

BIOGAS PLANTS

Process adaption for higher energy production

These 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, also 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



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.



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.



Further information

NEMO® C.Pro®
Brochure NPS · 313

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 with removable, cone-shaped compression chamber, coupling rod with patented, horizontally positioned conveying screw for optimum product feeding into the conveying elements.
Optional with aBP-Module® to prevent bridging.



Further information

aBP-Module®
Brochure NPS · 070

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.



Further information

NEMO® B.Max®
Brochure NPS · 060

Repowering
Brochure NPS · 063

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.

Further information

TORNADO®
Brochure NPS · 081

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 and conveys large quantities of sewage and sludge, independent of the local circumstances. Smaller units are available, too.

Grinding systems, so that each media is pumpable

Powerful NETZSCH grinder systems are used to protect your 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.

The NETZSCH M-Ovas® cutting plate grinder

During the treatment of waste water, the impurities in the medium are directed through the specially shaped housing and gathered and cut by the rotating blades. 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 % and is characterised by its ease of maintenance.

NETZSCH twin shaft macerator

The NETZSCH twin shaft grinders are used for applications with particularly coarse and solid substrates. The twin shaft macerators impress with their robust design, simple operation and high performance. They offer the optimum solution, even in the most extreme conditions. Depending on the application, five different NETZSCH twin shaft macerators can be used in various designs. The various, very slow speeds of the shafts provide the option of self cleaning. The flow rates are up to to 300 m³/h with a solid content of 10 %.

Further information

Grinder
Brochure NPS · 040



NETZSCH M-Ovas® cutting plate grinder



NETZSCH twin shaft macerator