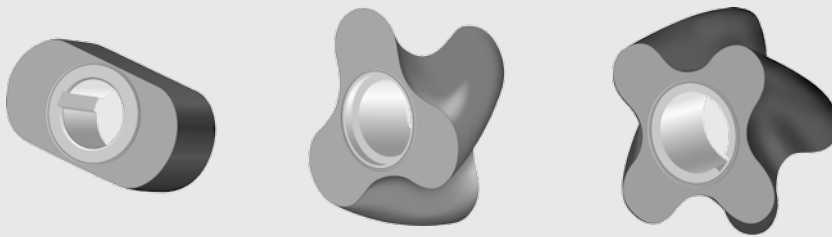


The rotors – low-pulsation, smooth pumping of all media

Rotors in different geometries and materials



2lobe straight

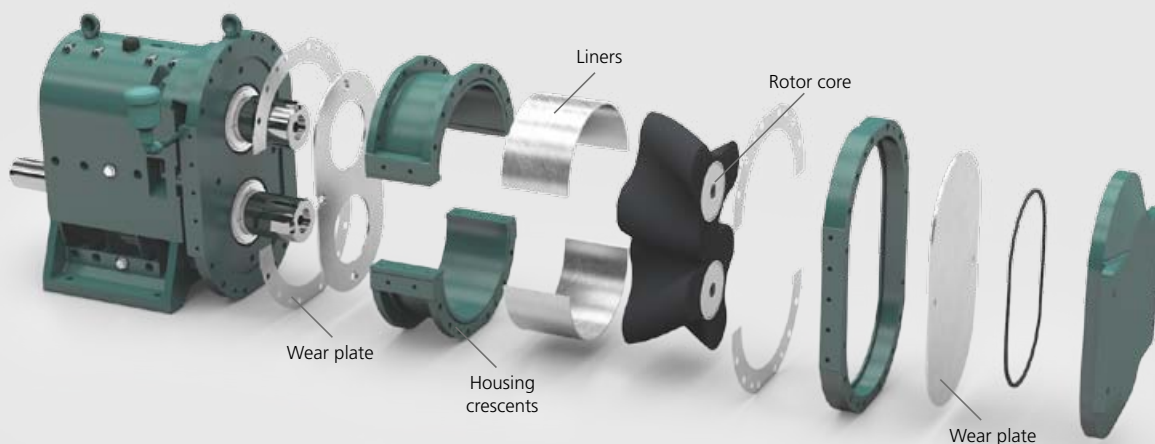
3lobe helical

4lobe helical

The rotor geometry and material are selected for the characteristics of the pumped media. Geometries are available for products which are viscous, abrasive or contain solids. Materials tailored to the media characteristics increase the durability of the rotors and extend service life.

Range of pump head wetted materials broadens application coverage

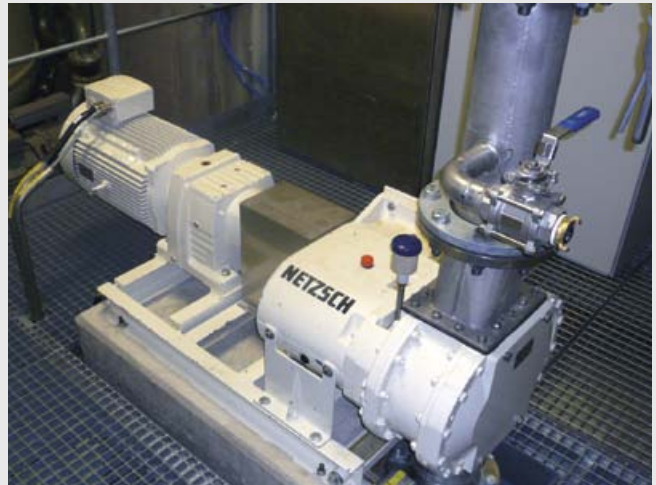
For handling chemically corrosive or otherwise aggressive media the TORNADO® T1 pump housing, wear plates, liners and rotor cores are available in suitably resistant materials.



TORNADO® Rotary Lobe Pumps – Totally reliable everywhere



Feed pump for substrate in a biogas plant. Flowrate up to 40 m³/h at pressures up to 2 bar.



The TORNADO® T1 in use in a paper mill. Kaolin tankers are unloaded at 75 m³/h against a pressure of up to 4 bar.



Used in a wastewater treatment plant, the TORNADO® T2 pumps sludge with 2% solid content at a capacity up to 18 m³/h against a pressure up to 2 bar.

Broad application spectrum

TORNADO® rotary lobe pumps can be used for media that has the following characteristics:

- Abrasive, corrosive and fibrous
- Containing solids (max. particle size up to 70 mm)
- Low to high viscosity
- Shear sensitive
- Non-lubricating and lubricating

Wide capacity and pressure range

- Flowrates up to 1,000 m³/h
- Pressures up to 10 bar

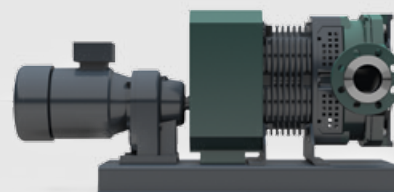
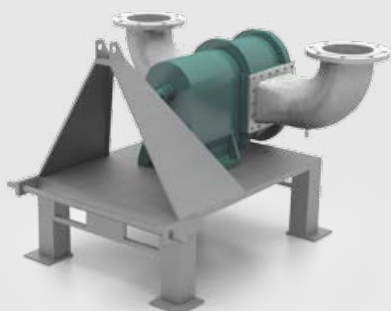
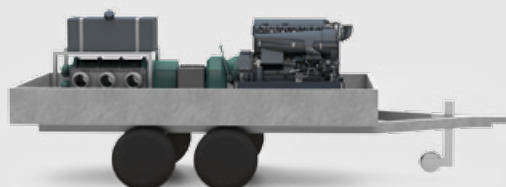
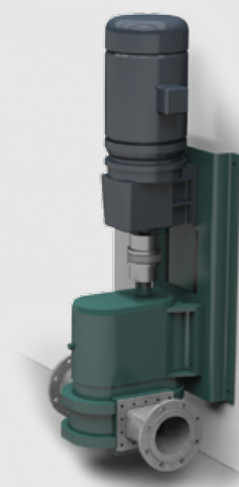
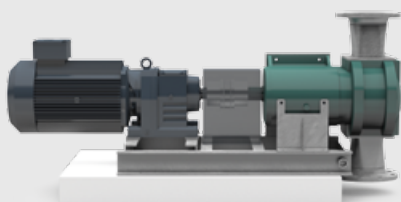
Design versions: The TORNADO® modular system, the optimum solution for every application requirement

TORNADO® pumps are able to transfer media containing solids and fibrous matter. Waste water and sludge can be moved quickly and efficiently whenever and wherever required. Whatever the process the TORNADO® range of sizes,

specifications and materials allows a customised solution for all applications. TORNADO® pumps can be mounted on baseplates, trollies or trailers and the range of drives available include electric motors, diesel engines and hydraulic motors.

Further information

TORNADO® Mobil
Brochure NMP · 045



The ideal pump for your application, available with the accessories that protect your process – it's the combination that counts

Accessories to increase the operational safety of both pump and plant and to prevent downtimes

Dry running protector

The dry running protection units (STP2A, STP2D) for use with the Tornado rotary lobe pumps operate by monitoring the temperature between rotor and rotor case during normal operation. Should the operating temperature rise over a predetermined set point due to an increase in friction caused by dry running the unit will shut down the pump, thus preventing any damage to the rotor case liner and rotor. The unit controller can be set for two different switch temperatures, for example the first set temperature could be used for the normally pumped media and the second for a different media temperature, for example for a cleaning fluid process.

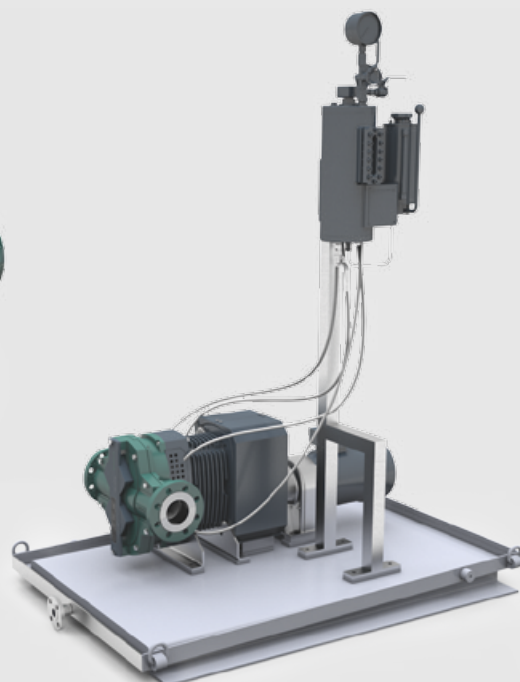
Quench pot for single mechanical seals

A quench pot is necessary when the shaft seals need to be operated with a quench, but it is not required that the seal is continuously flushed. The provision of a quench pot would be recommended to prevent dry running of the seals or crystallisation of the pumped media.

Pressurised flush for double mechanical seals

A double mechanical seal must be used in conjunction with a system providing a pressurised flush or thermo-syphon system. The pressurised flush is required to lubricate the seals, cool the seals and seal area and flush contaminants from the seal chamber. The flush liquid should be compatible with the pumped media, lubricating and have a high specific heat capacity.

The pressure of the flush should be 2bar above the pressure acting on the inboard seal from the pump chamber and flow rate of the flush must also be controlled.



Further accessories

available on request

Frequency converter

For varying speed and flowrates a frequency converter is available



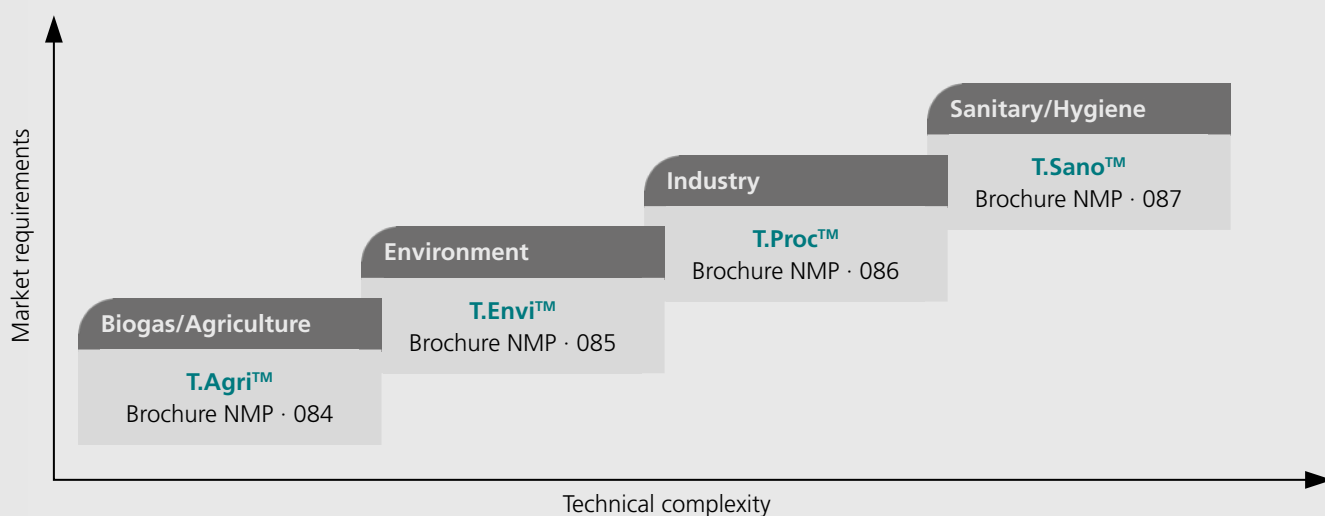
Over pressure protection

Bypass line with relief valve for over pressure protection



Our product philosophy – your benefit: the best pump for your application

The TORNADO® rotary lobe pump is available in four series with each series offering features and specifications meeting specific market needs.



The NETZSCH Group is an owner-managed, internationally operating technology company headquartered in Germany.

The three Business Units – Analyzing & Testing, Grinding & Dispersing and Pumps & Systems – provide tailored solutions for highest-level needs. Over 2,500 employees at 130 sales and production centers in 23 countries across the globe guarantee that expert service is never far from our customers.

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

NETZSCH Rotary Lobe Team

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