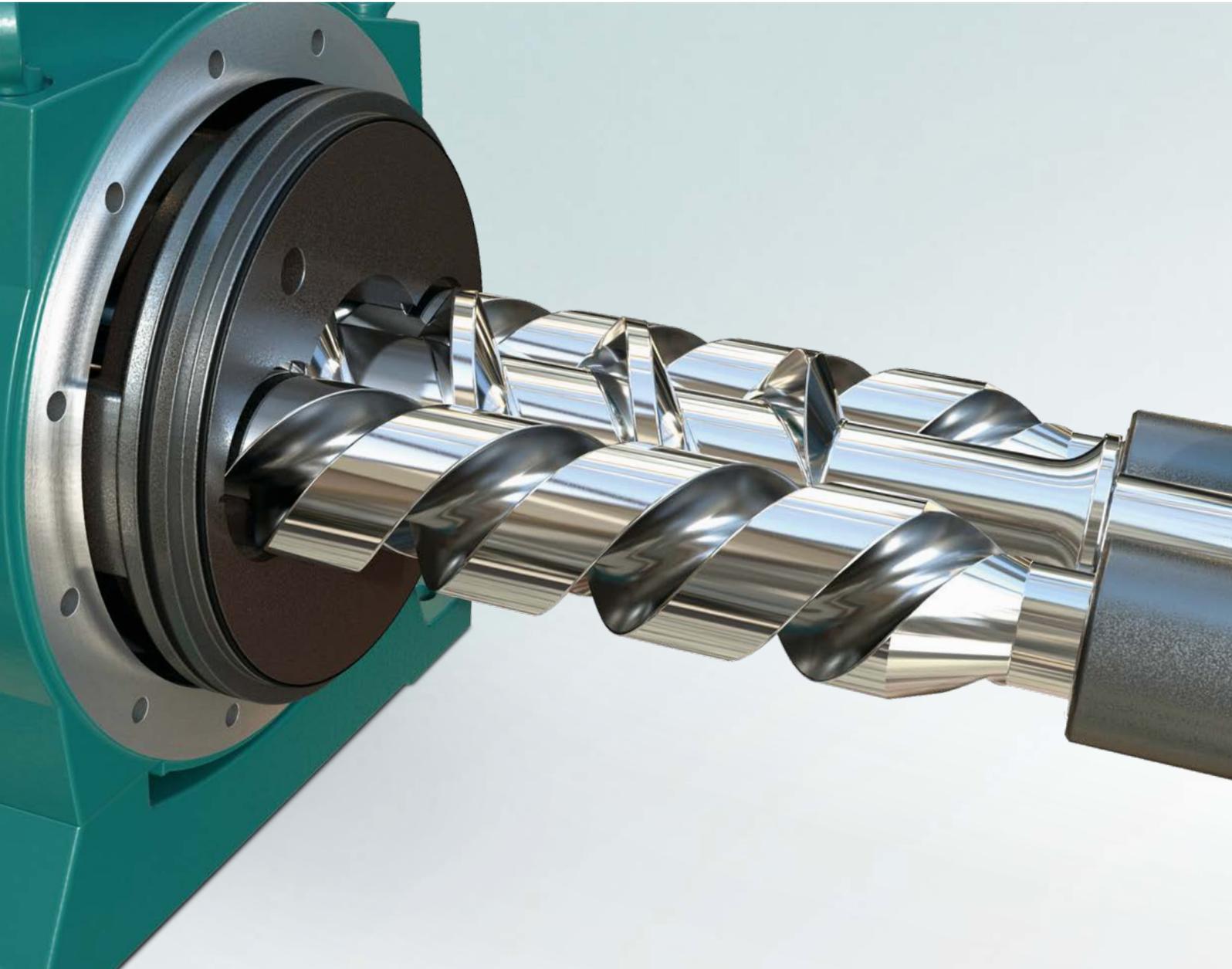


NETZSCH

Proven Excellence.



NOTOS[®] Multi Screw Pumps

Reliable and Efficient

Pumps & Systems

NOTOS® MULTI SCREW PUMPS

3 series for all applications

Since 1979 NETZSCH has been manufacturing multi screw pumps to serve a wide range of industries and applications. The most advanced technology is utilized to produce these pumps. Reliability, durability and experience are some reasons why you should choose NETZSCH.

Range of applications

NOTOS® pumps are designed to convey low to well lubricating fluids, low to high viscosity, shear sensitive or chemically aggressive media. They are typically used in the following industries:

- Oil & Gas
- Marine
- Power Generation
- Tank Storage
- Process Industries

Broad range of materials

Our range of metallic materials extends from grey cast iron and chrome-nickel steel to duplex, super duplex or hastelloy steel. Further metal material options on request.

- No dynamically loaded rubber parts
- Static seals from NBR to FFKM

Capacity and pressure ranges

Multi Screw Pumps are known as pumps for low to high flows and low to high pressures

- Flow rate up to 2500 m³/h
- Pressure rate up to 100 bar
- Viscosities up to 200.000 cSt
- Temperature up to 300 °C

“High Efficiency Unique Design”

Due to the “High Efficiency Unique Design” (HEUD), the pumps are optimized in order to increase their performance. Characteristics of this design are:

- Precise tolerances due to the state-of-the-art technology
- Optimized spindle profile
- Patented optimized discharge design

Characteristics

- Self-priming
- Good suction capability
- Continuous flow with low pulsation
- Flow with minimal turbulences
- Gentle product handling
- Low maintenance
- Low lifecycle cost
- Long service life
- Quiet operation
- Several mechanical seal options
- Magnetic drive optional
- Extremely low noise and vibrations
- Vertical or horizontal installation



The NOTOS® multi screw pump family comprises of three series in multiple arrangements which serve a wide range of industries and applications. The superior quality standard meets the highest level of requirements from our customers.

Three different pump series to meet your individual demands:



Configuration samples of all series

2 NS – Two Screw Pump

Fluid properties:

- From non to light abrasive
- Corrosive and non corrosive
- Low to medium viscosities
- Low to well lubricant fluids

3 NS – Three Screw Pump

Fluid properties:

- Non abrasive
- Non corrosive
- Low to medium viscosities
- Lubricant

4 NS – Geared Twin Screw Pump

Fluid properties:

- From non to medium abrasive
- Corrosive and non corrosive
- Low to high viscosities
- Non lubricant and lubricant

2NS SERIES

NOTOS® two screw pumps have one drive screw, transferring torque through a hydrodynamic film to the rotating intermeshing driven screw.

Performance

- Flow up to 650 m³/h (2,860 gpm)
- Pressure up to 16 bar (230 psi)
- Temperature up to 300°C (570°F)
- Viscosity up to 100.000 cSt

Accessories

- Internal or external relief valve
- Vibration sensors
- Temperature sensors
- API 682 cartridge seals
- Various API seal plans

Arrangements

- Foot, vertical, semi-submersible, housing with replaceable liner or flange mounted
- Heating jacket optional

1 Screws

Nitrated in alloy steel or in stainless steel. The HEUD (High Efficiency Unique Design) provides excellent performance.

2 Housing

Various ports configurations such as top top, side top or in line.

3 Bearing Bushes

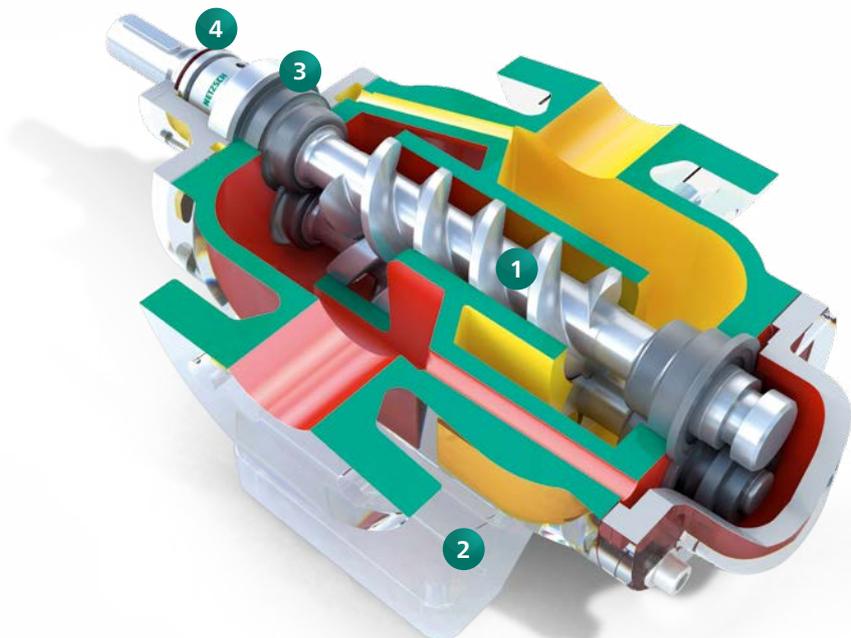
Internal bearing bushes helps to support radial loads.

4 Mechanical Seal

Under suction pressure just one mechanical seal is required for the 2NS. Magnetic drive optional.

Advantages

- High efficiency
- Hydraulically balanced
- Quiet operation
- Long service life
- Low pulsation
- Excellent suction capability
- API 676 3rd ed., optional



3NS SERIES

NOTOS® three screw pumps have one drive screw, transferring torque through a hydrodynamic film to the two rotating intermeshing driven screws.

Performance

- Flow up to 400 m³/h (1,760 gpm)
- Pressure up to 100 bar (1450 psi)
- Temperature up to 300°C (570°F)
- Viscosity up to 15.000 cSt

Accessories

- Internal or external relief valve
- Vibration sensors
- Temperature sensors
- API 682 cartridge seals
- Various API seal plans

Arrangements

- Foot, vertical, semi-submersible
- Housing with replaceable liner, light, top tank version
- Heating jacket optional

1 Screws

Nitrated in alloy steel or in stainless steel. The HEUD (High Efficiency Unique Design) provides excellent performance.

2 Housing

Various ports configurations such as top top, side top, front top or in line.

3 Bearing Bushes

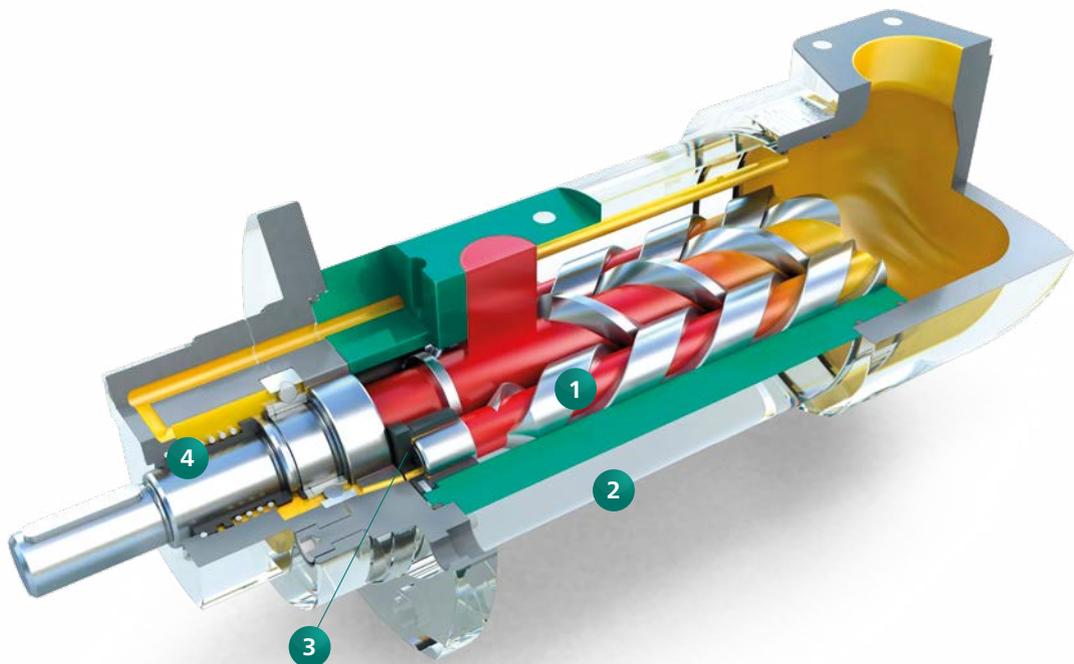
Nitrated bushes help to prevent start up failures and help to support radial loads.

4 Mechanical Seal

Under suction pressure just one mechanical seal is required for the 3NS. Magnetic drive optional.

Advantages

- High efficiency
- Easy maintenance
- Lightweight and small footprint
- Low pulsation
- API 676 3rd ed., optional



4NS SERIES

NOTOS® geared twin screw pumps have two shafts and four screws. The torque is transferred to the driven shaft via helical gears. The design is hydraulically balanced.

Performance

- Flow up to 2,500 m³/h (11,000 gpm)
- Pressure up to 80 bar (1160 psi)
- Temperature up to 300°C (570°F)
- Viscosity up to 200.000 cSt

Accessories

- Internal or external relief valve
- Vibration sensors
- Temperature sensors
- API 682 cartridge seals
- Various API seal plans

Arrangements

- Housing with replaceable liner
- Heating jacket optional

1 Screws

Nitrated in alloy steel or in stainless steel. The HEUD (High Efficiency Unique Design) provides excellent performance.

3 Timing Gear

Helical timing gears transfer the torque with reduced vibration and noise.

2 Housing

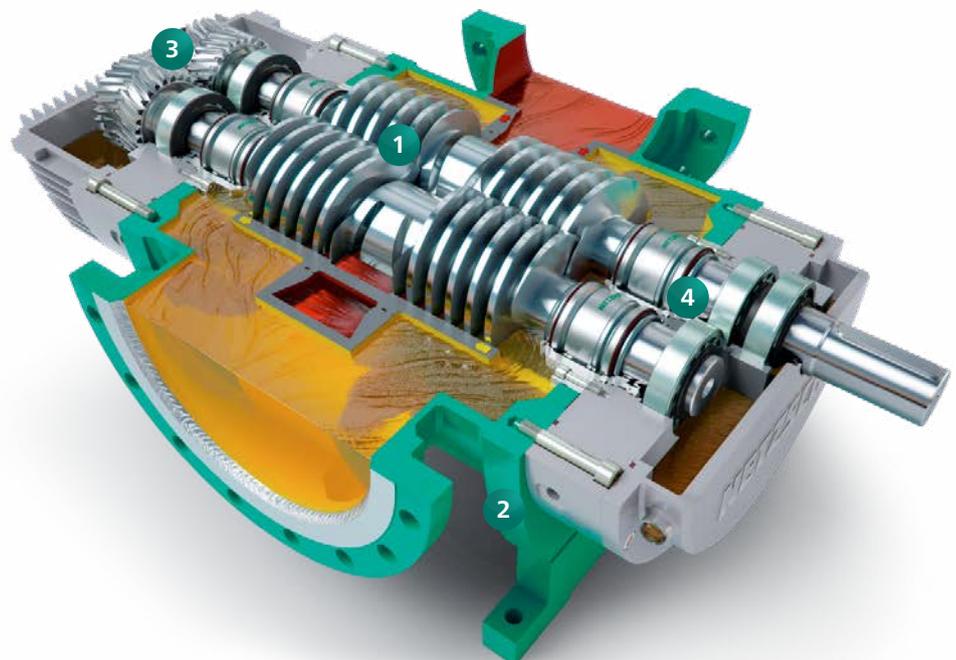
Various ports configurations such as top top, side top or in line.

4 Mechanical Seal

Four mechanical seals under suction pressure.

Advantages

- High Efficiency
- No metal to metal contact
- Small footprint
- Long service life
- Excellent suction capability
- API 676 3rd ed., optional



APPLICATION

Truck Unloading

- Pump NOTOS®: 2 NS
- Media: Palm oil
- Flow rate: 9,2 m³/h
- Pressure: 5,0 bar
- Temperature: 50 to 60 °C
- Viscosity: 20 to 60 cSt



Boiler Feeding

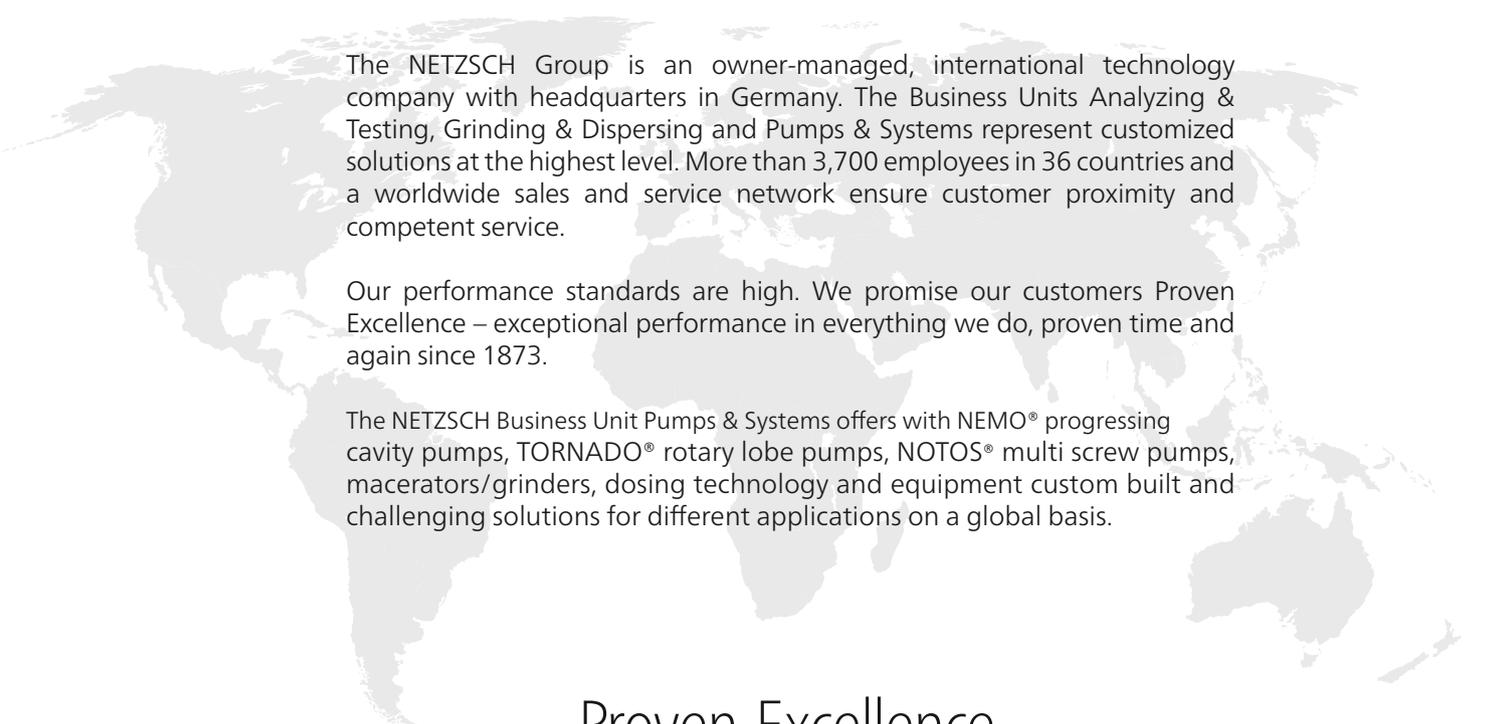
- Pump NOTOS®: 3 NS
- Media: Fuel oil
- Flow rate: 21,2 m³/h
- Pressure: 25 bar
- Temperature: 60 °C
- Viscosity: 622 cSt



Tank Storage

- Pump NOTOS®: 4 NS
- Media: Oil/Water emulsion
- Flow rate: 100 to 127m³/h
- Pressure: 18 bar
- Temperature: 35 °C
- Viscosity: 60 to 250 cSt





The NETZSCH Group is an owner-managed, international technology company with headquarters in Germany. The Business Units Analyzing & Testing, Grinding & Dispersing and Pumps & Systems represent customized solutions at the highest level. More than 3,700 employees in 36 countries and a worldwide sales and service network ensure customer proximity and competent service.

Our performance standards are high. We promise our customers Proven Excellence – exceptional performance in everything we do, proven time and again since 1873.

The NETZSCH Business Unit Pumps & Systems offers with NEMO® progressing cavity pumps, TORNADO® rotary lobe pumps, NOTOS® multi screw pumps, macerators/grinders, dosing technology and equipment custom built and challenging solutions for different applications on a global basis.

Proven Excellence.■

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