

# NETZSCH

## NEMO<sup>®</sup> M.Champ<sup>®</sup> Benchmark for Progressing Cavity Pumps



The heart of your process. ■

# NEMO<sup>®</sup> M.Champ<sup>®</sup>

## Characteristics and Construction

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### Universal Use

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The growing demands of wastewater technology have been taken into account by our NEMO<sup>®</sup> M.Champ<sup>®</sup>. The M.Champ<sup>®</sup> is the result of continuous development on the standard NEMO<sup>®</sup> progressing cavity pump. The M.Champ<sup>®</sup> sets new standards with regard to ease of maintenance and economic efficiency. The compact and simple design of the pump permits the replacement of wearing parts in no time at all. An integrated reserve stator guarantees low life cycle cost and a high degree of operational security. The new Clamp-Tec Stator quick-clamping system allows for easy reversal or replacement of the stator.

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### Large Range of Capacities and Pressures

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- Capacities of up to 85 m<sup>3</sup>/h
- Differential pressures of up to 6 bar

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### Wide Range of Applications

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The NEMO<sup>®</sup> M.Champ<sup>®</sup> is especially suitable for the following applications:

- Wastewater
- Leachate
- Thin sludge
- Thickened sludge
- Grease and oil emulsion
- Flotation sludge
- River sludge
- Fresh sludge
- Pit water
- Clay sludge
- Sewage sludge
- Conditioned sludge
- Combined sewage
- Primary sludge
- Refined sludge
- Crude sewage
- Untreated sludge
- Returned sludge
- Dirty water
- Flotation sludge
- Secondary sludge
- Stabilised sludge
- Excess sludge
- Centrate

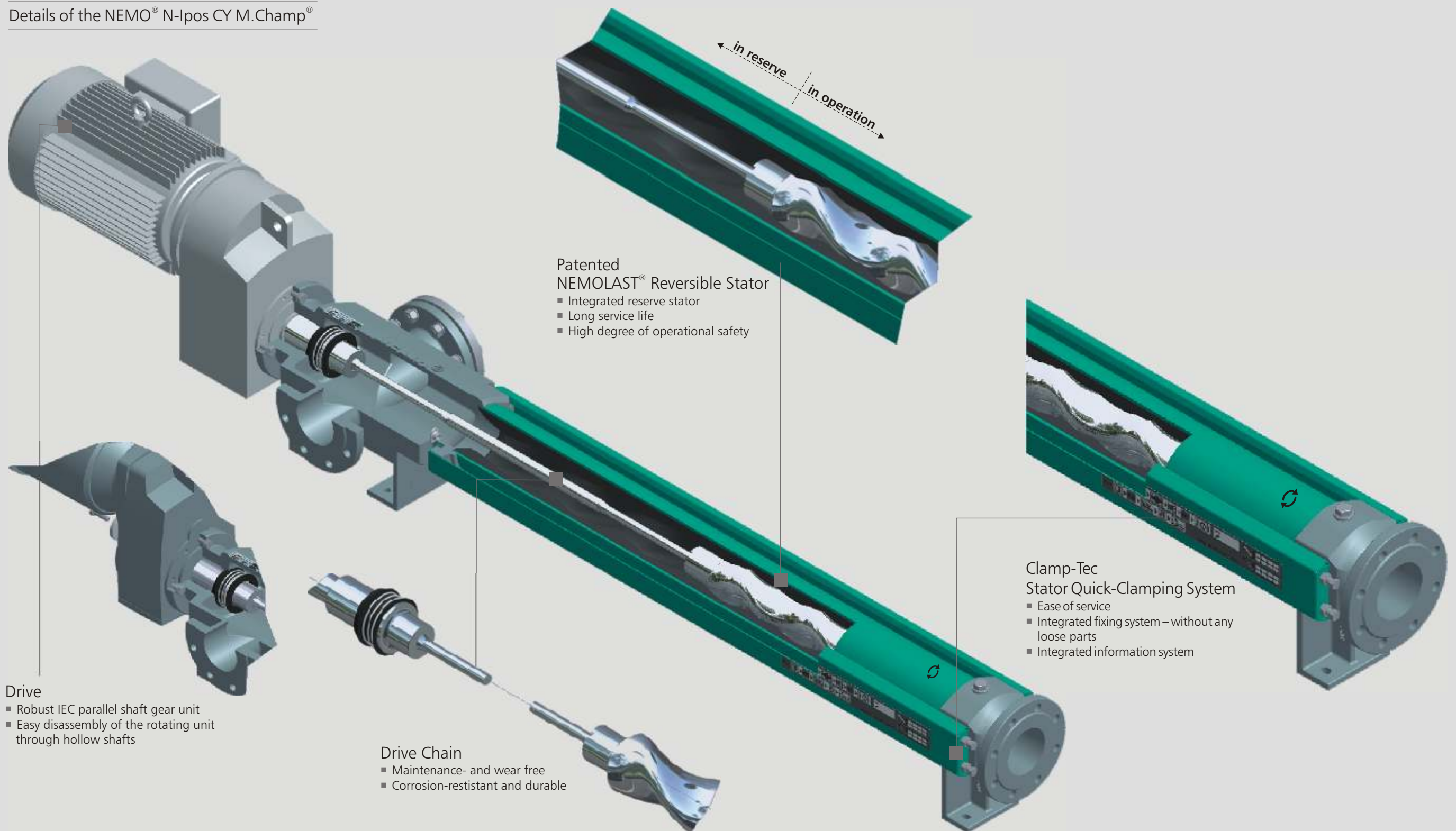
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### Advantages

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- Compact design with good performance
- Pump capacity proportional to rotational speed
- Conveying direction reversible
- High suction and pressure capacity
- Continuous low pulsation conveyance independent of pressure and viscosity
- Stator with flow cones for low NPSH values
- Mechanical seal in the medium flow
- Integrated reserve stator
- Maintenance- and wear-free flexible rod
- Innovative Clamp-Tec Stator quick-clamping system with attached information plate
- Low life cycle cost
- Ease of service

## Details of the NEMO® N-Ipos CY M.Champ®



### Patented NEMOLAST® Reversible Stator

- Integrated reserve stator
- Long service life
- High degree of operational safety

### Drive

- Robust IEC parallel shaft gear unit
- Easy disassembly of the rotating unit through hollow shafts

### Drive Chain

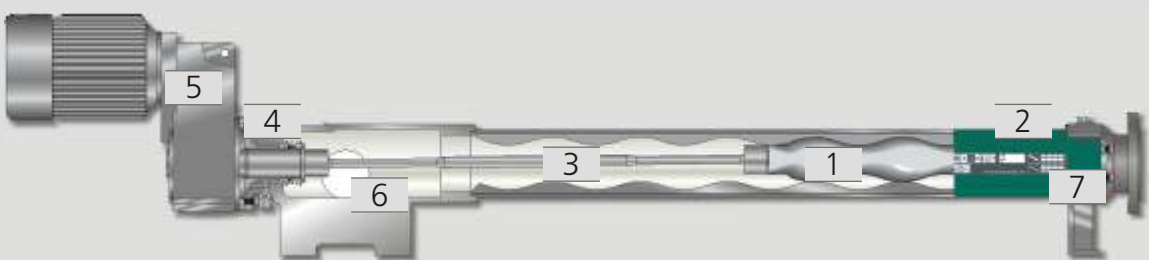
- Maintenance- and wear free
- Corrosion-resistant and durable

### Clamp-Tec Stator Quick-Clamping System

- Ease of service
- Integrated fixing system – without any loose parts
- Integrated information system

## NEMO® N-Ipos CY M.Champ® – compact – economic – easy of maintain

in block construction design with maintenance free flexible rod and integrated reserve stator



### 1 Rotor

High pump capacity with compact dimensions. Chromium-plated surfaces result in a long service life and low life cycle cost. Increased application possibilities with the use of P or L geometries.

### 2 Patented NEMOLAST® Reversible Stator

A reserve stator integrated into the pump that can be used by a simple reversal process. In particularly abrasion resistant NEMOLAST® material. The stator is furnished with integrated gaskets moulded on the faces. Flow tapers on both ends guarantee a high suction capability in both pumping directions.

### 3 Drive Chain

Highly corrosion resistant, wear and maintenance free flexible rod. Instead of the normal joints – no parts moving against each other. Lubricants and seals are not necessary.

### 4 Shaft Seal

Shaft seal with rubber bellow integrated into the pump housing. Independent direction of rotation. The shaft seal located in the medium flow prevents clogging and solids depositing.

### 5 Drive

The robust IEC parallel shaft gear unit used as standard is directly mounted on the pump housing. The drive line is connected to the hollow shaft of the parallel shaft gear by means of a taper lock connection. A screw locking device guarantees ease of maintenance when exchanging the rotating unit without the need to disassemble the drive.

### 6 Pump Housing

Two tangential, horizontal, nozzles allow the option of parallel connection to the pipe line(s). The second nozzle is provided with a blind plate and can be used as an inspection and cleaning port. The arrangement of the nozzles ensures complete emptying of the pump housing. The compact pump housing prevents solids from sedimenting.

### 7 Clamp-Tec Stator Quick-Clamping System

By loosening the screws on the discharge connection the clamp rails can be removed from the locking device. The stator can be quickly replaced quickly and easily without disturbing any fastening elements. In addition, the stator quick-clamping device is used as information plate for pump maintenance and operational safety.

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