

Durable valves for biogas production

Biogas production –
Expertise in demanding applications



The right selection for your biogas production processes

Stages	Media	Pressure range	Temperature range	Abrasion	Corrosion	Valve
Feedstock pre-treatment						
Hydrolysis / Chemical	Waste material, acids/alkalis/enzyme	1 bar	40 - 60 °C	Low to moderate	High	Knife gate valves, Desponia® with SS disc and NBR** liner
Thermal	Waste material, heat transfer medium (oil, steam or hot water)	1 - 2 bar	70 - 200 °C	Low to moderate	Low	Knife gate valves, Desponia® with SS disc and NBR**, EPDM or FPM liner
Anaerobic digestion						
	Sludge, digestate, mixture of complex organic compounds and bacteria	1 - 2 bar	40 - 60 °C	Moderate to high	Low to Moderate	Knife gate valves
	Wet Biogas, effluent gases	1 - 2 bar	40 - 60 °C	Low	High	Desponia® with SS disc and NBR** liner
Biogas upgrading						
Condensing	Biogas* wet, Biogas* dry, water	1 - 2 bar	10 - 60 °C	Low	Moderate	Desponia® with SS disc and NBR** liner
Biological methods	Biogas*, hydrogen, microorganisms	1 - 2 bar	30 - 60 °C	Low	Low	Desponia® with SS disc and NBR** liner
Water scrubbing	Biogas*, water, air	6 - 10 bar	Ambient	Low	Low to moderate	Desponia® with SS disc and NBR** liner
Pressure swing absorption	Biogas*	4 - 8 bar	Ambient	Low	Low to moderate	Desponia® with SS disc and NBR** liner
Membrane separation	Biogas*	5 - 20 bar	Ambient	Low	Low to moderate	Desponia® with SS disc and NBR** liner
Chemical absorption	Biogas*, amine solution	5 - 10 bar	Ambient	Low	High	Desponia® with SS disc and NBR** liner
Left over treatment						
	Digestate, treatment agents	1 - 2 bar	20 - 40 °C	Moderate to high	Moderate	Knife gate valves

*Biogas is a mixture of Methane (50-75%), Carbon dioxide (25-45%), Hydrogen sulphide (0-3%), water vapor and trace gases.

**NBR based on H₂S content: NG (<1%), NH (<2%), for higher concentration (up to 20%) or temperature higher than 90°C liner VD is recommended.

Desponia®

Elastomer-lined butterfly valve



Body construction	Wafer, Lug, U-Section
Nominal diameter	DN 25–1600 (1"–64")
Max. working pressure	Up to 16 bar
Flange connection	PN6, PN10, PN16, ANSI cl. 150, JIS, AS, AWWA, etc.
Temperature range	–20°C to 200°C
Body material	Ductile iron
Disc material	Stainless steel, PEKK coating
Liner material	EPDM, NBR, FPM
Special executions	Execution for explosive atmospheres

Check valve



Body construction	Wafer
Nominal diameter	DN 50–600 (2"–24")
Max. working pressure	Up to 16 bar
Flange connection	PN10, PN 16
Temperature range	–10°C to 200°C
Body material	Ductile iron, Stainless steel
Disc material	Ductile iron, Stainless steel, Alu-bronze
Seal material	NBR, EPDM, FPM

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Other products



Knife gate valves

Uni-directional and bi-directional knife gate valves, available in various executions.



PTFE-lined butterfly valve Bianca

DN 32 – 900, Wafer, Lug or U-section, stainless steel or ductile iron body, available in various executions.



Ball valves

2- way valves in stainless steel, available with 2- or 3-piece body.



Actuators and accessories

Actuators and a large range of accessories are available to complete the system.

We are there for you. With our global expertise in industrial applications, we understand your requirements and offer expert advice at every stage of your project. At the same time, you can benefit from our international product standards thanks to our global know-how. Our highly skilled technical team, coupled with the quality and durability of our products, makes us a reliable partner for industrial valve solutions.