

Data Sheet

Cavity pumps for Biogas & Industry

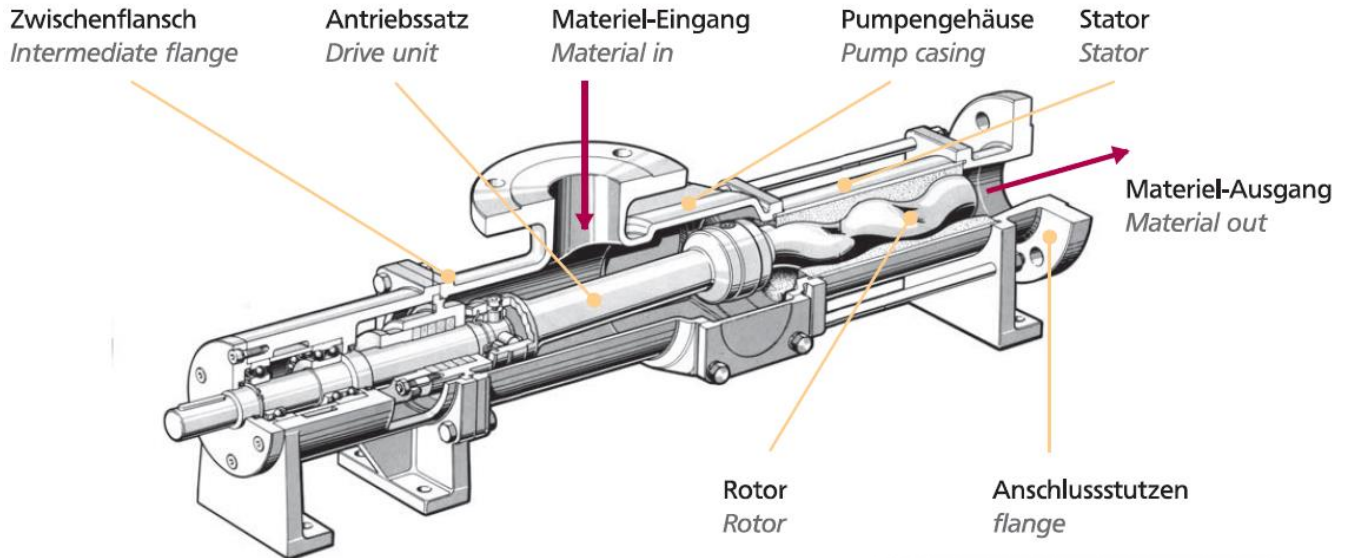


Characteristics:

- 3 – 24 bar
- 4 – 360 m³/h
- Rotor: hollow or full rotors in steel / stainless steel (ss304/ss316) and hardened – depending on the application
- Different joints
- Oil-chamber housing with mechanical seals
- Stators in different elastomers (NBR, EPDM, PTFE, PU, CSM) – also available in adjustable versions for a longer service life
- Installation and maintenance without special tools

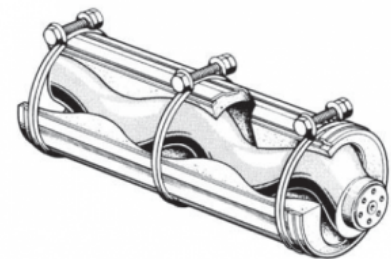
Conveying of viscous materials:

- raw materials which are reproductive like corn, grass
- substrates for Biogas production, food residues, vegetable waste
- liquid manure
- waste water
- emulsion
- sludge, slurry
- cut up fruits
- colours and lacquers ...



Restressable Stator:

1 – 4 steps available



Dry running protection

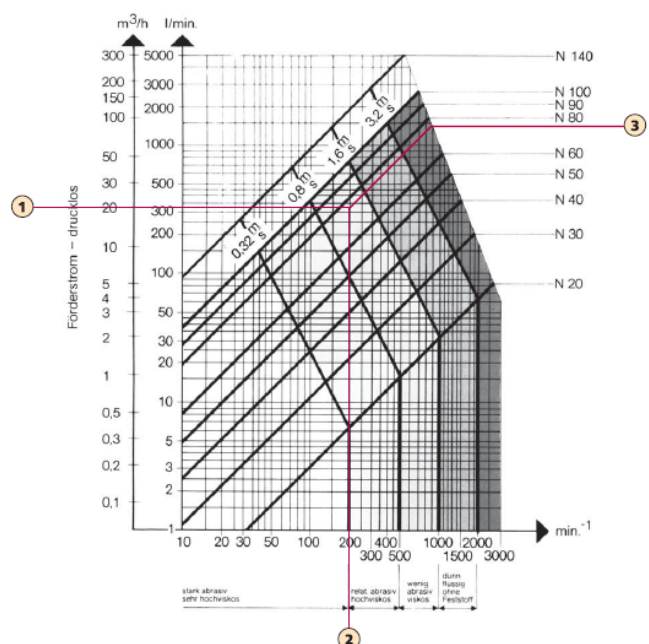
The resistance thermometer PT 100 is used for direct temperature measurement in the stator. The thermometer includes an evaluation unit with connection cable.

Pressure gauge

As another accessory is our pressure gauge with switching contact for pressure monitoring.

Pump selection

1. Using the diagram, you can make the preselection of the Armatec-FTS progressing eccentric screw pumps
2. Selection flow rate m^3 / h
3. Selection revolutions / min
4. From the intersection point along characteristic curve selection pump size results in a pump N 80 for example



INDUSTRY CAVITY PUMPS QUICK Series

NF 80 + 100 / N 120 + 140

BRANCHES / SUBSTRATE

Chemical Industry: acids, bases, tensids, solvents, colors, emulsions, slurry, molasses etc.

Biogas plants: manure from cows, pigs, grass and maize silage

Agriculture: cow and pig manure

Waste water treatment plants: waste water, sewage sludge etc.

Dry matter content up to 15 %

Substrate temperature up to 45°C

pH value 6.5 – 8.5

Dynamic viscosity: owable

Partical sizes. depending on rotor/stator sizes (16-30mm)

MOTOR

Efficiency class: IE 2 < 7.5 kW | IE3 > 7,5 kW Suitable for frequency converter

Type: ange-mounting (B5) or foot-mounting (B3) Flange-mounting motor for < 7.5 kW and foot-mounting > 7.5 kW

Frequency: 50 Hz I 60 Hz

Voltage: 400 V I 460 V

Protection class: IP 55

Motor rotation speed: 1,500 rpm

Motor protection with 3 PTC thermistor

INSTALLATION

Horizontal:

Type NF: horizontally on feeds – angled motor

Type N: mounted on a base frame – foot-mounting motor

Vertical:

Type TP: submersible NF pump up to 4m tank depth

ROTOR

Hollow rotor, steel, single-stage

All rotors are hardened for a longer lifetime

Armatec FTS own design – compatible and suitable to our stators

TECHNICAL DATA

Flow rates: 5 – 120 m³/h with frequency converter Housing: galvanized steel with cleaning opening

Cardan shaft

Sealing: oil chamber with mechanical seals (on request with gland packing)

Suction and pressure nozzle: PN 16 I DN 125 – 200

STATOR

Material: SBR (NBR, EPDM, VITON etc.)

Single-stage (multiple stages on request)

Adjustable for a longer lifetime

With 1/2" threaded sleeve for resistance thermometer for dry-running protection

OPTIONAL EXTRAS

Dry running protection, consisting of:

resistance thermometer, connecting cable, evaluation device

Pressure gauge, additional suction nozzles, joint shaft with screw conveyor

CONTROLL MANAGEMENT / FREQUENCY CONVERTER

Direct control, soft-starter or frequency converter Supplied without connecting cable

Adapted frequency converter, permitting optimum performance – on request (4 – 22 kW)

Motor with separate fan: frequency < 20 Hz