

# Valves for fertiliser production

Fertiliser production –  
Expertise in demanding applications



# The right selection for your fertiliser production processes

Process	Media	Pressure range	Temperature range	Abrasion	Corrosion	Valve
<b>Urea production</b>						
	Ammonia gas	140 - 250 bar	180 - 210°C	Low	High	Ball or globe valves
	Carbon dioxide	140 - 250 bar	180 - 210°C	Low	Moderate	Ball or globe valves
	Ammonium carbamate	140 - 250 bar	180 - 210°C	Low	Moderate	Ball or globe valves
	Urea (aqueous solution)	1 - 5 bar	135 - 155°C	Low	Low	Desponia® with SS disc and ET liner
	Water	1 - 5 bar	180 - 210°C	Low	Low	Elara with SS body and disc and MPTFE seat
<b>MAP and DAP production</b>						
	Ammonia	10 - 30 bar	70 - 100°C	Low	High	Elara with SS body and disc and MPTFE seat
	Phosphoric acid	Ambient	70 - 100°C	Low	High	Bianca with PFA overmoulded disc and PTFE liner
	MAP or DAP slurry	Ambient	100 - 110°C	Moderate	Moderate	Desponia® with PEKK coated disc and FT liner
	Cooling water	Ambient	Ambient	Low	Low	Desponia® with SS disc and E liner
	Water/steam	5 - 10 bar	120 - 180°C	Low	Low	Desponia® with SS disc and ET liner or Elara with SS body and disc and MPTFE seat
<b>Potassium chloride production</b>						
	Brine	Ambient	50 - 100°C	Low	Moderate	Desponia® with SS disc and EC liner
	Water	Ambient	Ambient	Low	Low	Desponia® with SS disc and E liner
	Steam	5 - 10 bar	120 - 180°C	Low	Low	Elara with SS body and disc and MPTFE seat
	Salt (KCl)	Ambient	Ambient	High	Low	Desponia® with Ultralene Coating™ overmoulded disc and FP liner
<b>Ammonia production</b>						
	Hydrogen and nitrogen	150 - 300 bar	400 - 500°C	Low	Low	Ball or globe valves
	Ammonia	10 bar	Ambient	Low	High	Desponia® with SS disc and E liner
	Water/steam	25 - 40 bar	700 - 1000°C	Low	Low	Globe valves
	Air	Ambient	Ambient	Low	Low	Saturnia with SS disc and seat

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, etc.
Temperature range	–20°C to 200°C
Body material	Ductile iron
Disc material	Stainless steel, PEKK coating, Ultralene Coating™
Liner material	EPDM, Flucast
Special executions	Execution for explosive atmospheres

Bianca

## PTFE-lined butterfly valve



Body construction	Wafer, Lug, U-Section
Nominal diameter	DN 32–900 (1¼"–36")
Max. working pressure	Up to 16 bar
Flange connection	PN10, PN16, ANSI cl. 150, AS 2129 table D + E, JIS 10K
Temperature range	–20°C to 200°C
Body material	Ductile iron, Stainless steel
Disc-shaft (one piece)	PFA overmoulded
Liner material	PTFE
Special execution	Execution for explosive atmospheres

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## Other products



### Elara

Double eccentric butterfly valve, DN 50 - DN 600, Carbon steel or Stainless steel body.



### Saturnia

Damper valve, DN 50 – 600  
Stainless steel, Carbon steel and Boiler steel.



### 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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