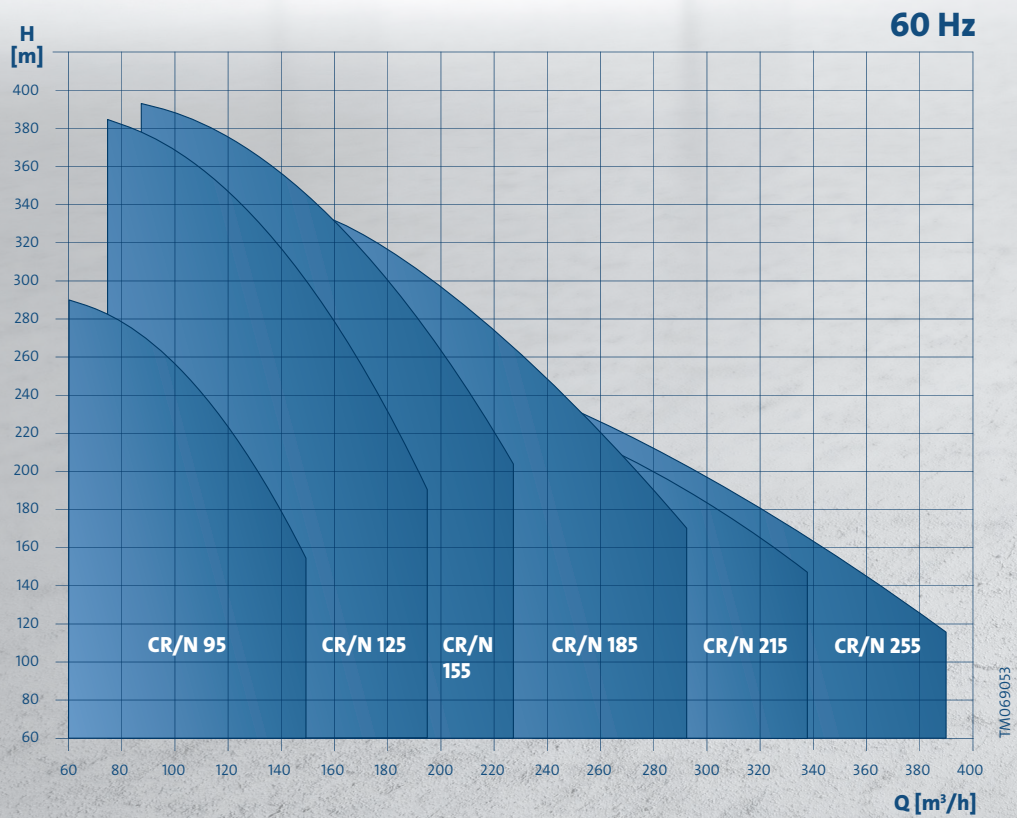
A new cupped top cover minimises recirculation by guiding liquid away from the centre of the pump's chamber stack.



PERFORMANCE CURVES: 50 HZ MODELS



PERFORMANCE CURVES: 60 HZ MODELS



CONTROLS & CUSTOMISATION

MULTIPUMP SOLUTIONS

Cascade control is the most energy-efficient solution in applications with great fluctuations in demand, or rare high peak flow demands. It is a great option for municipal and irrigation pressure boosting and transfer applications.

The Grundfos CR XL range forms the backbone of our pre-tested plug-and-play Hydro MPC pressure boosting systems. This performance-optimised equipment is available in configurations with up to six CR XL pumps of your choosing – allowing for flows up to 1,920m³/h (8453 gpm).



PERFORMANCE CONTROL

Grundfos CRE and CUE variable frequency drives (VFDs) are specifically optimised for pump operation, and available in all voltages and frequencies for pumps in the CR XL range.

Grundfos CR XL pumps up to 22KW (30HP) can be fitted with either integrated CRE VFDs or standalone CUE VFDs. For the large CR XL range, we offer plug-and-play VFDs that can even be preconfigured and tested to suit your specific needs. All CR XL pumps can be connected to a communication interface unit (CIU) to manage communication with – and data transfer to – SCADA, building management systems (BMS) and the Grundfos Remote Management (GRM) internet-based system.



CUSTOMISE YOUR CR XL



LOW NPSH

All Grundfos CR XL pumps can be fitted with a specific low net positive suction head (NPSH) to avoid cavitation in installations with poor inlet conditions.



HORIZONTAL MOUNT

Horizontal mount CR XL pumps are available on request for installations with limited height, such as in earthquake-prone areas or aboard ships.

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