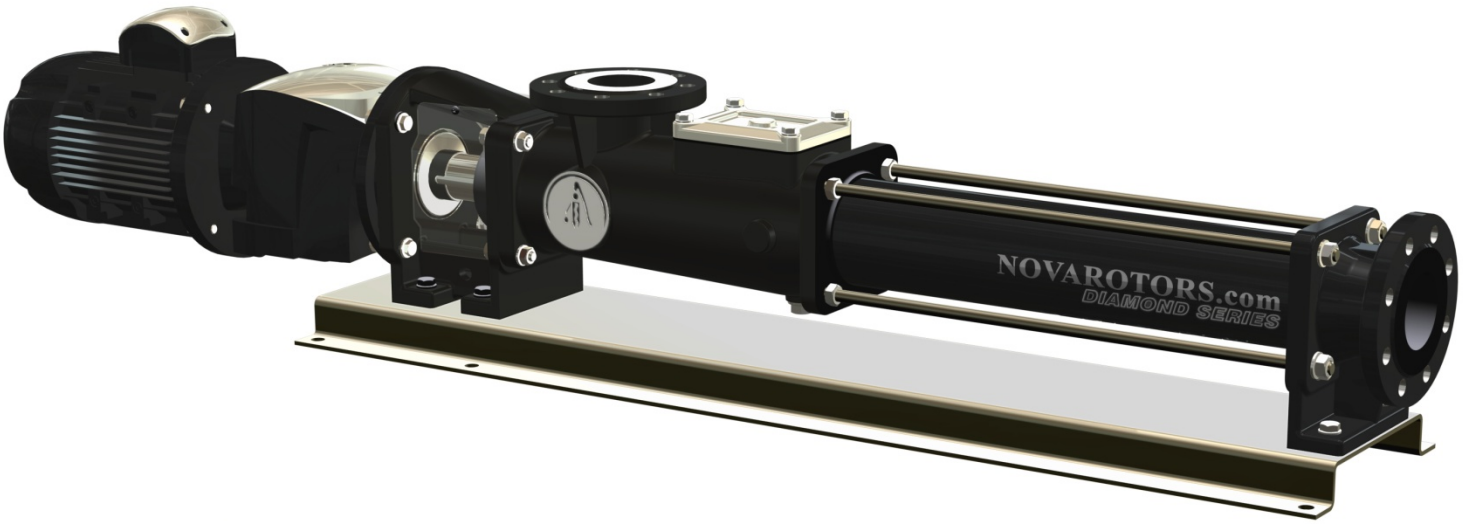
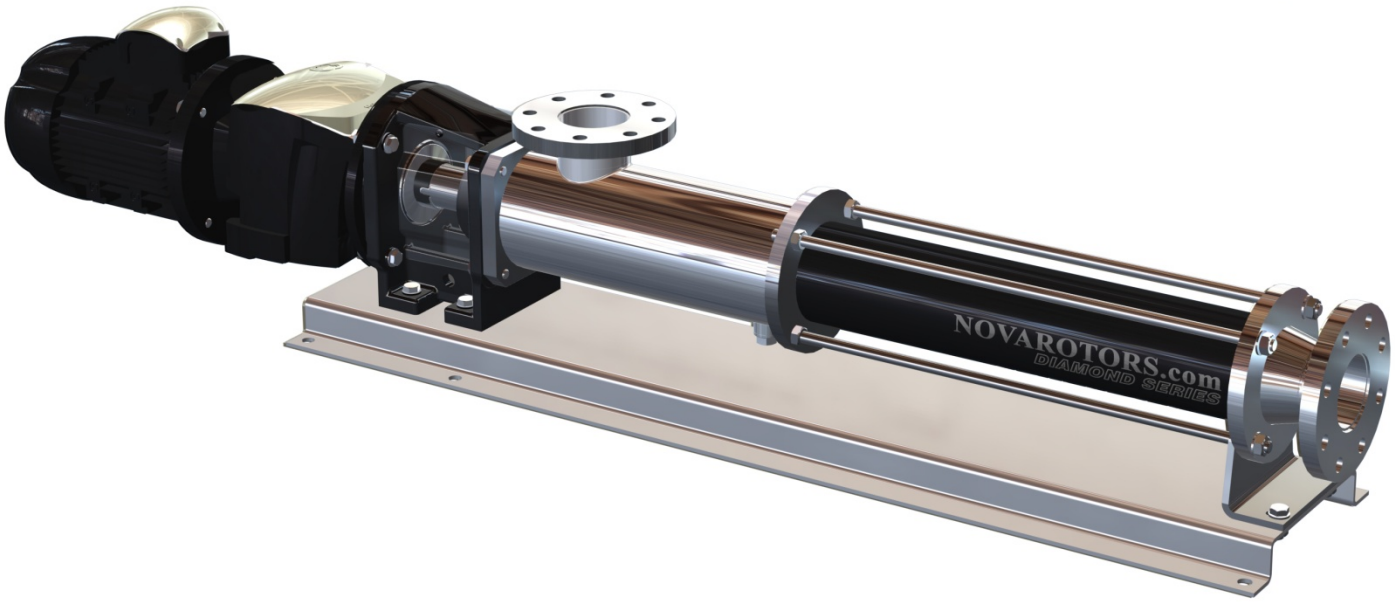
NOVA ROTORS® srl

Progressing cavity Pumps





DIAMOND SERIES

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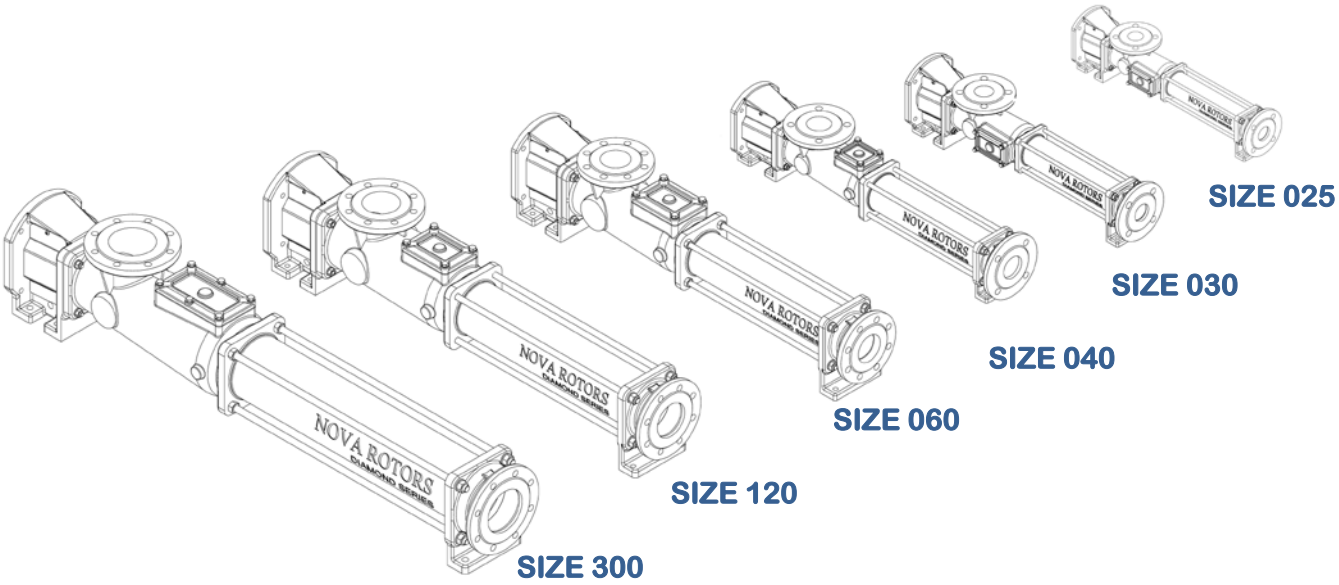
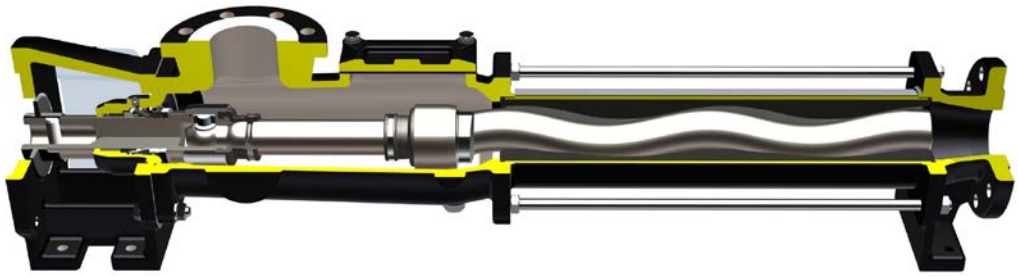
Nova Rotors presents its new range of progressing cavity pumps called the Diamond Series.
Completely renewed mechanics to increase the performance with a new aggressive design. These pumps are completely reversible. Available a wide pumps range.



- One stage stator with long pitch geometry to improve the performance.
- Reversible flow up to 3 bar as standard: Up to 12 bar with hydraulic balance.
- Pump fixed to motorization with a pin to permit the reversibility.
- Joints: strong and compact with geometry and dimensions projected to enable the max NPSH.
- Transmission shaft with universal pin joint patented pending with bushing guide and transmission guide to enable long endurance and reliability . This is to reduce to a minimum wearing of the pin.
- The bush prevents the substitution of the transmission shaft, reducing maintenance costs and times.
- Rubber sleeves: designed to increase the long activity, with special geometry. Suitable in case of sharp solids in the medium.
- The universal joint is the same for all the range both for cast iron and SS versions. Only difference is the dimensions and materials.
- The rotating parts are in SS. Can also be produced in other materials.
- Is easy to maintenance but not expensive. Fewer components of smaller dimension under wearing.
- The stator seal is integrated at both ends. No O-ring needed.
- stator positioned to prevent rotation, thanks to the body parts.
- Large cross section between stator and body, with smooth design, to increase medium suction
- The standard version has a single mechanical seal. Large spectrum of seal solutions: packing seal, double mech.seal and cartridge.
- Modular bearing housing with taper roller bearings. With blocking nut to regulate the perfect preload.
- Easy maintenance of the bearing, considering the compact dimensions. Integrated lubrication system easy and efficient.
- Large solution range for the pump body, outlet flange in order to insert any measuring devices.
- Rotor: available coating and thermal treatments for the management of heavy applications.
- Certifications: Atex and API; food grade EHEDG certif. 2013.
- Rational codes for Diamond series refer to the capacity at 400rpm.
- Compact design with a good relationship quality/price. Easy installation thanks to the reduced dimensions.

PUMP COMPONENTS

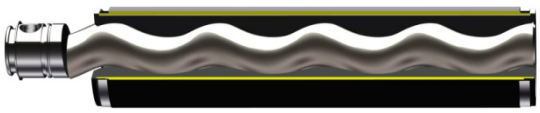


ROTOR

It's a screw shape rotating into the stator, allows the pumping of the fluid. The pressure of the pump depends on the number of stages. Every stage gives a pressure of 6 bar. Nova Rotors has two types of rotors: standard and long peach geometry that, considering the same diameter and eccentricity, doubles the capacity increasing pump performance.

MATERIALS: steel Aisi 420B, st.steel 304/316 and st.steel 304/316 HCP, hardened steel, ceramic steel, duplex.

ROTOR STANDARD



LONG PITCH GEOMETRY

STATOR

It is the fixed part of vulcanized rubber, contained or less on the metal tube, shaped like a circular screw quarry where rotates the rotor. Rubber type: NBR, EPDM, NBR or EPDM food grade, FKM, H-NBR NATURAL, PTFE and other on request.

SHAFT AND PIN JOINT

The new state-of-the-art transmission, supports the axial force and the transmitted torque between the rotor connection and the drive. They are completely reversible (pin joint Patent pending). MATERIALS: AISI 304, AISI 316, 420B (duplex, super duplex hastelloy).

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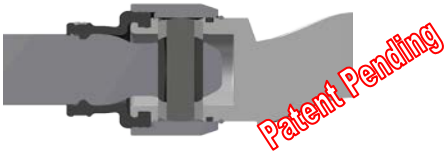


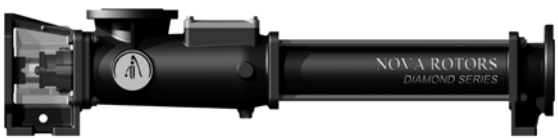
PUMP BODY

Made of stainless steel 304/316 or in cast iron G25, it is the principal part of the pump, where the fluid is pumped.

COUPLING

There are two possible coupling types: close coupled and bearing housing modular type.

Close coupled "D"



Bearing housing "J"

PROGRESSING CAVITY PUMP PERFORMANCE

VERSION

Cast iron

Body pump / outlet flange: cast iron G25
- Inspection ports standard in all the sizes cast iron
Available connection:
- Flanges DIN 2501
- Flanges ANSI RF150
- Spherical connections

Stainless steel

Body pump / outlet flange: S.S. 304 / 316
- CIP on request
Available connections:
- BSP (Gas)
- Flanges DIN 2501
- Flanges ANSI RF150
- DIN 11851
- SMS
- RJT (BMS)
- Macon
- Clamp
- Other if requested

MOTOR COUPLING:
CLOSE COUPLED TYPE "D"
- Flange diam. 160 / 200 / 250 / 300 mm related to the pumps sizes
- Female drive shaft S.S. Aisi 304 / Aisi 316 / 420B
- Diam. 24 /30 /35 /40 /50 mm related to the pumps sizes
BEARING HOUSING FLEXIBLE JOINT TYPE "J"

DIAMOND SERIES RANGE

Size	Model	m3/h at 2 bar	BAR MAX	RPM MAX
SIZE025	2L1	6,9	6	1000
	1K2	3,4	12	1000
	05K4	1,5	24	800
SIZE030	4L1	11	6	800
	2K2	5,6	12	800
	1K4	2,2	24	600
	05K8	1	48	500
SIZE 040	10L1	16,5	6	600
	4K2	8,5	12	600
	2K4	3,7	24	500
	1K8	1,5	48	400
	16L1	23,5	4	600
	8K2	12	8	600
SIZE 060	20L1	28	6	500
	10K2	14	12	500
	4K4	5,7	24	400
	2K8	2,6	48	350
	30L1	33	4	500
	16K2	16,5	8	500
SIZE 120	40L1	43	6	400
	20K2	20	12	400
	10K4	10	24	350
	4K8	5	48	350
	60L1	63,5	4	400
	30K2	32	8	400
SIZE 300	80L1	76	6	350
	40K2	38	12	350
	20K4	15,4	24	300
	10K8	8,5	48	300
	120L1	110	4	350
	60K2	55	8	350

TYPES AVAILABLE

N	FLANGED	HE	OENOLOGICAL HOPPER
NY	NDUSTRIAL BY PASS	HB	BRIDGE BREAKER
NE	WINE TRANSFER	HP	HOPPER WITH PADDLE
NC	HEATING JACKET	HS	ENLARGED AUGER - HOPPER
H	HOPPER	V	VERTICAL

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