CUSTOMIZED SOLUTIONS
Welcome to the Grundfos world of customized pumps...

The Grundfos CR pump range
The basic CR pump range, which applies to almost any industrial solution, is in itself the broadest range available. With our modular approach, we have made it even broader.

The basics
The basic CR pump range is available in four different materials – including cast iron, two grades of stainless steel, and all-titanium versions – in 13 flow sizes, capable of producing almost 725 psi of pressure, and with a variety of shaft seals, rubbers, and supply voltages.

In order to make the CR pumps suitable for even more industrial applications, we have redesigned some of the vulnerable pump parts to enable them to handle difficult liquids or demanding operating conditions. The modular concept of the CR pump range makes it possible to put together a specialized pump for any particular application by selecting the modules best suited for the job from the existing, comprehensive range of module variants.

The modular approach
At Grundfos, we look at the CR pump range as a building system with four interrelated modules including:

Motors: page 6-7
Seal arrangements: page 8-9
Pump parts: page 10-11
Other options: page 12-13

All modules described are tested, qualified, documented and proven, just like any standard Grundfos pump. You can mix and match to suit almost any pump requirement to handle aggressive, abrasive, toxic, explosive, hardening, crystallizing or otherwise difficult liquids.

If your installation has specifications such as limited space, earthquake risk, high altitude, certification requirements, surface roughness, special connections, or you simply want the pump in your company colors – it’s all at hand with the CR pump range.

Adding up all CR pump variants available, we have passed one million – and counting!

High pressure applications
Main applications
• Filtration
• Reverse osmosis
• Steam boiler feeding
• Washing & cleaning
• Industrial processes

High-pressure pumps are subject to demanding operating conditions. High pressure causes increased wear on pump parts and reduces pump life. To avoid unexpected downtime, we provide special pump and shaft seal designs, bearings, etc.

<table>
<thead>
<tr>
<th>Situation</th>
<th>Consequence</th>
<th>Solution</th>
<th>See page</th>
</tr>
</thead>
<tbody>
<tr>
<td>High system pressure</td>
<td>Reduced life of shaft seal</td>
<td>Use special CRN-high pressure or CRN high speed</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>Pump breakage</td>
<td>Use reinforced pump design to handle up to 725 psi</td>
<td>11</td>
</tr>
<tr>
<td>High pump pressure</td>
<td>Too many stages to reach desired pressure, i.e. pump too tall</td>
<td>Use special CRN-high pressure or CRN high speed</td>
<td>11</td>
</tr>
<tr>
<td>Limited space for installation</td>
<td>Pump is too high and may not fit into installation area</td>
<td>MLE high-speed motor solution or horizontal design and bracket mounting</td>
<td>6-10</td>
</tr>
<tr>
<td>Varying frequencies and voltages around the world</td>
<td>Need for different frequencies and voltages</td>
<td>Choose from our wide range of motors with different frequencies and voltages</td>
<td>6</td>
</tr>
</tbody>
</table>

Hot liquid applications
Main applications
• Steam boiler feed
• Washing & cleaning
• Mineral oils
• Industrial processes
• Chemical industries

Hot water exposes pumps to operating conditions which may lead to cavitation and/or cause wear on pump parts, thus reducing pump life. To avoid downtime we provide solutions for steady steam production, poor inlet conditions, hot temperatures, etc.

<table>
<thead>
<tr>
<th>Situation</th>
<th>Consequence</th>
<th>Solution</th>
<th>See page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor inlet conditions</td>
<td>Risk of cavitation</td>
<td>Use low NPSH pump to reduce NPSH curve</td>
<td>10</td>
</tr>
<tr>
<td>High temperature</td>
<td>Shaft seal destroyed</td>
<td>Special Grundfos shaft seal designed to handle hot liquids up to 356°F</td>
<td>9</td>
</tr>
<tr>
<td>Fluctuating steam demand</td>
<td>Pump performance must adapt</td>
<td>CRE, speed controlled pumps</td>
<td>6</td>
</tr>
<tr>
<td>Limited space for installation</td>
<td>Pump is too tall and may not fit into installation area</td>
<td>MLE high-speed motor solution or horizontal design and bracket mounting</td>
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</table>
Difficult liquid applications

Main applications
• Chemical industries
• Pharmaceutical industries
• Petrochemical industries
• Refineries
• Distilling plants
• Paint industries
• Mining

When pumping dangerous and aggressive liquids, safety is critical. We provide solutions for aggressive and abrasive liquids, hazardous and hardening liquids, and flammable liquids.

<table>
<thead>
<tr>
<th>Situation</th>
<th>Consequence</th>
<th>Solution</th>
<th>See page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abrasive liquids</td>
<td>Excessive wear of shaft seal faces</td>
<td>Use double shaft seal (tandem or back-to-back)</td>
<td>8</td>
</tr>
<tr>
<td>Toxic liquids</td>
<td>Contamination of environment or people</td>
<td>Use MAGdrive or double shaft seal</td>
<td>8/9</td>
</tr>
<tr>
<td>Flammable liquids</td>
<td>Risk of explosion or fire</td>
<td>Explosion-proof motor for explosive environments</td>
<td>6</td>
</tr>
<tr>
<td>Crystallizing liquids</td>
<td>Leakage due to crystallization between shaft seal faces</td>
<td>Double shaft seal (tandem or back-to-back)</td>
<td>8</td>
</tr>
<tr>
<td>Aggressive liquids</td>
<td>Corroded pump metal parts or swollen rubber</td>
<td>Special material (e.g. titanium and resistant rubber)</td>
<td>8/9</td>
</tr>
</tbody>
</table>

Temperature control

Main applications
Cooling systems for:
• Electronic data processing
• Laser equipment
• Medical equipment
• Industrial cooling and freezing processes

Pumps used in applications involving temperature control are exposed to very low, very high, or fluctuating temperatures. These extremes stress the materials due to thermal expansion or contraction.

<table>
<thead>
<tr>
<th>Situation</th>
<th>Consequence</th>
<th>Solution</th>
<th>See page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Secondary refrigerants</td>
<td>Standard pumps cannot handle very low temperatures</td>
<td>Special pump capable of handling liquids down to -40°F</td>
<td>10</td>
</tr>
<tr>
<td>Thermal oils</td>
<td>Very high temperatures</td>
<td>Special shaft seal designed to handle oil up to 464°F</td>
<td>9</td>
</tr>
<tr>
<td>Viscous or dense liquids</td>
<td>High viscosity or liquid density causes motor overload</td>
<td>Oversize motor</td>
<td>7</td>
</tr>
<tr>
<td>Temperature control</td>
<td>Adapt pump performance</td>
<td>CRE, speed-controlled pumps</td>
<td>6</td>
</tr>
<tr>
<td>Explosive environment</td>
<td>Risk of explosion or fire</td>
<td>Explosion-proof motor</td>
<td>6</td>
</tr>
<tr>
<td>Limited space for installation</td>
<td>Pump is too tall and may not fit into installation area</td>
<td>MIL high-speed motor solution or horizontal design and bracket mounting</td>
<td>6/10</td>
</tr>
<tr>
<td>Varying frequencies and voltages around the world</td>
<td>Need for different frequencies and voltages</td>
<td>Choose from our wide range of motors with different frequencies and voltages</td>
<td>6</td>
</tr>
</tbody>
</table>

Hygienic applications

Main applications
• Pharmaceutical industries
• Biotechnological industries
• Food and beverage
• Chemical processes

Pumps used in industries where hygienic production is crucial have to comply with strict requirements around design, materials, surface quality, and cleanability. To ensure safe production, we provide solutions for applications with special requirements in secondary hygienic processes.

<table>
<thead>
<tr>
<th>Situation</th>
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<th>Solution</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Bacteria growth</td>
<td>Surface roughness &lt; 0.8 µm</td>
<td>Electropolished pump</td>
<td>13</td>
</tr>
<tr>
<td>Hygienic connections</td>
<td>Drainable base</td>
<td>Standard feature</td>
<td>-</td>
</tr>
<tr>
<td>Marine insurance required</td>
<td>Inspection certificates required</td>
<td>Lloyd's, Veritas, American (ABS), etc.</td>
<td>13</td>
</tr>
<tr>
<td>Installation on ships or other vehicles</td>
<td>Pump stressed due to vibrations</td>
<td>Horizontal installation</td>
<td>10</td>
</tr>
<tr>
<td>No electricity available</td>
<td>Pump must be powered by diesel engines</td>
<td>Pump with belt drive (e.g. for diesel engines)</td>
<td>11</td>
</tr>
<tr>
<td>Special color required</td>
<td>Pump must be classified according to international classification societies</td>
<td>Customized solution offered</td>
<td>13</td>
</tr>
<tr>
<td>Limited space for installation</td>
<td>Pump must be classified according to horizontal design and bracket mounting</td>
<td>Various certificates available</td>
<td>13</td>
</tr>
</tbody>
</table>

Special installation requirements

Main applications
• Ships
• Mobile applications
• Fire fighting
• Earthquake prone areas
• Remote areas
• Space-limiting areas

Certain types of installations require a different pump design than the traditional vertical pump. We provide solutions for applications involving horizontally mounted pumps, belt-driven pumps, ejector pumps, etc.

<table>
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</table>
NEMA premium efficiency motors are available on every CR pump and cover virtually any application. The motors are available in a variety of configurations to meet the demands of the pumping environment and/or the pumped liquid itself.

What follows is an overview of some of the most common motor variants offered by Grundfos. However, the overview covers only a fragment of the total motor range. Please do not hesitate to contact Grundfos if your requirements are not covered by the overview.

- Variety of efficiency levels
- Special supply voltages
- Extreme operating conditions
- Special motor protection
- Specific approval
- Special motor design

### Motors

<table>
<thead>
<tr>
<th>Solution</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explosion proof motors</td>
<td>A full range of special explosion-proof and dust ignition-proof motors are available.</td>
</tr>
<tr>
<td>MLE motors</td>
<td>The Grundfos MLE motor with integrated frequency converter can operate at different speeds to optimize pump performance in the application. - Low speed, to obtain:  - gentle handling of the liquid  - pumping at low NPSH level  - reduced noise emission Over-synchronous speed, to obtain:  - high dynamics  - compact physical size The advanced control can measure and adapt to special applications, including:  - Extended protection of process  - Extended protection of pump and drive  - Pump performance curve adjusted to match individual applications Standard MLE motors have built-in motor protection, pump monitoring, and on-board regulator and sensor supply for control of primary process. If special control is required, the MLE can be equipped with extended I/O cards and a BIS connection. Customized software and add-on hardware can be tailored to match special demands. The MLE motor can be controlled by a variety of interfaces such as:  - buttons on the pump  - advanced RS232 infra-red remote control  - standard analog signals  - BIS communication</td>
</tr>
<tr>
<td>Heating units</td>
<td>Anti-condensation heating can be supplied by a built-in heating unit.</td>
</tr>
<tr>
<td>Thermal protection</td>
<td>Motors with a built-in bimetallic thermal protector (PTO) or a temperature controlled PTC thermostat are available.</td>
</tr>
<tr>
<td>Special voltage</td>
<td>Motors suitable for any supply voltage, single or three-phase, as well as dual voltage options.</td>
</tr>
</tbody>
</table>

### Certificates

The Grundfos laboratory is authorized to issue various certificates for motors:

- Noise
- Vibration
- Performance
- Efficiency

### Over or undersized motors

For use where the viscosity or density is different from that of water, or installations where the altitude exceeds 3280 feet or, where the ambient temperature is very high.

### Terminal box position

The terminal box can be placed on any of the four sides of the pump depending on installation area.

### Enclosure class

TEFC Enclosure class is standard on Grundfos motors. Enclosure class ODP and other options are available.

### Dual frequency:

- 60 Hz 3 x 208-230/460 V
- 50 Hz 3 x 400 V

### Four-pole motor

Four-pole motors for applications where very low noise levels are required or for applications where reduced turbulence of the pumped liquid is desired.

### Over or undersized motors

For use where the viscosity or density is different from that of water, or installations where the altitude exceeds 3280 feet or, where the ambient temperature is very high.

### Terminal box position

The terminal box can be placed on any of the four sides of the pump depending on installation area.

### Enclosure class

TEFC Enclosure class is standard on Grundfos motors. Enclosure class ODP and other options are available.
Extreme liquids call for extreme measures. Most pumps are used for watery liquids at temperatures below 248°F and pressures lower than 435 psi. When liquids go beyond these limits, special shaft seal solutions are required to guarantee reliable operation.

What follows is an overview of some of the most common shaft seal variants offered by Grundfos. However, the overview covers only a fragment of the total shaft seal range. Please do not hesitate to contact Grundfos if your requirements are not covered by the overview.

### Aggressive or corrosive liquids
- Abrasive liquids
- Poisonous and/or explosive liquids
- High- viscosity and/or sticky liquids
- Extraordinary high pressure
- Extraordinary high or low temperature

### Double shaft seal back-to-back
For applications involving dangerous, flammable, or very aggressive liquids, a double shaft seal, back-to-back, fitted in a pressure chamber is available. The pressure in the chamber must be higher than the pump pressure to prevent leakage.

The barrier fluid pressure can be supplied by either a Grundfos dosing pump arrangement (up to 232 psi) or an intensifier for pressure requirements above 232 psi.

### Double shaft seal tandem
For applications involving a high risk of crystallization (e.g. sugar solutions) or hardening (e.g. oil or paint) as well as pumps handling vacuum, a special double shaft seal in a tandem arrangement is available.

Grundfos offers a quenching fluid system for the flushing of the shaft seal.

### Titanium shaft seal
For applications involving a high risk of corrosion, an all-titanium shaft seal variant is available for the all-titanium CRT pumps.

### LiqTec™ dry running protection
The Grundfos LiqTec™ is an electronic anti-dry-running sensor that stops the pump immediately if it senses no liquid. The LiqTec™ can also monitor the flow and temperature of the pumped liquid and can operate as a PTC relay for the motor to monitor motor overload.

### Shaft seal variants
Grundfos offers a wide range of balanced cartridge shaft seals with different seal faces such as silicon carbide, carbon and tungsten carbide to handle almost any industrial liquid.

### Rubber materials
Chemical-resistant Fluoraz® (FXM) or Kalrez® (FFKM) rubber O-rings are available in applications where the liquid may damage standard o-rings. (Standard o-ring materials are ethylene-propylene (EPDM), Viton® (FKM)).

### High temperatures
Pumps that handle high temperatures are fitted with a special air-cooled shaft seal chamber enabling them to withstand water temperatures of up to 356°F, (thermal oil of up to 464°F). No external cooling is required.
PUMP MODULES

- All the made-to-stock CR pump modules can handle the most demanding of liquids and pressures – and can be adjusted for virtually any requirement. The modules can be combined in multiple ways making it possible for us to provide you with a pump solution that matches your specific needs. CR pumps come in many flow sizes and various grades of corrosion-resistant stainless steel – and an all-titanium variant.
- What follows is an overview of some of the most common pump variants offered by Grundfos. However, the overview covers only a fragment of the total pump range. Please do not hesitate to contact Grundfos if your requirements are not covered by the overview.
- High inlet pressure
- High-pressure pump systems required (up to 725 psi)
- Pumping of gas or particle-entrained liquids
- Pumping of high-viscosity or sticky liquids
- Low NPSH level
- Horizontal pump mounting
- No carbon or silicone allowed
- Special materials required

<table>
<thead>
<tr>
<th>Solution</th>
<th>Description</th>
<th>Photo</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low NPSH pump</td>
<td>For applications involving poor inlet conditions, (e.g. boiler feed), special low NPSH versions are available to reduce NPSH and eliminate cavitation.</td>
<td><img src="image1" alt="Photo" /></td>
</tr>
<tr>
<td>All stainless steel</td>
<td>For applications exposed to a corrosive environment, (e.g. maritime applications), or where frequent wash-down occurs, a stainless steel base plate and motor stool are available. All parts exposed to the corrosive environment is made of stainless steel.</td>
<td><img src="image2" alt="Photo" /></td>
</tr>
<tr>
<td>Horizontal mounting</td>
<td>Certain situations require the pumps to be mounted horizontally. The CR pumps can be designed to fit installations with limited height, on vehicles, or ships, or in earthquake prone areas.</td>
<td><img src="image3" alt="Photo" /></td>
</tr>
<tr>
<td>Refrigerant pump</td>
<td>For applications handling temperatures down to -40°F, special coolant pumps are available. Because of different thermal coefficient of expansion, special design is required.</td>
<td><img src="image4" alt="Photo" /></td>
</tr>
<tr>
<td>Carbon-free solution</td>
<td>For processes that require carbon-free installations (e.g. electronics industry).</td>
<td><img src="image5" alt="Photo" /></td>
</tr>
<tr>
<td>Silicon-reduced solution</td>
<td>For processes that require no silicon, (e.g. paint industry), 100% silicon-reduced solutions are available.</td>
<td><img src="image6" alt="Photo" /></td>
</tr>
<tr>
<td>Rubber materials</td>
<td>Chemical-resistant Fluoroaz® (FKM) or Kalrez® (FFKM) rubber O-rings are available in applications where the liquid may damage standard o-rings. (Standard o-ring materials are ethylene-propylene (EPDM), Viton® (FKM)).</td>
<td><img src="image7" alt="Photo" /></td>
</tr>
<tr>
<td>Pump bearings</td>
<td>A wide variety of bearing materials are available to suit any application, (e.g. silicium carbide, bronze, tungsten carbide, and carbon-filled polytetrafluoroethylene (PTFE)).</td>
<td><img src="image8" alt="Photo" /></td>
</tr>
<tr>
<td>High pressure pumps</td>
<td>For high-pressure applications, special single or double-pump solutions are available. These pumps are capable of generating up to nearly 725 psi pressure. To avoid high pressure near the vulnerable shaft seal, the hydraulic design of high-pressure pumps ensures that the highest pressure is generated at the base of the pump, farthest away from the shaft seal.</td>
<td><img src="image9" alt="Photo" /></td>
</tr>
<tr>
<td>Belt-drive</td>
<td>For applications in remote areas or mobile applications where electric power is not available, belt-driven pumps powered by another means such as a diesel engine or a steam turbine, can be supplied.</td>
<td><img src="image10" alt="Photo" /></td>
</tr>
</tbody>
</table>
In addition to the range of variants relating to the motor, shaft seal, or pump module of the CR products presented on the foregoing pages, Grundfos offers a variety of other customized solutions to suit almost any conceivable need or requirement that you may have. For instance, a variety of connection options are available, as are pump models for additional corrosion requirements, hygienic demands, or pumps in special colors.

The following overview presents only a fraction of the many possibilities that we offer. Please do not hesitate to contact Grundfos if your requirements are not covered by the overview.

## OTHER OPTIONS

What you need. Guaranteed.

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.

**Great tools are just a mouse-click away!**

Grundfos offers the market’s most comprehensive, 24-hour, on-line access to everything you need to maintain or service your system, from CAD drawings to installation videos and operating instructions. Go to www.grundfos.us, choose “WinCAPS and WebCAPS” under “Resources” and select “WebCAPS Grundfos on-line catalog”. Find detailed technical information, drawings, wiring diagrams, dimensioning – everything!

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<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Hygienic</td>
<td>For applications in the pharmaceutical and biotechnology industry. Special hygienic solutions are available (e.g. electropolished pumps with TriClamp connections).</td>
<td><img src="image1.png" alt="Hygienic Solution" /></td>
</tr>
<tr>
<td>Additional corrosion resistance</td>
<td>For applications with a need for improved corrosion resistance, electropolished stainless steel or all-titanium pumps are available.</td>
<td><img src="image2.png" alt="Additional Corrosion Resistance" /></td>
</tr>
<tr>
<td>Cleaned and dried pump components</td>
<td>For applications with very strict requirements and/or cleanliness. All pump parts have been cleaned in hot soapy water, rinsed in de-ionized water, and packed in silicon-free plastic bags.</td>
<td><img src="image3.png" alt="Cleaned and Dried Components" /></td>
</tr>
<tr>
<td>Special colors</td>
<td>Pumps are available in a multitude of colors to match any requirement.</td>
<td><img src="image4.png" alt="Special Colors" /></td>
</tr>
<tr>
<td>Certificates</td>
<td>A wide range of pump and material certificates are available, e.g. inspection certificates including Lloyd’s(LRS), Veritas (DNV), American (ABS) etc., as well as material specification, duty point verification, surface roughness, vibration test, motor test, ATEX, and much more.</td>
<td><img src="image5.png" alt="Certificates" /></td>
</tr>
<tr>
<td>Multi packaging</td>
<td>Pumps can be delivered on pallets without any additional packaging (cardboard).</td>
<td><img src="image6.png" alt="Multi Packaging" /></td>
</tr>
</tbody>
</table>
### PERFORMANCE CURVES AND TECHNICAL DATA

#### CRN & CRI 1s

<table>
<thead>
<tr>
<th>CRN 1</th>
<th>CRN 2</th>
<th>CRN 3</th>
<th>CRN 4</th>
<th>CRN 5</th>
<th>CRN 6</th>
<th>CRN 7</th>
<th>CRN 8</th>
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<td>75</td>
<td>80</td>
<td>85</td>
<td>90</td>
<td>95</td>
<td>100</td>
</tr>
</tbody>
</table>

#### CRN 1s

- Max. working pressure (psi) - [values listed for different CRNs]
- CR: Flow range (US GPM) - [values listed for different CRNs]
- Max. pump efficiency (%) - [values listed for different CRNs]
- ANSI Flange Size - [values listed for different CRNs]
- ANSI Flange Class - [values listed for different CRNs]
- Max. working pressure (psi) - [values listed for different CRNs]
- ANSI Flange Size - [values listed for different CRNs]
- ANSI Flange Class - [values listed for different CRNs]
- Max. working pressure (psi) - [values listed for different CRNs]

#### CRN 20 CRN 32 CRN 64 CRN 90 CRN 45

- CR: Flow range (US GPM) - [values listed for different CRNs]
- Max. working pressure (psi) - [values listed for different CRNs]
- ANSI Flange Size - [values listed for different CRNs]
- ANSI Flange Class - [values listed for different CRNs]
- Max. working pressure (psi) - [values listed for different CRNs]

#### CR: Flow range (US GPM)

- CRN 1 to CRN 10 - [values listed for different CRNs]
- CRN 10 to CRN 15 - [values listed for different CRNs]
- CRN 15 to CRN 20 - [values listed for different CRNs]
- CRN 20 to CRN 30 - [values listed for different CRNs]
- CRN 30 to CRN 40 - [values listed for different CRNs]
- CRN 40 to CRN 50 - [values listed for different CRNs]
- CRN 50 to CRN 60 - [values listed for different CRNs]
- CRN 60 to CRN 70 - [values listed for different CRNs]
- CRN 70 to CRN 80 - [values listed for different CRNs]
- CRN 80 to CRN 90 - [values listed for different CRNs]
- CRN 90 to CRN 100 - [values listed for different CRNs]

#### CR: Flow range (US GPM) - [values listed for different CRNs]

- CRN 1 to CRN 10 - [values listed for different CRNs]
- CRN 10 to CRN 20 - [values listed for different CRNs]
- CRN 20 to CRN 30 - [values listed for different CRNs]
- CRN 30 to CRN 40 - [values listed for different CRNs]
- CRN 40 to CRN 50 - [values listed for different CRNs]
- CRN 50 to CRN 60 - [values listed for different CRNs]
- CRN 60 to CRN 70 - [values listed for different CRNs]
- CRN 70 to CRN 80 - [values listed for different CRNs]
- CRN 80 to CRN 90 - [values listed for different CRNs]
- CRN 90 to CRN 100 - [values listed for different CRNs]
The CR range from Grundfos
Grundfos was the first company ever to develop a multi-stage in-line pump. The present-day CR pump series is the most extensive in-line pump program on the market and remains second to none. With many innovative features unique to Grundfos, CR pumps provide superior reliability and the lowest possible cost of ownership to customers worldwide.

Customization made easy
In order to meet all customer requirements with complete precision, Grundfos has developed a unique mix-and-match approach to customization. The elements of the CR range can be combined any which way to create the solution that is exactly right for you.

Grundfos: a pump for every purpose
Impressive as the CR range is, Grundfos offers much more. A complete range of pump solutions means that all applications – industrial and domestic – can benefit from the Grundfos touch.

Customers can always rely on our complete dedication to quality and service.