

# 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
<b>Feedstock pre-treatment</b>						
Hydrolysis / Chemical	Waste material, acids/alkalis/enzyme	14 psi	284 - 140 °F	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)	14 - 29 psi	158 - 392 °F	Low to moderate	Low	Knife gate valves, Desponia® with SS disc and NBR**, EPDM or FPM liner
<b>Anaerobic digestion</b>						
	Sludge, digestate, mixture of complex organic compounds and bacteria	14 - 29 psi	104 - 140 °F	Moderate to high	Low to Moderate	Knife gate valves
	Wet Biogas, effluent gases	14 - 29 psi	104 - 140 °F	Low	High	Desponia® with SS disc and NBR** liner
<b>Biogas upgrading</b>						
Condensing	Biogas* wet, Biogas* dry, water	14 - 29 psi	50 - 140 °F	Low	Moderate	Desponia® with SS disc and NBR** liner
Biological methods	Biogas*, hydrogen, microorganisms	14 - 29 psi	86 - 140 °F	Low	Low	Desponia® with SS disc and NBR** liner
Water scrubbing	Biogas*, water, air	87 - 145 psi	Ambient	Low	Low to moderate	Desponia® with SS disc and NBR** liner
Pressure swing absorption	Biogas*	58 - 116 psi	Ambient	Low	Low to moderate	Desponia® with SS disc and NBR** liner
Membrane separation	Biogas*	72 - 290 psi	Ambient	Low	Low to moderate	Desponia® with SS disc and NBR** liner
Chemical absorption	Biogas*, amine solution	72 - 145 psi	Ambient	Low	High	Desponia® with SS disc and NBR** liner
<b>Left over treatment</b>						
	Digestate, treatment agents	14 - 29 psi	68 - 104 °F	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 H<sub>2</sub>S content: NG (<1%), NH (<2%), for higher concentration (up to 20%) or temperature higher than 194°F 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 (232 psi)
Flange connection	PN6, PN10, PN16, ANSI cl. 150, JIS, AS, AWWA, etc.
Temperature range	–20°C to 200°C (–4°F to 392°F)
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 (232 psi)
Flange connection	PN10, PN 16
Temperature range	–10°C to 200°C (14°F to 392°F)
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.

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