

All your needs covered

Choosing the right pump can be quite hard. While it is easy enough to find a pump that will do the job, it gets trickier when you want an exact match. And there are many good reasons to avoid over-capacity, with energy conservation coming in right at the top of the list. The CR programme lets you choose pumps which exactly match your system demands.

Infinite variety

The CR range is without parallel on the world market. Available in 11 pump sizes, four basic materials and a number of configurations near the one million mark, the CR programme is the most extensive and comprehensive around. You can get CR pumps with magnetic drives, with air-cooled shaft seal chambers, with double shaft seals, etc. Special CR pumps are available for high-pressure performance, for aggressive liquids, and much more. And there is a CR pump for almost any liquid you could possibly want to pump.

The CR range meets all challenges	
Aggressive or corrosive liquids	Seawater, hypochlorites, hydrochloric acid, ferric chloride, nitric acid, chromic acid
Abrasive liquids	Metasilicate, abrasive cleaners/degreasers, phosphates
Toxic or explosive liquids	Trichloroethylene, toluene, petrol, ethyl alcohol, methyl alcohol
High-viscosity liquids	Glycols, lubricating oils, vegetable oils
Hardening liquids	Paints
Crystallising liquids	Glycol additives, naphthalene, sugar products (e.g. dextran), salts
High pressures	Water treatment, cleaning/washing
Extreme temperatures	Oils, boiler feed, secondary coolants

The CR range is available in four different basic materials:



CR
Stainless steel AISI 304 with a cast iron top and base.



CRI
Stainless steel AISI 304 throughout.



CRN
High-grade AISI 316 stainless steel throughout.

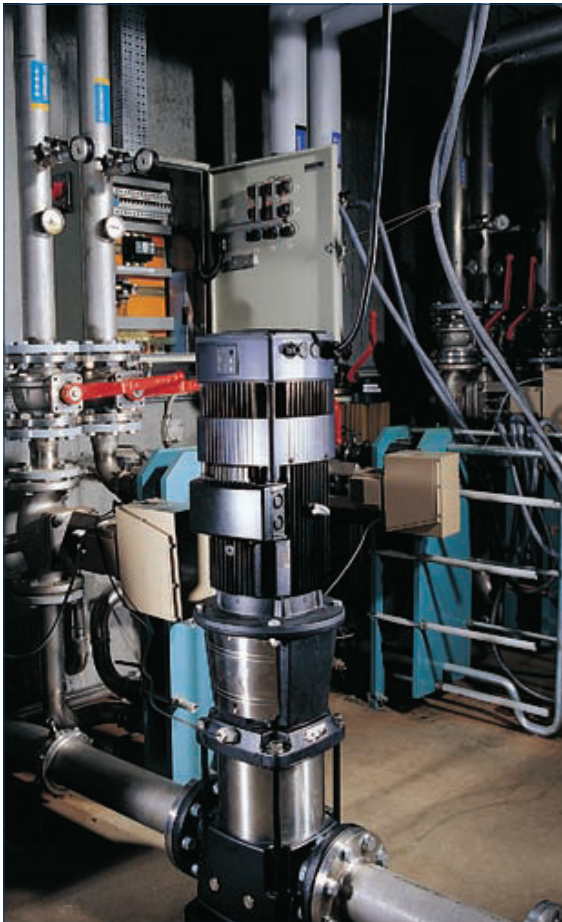


CRT
Titanium throughout.

The Grundfos CRE: Ultimate solutions

Add the final touch with a variable-speed motor

Some matches are truly made in heaven. To accommodate the many situations where the required flows and pressures vary considerably over time, the CR pumps can be supplied with a variable-speed motor that continually adapts pump performance to match current conditions. Known as the CRE series, these pumps combine the very best of pump technology with sophisticated motors developed by Grundfos with optimum efficiency in mind. The result is a range of pumps without peer in the market today.



The CRE pumps represent a happy union between high-quality pumps and superior variable-speed motors. Here, a variable-speed motor is used to give the final touch.

Intelligent solutions to complex situations

Grundfos makes its own motors. That means you can be sure of a perfect match between all the technologies involved. And the net result is intelligent solutions that will take care of everything you need, carefully controlling even the most complex of processes and delivering the exact flow and pressure required.

Do you need constant pressure? Constant differential pressure? Stable PH levels? Specific temperatures? Carefully timed operation? The E-pumps from Grundfos can give you all this and much more.

Communication options

The E-solutions from Grundfos allow you to define industrial processes down to the smallest detail. They can also be remote-controlled and/or linked to management systems of your choice for perfect interaction. CRE offers unique possibilities of monitoring the performance and the result of the performance as well as controlling the pump performance. Or both in the same solution.

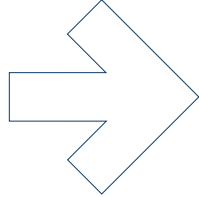
Ultimate efficiency

Variable speed can certainly yield constant benefits. With their ability to change speed to suit the demand, no more and no less, you never spend energy generating pressure you do not require. The electronically controlled motors also give the final touch to the already highly efficient Grundfos CR immersible pumps, saving even more energy. Naturally, this contributes to a very low total Cost of Ownership.

Available in all variants

The entire CR range can be fitted with a variable speed motor, meaning that you can enjoy the benefits of the CRE model regardless of what your other requirements may be.

In short, the combination of Grundfos motor technology and pump expertise guarantees ultimate efficiency. The CRE is a perfect example of the whole being even greater than the sum of its parts.



Create your own

The CR pump can be customised to meet individual requirements with unparalleled ease. This is due to the Grundfos “mix and match” approach to customisation, where the many pump features and options should be regarded as modules that can be combined to create the ideal pump for the job at hand.

In everyday production, Grundfos manufactures a so-called standard range of CR pumps. This in no way represents the full potential of the CR technology, but should simply be regarded as a reflection of general market demands. In effect, the standard range is a shortlist of the most popular and widely applicable multistage solutions around today.

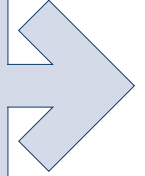
Special designs on request

It is more than likely that we will be able to create exactly the right pump for you by combining the elements and options already available within the CR range. But if you have special requirements or a specific design in mind, let us know. We will do our best to provide full satisfaction.

Motor options

CR motors are available in many different configurations to meet the requirements presented by the power supply, the pumping environment and/or the pumped liquid itself.

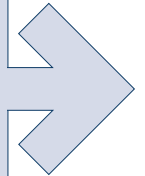
- Power supply systems vary in terms of both frequency and voltage, and protection methods also differ greatly around the world.
- Your environment may be explosive, very hot and/or very humid. Special conditions also apply at great altitudes.
- The liquid pumped can call for a special motor solution. High or low viscosities and/or high or low densities may require non-standard motor sizes. You may also need an explosion-proof variant.



Shaft seal options

Sometimes extreme liquids call for extreme measures.

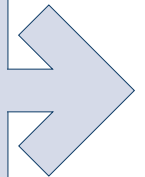
- High temperatures damage seal faces unless precautions are taken.
- Concern for safety can necessitate special measures for aggressive, toxic or explosive liquids.
- Liquids can be harmful to shaft seals because they crystallise, harden or are extremely abrasive.



Pump options

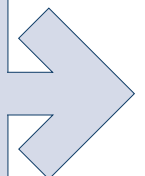
The CR pump elements can handle the most demanding of liquids and pressures and be adapted to suit many other requirements.

- Horizontal installation if height is a limitation
- Poor inlet conditions mean that NPSH values must be adjusted to avoid cavitation.
- Very high pressures demand special solutions.
- You may also need special surface treatments or certificates.



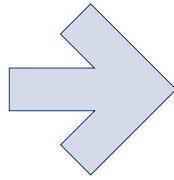
Connection options






Your chosen pump elements can be fitted with exactly the connection options you need. All standards are covered, and special connection variants are available for maximum compactness, high liquid pressures, and so on.

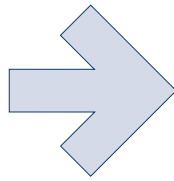





MIX AND MATCH – WITH EXPERT ADVICE

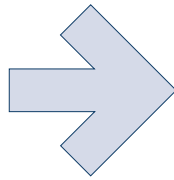
The Grundfos CR range offers the perfect way to create a completely customised solution. The highly skilled Grundfos specialists are always ready to help you combine the various modules in the best possible way.








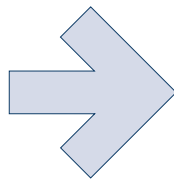
Single phase  Single-phase motors	Four pole  Four pole motors	High efficiency  CEMEP Eff1 motors	Explosion proof  ATEX approved	Motor heater  Anti-condensation unit
---	--	--	--	--








Seal face  Many seal face materials available	Rubber  Variety of rubber (O-ring) materials	Titanium  All-titanium shaft seal	Non-cartridge solution  Any EN12756 shaft seal	Air-cooled  Liquid up to +180°C
---	---	---	--	---



High pressure  Pump pressure up to 45 bar	Horizontal mounting  When height is limited	All stainless steel  Stainless steel base plate, flanges & motor stool	Certificates issued  Many pump & material certificates available	Low temperature  Liquid temperature down to -40°C
---	--	--	--	---



CR oval flange  Internal thread (BSP)	CR flange  DIN, JIS and ANSI flange	CR/CRN PJE  Victaulic coupling	CR/CRN flange  DIN, JIS and ANSI flange	CR/CRN clamp  Compact clamp system
---	--	--	---	--

Boiler feed 	Fire fighting 	Industrial washing 	Water treatment 	Industrial cooling 
---	--	--	---	--

Harting plug



Industrial multiple plug

CSA/UL approved



Canadian / US approval

Protection



PTC sensor or thermal switch

Oversized or undersized



Alternative viscosity or density

Voltage



Special voltage

Enclosure class



Alternative IP class

Mounting



Alternative terminal box position

MAGdrive



Magnetic coupled pump

Double back-to-back



Leakage-proof double seal design

Intensifier



Barrier fluid solution for back-to-back seal

Barrier fluid, dosing pump



Barrier fluid solution for back-to-back seal

Double, Tandem



Flushed seal (Quench)

Alternative colour



Customised paint finish

Bearing flange



For high inlet pressures

Rubber parts



Variety of rubber (sleeve sealing)

Low NPSH



For poor inlet conditions

LiqTec sensor



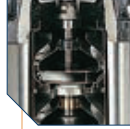
For dry running/ motor protection

Pulley head



For non-electric driver, e.g. diesel

Bearing materials



Variety of pump bearing materials

Surface treatment



Electro polished, cleaned or silicone-free

CR1/CRN oval flange



Internal thread (BSP)

CRN TriClamp



Pharmaceutical/ food industries

CR1/CRN union



External thread (+GF+)

CRT PJE



Victaulic coupling, all-titanium

Custom connection



Customer specified solutions

Car washing



Bleach factory



Petro-chemical



Sea water



Chemical liquids

