



# BIOGAS & BIOMETHANE

Valves • Actuators • Automation Technology



# ENHANCING SAFETY AND EFFICIENCY.

Industrial shut-off and control valves.  
High-end for biogas and biomethane production.

The conversion of organic residues in biogas or biomethane plants requires high-quality valves for the safe and efficient realization of all processes.

EBRO and Stafsjö have many years of experience and expertise in providing tailored solutions for all industry requirements - from substrate feeding and mixing to gas treatment and distribution. In addition, a wide range of products is available to ensure safe and highly efficient operation.

## EBRO AND STAFSJÖ: YOUR PARTNERS FOR BIOGAS AND BIOMETHANE PRODUCTION

We offer the best solutions for optimal plant operation because we understand the importance of reliability, efficiency and safety in the biogas and biomethane industry. With our commitment to quality and customer satisfaction, we distinguish ourselves as your reliable partner.

## THE EXCELLENT SAFETY AND QUALITY OF OUR PRODUCTS ENSURE THAT YOUR SYSTEM IS SAFE AND RELIABLE:

- **Resource-efficient operational management:** focussed on efficiency, thanks to optimal coordination of the valves with suitable actuator and automation technology
- **Significant reduction in operating costs:** due to improved system performance and reliability
- **Sustainable and economical operational management:** through minimized energy consumption and optimized processes
- **Certified safety:** our products are approved in accordance with ATEX, SIL, EN 161 and DVGW Gas
- **Future-oriented solutions:** continuous research and development allows EBRO to stay ahead in our field and bring innovation

**YOU CAN RELY ON US: EBRO AND STAFSJÖ ENSURE THAT ALL PRODUCTS COMPLY WITH THE STRICTEST STANDARDS AND REGULATIONS FOR THE SAFE OPERATION OF YOUR SYSTEM AT ALL TIMES.**



# SOLUTIONS FOR ANY APPLICATION.

Substrate tank  
Slurry tank  
Substrate preparation  
Fermentation

Gas storage  
Desulphurization  
Gas flare  
CHP unit  
Gas preparation  
Gas distribution

Washing water  
Hygienization  
Hot water storage  
Digestate storage  
Organic fertilizer

## Power Generation:

**> 500 MW**

in Europe corresponds to over

**1,75 Mio**

Households

## Biomethane:

**1650 MWh**

in Germany corresponds to over

**+15%**

Production

## Guaranteed certified:

To guarantee the conformity of our products, we consistently adhere to the current directives and regulations, ensuring that all products used comply with the strictest standards and regulations for safe facility operation.en.

- Pressure Equipment Directive 2014/68/EU
- Gas Appliance Regulation EU/2016/426
- DVGW Gas
- EN 161
- Explosion Protection ATEX 2014/34/EU
- SIL (IEC 61508 Level 3)

# STAFSJÖ KNIFE GATE VALVES

**Already used in biomass applications thousands of times.**

Stafsjö's modular knife gate valves are characterized by their excellent flow properties and leak-free shut-off. The full passage enables reliable handling of fibrous media and liquids containing solids, which makes them ideal for use in the substrate treatment of biogas plants.

These knife gate valves are ideal for substrate feed and substrate mixing for the fermentation process of organic residues such as liquid manure from livestock farming, sewage sludge, silage, as well as for the treatment of digestate in secondary fermenters and fermentation residue stores.

For thermohydrolysis processes in which organic substances are processed at high temperatures, the MV or XV with wetted parts made of stainless steel or duplex steel is recommended - also ideal for higher pressures and temperatures.



More Information  
on knife gate valves.



**WB & WB11**  
Bidirectional  
WB11: DN 50 – DN 300  
WB: DN 350 – 1600



**WB14**  
Bidirectional  
Lug-type  
DN 50 – DN 600



**WB12**  
Bidirectional  
4-hole flange  
DN 150 – DN 1200



**WB14-E**  
Bidirectional  
Lug-type  
DN 50 – DN 600

# RESILIENT SEATED VALVES

## Versatile and reliable

The resilient seated butterfly valves with triple shaft bearing and replaceable liner are DVGW-certified and enable the safe shut-off and regulation of gases in various applications such as raw gas handling, gas purification, flares and gas burners, CHP and heating networks.

On request, these valves are available as safety valves in accordance with EN 161.



More Information on resilient-  
seated butterfly valves.



**Z011-A Gas**  
Wafer-type  
DN 20 – DN 1200



**Z014-A Gas**  
Lug-type  
DN 20 – DN 600



**Z411-A / Z414-A Gas**  
For PE/PP pipes with reduced  
inside diameter  
DN 40 – DN 600



**F012-A Gas**  
Doubleflanged  
DN 50 – DN 1400

## BALL VALVE

### Flexible and modular

The 3-piece ball valve is characterized by its versatility and robustness, enabling easy maintenance.

The V-3MH is ideal for safely shutting off pure, neutral or aggressive liquids, gases or vapours.



**V-3MH**  
3-piece ball valve  
DN 8 – DN 100

## HIGH PERFORMANCE VALVES

### Reliable under extreme conditions

The double eccentric design, high-quality materials and precision machining ensure safety even under extreme operating conditions, such as in combined heat and power plants (CHP).



More Information on high performance valves.



**HP111**  
Wafer-type  
DN 50 – DN 1200



**HP114**  
Lug-type  
DN 50 – DN 1200

## ACTUATORS & CONTROLS

### Energy-efficient with uncompromising performance

EBRO actuators enable butterfly valves and knife gate valves to be actuated with high-efficiency. Due to precision alignment of the actuators with other components, applications benefit from increased energy-efficiency and reduced operating costs.

Customized configurations of individual product components are possible.



**EB-SYD (Scotch-Yoke)**  
Pneumatic actuator  
Double-acting  
27 Nm – 9.768 Nm



**EB-SYS (Scotch-Yoke)**  
Pneumatic actuator  
Single-acting  
35 Nm – 3.590 Nm



**SC**  
Linear actuator  
Double-acting  
4.712 N – 48.255 N (6 bar)



**SBU IO-Link**  
Smart Box Unit  
End Position Monitoring



**E50 – E210**  
Electric quarter-turn actuator  
24V AC/DC, 230V AC, 400V AC  
Battery pack for emergency function  
40 Nm – 4.000 Nm



More Information on actuators and automation technology.



#### HEADQUARTERS

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