

From

# NEMO® PROGRESSING CAVITY PUMPS NM Sanitary & Aseptic Line

The

World

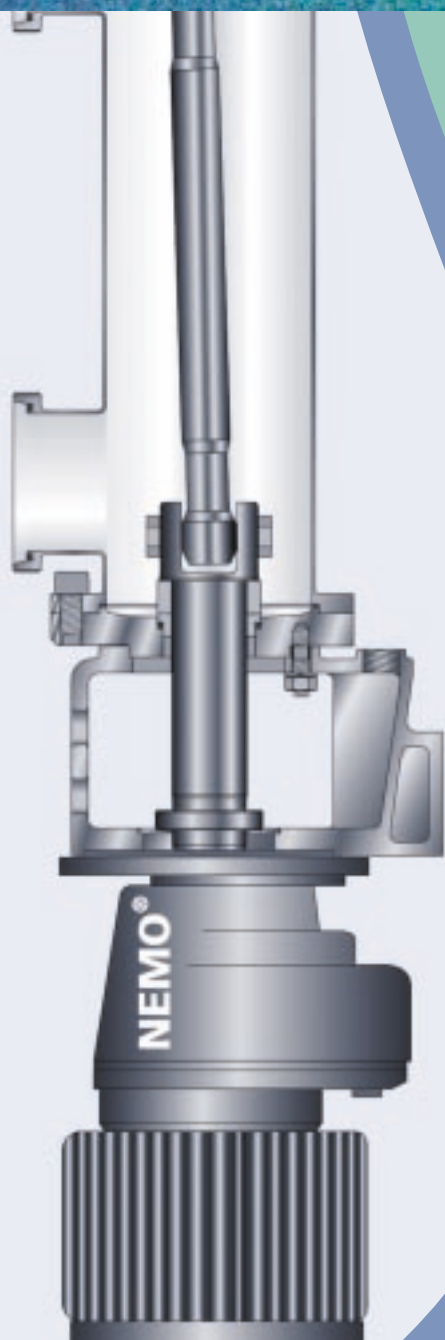
Leader

In

Pumping

Technology

**NETZSCH**





# Netzsch NEMO<sup>®</sup> Sanitary & Aseptic Pumps... **Food** **Chemical** **Pharmaceutical** **Cosmetic** **Genetic** **Technology** **Biotechnology** **Applications**

With increased production requirements in many sanitary and sterile applications, NEMO<sup>®</sup> now manufactures a complete line of quality sanitary and aseptic pumps to meet and exceed these needs. Meeting the highest demands and uncompromising requirements of international and national sanitary standards, these pumps can be used universally in the food, pharmaceutical, chemical, cosmetic, biotechnical and genetic industries.

NEMO<sup>®</sup> Sanitary and Aseptic Pumps offer the most comprehensive range of those key features critical to providing optimal performance in the most sanitary applications. Superior features, like split shaft design, making an extra long connecting rod and thru bolt construction, represent the first half of the pump solution equation. The other half is furnished by NEMO<sup>®</sup> technical expertise and vast experience with virtually every pumping material and environment. NEMO<sup>®</sup> representatives have the specialized hands-on skills to meet the exact need of every sanitary and aseptic application.

## Geometries

NEMO® L-Geometry offers:

- Twice the volume per cavity
- Greater volumetric efficiency
- Lower circumferential velocity

NEMO® S-Geometry offers:

- Multiple stages
- Pressure capabilities up to 1000 psi
- Used where lower internal velocities are required



L-Geometry

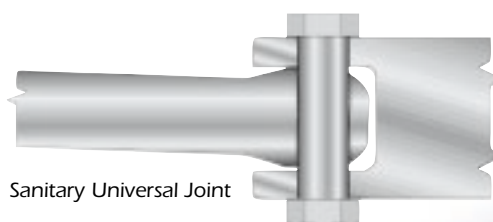


S-Geometry (Standard)

## Universal Joint Variations

Sanitary Universal Joint

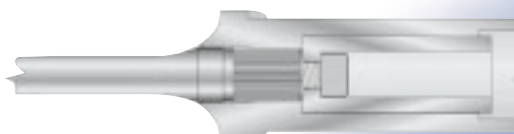
- Unsealed pin joint for sanitary applications
- Easy cleaning
- Can be operated without lubricants
- Easy assembly and disassembly
- Manufactured in accordance to 3A standards



Sanitary Universal Joint

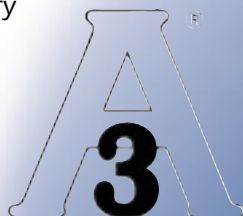
Aseptic Universal Joint

- No wear or maintenance, resulting in low life cycle costs
- No lubrication necessary
- For high pressures and high temperatures
- Manufactured in accordance to 3A standards
- Patented design



Aseptic Universal Joint

All NEMO® Sanitary and Aseptic Pumps are manufactured in accordance to 3A standards. The use of the 3A symbol on dairy equipment assures processors that equipment meets sanitary standards, provides accepted criteria to equipment manufacturers for sanitary design, and establishes guide-lines for uniform evaluation and compliance by sanitarians.

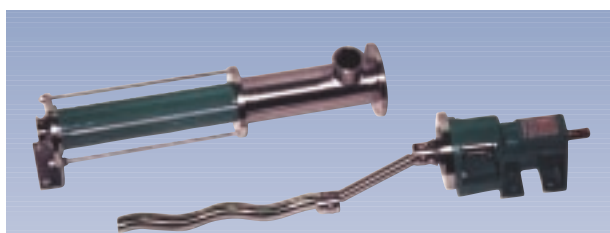


# NEMO® NM Sanitary PUMPS

Providing superior quality and versatility, NEMO® Sanitary Pumps are suitable for clean-in-place processes when provided with optional flushing connections. In addition, these pumps meet 3A standard requirements and can be disassembled quickly for easy cleaning. The exclusive NEMO® progressing cavity modular pump design, combined with food grade Nitrile or EPDM stators create a proven and reliable solution for all your sanitary pump applications.

## Features and Benefits of NEMO® Sanitary Pumps:

- All Wetted Parts are Polished to No. 4 Finish Standards (equivalent to 32 micro inch Ra maximum)
- Standard Tri-Clamp or Optional Customer Specified Type Connections
- Single or Double Acting Mechanical Seal (Various Face Materials available)
- Available in Standard Construction (SH) or Block Construction (BH)
- Long Service Life
- Deliver Steady, Non-Pulsating Metered Flow up to 600 Gallons Per Minute
- The Most Cost Effective Pumping Solution Offered by NEMO®



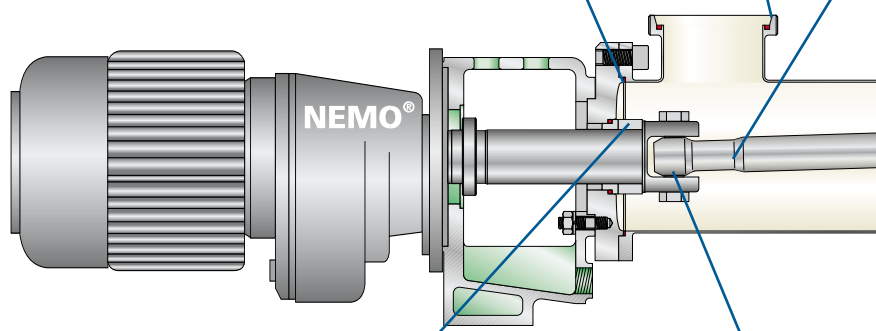
To easily clean and service all NEMO® sanitary pumps, simply remove four bolts. This will disassemble the suction, discharge housing and stator from the pump. This also allows easy access to the mechanical seal, rotor and universal joints.

### Connections:

Standard connections are Tri-Clamp type. Other connections are available including hopper design with auger.

### Seals:

All sanitary seals are exposed and arranged to eliminate void space.



### Shaft Seals:

Numerous shaft seal designs are available, including sanitary single mechanical seals and sanitary double mechanical seals for sterile applications.

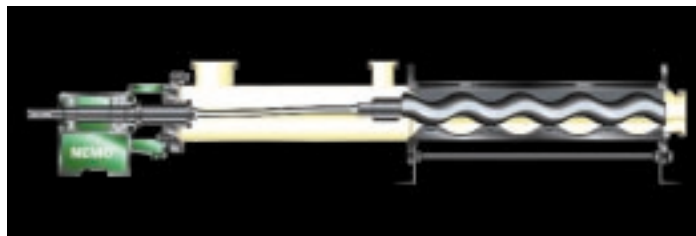
### Joints:

For optimal cleaning, NEMO® sanitary pumps include a newly designed sanitary universal joint.





Cutaway view of NM031SH Sanitary Pump shown with standard bearing housing design



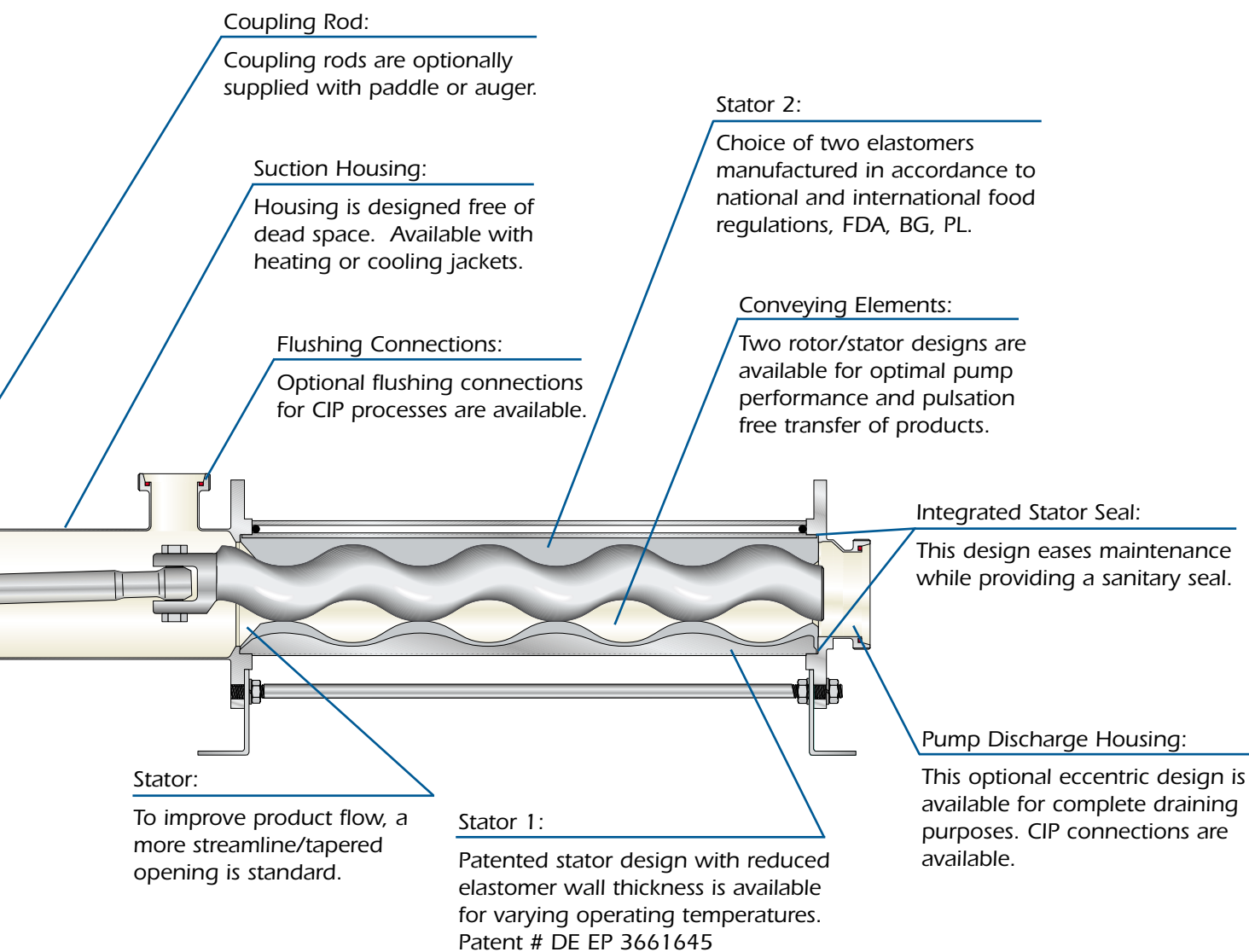
Cutaway view of the Sanitary SH Plus Pump shown with optional CIP Port



Cutaway view of NM038SH Sanitary Pump shown with optional CIP Port



Cutaway view of the SH Open Throat Pump

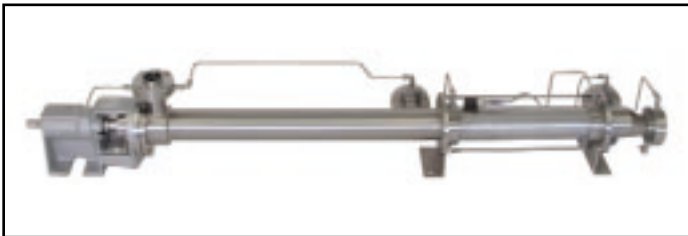


# NEMO® NM Aseptic PUMPS

Offering reliability and uncompromising quality, NEMO® Aseptic Pumps are ideal for all pure and sterile pumping applications. NEMO® meets the most demanding aseptic requirements in the industry as well as 3A standards, and are clean-in-place and sterilize-in-place able. In addition, all sealing points are designed as sterile intersections to completely ensure against contamination from the environment.

## Features and Benefits of NEMO® Aseptic Pumps:

- All Wetted Parts are Polished to No. 4 Finish Standards (equivalent to 32 micro inch Ra maximum)
- Available in Standard Construction (SA)
- Ideal for Abrasive and Highly Viscous Products
- Long Service Life
- Deliver Steady, Non-Pulsating, Metered Flow up to 600 Gallons Per Minute



\* Horizontal mount of the Aseptic Plus Pump



Cutaway view of NM038SA Aseptic Pump

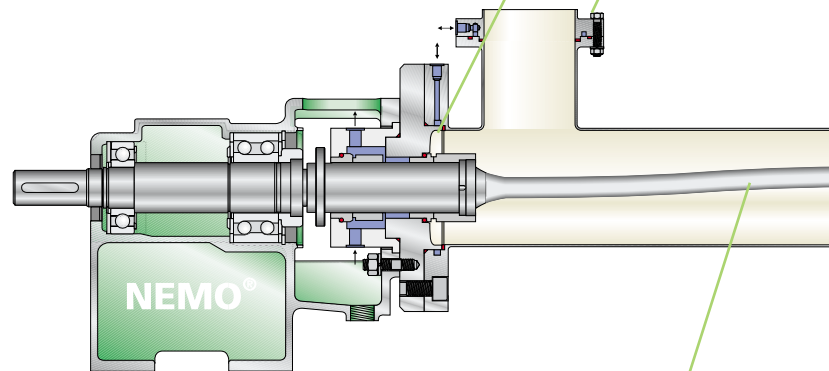
\* Vertical installation is recommended with the aseptic pumps to ensure better cleaning

### Connections:

NEMO® aseptic flange connections are double sealed with sealing chamber.

### Seals:

All aseptic seals are exposed and arranged to eliminate void space.



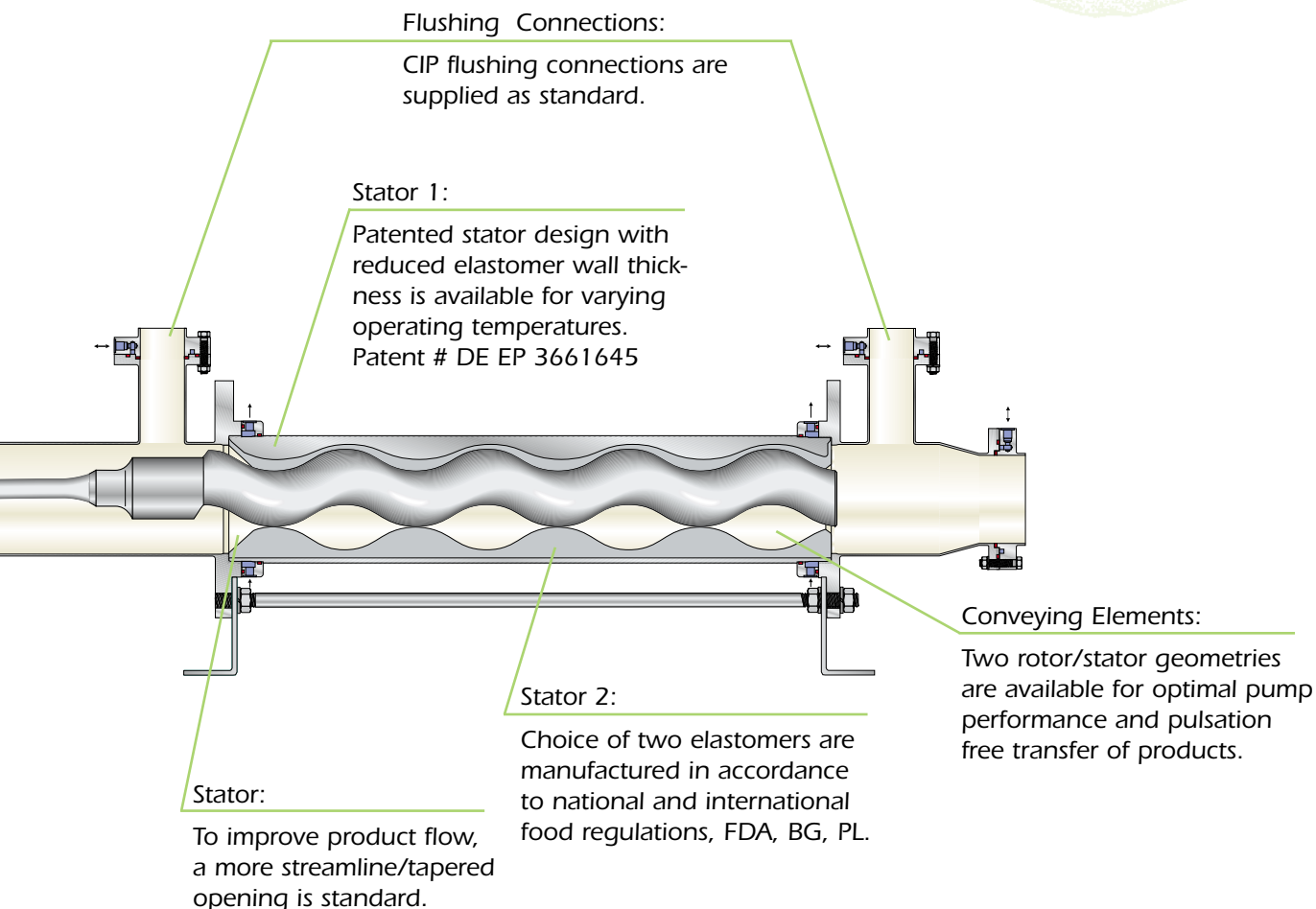
### NEMO Flexi-Rod:

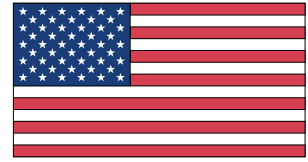
A flexi-rod constructed from corrosion-resistant metal is used in place of joints. This design operates free of wear and meets all aseptic cleaning requirements.

## Applications for NEMO® Sanitary and Aseptic Pumps:

NEMO® Progressing Cavity Pumps have a wide range of applications in the sanitary and aseptic industries. Listed below are just some of the applications in which NEMO® NM Sanitary and Aseptic Pumps are used.

Applesauce	Jelly
Baby Food	Lard
Carmel Base	Milk & Milk Products
Chocolate Base	Oils
Cosmetic Products	Pharmaceutical Products
Cream	Pudding
Curried Culture	Sugar Solutions
Egg Yokes	Whey
Fruit & Fruit Preparations	Whipped Cream
Glaze	Yeast
Glucose	Yogurt





NEMO® Progressing Cavity Pumps is one of four 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 17 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 85,000 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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119 Pickering Way, Exton, PA 19341-1393 Tel: 610/363-8010 Fax: 610/363-0971  
E-mail: [netzsch@netzschusa.com](mailto:netzsch@netzschusa.com) or [nemopump@netzschusa.com](mailto:nemopump@netzschusa.com)