

NETZSCH

Proven Excellence.



More Efficiency for Storage Tanks

High suction capability with NETZSCH positive displacement pumps

Pumps & Systems

NETZSCH positive displacement pumps enable complete emptying even with high viscous media



Tank farms form the backbone of many industries, especially in the oil and fuel markets, as storage tanks or intermediate storage facilities. However, these media have a higher viscosity that makes the tank stripping, i.e. the pumping-out of the residues difficult. Remaining substances reduce the useable tank volume. To secure the maximum available storage space, more companies in these markets have recognized the value of using positive displacement pumps from NETZSCH.

The good suction characteristics with low NPSHr values of NETZSCH pumps enable complete emptying of even heavy crude oil or bitumen. They can be used flexibly for different viscosities offering an adjustable and wide range of the delivery rate from around 1 to 10. This not only optimizes the profit margins of the raw materials and processing companies, but also minimizes the loss of valuable resources, which is an additional benefit for these non-renewable goods.

The most suitable solution for each application

For the applications in tank farms NOTOS® multi screw pumps, TORNADO® rotary lobe and NEMO® progressing cavity pumps can all be considered. NETZSCH, as producer of three pump technologies, is ideally positioned to offer impartial and qualified advice, to help you choose the pump technology best suited to your application.



APPLICATION EXAMPLES

Transfer

- Pump: 2 NS
- Media: Polyol
- Flow: 45,1 m³/h
- Pressure: 11 to 13,9 bar
- Temperature: 25 to 37,8 °C
- Viscosity: 770 to 2950 cSt



Transfer from tank to ship (loading)

- Pump: 4 NS
- Media: Palm Oil
- Flow: 533 m³/h
- Pressure: 8,0 bar
- Temperature: 50 °C
- Viscosity: 35 cSt
- Special Feature: Supplied with control system



Fuel Oil Transfer

- Pump: 4 NS
- Media: Fuel Oil 1A
- Flow: 130 m³/h
- Pressure: 15,1 bar
- Temperature: 60 °C
- Viscosity: 605 cSt



THE NOTOS® Multi Screw Pump family for high suction capacity

2 NS – Two Screw Pump

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

- Flow up to 500 m/h³ (2200 gpm)
- Pressure up to 16 bar (230 psi)
- Temperature up to 300°C (570°F)
- Viscosity up to 100.000 cSt

3 NS – Three Screw Pump

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

- Flow up to 350 m/h³ (1500 gpm)
- Pressure up to 80 bar (1160 psi)
- Temperature up to 300°C (570°F)
- Viscosity up to 15.000 cSt

4 NS – Geared Twin Screw Pump

NOTOS® geared twin screw pumps have two double-flow screws. The double helix drive screw transfers the torque to the double helix driven screw via intermeshing gears. The design is hydraulically balanced.

- Flow up to 1500 m/h³ (6600 gpm)
- Pressure up to 80 bar (1160 psi)
- Temperature up to 300°C (570°F)
- Viscosity up to 200.000 cSt



Your Advantages

- High efficiency especially for highly viscous media, frequently 75 % and more
- Self-priming
- Excellent suction capability
- Continuous flow with low pulsation
- Gentle product handling
- Low lifecycle cost
- Long service life
- Quiet operation

TORNADO® Rotary Lobe Pumps

powerful, robust and compact

TORNADO® self-priming, rotary lobe pumps for high-performance and high efficiency are optimally tailored to your individual requirements. They are used for continuous and smooth conveyance of almost all media, as well as for dosing in proportion to speed.

TORNADO® Rotary Lobe Pump in elastomer/metal or metal/metal version

Performance

Flow rates up to 1000 m³/h at pressures up to 8 bar.

Features

Designed after the FSIP® concept (Full Service in Place), it makes servicing of the rotating parts simple and fast even in confined spaces. Different configurations available for optimum performance with every kind of application.

Application range

Industrial applications and in the oil and chemical industries for fluid to viscous media with and without solids.



Your Advantages

- Valve-free design
- Self-priming
- Suitable for any kind of liquids, including media containing gas
- Solids or fibrous matter
- Suitable for lubricating and non-lubricating media
- Pumping media with high or low viscosity
- Handling shear sensitive fluids
- Operating at temperature up to 100 °C
- Reversible operation
- Can be serviced without disconnecting pipework
- Tolerance of dry running

For the final support: The NEMO[®] Industrial Progressing Cavity Pump

Performance

Flow rates up to 1000 m³/h and pressures up to 48 bar (standard) or up to 240 bar (special applications).

Features

Designs with bearing housing and split connecting shaft allows all types of drives to be used and makes servicing the rotating parts simple and fast. Four rotor/stator geometries for optimum performance in every kind of application. Also in FSIP[®] (Full Service in Place) design available.


Media range

Substances with consistencies from low to high viscosity, with or without solid content.



Your Advantages

- High suction capability – up to 9 m H₂O
- Direction of rotation and flow can be reversed
- Can be installed in any position
- Quiet, smooth running
- Temperatures from - 20 °C to + 200 °C
- Can be serviced without disconnecting pipework



The NETZSCH Group is a mid-sized, family-owned German company engaging in the manufacture of machinery and instrumentation with worldwide production, sales, and service branches.

The three Business Units – Analyzing & Testing, Grinding & Dispersing and Pumps & Systems – provide tailored solutions for highest-level needs. Over 3,500 employees at 210 sales and production centers in 35 countries across the globe guarantee that expert service is never far from our customers.

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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