

# NEMO® BY Pumps

## BROAD SPECTRUM OF PRODUCTS AND APPLICATIONS

NEMO® BY Progressing Cavity Pumps can be used in any area of industry where a great variety of different substances must be pumped or very precisely dosed. From low viscosity media to products barely capable of flowing, with or without solid content, shear-sensitive, sticky or abrasive – with the NEMO® BY, even difficult substances are conveyed gently and under low pulsation. In block construction with a flanged drive, this NEMO® pump is particularly compact and economical. The NEMO® BY also differentiates itself by means of low investment, operating and maintenance costs. Four rotor/stator geometries are available to cover a broad spectrum of products and applications.

### Features

- Continuous low-pulsation conveyance unaffected by fluctuations in pressure and viscosity
- Conveyance volume in proportion to rotation speed with high dosing precision over the entire rotational speed range
- High pressure capability without valves
- Location of the mechanical seal directly under the intake port in the pumping space makes external flushing of the seal unnecessary in many applications
- Short drive shaft and pump lantern offer high stability for mechanical seal installation
- Separate flange bearing and pump base make it easy to change the stator
- Variable modular system
- Various rotor/stator geometries and a wide range of materials: cast iron, carbon steel, 316 stainless steel, Duplex, Hastelloy, Titanium and many others
- Robust and compact block construction
- Four different joints are available: pin joints, gear joints, V-joints, and pivot joints
- Standard: mechanical seal, other seals optional
- Low noise, low vibration
- High suction capability up to 9 mWC
- Bi-directional
- Vertical or horizontal installation
- Temperatures from -40°C to 300°C

### Your benefits

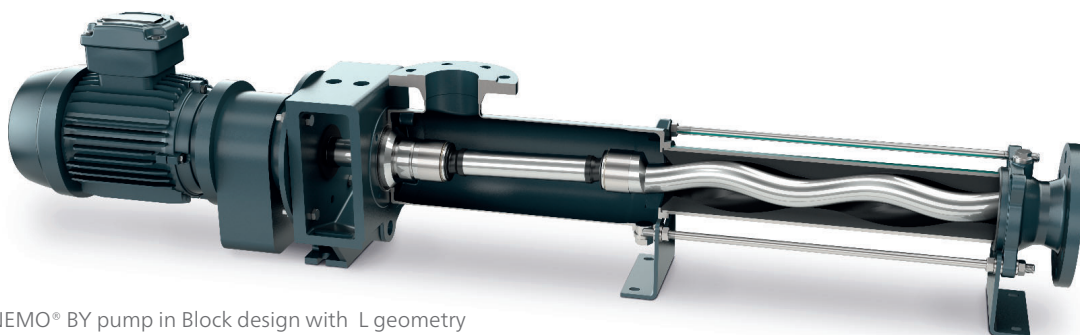
- Unique shock absorption system
- Gentle conveyance
- Easy to clean and service
- Low mean time between repairs
- Low noise, low vibration
- Economical operation and routine maintenance requirements only

### Main applications

- Shear sensitive products
- Low to high viscosity
- Sticky and smooth
- With or without solids
- Dilatant and /or thixotropic
- Abrasive
- Adhesive

### Additional information

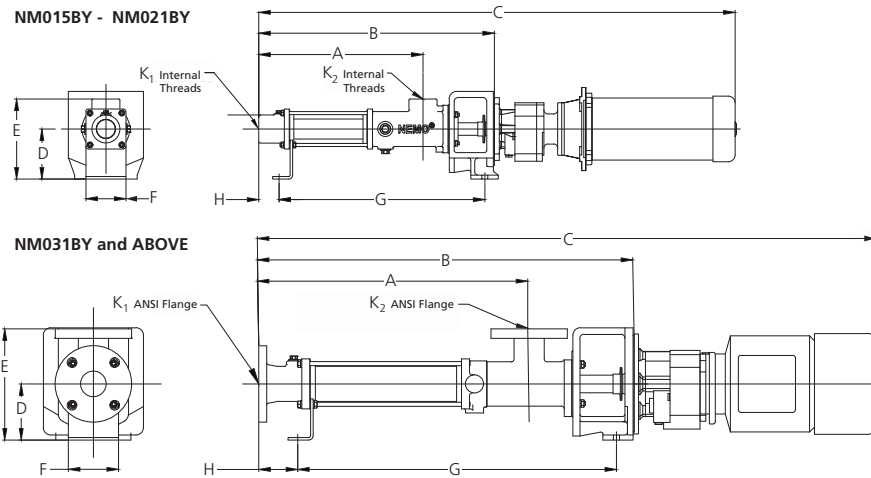
NEMO® PCP Brochure



NEMO® BY pump in Block design with L geometry

## NEMO® BY Pump

Flow rate up to  
1,800 GPM / 400 m<sup>3</sup>/h  
Pressures up to  
360 psi / 24 bar



### NEMO® BY Pumps

Pump Models	Flow Rate (GPM/100 rpm)		Max Particle Size (inches / mm)	Max Solids Size (inches / mm)	Dimensions (inches)									
	02S	01L			A	B	C*	D	E	F	G	H	K <sub>1</sub>	K <sub>2</sub>
	NM015 BY 02S12 / 01L06	0.26	0.50	.08 / 2.0	.35 / 9.0	12.91	18.52	34.52	3.94	6.30	3.15	16.18	1.59	1.25
NM021 BY 02S12 / 01L06	0.73	1.42	.12 / 3.0	.47 / 12.0	15.90	21.53	37.53	3.94	6.30	3.15	19.17	1.59	1.25	1.25
NM031 BY 02S12 / 01L06	2.06	4.06	.18 / 4.5	.71 / 18.0	21.26	29.50	49.5	4.41	8.74	3.94	25.70	3.06	2.0	2.0
NM038 BY 02S12 / 01L06	5.78	11.39	.28 / 7.0	1.1 / 28.0	32.99	41.81	62.81	5.19	10.31	5.11	37.40	3.34	2.0	3.0
NM045 BY 02S14 / 01L07	9.71	19.42	.33 / 8.5	1.38 / 35.0	38.22	47.04	69.04	6.29	12.20	5.90	42.55	3.30	3.0	3.0
NM053 BY 02S14 / 01L07	16.27	32.54	.40 / 10.0	1.61 / 41.0	45.62	55.66	79.66	6.69	13.18	6.29	51.29	3.50	3.0	4.0
NM063 BY 02S14 / 01L07	27.44	54.88	.50 / 12.5	2.0 / 50.0	53.74	65.55	89.55	7.87	15.74	7.08	60.00	4.68	4.0	6.0
NM076 BY 02S14 / 01L07	46.01	92.02	.60 / 15.0	2.4 / 61.0	61.33	74.13	102.13	8.85	17.12	9.05	67.28	5.07	6.0	6.0
NM090 BY 02S14 / 01L07	77.27	154.55	.71 / 18.0	2.9 / 73.0	72.32	85.31	121.31	9.84	18.50	9.84	78.54	4.80	6.0	6.0
NM105 BY 02S14 / 01L07	129.55	259.10	.83 / 21.0	3.31 / 84.0	88.34	102.71	144.71	11.02	21.06	10.62	95.31	5.23	6.0	8.0
NM125 BY 02S14 / 01L07	217.85	435.89	1.14 / 29.0	4.65 / 118.0	105.98	124.09	169.09	11.81	23.03	11.81	114.68	5.27	8.0	10.0

### Options for bearing block pumps

- Assortment of shaft sealing systems planned in accordance with API 682: seal sizes in accordance with API 610
- Systems for monitoring conveying pressure
- Dry running protection units
- Safety valves
- Electrical control systems
- Bypass lines
- Application-specific baseplates
- Wide variety of drive systems

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