

TORNADO® Rotary Lobe Pumps

T.Envir®/T.Econ – The heart in environmental and agriculture



TORNADO® Rotary Lobe Pumps T.Envi®/T.Econ

Designed for applications in agriculture and biogas technology

WEAR RESISTANT

ROBUST

SERVICE FRIENDLY

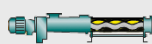
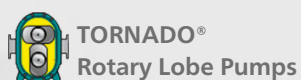
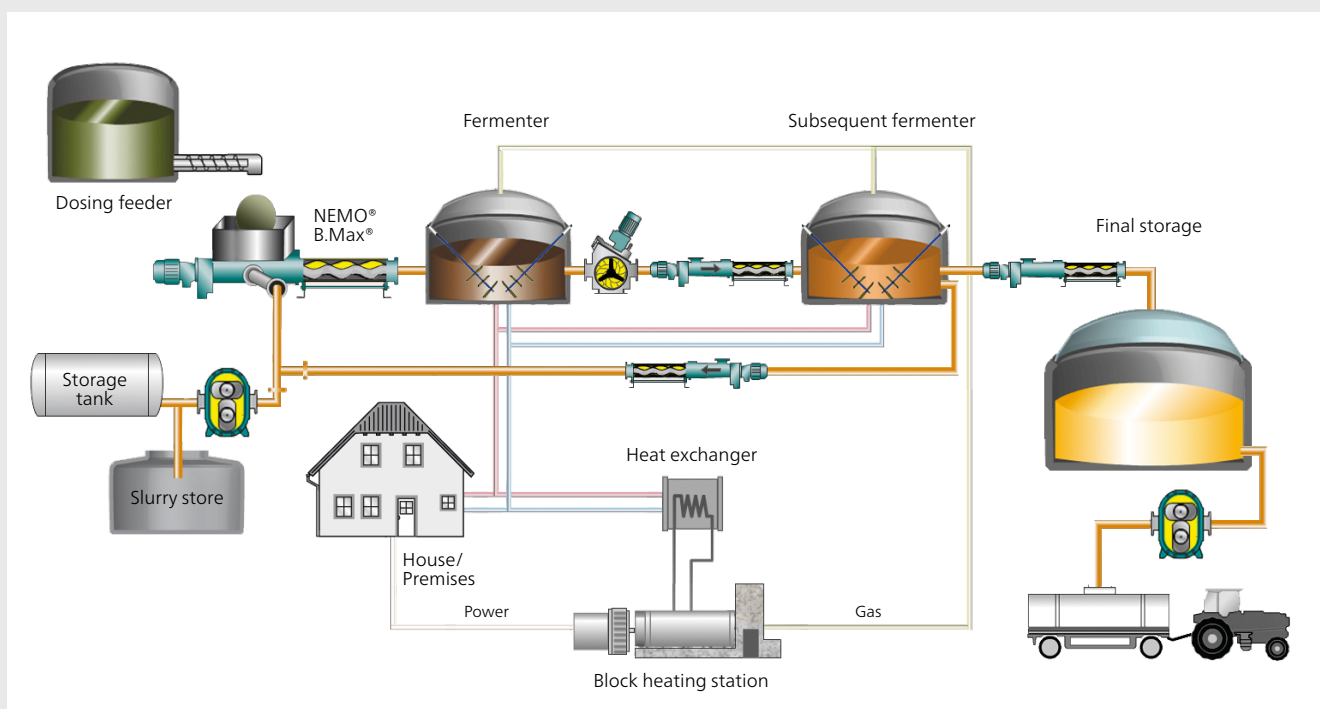
DURABLE

LOW COST



COMPACT

Process chart of a biogas plant – application range of NETZSCH products



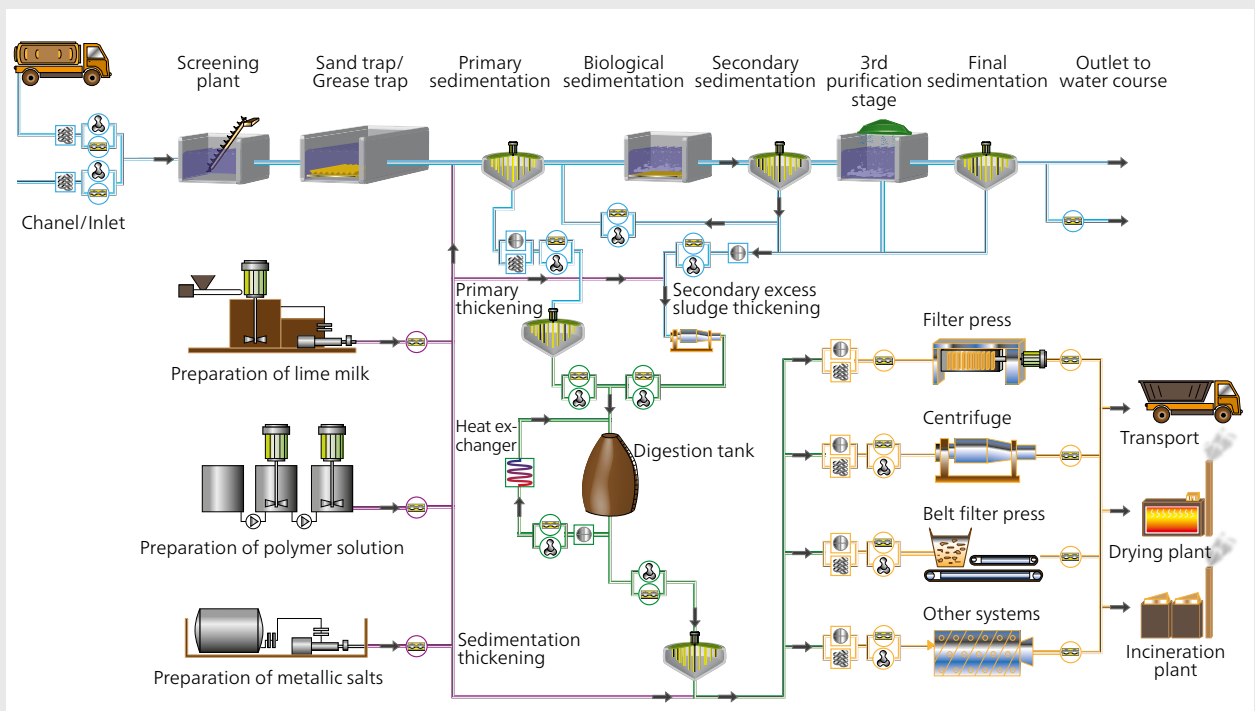
The most suitable solution for each application

The demands in applications in the environmental sector require various pump systems. NETZSCH rotary lobe and progressing cavity pumps, as well as grinders, provide the right solution for your process.

For some applications the use of either rotary lobe or progressing cavity pump is potentially possible. NETZSCH as producer of both pump technologies is ideally positioned to offer impartial and qualified advice, which pump technology is best suited to your application.

In this case, both the application characteristics and the space is the decisive factor for give the optimal choice.

Process chart of sewage treatment plant – application range of NETZSCH products



TORNADO®
Rotary Lobe Pumps



NEMO® Progressing
Cavity Pumps



NETZSCH Cutting Plate
Macerator M-Ovas®

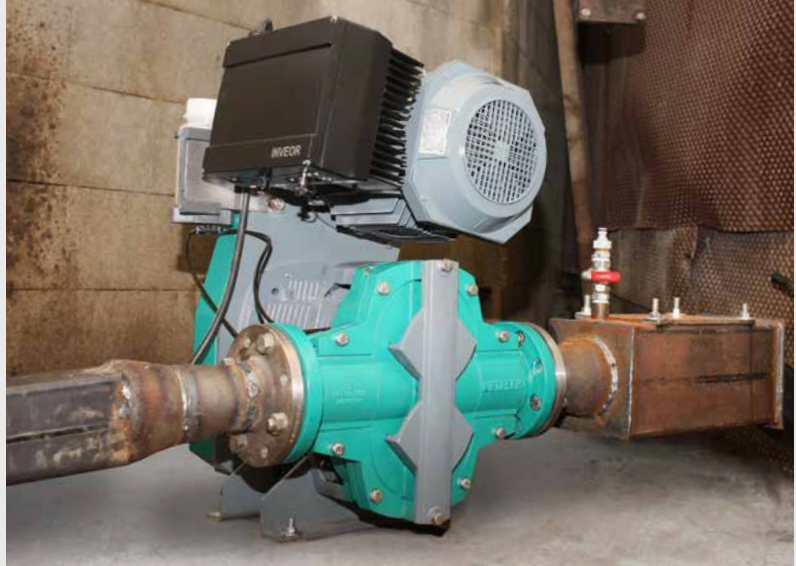


NETZSCH twin shaft
macerator



A strong team: NEMO® and
TORNADO® pumps side by side
in environmental technology

Recirculating liquid manure in a biogas plant from a fermenter to a heat exchanger at a flow rate of $20 \text{ m}^3/\text{h}$ against a discharge pressure of 1,5 bar.



Centrifuge feed: 2% DS excess sludge at a flowrate of $18 \text{ m}^3/\text{h}$ against a discharge pressure of 1,5 bar.



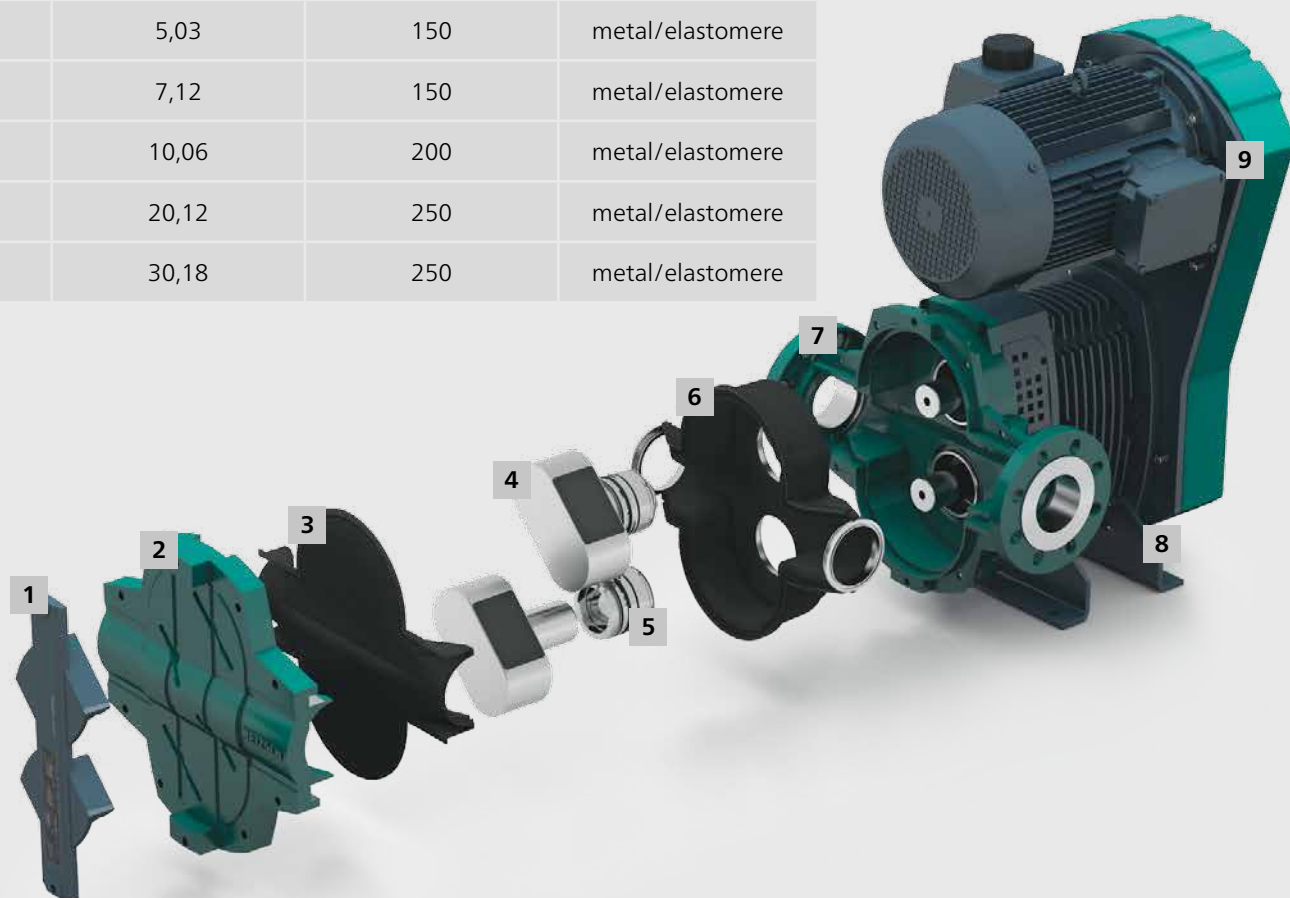
TORNADO® T.Envi/T.Econ® – the right choice for your application

NETZSCH TORNADO® Rotary Lobe Pumps T.Envi®/T.Econ – Operating Parameters

Range	Model		Flowrate at nominal speed range (theoretical)	Speed (nominal) recommended range	Flowrate at max. speed (theoretical)	Speed max.
	T.Envi®	T.Econ	appr. m³/h	rpm	m³/h	rpm
T1	MB-1		3 to 14	100 to 500	23	800
T1	MB-2		4 to 20	100 to 500	32	800
T2	08/45	04/45	8 to 39	100 to 500	45	600
T2	06/70	03/70	12 to 58	100 to 500	70	600
T2	08/100	04/100	16 to 82	100 to 500	100	600
T2	06/140	03/140	24 to 119	100 to 500	140	600
T1	XLB-2		30 to 151	100 to 500	166	550
T1	XLB-3		43 to 214	100 to 500	235	550
T1	XLB-4		60 to 302	100 to 500	332	550
T1	XLB-6/2		121 to 604	100 to 500	604	500
T1	XLB-8/2		181 to 905	100 to 500	905	500

- | | |
|-------------------------------|---------------------------|
| 1 Rotor setting device | 6 Casing liner |
| 2 Front cover | 7 Rotor case |
| 3 Cover liner | 8 Bearing housing |
| 4 Rotor | 9 Tooth belt drive |
| 5 Seal | |

Discharge pressure maximum (bar) continuous/ intermitted		Displacement (theoretical)	Flange connections	Pump head materials (wetted)
T.Envir®	T.Econ	l/r	mm	material
6/8		0,47	65	metal/elastomere
6/8		0,67	80	metal/elastomere
8/10	4/6	1,27	80	metal/elastomere
6/8	3/5	1,90	100	metal/elastomere
8/10	4/6	2,74	125	metal/elastomere
6/8	3/5	3,95	125	metal/elastomere
4/6		5,03	150	metal/elastomere
4/6		7,12	150	metal/elastomere
4/6		10,06	200	metal/elastomere
4/5		20,12	250	metal/elastomere
3/5		30,18	250	metal/elastomere



TORNADO® Rotary Lobe Pumps – totally reliable everywhere

Membrane filtration: Permeate with
0,5% DS at a flowrate of 80 m³/h
against a discharge pressure of 1 bar.



Mobile pumps: For municipal and
industrial water and sewage treatment
plants and other applications, where
mobility and flexibility are required.
Mobile units are designed individually
to meet customer specification and
requirement.





Spraying liquid manure at a flow rate of 5000 l/min, the pump being driven from a tractor via a PTO shaft. Other capacities available.

TORNADO® XLB-4 for pumping 300 m³/h water, sludge or liquid manure as a mobile pumping station. Driven by tractor PTO. External threads for connecting different couplings such as Perrot, Stortz or similar.



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 3,000 employees at 163 sales and production centers in 28 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, screw pumps, macerators/grinders, dosing systems and equipment custom built and challenging solutions for different applications on a global basis.

NETZSCH Rotary Lobe Team

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BLUECOMPETENCE

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Partner of the Engineering Industry
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