



Conveyance Solutions for

Anaerobic digestion processes,
thermal hydrolysis plants and
bioethanol production



Reliable solutions for
pumping, loading, input.

Who we are

Why choose pumps from WANGEN?

The name WANGEN PUMPEN originates from Wangen in the Allgäu region of Germany, which is the location of the company's head office and main production site. Wangen is in the most southerly part of Germany, where the three countries Austria, Switzerland, and Germany join at Lake Constance.

Made in Germany, used worldwide. Customers trust and rely on pumps made by Wangen Pumpen. It is a clear confirmation of our commitment to quality as the basis for long-term value.



Since the establishment of WANGEN PUMPEN in 1969, it has continued to expand from its beginnings as a small family business to a medium-sized company with a workforce of over 200 staff members.

Thanks to our consistent focus on the requirements of the market and our customers, our pumps are highly regarded at regional, national, and international levels.

Our quality recognition by our customers motivates us to retain and improve our company values every single day.



“Reliability is a top priority in my biogas plant. That is why I use pumps from WANGEN.”



Headquarter building in Wangen, Germany

WANGEN pumps in your plant

Applications

The following are typical processing tasks, where our pumps are used in terms of anaerobic digestion, thermal hydrolysis, and bioethanol production:

- Pumping substrate: the transport of viscous substrates between fermenters
- Input of solids: solid substances are introduced into the pump via the hopper feed and mixed with liquid from the fermenters, post-fermenters or from liquid manure tanks
- Separator feeding: WANGEN pumps take on special operations in biogas plants, such as e.g. the loading of the separators used to separate the solid and liquid phases

Fossil fuels are scarce; therefore, renewable energy gains in importance. And for this reason, biogas technology does, too. The Wangen pump factory has been producing progressing cavity pumps for this industry of industry right from the very start and is a member of the German Biogas Association.



The task of pumps in biogas plants is to transport viscous substrates between the fermenters. Depending on the substrate to be pumped and the respective biogas plant, we are able to offer different pump types. Our experience enables us to develop practical solution concepts.



Feeding the pump via a transferring hopper



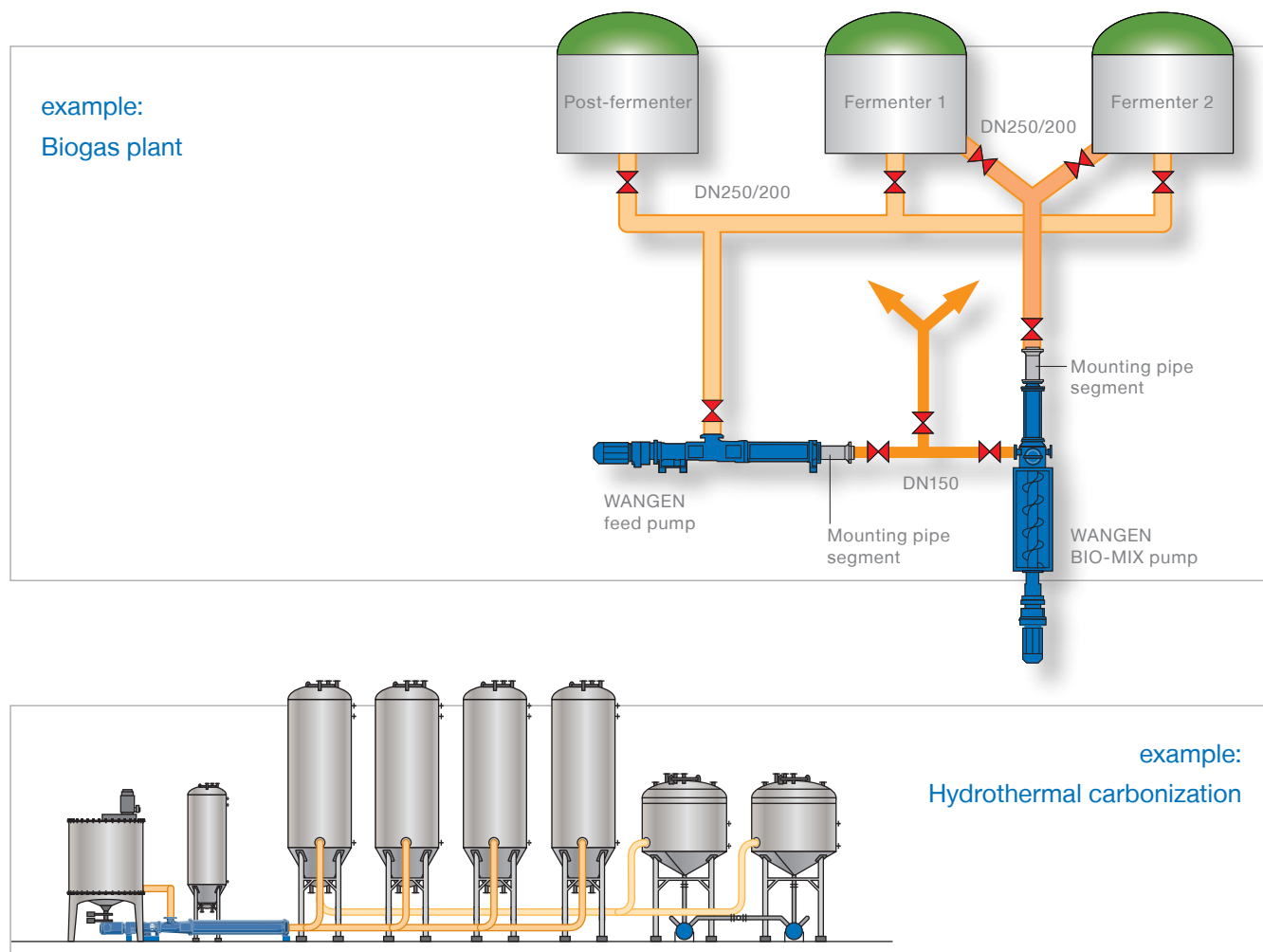
Pumping substrate between fermenters



Introduction of solid substances after crushing

Biogas plant with processes and pumps

WANGEN pumps in your biogas plant



Service and Spare Parts

All Wangen spare parts comply with strict requirements in terms of functionality as well as durability and are manufactured in firm compliance with the Wangen quality standard. Spare parts, such as rotors and stators are manufactured directly at our company. This guarantees first-class quality from the manufacturer and ensures the long service life of your pump.

At our production facility, we operate a large warehouse that stores spare parts. This allows us to supply spare parts all over the world within a few business days. This also means we can help you to reduce system downtime and maximize the operational productivity of your plant. Our service team will be happy to assist you.

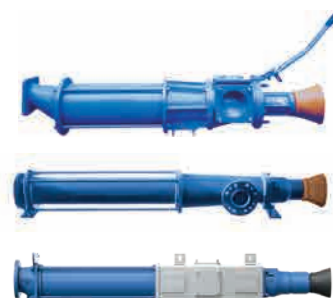
WANGEN Pumps

Our Solutions

Our construction series specifically for pumping substrates, loading solid substances or the feeding of separators convince through their non-clogging joints and the ease with which they also convey over long distances and/or where there are big differences in height.

PTO pumps A, GL-S, GL-F

for reliably pumping agricultural materials. They have a free shaft end and can be powered directly from a vehicle, such as a tractor. Flowrate up to 2069.4 gpm (470 m³/h), differential pressure up to 232 psi / 16 bar, high solids content up to 15%



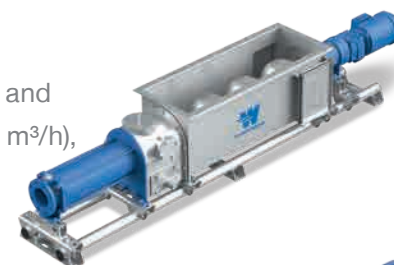
Standard self-priming pumps KL-S

for pumping flowable thin sludge, excess sludge and mechanically thickened sludge containing up to 10% dry matter. Available in cast iron as well as stainless steel. Flowrate up to 2466 gpm (560 m³/h), differential pressure up to 696.18 psi / 48 bar, viscosity up to 200,000 cP.



Standard hopper feed pumps KL-R BIO-MIX

for effectively introducing fermenting substrates into a biogas plant. Hopper and screw are available in steel or stainless steel. Flowrate up to 660.4 gpm (150 m³/h), differential pressure up to 174 psi / 12 bar, high solids content up to 45%.



Self priming pumps BIO-FEED with X-LIFT quick change system

Combines liquid feeding with screw technology directly at the solids dispenser. With four DN150 connections and a DN400 connection. The X-LIFT quick change system enables easy replacement of the wearing parts. Flowrates up to 220.1 gpm (50 m³/h), Differential pressure up to 87.02 psi / 6 bar, high solids content up to 15%.



Standard immersion pumps KL-T

for pumping highly viscous liquids from basins and tanks. Available in cast iron as well as stainless steel. Flowrate up to 2312 gpm (525 m³/h), differential pressure up to 174 psi / 12 bar, viscosity up to 200,000 cP.



X-UNIT

Debris removal (X-TRACT) and substrate cutting (X-CUT):
The modular system for reliable protection of plant equipment.
Maximum capacity: 330.004 gph (1,250 m³/h / 347 l/sec).



Extract of our

List of References

Germany



Food waste

Plant	Food recycling
Process	According to Hammermühle
Product	Self-priming pump
Pump type	KL 80S 140.3
Flowrate	44.03 gpm (10 m³/h)
Differential pressure	145,04 psi (10 bar)

Canada



Corn & cow manure

Plant	Biogas
Process	Wet input
Product	Biomix + feed pump
Pump type	Biomix 165.2 HD & KL65S125.1
Flowrate	352.23 gpm (80 m³/h)
Differential pressure	58.02 - 87.02 psi (4 - 6 bar)

Italy



Plant silage

Plant	Biogas
Process	Wet input
Product	Biomix + feed pump
Pump type	Biomix 140.1 HD & KL50S 114.1
Flowrate	220.14 gpm (50 m³/h)
Differential pressure	87.02 - 116.03 psi (6 - 8 bar)

Extract of our

List of References

United Kingdom



Biodegradable material

Plant	Anaerobic Digestion
Process	Hydrolysis
Product	Self-priming pump, immersion pump
Pump type	KL 50S 114.0 & KL 50T 114.0
Flowrate	up to 132.08 gpm (30 m³/h)
Differential pressure	3 bar / 43.51 psi

Hungary



Sugar beets

Plant	Biogas
Process	Wet input
Product	Biomix + feed pump
Pump type	Bio 165.1 HD
Flowrate	352.23 gpm (80 m³/h)
Differential pressure	58.02 - 87.02 psi (4 - 6 bar)

Germany



Puréed beets

Plant	Biogas
Process	Pumping from a lagoon
Product	Immersion pump
Pump type	KL50 T 114.1
Flowrate	66.04 gpm (15 m³/h)
Differential pressure	87.02 - 116.03 psi (6 - 8 bar)





WANGEN PUMPEN is certified to:

ISO 9001 (Quality management)

ISO 14001 (Environmental management)

ISO 45001 (Occupational safety and health protection)

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