

GRUNFOS CR RANGE

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:

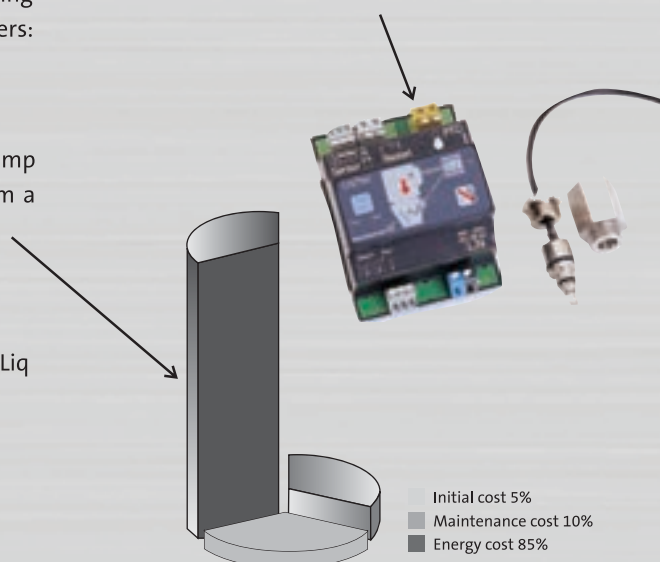
- Dry running protection by introducing the Grundfos Liq Tec.
- A unique cartridge seal for a safe and easy handling
- Hard-wearing materials.

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

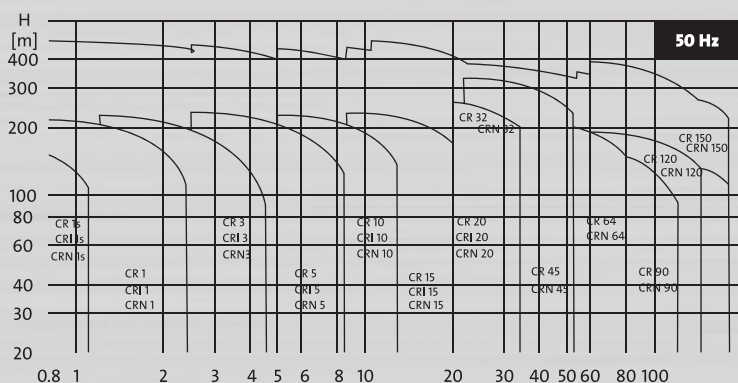
CR, CRI, CRN pumps

	MMG / MG motor
Mounting designation	up to 4kW : V18 From 5.5kW : V1
Instulation class	F
Efficiency class	IE 3 / IE 2
Enclosure class	IP55*
Supply voltage	3 x 380 - 415 V
(Tolerance: +/-10%)	1 x 220 - 230 / 240 V (up to 2.2 kw)
Supply frequency	50 Hz
* IP 44, IP 54 and IP 65 - on request	

Typical Applications

Applications	CR, CRI	CRN	CRT
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	CR 1	CR 3,	CR 5	CR 10	CR 15	CR 20	CR 32	CR 45	CR 64	CR 90	CR 120	CR 150
	CR1s CRN 1s	CRI 1 CRN 1	CRI 3 CRN 3	CRI 5 CRN 5	CRI 10 CRN 10	CRI 15 CRN 15	CRI 20 CRN 20	CRN 32	CRN 45	CRN 64	CRN 90	CRN 120	CRN 150
Nominal flow rate [m³/h]	0.8	1	3	5	10	15	20	32	45	64	90	120	150
Temperature range [°C]	-20 to +120						-30 to +120						
Temperature range [°C] - on request	-40 to +180						-40 to +180						
Max. pump efficiency [%]	35	48	58	66	70	72	72	78	79	80	80	75	72
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	75-180
Max pressure [bar]	21	22	24	25	23	24	25	28	32	23	20	21	19
High pressure [bar]-on request	-	47	47	47	47	47	47	39	40	39	41	41	39
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	5.5-45	11-75	11-75

*Technical data subject to changes

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