Machine Translated by Google

BIOGAS STATION

ENGINEERING TOMORROW

Danfoss

DAMA · TECH

The main goals and potential of operating technologies to maximize profit and efficiency.

DAMA Technology - STEMAN Sensors
www.damatech.eu www.steman.cz

1. Maximum use of waste heat

A cogeneration unit produces both electricity and heat. We help design technologies so that the heat is used efficiently for the operation of the site, drying rooms, greenhouses or local networks.

2. Reducing operating costs

Using system balancing, control valves and intelligent control, we can reduce pump consumption and improve overall system efficiency.

3. Preparing for future development

Danfoss has solutions for heat exchanger stations, control and measurement that help to safely scale operations (biomethane production, network expansion).

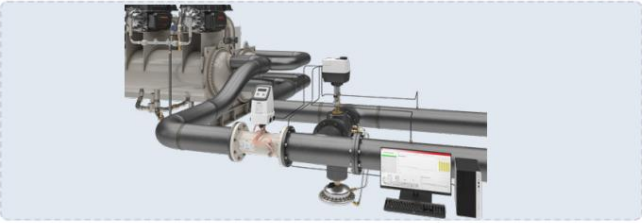
4. Digitalization and monitoring We design solutions so that the operator can see exactly where energy is generated and where it is lost. Data enables decisions to be made based on real results.



Machine Translated by Google

OPTIMIZATION OF CIRCUITS

Cogeneration unit



What we focus on:

- Primary circuit temperature
- Engine temperature control
- Utilization of waste heat
- Circuit mixing

Danfoss products:

- Industrial temperature sensors
- AB-QM control valves
- AME actuators
- ECL Comfort 310/296 controllers
- SonoSelect / SonoMeter energy measurement
- VLT frequency converters

Fermenter heating

The fermenter needs constant heating at a stable temperature of approximately 38-42 °C.



Typical problems:

- Fermenter overheating (energy loss)
- Temperature fluctuations (stress for the process)
- Excessive flows and unbalanced system

Danfoss products:

- AB-QM control valves
- ASV-PV differential pressure controllers
- Automatic balancing valves ASV-M
- Thermostatic valves AVTB
- ECL Comfort controllers



Machine Translated by Google

USE OF HEAT IN THE AREA

Drying rooms

Many biogas plants today effectively use heat to dry wood, grain, digestate or wood chips.

Danfoss products:

- Multifunctional ICV valves
- AME intelligent servo drives
- ECL Comfort controllers
- VLT frequency converters

Buildings on the premises

As a rule, this is an administrative building, warehouses, workshops and social spaces of the BPS.



Danfoss products:

- AB-QM control valves
- Radiator valves RA-DV and RA-N
- mTRV thermostatic heads
- Icon2 room thermostats
- NovoCon digital drives

Deliveries to third parties

Heating of adjacent apartments, commercial buildings or agricultural greenhouses.



Danfoss products:

- Management of the Leanheat® energy system
- Exchange and transfer stations
- ECL Comfort controllers
- SonoSelect / SonoMeter energy measurement
- AB-QM control valves









Machine Translated by Google

INDUSTRIAL COMPONENTS

Pressure and temperature sensors

Converters designed for the demanding needs of customers in BPS.

- Standard: MBS 1700, MBS 3000, MBS 3200
- Heavy industry: MBS 33, MBS 4000
- Smart sensors: DST P300, DST P40M



Solenoid valves

A reliable way to regulate the flow of liquids and gases.

- Series: EV210, EV220B, EV250B
- Drinking water certification: WRAS, ACS, PZH
- Bodies: Brass, DZR brass, Stainless steel



Switches and thermostats

Reliability in compressors, waterworks and boiler rooms.

- Series: KP/KPI, BCP, RT, MBC, KPS
- Protection up to IP67, excellent shock resistance



High-pressure pumps

Dust suppression, humidification and water treatment in BPS operations.

- Series: HPP / APP (oil-free design)
- Durability: Up to 8,000 h between maintenance (40,000 h service life).





PAH High-pressure pumps



PAHT High-pressure pumps



APP High-pressure pumps

Your authorized Danfoss Premium partner DAMA Technology - STEMAN Sensors www.damatech.eu www.steman.cz +420 799 040 400