

I Application

The RF pump is a flexible impeller pump. Due to the design, these pumps are reversible, self-priming and can suck from a maximum height of 5 meters. This type of pump is designed to pump products of both low and high viscosity as well as products containing particles or gases.

The main applications are transfer of dairy products, edible oils, wine and beverages in general.

I Operating principle

Due to the eccentric shape of the pump housing, a vacuum is created in the suction side that enlarges the volume between the blades and this causes the product suction.

The rotor is spinning and the product is carried from the suction side to the discharge outlet. Due to the eccentric shape of the pump housing, at the discharge side the blades bend, reducing the volume between them and causing the discharge of the product.

I Design and features

Bare shaft or close-coupled construction.

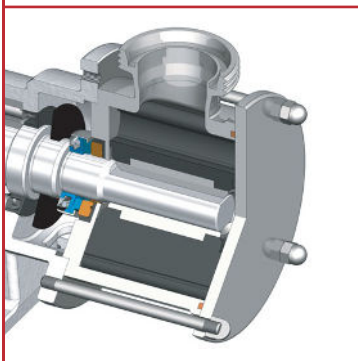
Reversible and self-priming pump.

Machined investment casting casing.

Double flat drive of the impeller.

External single mechanical seal.

Easy maintenance.



I Technical specifications

Materials:

Steel parts in contact with the product Stainless steel AISI 316L (1.4404)

Other steel parts Stainless steel AISI 304 (1.4301)

Lantern and bearing support GG-22

Impeller CR (Neoprene)

Gaskets in contact with the product NBR



I Technical specifications

Mechanical seal:

Rotary part	Carbon (C)
Stationary part	Ceramic (Cer)
Gasket	NBR

Surface finish:

Internal	Bright polish $Ra < 0,8 \mu m$
External	Matt

Connections:

DIN 11851
CLAMP
SMS
(other connections available on request)

Operating limits:

Maximum flow	28 m ³ /h	132 US GPM
Maximum working pressure*	2 - 4 bar	29 - 58 PSI
Maximum working temperature	+80°C	176°F
Maximum speed	1450 rpm	

*depending on the model

Pump	Flow ⁽¹⁾ [m ³ /h]	Starting torque ⁽²⁾ [Nm]	Reverse torque ⁽²⁾ [Nm]	Maximum differential pressure [bar]		Speed [rpm]
				Close-coupled	Bare shaft	
RF-02/20	1,4	4,7	7,1	3	4	
RF-05/25	4	7,3	13,4	2,5	4	
RF-10/40	9	15,1	31,6	2,5	4	1450
RF-20/50	20	24,4	51,6	2	2	
RF-30/65	28	64,3	110,5	-	4	

(1) Maximum flow for clean non-viscous liquids.

(2) The use of a frequency drive can cause a decrease of the motor starting torque.

I Motor

3 phase induction motor with B14 flange and B3 legs, in compliance with the IEC standard, 4 poles = 1500/1800 rpm, efficiency class according to EC regulation, IP 55 protection and F-class insulation.

3 phases, 50 Hz, 230 V Δ / 400 V Y, ≤ 4 kW

3 phases, 50 Hz, 400 V Δ / 690 V Y, $\geq 5,5$ kW

I Options

SiC/SiC or SiC/C mechanical seals.

Food-grade neoprene impeller (BfR).

Other types of connections.

Motors with other protections.

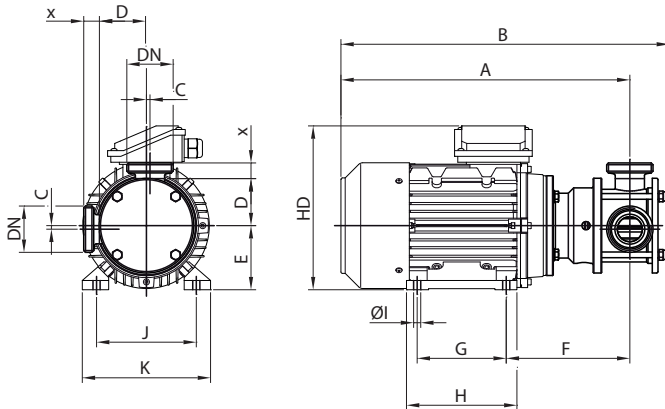
1000 rpm motors.

Electric panel with 10 m cable.

Stainless steel trolley.



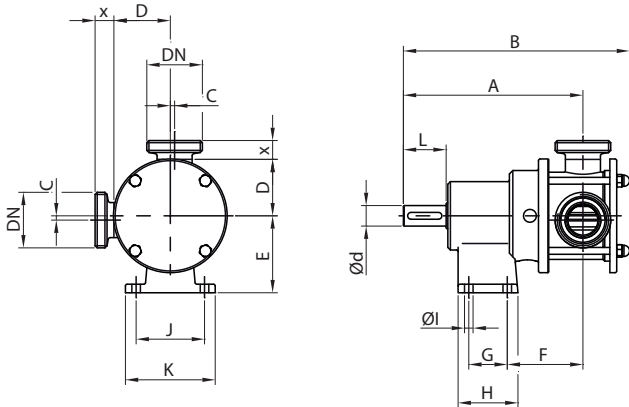
I Dimensions



Pump	DN	X		
		DIN	SMS	CLAMP
RF-02/20	25 1"	22	19	12,5
RF-05/25	25 1"	22	19	12,5
RF-10/40	40 1½"	22	23	12,5
RF-20/50	50 2"	23	23	12,5

Pump	Motor 1500		DN	A	B	C	D	E	F	G	H	ØI	J	K	L	kg
	Size	kW														
RF-02/20	80	0,75	25 1"	330	350	2	51,5	80	139	100	125	9	125	155	220	14
RF-05/25	80	0,75	25 1"	340	370	2	55,5	80	148	100	125	9	125	155	220	15
RF-10/40	90	1,5	40 1½"	410	445	5	66	90	174	125	155	10	140	180	240	25
RF-20/50	100	3	50 2"	460	510	6,5	80	100	205	140	180	12	160	200	265	37

Bare shaft pump



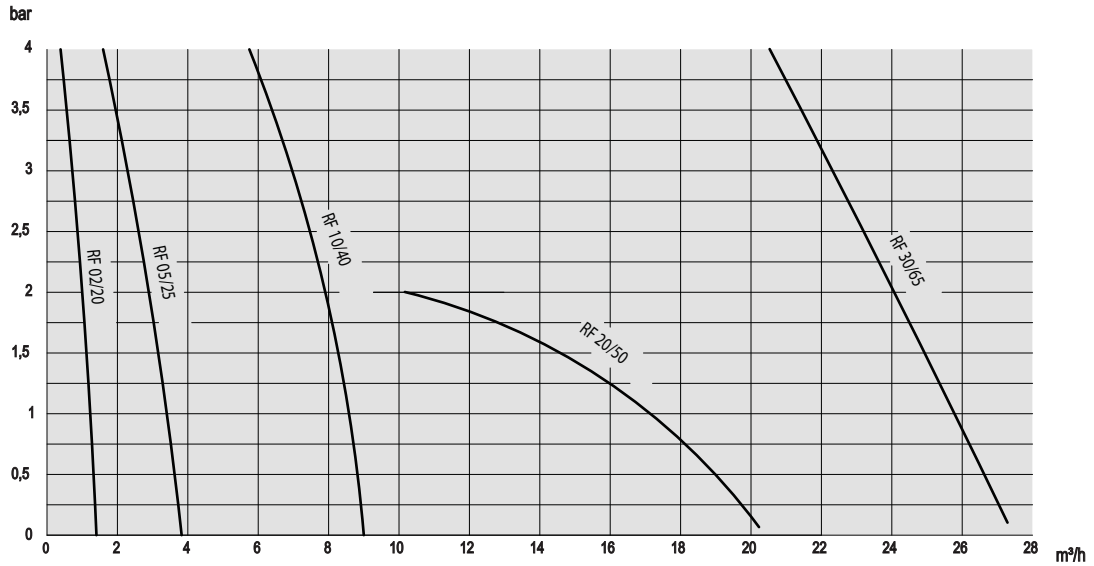
Pump	DN	X		
		DIN	SMS	CLAMP
RF-02/20	25 1"	22	19	12,5
RF-05/25	25 1"	22	19	12,5
RF-10/40	40 1½"	22	23	12,5
RF-20/50	50 2"	23	23	12,5
RF-30/65	65 2½"	25	27	12,5

Pump	DN	Ød	A	B	C	D	E	F	G	H	ØI	J	K	L	kg
RF-02/20	25 1"	19	172	206	2	51,5	80	74	30	60	9	70	90	40	4,5
RF-05/25	25 1"	19	181	225	2	55,5	80	83	30	60	9	70	90	40	5
RF-10/40	40 1½"	24	210	265	5	66	90	88	45	70	10	80	105	50	9
RF-20/50	50 2"	28	272	335	6,5	80	100	109	75	105	11	90	120	60	17
RF-30/65	65 2½"	28	280	350	10	85	100	117	75	105	11	90	120	60	21



I Performance charts

1450 rpm



900 rpm

