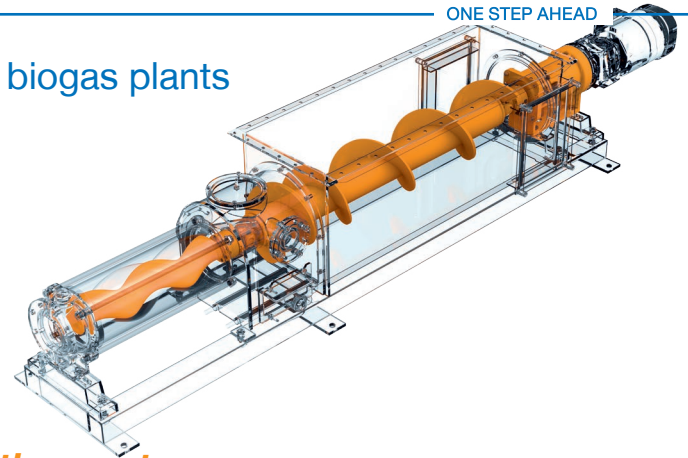




ONE STEP AHEAD

Technology comparison: Substrate feed in biogas plants

WANGEN BIO-MIX



BIO-MIX

Service life

- Extremely robust progressing cavity pump with large passage
-> Long service life

Operating safety

- Proven system - over 1000 plants rely on BIOMIX technology
- The system only requires 2 drive units (BIOMIX + feeding pump)
- Stone trap available if desired

Operating costs

- Calculation of energy costs during operation: At 2000 hours per year, € 0.18/kw/h, actual performance 16 kW
-> € 5760 per year
-> -€ 3240 per year compared to other systems on the market

Area of application

- Flexibility for input substances without system alterations. Operators will therefore not have to worry about legal changes in this regard (corn, turnips, grass, dung)

Efficiency

- The volume yielded is higher with the same operating time
- Calculation of nominal capacity of unit
 $40\text{m}^3/\text{h} \cdot 15 + 7.5 = 22.5\text{kW}/\text{h}$

Controls

Simple integration, non-complicated regulation mechanisms

Service

- 24 hours on average for spare part delivery

other systems

- Higher wear and tear to cutting blades
- Pumps generally with smaller passage
- Stone splitters with sharp edges lead to increased wear and tear

- If the crusher breaks down, the whole feeding process comes to a standstill
- Three to four mechanical drive units (with 4, includes hydr. stone removal drive unit (additional unit))

- Calculation of energy costs during operation
At 2000 hours per year, € 0.18/kw/h, actual performance 25 kW
-> € 9000 per year
- Additional running costs for cutting components

- Input substance often cannot be changed
-> Less flexible

- Crushing of input substances brings virtually no additional yield with it
- Calculation of nominal capacity of unit
 $40\text{ m}^3/\text{h} \rightarrow 11 + 16.5 + 7.5 = 35\text{ kW}/\text{h}$
- Cutting chamber limits flow rate of solid material with large flow rates

- Needs its own controls, which are often expensive

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