



Environmental & Energy

Processes, Markets and Applications

Pumps & Systems

EXPERTISE CREATES TRUST

Intelligent solutions for a clean environment

Environmental protection, water management, energy technology – the challenge of these topics lies not only in the development of modern technology in order to serve the market in these areas, but also in the development of the necessary expertise how to produce responsibly dealing with raw materials, climate and environment. We are prepared for these versatile tasks.

The Business field Environmental & Energy serves the following industries:

- Agriculture
- Cleaning waste water
- Construction industry
- Electroplating
- Marine equipment
- Renewable energies
- Purification of water and drinking water and much more

What we offer

In the business field "Environment & Energy" we provide positive displacement pumps as conveying systems for all media in environmental technology. Due to their regulating characteristics, these pumps ensure a safe, reliable and efficient process. Here we differentiate between the NEMO® Progressing Cavity Pumps, TORNADO® Rotary Lobe Pumps, NOTOS® Multi Screw Pump and PERIPRO Peristaltic Pump.

Why you succeed with us

The technically best pump is selected for the respective application. You benefit from reliable pumps and systems optimally tuned to your application and matched to the market. Our NEMO® and TORNADO® pumps are supplemented by grinding systems and accessories.

Who we are

NETZSCH Pumps & Systems is a family-run, medium-sized company headquartered in Waldkraiburg, founded in 1952. It employs more than 2,500 employees at five development and production sites and at 30 distribution companies, one partner and more than 200 NETZSCH representatives. NETZSCH is always close to you.

Product range

NEMO®

Progressing Cavity Pumps

- Capacities up to 400 m³/h
- Pressures up to 72 bar
- Temperatures from -20 °C up to 200 °C
- Pump types:
 - Flange pumps
 - Mixing pumps
 - High pressure pumps
 - Hopper pumps
 - Immersion pumps
 - Pumps for special applications



TORNADO®

Rotary Lobe Pumps

- Capacities up to 1000 m³/h
- Pressures up to 12 bar
- Temperatures up to 100 °C
- Pump types:
 - Standard pumps
 - Mobile pumps
 - Pumps for special applications

NOTOS® Multi Screw Pumps

- Flow rate up to 2500 m³/h
- Pressure rate up to 100 bar
- Viscosities up to 200.000 cSt
- Temperature up to 300 °C
- Pump types:
 - 2 Screw pump,
 - 3 Screw pump,
 - 4 Screw pump

PERIPRO Peristaltic Pump

- Flow rate up to 17,000 l/hr, expandable upto 34,000 l/hr.
- Pressure rate up to 10 bar
- Temperature up to 80 °C
- Different variants for environmental industry, chemical, mining and food production

NETZSCH Grinder

- M-Ovas®
Cutting plate macerator
- N.Mac® double shaft grinder

NETZSCH Accessories

- Protection devices
- Flushing/butterfluid systems
- Control units
- Transport devices
- Tools



WASTEWATER TREATMENT PLANT

We provide you NEMO® progressing cavity pumps, TORNADO® rotary lobe pumps and PERIPRO peristaltic pumps in diverse designs and materials, designed according to the location of use in the wastewater treatment plant. Low viscosity and also abrasive sludge is reliably conveyed using our pumps with flanged connections. For media with a high dry material content, such as dewatered sludge, are suitable, either for different designs of the NEMO® hopper pumps with screw conveyors or also with our aBP-Module® to prevent bridging.

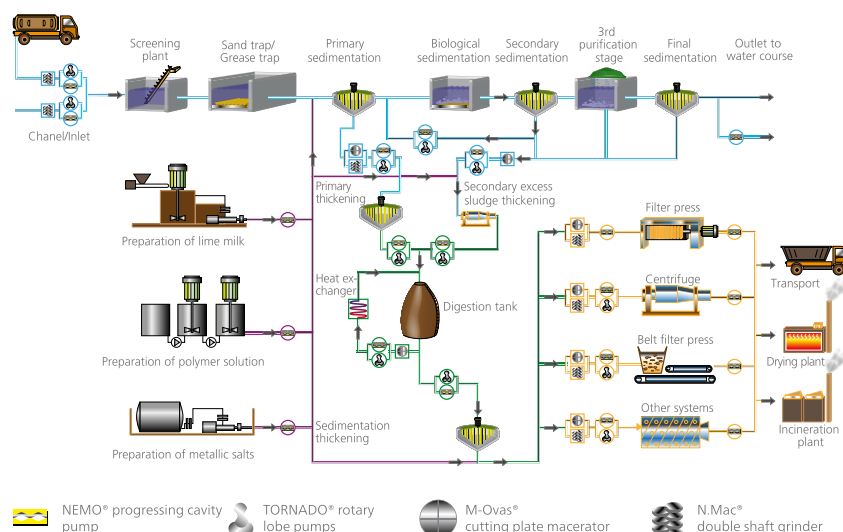
The TORNADO® rotary lobe pumps are predestined due to their compact construction for tight installation situations. They are just as robust as the progressing cavity pumps and suitable for media with large solids as well operation.

The grinders of NETZSCH protect lines and pumps and, alongside the wide range of accessories, also contribute to the process reliability of the overall plant.

Sludges, slurries and products with a high solids content or that are very abrasive such as lime milk are not a problem for the PERIPRO peristaltic pumps. Its robustness is achieved with the use of very strong materials, integrated bearings, large-size rollers and a system of reliable and very secure connections that prevent the appearance of leaks during its operation.

Your medium we are prepared for everything

- Activated sludge
- Centrate
- Compacted sludge
- Concentrated sludge
- Conditioned sludge
- De-watered sludge
- Digested sludge
- Draff
- Faecal sludge
- Flocculating agent
- Flotation sludge
- Fresh sludge
- Grease and oil emulsion
- Gypsum suspension
- Gypsum slurry
- Hygienised sludge
- Purified sludge
- Raw sludge
- Raw wastewater
- Refinery sludge
- Return sludge
- River mud
- Secondary sludge
- Industrial water
- Iron III chloride
- Kaolin sludge
- Landfill leachate
- Lime milk
- Liquid manure
- Liquid sludge
- Lubricant
- Metal-hydroxide sludge
- Mine water
- Mixed water
- Moor mud
- Polymer concentrate
- Polymer solution
- Primary sludge
- Pulps
- Sewage
- Slaughter waste
- Slop
- Stabilized sludge
- Surplus sludge
- Thick sludge
- Wastewater





CONSTRUCTION INDUSTRY AND CONSTRUCTION MATERIALS

Extremely robust pumps to ensure success

The high pressure in terms of deadlines and costs in construction make it important for pumps to run perfectly and also to be capable of efficient operation. In addition, construction primarily involves dealing with granular and binding media containing solids. These are generally difficult for pumps to convey. NETZSCH self-priming, rotating positive displacement pumps are well-prepared for these difficult tasks. They are wear-resistant thanks to the material coatings and have an extremely high resistance to solid contents. They ensure reliable operation in construction.

When it comes to extremely abrasive media, such as concrete primer or wastewater from concrete production, the high-performance TORNADO® rotary lobe pumps prove their worth with an above-average service life. The TORNADO® rotary lobe pump's compact design makes them suitable for areas where space is restricted. The pump oil-free drive – the pumps are driven by a synchronised belt drive – means any possible pollution of the groundwater is avoided.

Pumps are tailored to the relevant applications using the appropriate accessories. If necessary, equipment can include skids for construction sites, remote control, switch cabinets and/or hydraulic drive.

Your medium – We are prepared for everything

- Wastewater from concrete production
- Concrete suspension
- Drilling sludge
- Gypsum suspension
- Gypsum slurry
- Adhesive bases
- Wastewater
- Cement suspension



Centrifuge feed using NEMO® BY Pump



BIOGAS PLANTS

Process adaption for higher energy production

The inhomogeneous, liquid or solid, organic substances are decomposed through the use of microorganisms and, thereby, used to generate energy. Depending on the process sequence, it is necessary that the biomass is continuously fed to the fermenters.

Here, pump systems are required to convey the large quantity and sizes of grain in the solids flux without problems. NEMO® progressing cavity pumps as well as TORNADO® rotary lobe pumps are used for this application, sometimes combined with NETZSCH grinders.

Advantages

- Variable, modular system
- Robust, compact and powerful pumps
- Pumping media with high solids content
- Large range of materials
- The correct joint for every application
- Mechanical seal as standard, further seals as an option
- aBP-Module® to prevent bridging

Typical media:

- Biomass
- Bio waste
- Food waste
- Grains
- Haylage
- Manure
- Pomace
- Slaughterhouse waste



The NEMO® progressing cavity pump: an energy-efficient solution for high pressure ranges too.



B.Max® progressing cavity pump liquid feeding for reliable and flexible substrate supply.



M-Ovas® macerator and NEMO® progressing cavity pump in series offers process reliability and efficiency.



MARINE AND SHIP EQUIPMENT

Whether as a fuel or gear pump, hydraulic pump, bilge and mud pump or as pump for loading or unloading oil tankers, commercial or naval ships NETZSCH pumps are wide spread.

NEMO® progressing cavity pumps, TORNADO® rotary lobe pumps as well as NOTOS® multi screw pumps can be found in the engine room or on deck as transfer pumps. Highly viscous media such as black oil, pitch, tar and heavy oil are pumped as reliable as low viscosity media such as diesel oil, gasoline, hydrocarbons, salt and fresh water.

Typical media:

- Anchor chains oil
- Diesel fuel oil
- Fuel oil
- Lubricating oil
- Residual oil
- Sludge
- Various chemicals
- Waste oil
- Wastewater (grey and black water)



NEMO® progressing cavity pump on platform to transfer bilge oil



Twin - screw pump for lubricating oil transfer



The NOTOS® pump family

NEMO® progressing cavity pumps

POWERFUL FOR OUR ENVIRONMENT

NEMO® BY

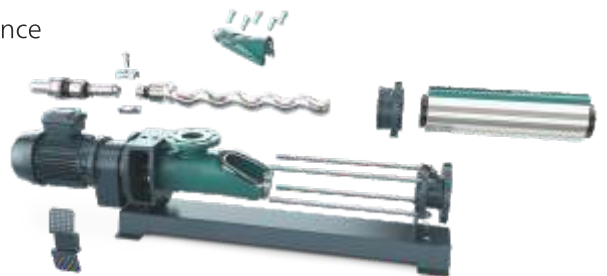
in block design

Compact design with directly flanged drive. It is distinguished by its low investment, operating and maintenance costs. Four rotor/stator geometries for optimum performance with every kind of application.



The FSIP® design

The FSIP® design enables a particularly service-friendly maintenance without dis-assembling of the pump from the pipeline. By easier access to all rotating parts through cartridge joint and mechanical seals the maintenance is reduced. The downtimes and the associated costs are reduced. In addition, it reduces the required installation space, since the stator is removed laterally. The FSIP® design is offered in modification sets. So you can upgrade also existing pumps with lower costs.



The xLC® stator adjustment unit

The xLC® stator adjustment unit makes it possible to reset the iFD-Stator® 2.0 several times before it eventually has to be replaced due to wear, thereby prolonging stator life significantly. The function of the xLC® unit is based on the iFD-Stator® 2.0. The xLC® unit is attached to the flange of the elastomer part of the stator and can compress or stretch it. In the case of wear the elastomer part of the stator can be compressed to restore the pretension between the rotor and stator ensuring an efficient sealing line. Depending on the application lifetime can be tripled or extended even further.



NEMO® SY

with bearing housing and drive shaft

The design with bearing housing and drive shaft means it can be used with all types of drive. Four rotor/stator geometries for optimum performance for the respective application. Also available in FSIP® design.



NEMO® C.Pro

Mini dosing pump in plastic design

High dosing accuracy (deviation of < 1 %).
Compact design with directly flanged drive.



NEMO® BO/BS

in block design with directly flanged drive or NEMO® SO/SS with bearing housing and drive shaft

Housing with rectangular/square feed hopper and coupling rod with conveying screw with compression chamber for improved product feeding into the conveying elements.



NEMO® BF option with aBP-Module®

in block design with directly flanged drive or with bearing housing and free shaft end

Housing with enlarged, rectangular feed hopper and coupling rod with patented, horizontally positioned conveying screw for optimum product feeding into the conveying elements.
Optional with aBP-Module® to prevent bridging.



NEMO® B.Max

in block design with directly flanged drive or with bearing housing and drive shaft end

Housing with large, rectangular feed hopper*, coupling rod with patented, horizontally positioned conveying screw for optimum product feeding into the conveying elements. The additional, hydrodynamically designed flushing stud installed on the hopper housing ensures the substrates are fed and mixed optimally for the biomass.



THE BEST CHOICE

for every application

TORNADO® rotary lobe pumps – powerful, robust, compact



TORNADO® self-priming, valveless positive displacement pumps for high-performance and 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.

Broad range of applications

The pumps are primarily used with media that have the following features:

- With and without solids
- Low to high viscosity
- Thixotropic and dilatant
- Shear sensitive
- Abrasive
- Non-lubricating and lubricating

TORNADO® Mobile

The NETZSCH TORNADO® Mobile is ideal for applications where pumps have to be used quickly and flexibly outside buildings and plants or away from any infrastructure. This unit comprises a mobile TORNADO® rotary lobe pump with diesel drive conveys large quantities of sewage and sludge, independent of the local circumstances, and is therefore often used in civil protection. Smaller units are available, too.

PERIPRO Peristaltic Pump

We offer you PERIPRO in two different versions: the industrial for noncorrosive media, and the chemical for corrosive media. These peristaltic pumps minimise downtimes thanks to optimised design. This advantage is very important in continuous work applications.

Your benefits

- High resistance to abrasion during the transfer of sludges and slurries and in the dosing of highly abrasive products such as lime milk and activated carbon
- Suction capacity of up to 9.5 mWc and optimal flow rate control for sampling applications
- Ease of maintenance and operation for continuous work applications (24 h/7 days) due to the design and robustness of the equipment
- Low shear pumping for dosing of polymers and flocculants
- Maximum process efficiency
- Chemical version with materials that are resistant to highly concentrated acids
- Pumping of gaseous products without problems for indefinite periods

Typical applications

- Transfer of sludges and slurries
- Dosing of activated carbon and lime milk
- Dosing of sodium hypochlorite and ferric chloride
- Dosing of polymers and flocculants
- Sampling



FSIP®

“Full Service in Place” holds also true for our grinders

Grinding systems, so that every coarse material is pumpable

Powerful grinding systems are used to protect plant and pump units contained therein they ensure that impurities are separated or ground suitable for pumping. thus, the risk of blocking and/or clogging in the pump systems is reliably prevented.

M-Ovas® cutting plate macerator

During the treatment of wastewater, the impurities in the medium are directed through the specially shaped housing and gathered and cut by the rotating blades. Available in two sizes, this unit can be used for sludge with a throughput rate of up to max. 70 m³/h and a dry matter content of up to 12 %. It is characterised by its ease of maintenance.

N.Mac® double shaft grinder

Capable of fragmenting large and solid particles, the N.Mac® Double Shaft Grinder which is available in various sizes is the ideal equipment to suit different applications such as wastewater treatment, biomass substrate handling, food and fruit scraps. Its many housing designs in channel and inline version allow installation into effluent channels or flange assembly to prevent pipe clogging and to protect any downstream equipment, such as pumps.



M-Ovas® Cutting plate macerator



N-Mac® double shaft grinder

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.

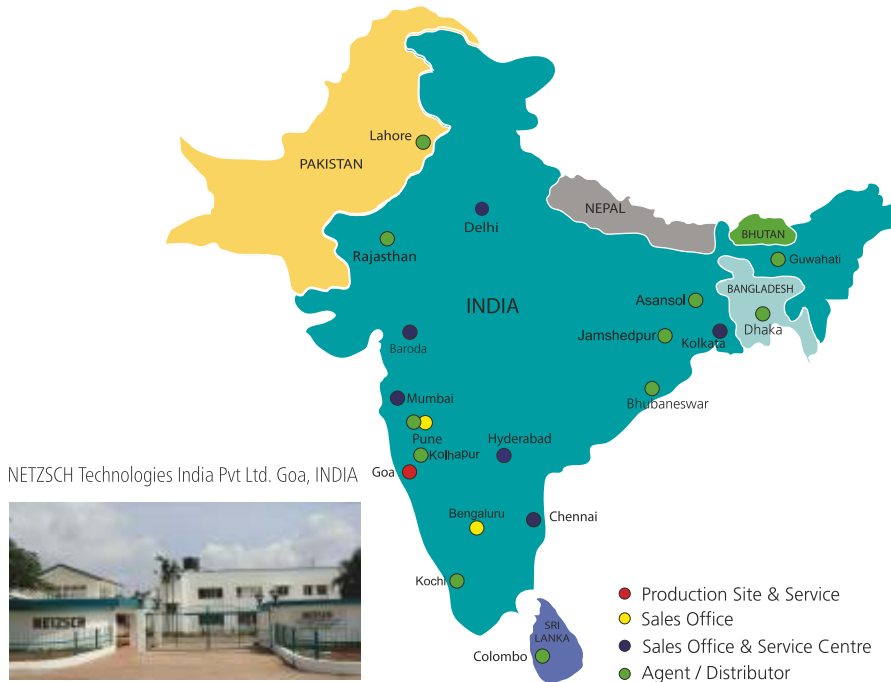
The three Business Units – Pumps & Systems, Grinding & Dispersing and Analysing & Testing – provide tailored solutions for highest-level needs. Over 4,000 employees at 210 sales and production centres in 36 countries across the globe guarantee that expert service is never far from our customers.

NETZSCH Pumps & Systems has its manufacturing unit since 2005, the state of art of manufacturing plant in Goa. Services customers in India, Srilanka, Bangladesh, Pakistan and Nepal through Regional Offices and Distribution Network.

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

Business Unit Pumps & Systems
NETZSCH South Asia

NETZSCH
Proven Excellence.



Proven Excellence.

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