

## GRUNFOS CR



### The ultimate multistage pump

Grundfos was the first pump manufacturer ever to create a vertical multistage in-line pump. Known as the CR pump, this innovative design has inspired followers all over the world. Even so, continuous development and innovation ensure that the Grundfos CR pumps remain unmatched.

The CR pump of today reflects the needs and requirements of customers worldwide. All development work at Grundfos is carried out with the end-users in mind.

- **Superior reliability**
- **Focus on cost of ownership**
- **Custom-built pumps**

The new generation of Grundfos CR pumps features a full range of sizes and limitless scope for combinations to suit your specific needs. At Grundfos, innovation is about making things better. And we focus our effort where it matters: **inside**

#### Reliability

The CR pumps is renowned for its reliability. The CR pump design has all the durability that customers expect from a high quality multistage pump.

We have added unique features to ensure unsurpassed reliability:

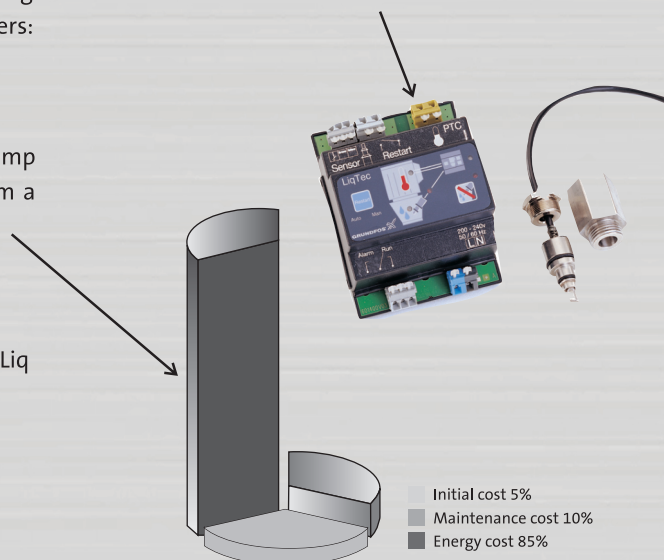
- Dry running protection by introducing the Grundfos Liq Tec.
- A unique cartridge seal for a safe and easy handling
- Hard-wearing materials.

#### Focus on cost of ownership

Electricity is the most expensive part of any pump operation. This simple fact is often overlooked when pumps are compared.

It may still surprise some to learn that the purchase price and maintenance costs account for less than 15% of the total life-time cost of a pump. Obviously, this means that electricity accounts for a staggering 85% or more of the total costs. This is where the Grundfos CR pump makes a real difference.

When pumps are running many hours per day, a 10 percentage point increase in pump efficiency will quickly transform into an energy saving measure, month after month, for the entire life of the pump.



## Custom-built pumps

The foundation of the Grundfos industrial range-the CR series of in-line multistage centrifugal pumps is unmatched by any other brand in pump performance and in its ability to withstand aggressive liquids.

The Grundfos CR range offers variants in motors (flame proof), seals (double seal, quench) & pumps (magnetic sealless, air-cooled top) thereby providing an ideal mix & match for any conceivable industrial applications.

### Electrical data

#### CR, CRI, CRN pumps

	MMG / MG motor
<b>Mounting designation</b>	up to 4kW : V18 From 5.5kW : V1
<b>Insulation class</b>	F
<b>Efficiency class</b>	IE 3
<b>Enclosure class</b>	IP55*
<b>Supply voltage</b>	3 x 380 - 415 V
<b>(Tolerance: +/-10%)</b>	1 x 220 - 230 / 240 V (up to 2.2 kw)
<b>Supply frequency</b>	50 Hz
* IP 44, IP 54 and IP 65 - on request	

## Typical Applications

### Applications

#### Industry

Pressure boosting in...  
Process water systems  
Washing and cleaning systems  
Fire fighting systems

#### Water treatment

Ultra-filtration systems  
Reverse osmosis systems  
Softening, ionising, demineralizing systems  
Sea water

#### Liquid transfer in...

Cooling and air-conditioning systems (refrigerants)  
Boiler feed and condensate systems  
Machine tools (cooling lubricants)  
Aquafarming

#### Transfer of

Oils and alcohols

#### Chemical process industries

Chloride containing salts (ferric chloride)  
Oxidising acids (nitric acid, chromic acid)

- Recommended version
- Alternative version

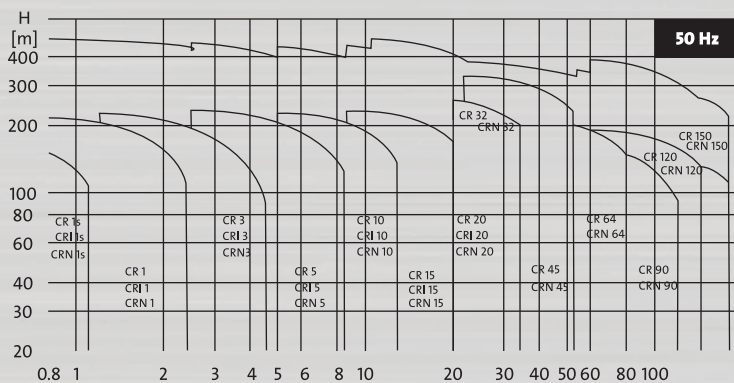
#### Water supply

Pressure boosting in high-rise buildings, hotels etc.  
Pressure boosting for industrial water supply

#### Irrigation

Sprinkler irrigation

### Performance range of CR, CRI, CRN



Type	Description
CR	SS 304 with cast iron top and base
CRI	SS 304 with SS 316 top & base
CRN	SS 316 throughout
CRT	Titanium throughout

### Product range

Range	CR 1s CRI 1s CRN 1s	CR 1 CRI 1 CRN 1	CR 3, CRI 3 CRN 3	CR 5 CRI 5 CRN 5	CR 10 CRI 10 CRN 10	CR 15 CRI 15 CRN 15	CR 20 CRI 20 CRN 20	CR 32 CRI 32 CRN 32	CR 45 CRI 45 CRN 45	CR 64 CRI 64 CRN 64	CR 95 CRI 95 CRN 95	CR 125 CRI 125 CRN 125	CR 155 CRI 155 CRN 155
Nominal flow rate [m³/h]	0.8	1	3	5	10	15	20	32	45	64	95	125	155
Temperature range [°C]	-20 to +120						-30 to +120 <sup>ii</sup>						
Temperature range [°C] - on request	-40 to +180						-40 to +180						
Max. pump efficiency [%]	35	48	58	66	70	72	72	78	79	80	81	82	82
Flow range [m³/h]	0.3-1.1	0.7-2.4	1.2-4.5	2.5-8.5	5-13	9-24	11-29	15-40	22-58	30-85	45-120	60-160	75-200
Max pressure [bar]	21	22	24	24	22	23	25	28	33	22	37 <sup>ii</sup>	39 <sup>ii</sup>	40 <sup>ii</sup>
High pressure [bar]-on request	-	47	41	47	44	47	48	50	49	41	-	-	-
Motor power [kW]	0.37-1.1	0.37-2.2	0.37-3	0.37-5.5	0.37-7.5	1.1-15	1.1-18.5	1.5-30	3-45	4-45	5.5-55	11-110	11-110

<sup>ii</sup>Technical data subject to changes

For more information contact us:

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