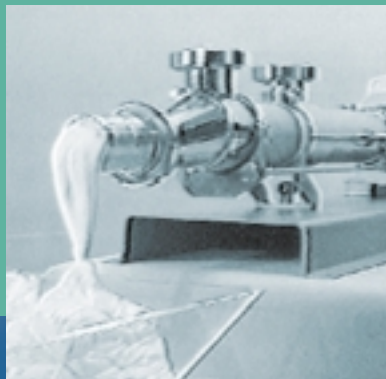
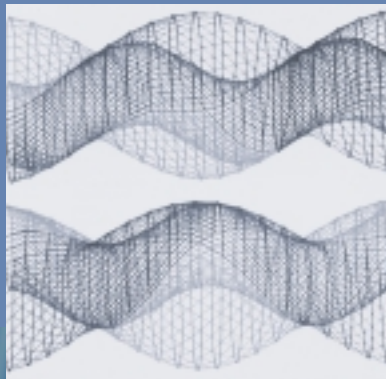


NM SERIES

From the World Leader
In Pumping Technology



Netzsch NEMO® NM Series Pumps...

Unmatched in Performance

More Gentle
Pumping

More Economical

Easier to Service

More Efficient

NEMO® –
Your Best Choice

From the world leader in pumping technology, Netzsch NEMO now manufactures a more efficient, more economical and easier to service pump line – the NM Series. NM pumps offer the most comprehensive range of those key features critical to providing optimal performance in the toughest applications. Superior features represent the first half of the pump solution equation. The rest is furnished by NEMO technical expertise and vast

experience with virtually every pumping material and environment. NEMO representatives have the specialized knowledge and hands-on skills to meet the exact need of every application. They will match your needs with the appropriate pump configuration, choosing from:

- Solid Shaft Design
- Widest Range of Universal Joint Options
- Extra Long Connection Rod
- Widest Range of Customized Materials
- Thru Bolt Construction



Two NEMO NM Pumps automatically suction lift detergents from two reaction vessels to large reservoir tanks 330 feet away.

NEMO[®] NM SERIES FEATURES

Geometries

Compared with the Standard S-Geometry, the NEMO L-Geometry offers:

- Twice the volume per cavity
- Greater efficiency
- Less wear

* Other geometries available on larger pumps.



S-Geometry (Standard)

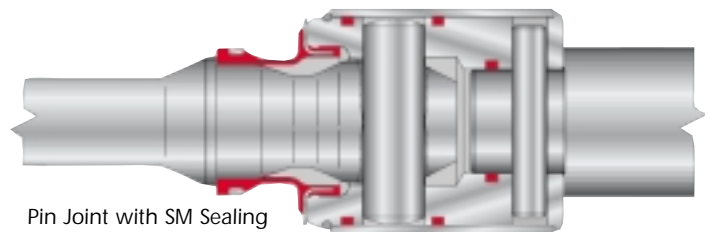


L-Geometry

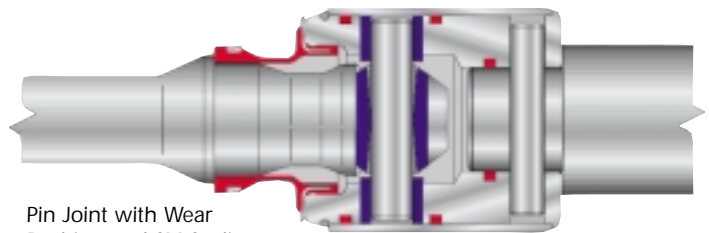
Joint Variations

The correct joint design for a NEMO Pump has a decisive influence on the reliability and the life cycle costs. A variety of criteria must be considered for this selection including operating conditions, resistance of materials, temperature and pressure of the conveying liquid and lubricant compatibility. NEMO totally sealed, oil-filled joints are easily and quickly maintained because of a minimum number of parts.

* Other joints available on larger pumps.



Pin Joint with SM Sealing



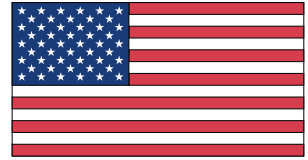
Pin Joint with Wear Bushing and SM Sealing

NEMO NM Series Pumps are designed specifically for difficult pumping situations. You can be assured of the following:

- Low shear rate
- Non-pulsating metered flow
- Volume practically unaffected by viscosity changes
- Flow that is proportional to the pumps operating speed
- High viscosity and solids content pumping capabilities

- Self-priming
- Low, medium and high pressure pumping capabilities
- Non-vapor and air locking operation
- Low noise levels
- Flexibility in operation and mounting options





NEMO Progressing Cavity Pumps is one of three operating divisions of Netzsch Incorporated, a U.S.

manufacturer of specialized industrial equipment. Netzsch Incorporated is, in turn, part of the Netzsch Group of companies whose multinational manufacturing and sales facilities operate in 14 countries on four continents.



With access to comprehensive global resources in engineering, research and development, Netzsch brings our customers the optimal benefits of our continually advancing technology. Netzsch subscribes to recognized worldwide standards in quality certification and process control. Our full capabilities in the functional areas of design, development, production, sales and service meet the highest demands established by the ISO 9001 International Quality Guidelines. Our customers rely on this commitment to deliver products of absolute reliability and exceptional quality.

Located in Exton, Pennsylvania, a western suburb of Philadelphia, our seven acre campus contains over 70,000 square feet with manufacturing, engineering, testing laboratories, marketing and corporate offices. Our employees assist and service the far reaching requirements of our customers throughout North America.

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NEMO® PROGRESSING CAVITY PUMPS

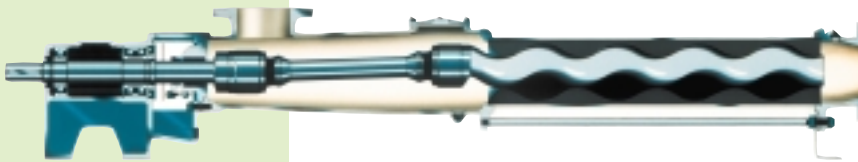
NM SERIES

The NM Series offers solutions to your pumping requirements with improved flexibility and design. An enlarged stuffing box and tapered suction housing results in more efficient and trouble-free operation. Available options include a choice of: drives, type of suction and discharge connections, standard or portable baseplates, suction rotation, pumping direction, customized materials and bypass arrangements.

SY SERIES

The NEMO SY series is utilized in the chemical, industrial, municipal, pulp and paper and oil industry. This general purpose pump is designed to handle

materials that vary from waterlike consistencies to viscous pastes and slurries. Shear-sensitive materials are also handled with complete ease with this style NEMO pump.



The NEMO BY series is a modular construction pump. Its close coupled drive arrangement eliminates the need for a bearing housing, which decreases the

overall pump length. This feature helps minimize valuable manufacturing space requirements and reduces installation costs.

BY SERIES



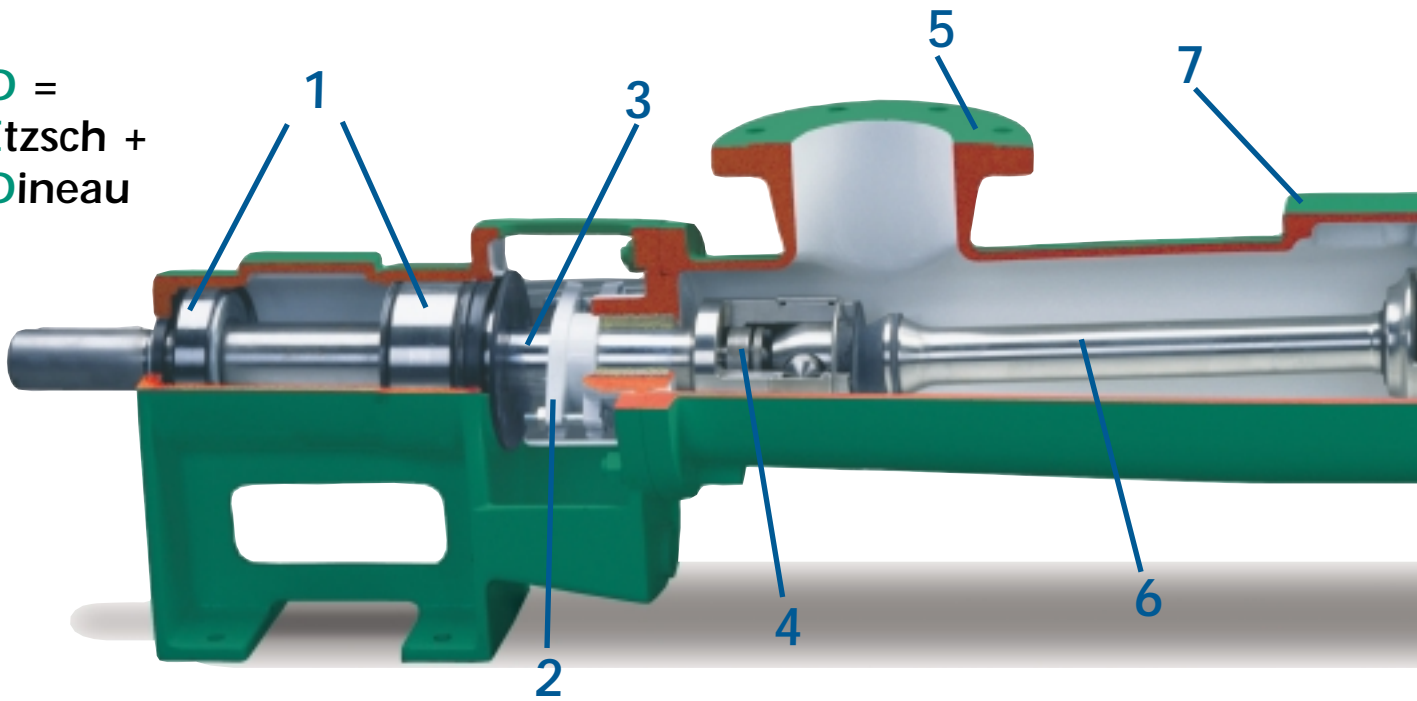
MINI METERING SERIES

The NEMO NM Mini Metering series is utilized for metering both high and low-viscosity materials and offers pulsation-free

delivery. Without altering the overall pump dimension, this low cost modular design offers four rotor/stator element sizes which can be interchanged with minimal downtime. The NM Mini is available in standard design or close coupled construction.



NEMO =
NETZSCH +
MOINEAU



1 DEEP-GROOVE BALL BEARINGS have a calculated B-10 life of greater than 100,000 hours.

2 SHAFT SEALING variations, including packed stuffing box complete with lantern ring and grease zerk, mechanical seal, or special seals are located on a solid drive shaft with a short overhang which minimizes shaft runout. The window area of the pump is increased to allow easy access to the stuffing box. Cast iron pumps are supplied with a packed stuffing box. Stainless steel pumps come standard with a hard faced single mechanical seal. Other options are available.

3 SOLID DRIVE SHAFT eliminates any possibility of solids build-up. Unlike hollow shafts, material cannot accumulate or cause clogging.

4 DRIVE SHAFT joint head is removable. By taking off the universal joint head, the shaft seal can be removed and re-assembled without drive shaft removal.

5 SUCTION HOUSING FLANGE can be rotated to any of four positions in 90° increments.

6 CONNECTING ROD is extra long for extremely low angularity, resulting in less loading on the universal joint which provides longer joint life.

7 TWO CLEAN OUT PORTS come standard on larger pumps with a cast iron housing. Clean out ports are available on pumps with other metallurgy as an option.

8 DRAIN PLUG is located at the lowest point on the suction housing. This allows for the housing to be completely drained.

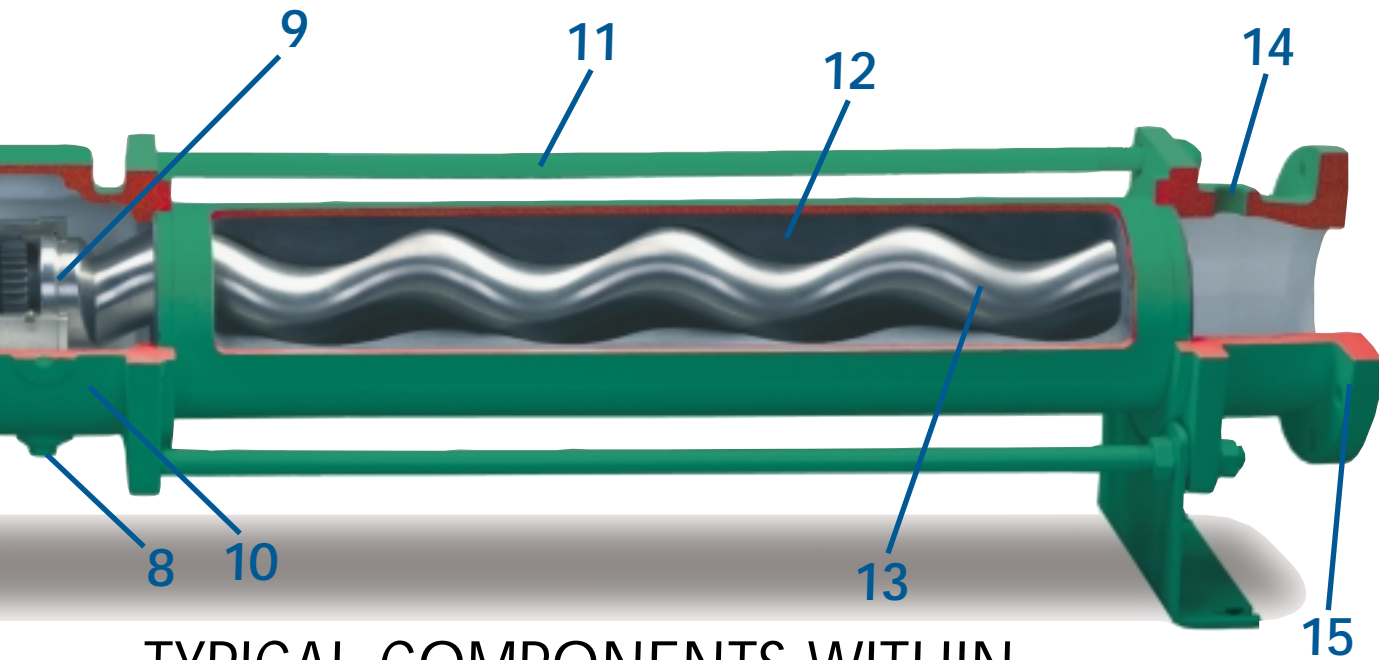
9 UNIVERSAL JOINTS are SM pin-type or sealed pivot-type. Other joints available on larger pumps.

10 ENLARGED SUCTION HOUSING at the rotor end for non-restricted flow of heavy materials.

11 THRU-BOLT CONSTRUCTION for easier maintenance, stator removal/installation.

12 STATORS are available in a wide range of materials including natural or synthetic rubbers, cast iron, stainless steel, a wide variety of rigid plastics, and others. The inlet side of the stator is chamfered to allow for unobstructed uniform feeding to the rotor and stator elements. Gaskets are an integral part of the stator on non-rigid materials.

Wetted parts are available in numerous materials. Housings are made of cast iron, rubber-coated cast iron and stainless steel. Rotating parts are available in mild steel, stainless steel or other special metals. Contact factory for other metallurgy options.



TYPICAL COMPONENTS WITHIN A STANDARD NM SERIES PUMP

13 ROTORS are available in a broad range of materials including hardened tool steel, chrome plated hardened tool steel, stainless steel and others with optional chrome plating. NEMO Ceretec® is also available in various sizes.

14 ACCESSORY CONNECTION is threaded to allow the attachment of measuring instruments or can be used for draining. The connection can also be rotated in 90° increments and can be used for gauges or other instrumentation. Accessories can be added in any position.

15 DISCHARGE FLANGE is a standard connection matched to the individual pump discharge pressures. Flanges are sized to ensure self-cleaning velocities essential when pumping sludges and slurries. Flange can be rotated in 90° increments.

NEMO NM SF Pump used to transport bread dough



NEMO® Progressing Cavity Pumps are positive displacement pumps and operate on the Moineau principle. Invented by Professor Rene Moineau, this principle is based on the geometric fit between the rotating element (rotor) and the stationary element (stator) of the pump.

The rotor has a single helix shape and is normally made of a metallic material. The stator is formed as a double helix with twice the pitch of the rotor and is normally an elastomer. The interference (compression) fit between the rotor and stator creates a series of sealed chambers called cavities.

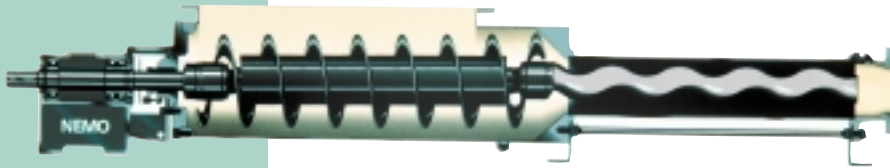
Pumping action is achieved by the rotor turning eccentrically within the stator. Fluid enters the cavity formed at the inlet and progresses within that cavity to the outlet. The result is a positive, non-pulsating flow that is directly proportional to the pump's speed.

The interference fit is critical to the proper operation of a progressing cavity pump. Other key concerns are the selection of the appropriate stator material and the operating temperature of the pump. To insure your pump's optimally efficient operation and proper selection of the geometric fit for your application, consult with your NEMO pump representative.

SF SERIES

The NEMO SF series with patented* feed screw design is manufactured to easily handle materials with high viscosities. This pump incorporates Netzsch's exclusive

oversized open throat auger feeding system. This system expands the possibilities of efficiently pumping dry, non-flowing materials. *Patent #EP 0713974



The NEMO BT series offers a vertical solution to your pumping requirements. This close coupled design is available in immersion depths to meet your individual application

needs. These pumps deliver the same non-pulsating flow capabilities as our other NM series pumps.

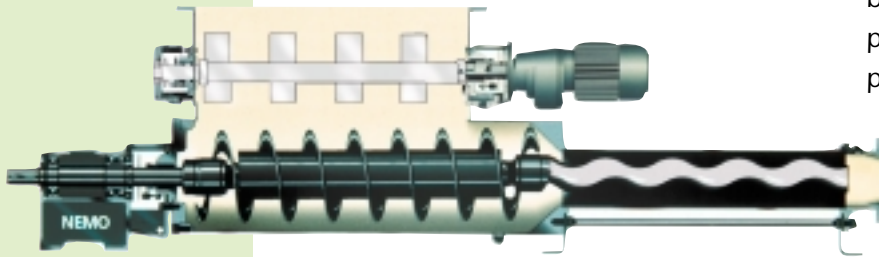


BT SERIES

SP SERIES

Like the SF series, the NEMO SP series incorporates Netzsch's patented oversized

auger feeding system. In addition, this pump also includes counter rotating bridge breaking paddles, which eliminates the possibility of product bridging over the pump's auger.



The NEMO BO series, available in extended hopper length, is designed to easily handle materials with high viscosities. Products that are semi-flowing to non-flowing can be handled with this style pump. The open throat design, auger feed and void feeding

area ensure efficient feed rates to the rotor and stator. Standard bearing housing design is also available.

BO SERIES

