# Steel production – Expertise in demanding environments

# Durable valves for steel production





#### The right selection

# for your steel production processes

| Stages                | Media                                  | Temperature range | Pressure range | Corrosion          | Abrasion | Valve  |
|-----------------------|--|-------------------|----------------|--------------------|----------|--|
| Ironmaking            |  |                   |                |                    |          |  |
|                       | Air (Blast)                            | 1200°C            | 3-5 bar        | Low                | Low      | Special Damper valves  |
|                       | Furnace Gases                          | 150-250°C         | 1 bar          | High               | Moderate | Damper valve (Saturnia up to 0.5 bar) or<br>Desponia® with SS disc and FPM liner                             |
|                       | Water                                  | 20-50°C           | 2-6 bar        | Low                | Low      | Desponia® with SS disc and EPDM liner  |
| Steelmaking           |  |                   |                |                    |          |  |
|                       | Off-gases (CO, CO <sub>2</sub> , etc.) | 100-500°C         | 1-3 bar        | Moderate           | Moderate | Damper valve   |
|                       | Water                                  | 20-70°C           | 3-10 bar       | Low                | Low      | Desponia® with SS disc and EPDM liner  |
| Primary forming       |  |                   |                |                    |          |  |
|                       | Water (Coolants)                       | 20-25°C           | 3-10 bar       | Low                | Low      | Desponia® with SS disc and EPDM/NBR liner  |
|                       | Heated water (Coolants)                | 40-80°C           | 3-10 bar       | Moderate           | Moderate | Desponia® with SS disc and EPDM/NBR liner  |
| Secondary forming     |  |                   |                |                    |          |  |
| occondary forming     | 0 11                                   | 00.7000           | 0.101          |                    |          | D  |
|                       | Cooling water                          | 20-70°C           | 3-10 bar       | Moderate           | Moderate | Desponia® with SS disc and EPDM/NBR liner  |
|                       | Lubricants                             | Ambient           | 2-6 bar        | Low                | Low      | Desponia® with SS/Ductile iron disc and NBR/<br>FPM liner  |
| Pickling              |  |                   |                |                    |          |  |
|                       | Acid                                   | 20-60°C           | 1-5 bar        | High               | Moderate | Bianca with PFA-overmoulded disc and PTFE-lined  |
|                       | Bases                                  | Ambient           | 1-5 bar        | High               | Moderate | Bianca with PFA-overmoulded disc and PTFE-<br>lined or Desponia® with SS disc and EPDM liner                 |
|                       | Rinse water                            | Ambient           | 2-6 bar        | Low to<br>moderate | Low      | Bianca with PFA-overmoulded disc and PTFE-<br>lined or Desponia® with Halar coated disc and<br>EPDM liner    |
|                       | Water                                  | Ambient           | 2-6 bar        | Low                | Low      | Desponia® with SS disc and EPDM liner  |
| On other in           | I                                      |                   |                |                    |          |  |
| Coating               | Cleaning agent                         | 80°C              | Ambient        | Low                | Low      | Desponia® LF with SS disc and EPDM liner   |
|                       | Various paints or polymers             | Ambient           | 2-8 bar        | Moderate           | Low      | Desponia® LF with SS disc and EPDM liner   |
|                       | raneae painte et perjintere            | 7                 | 2000.          | Moderate           | 2011     | Sosponia E. Man de dise and E. Sin inie.   |
| Acid regeneration     |  |                   |                |                    |          |  |
|                       | Spent acid                             | 40-60°C           | Ambient        | High               | Moderate | Bianca with PFA-overmoulded disc and PTFE-lined  |
|                       | Crystallised Salts                     | 60-80°C           | Ambient        | Moderate           | High     | Desponia® with Ultralene coating™ disc and FT/FX liner   |
|                       | Purified Acid                          | Ambient           | Ambient        | High               | Low      | Bianca with PFA-overmoulded disc and PTFE-lined  |
| Water treatment plant |  |                   |                |                    |          |  |
|                       | Wastewater                             | 30-70°C           | 2-6 bar        | Moderate           | High     | Desponia® with SS disc and EPDM liner  |
|                       | Treated water                          | 20-35°C           | 2-5 bar        | Low                | Low      | Desponia® with SS disc and EPDM liner  |
|                       | Chemicals                              | Ambient           | 1-5 bar        | High               | Low      | Bianca with PFA-overmoulded disc and PTFE-lined  |
| Gas cleaning systems  |  |                   |                |                    |          |  |
|                       | Gases (CO, CO <sub>2</sub> , etc.)     | 100-500°C         | 1-3 bar        | Moderate           | Moderate | Damper valve   |
|                       | Cleaning solutions (scrubbing liquids) | 30-60°C           | 1-5 bar        | Moderate           | Low      | Desponia® with Halar coated, Hastelloy, Super<br>duplex or Super austenitic steel disc and<br>EPDM/FPM liner |

## Desponia® and Desponia® plus

## **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     | PN10, PN16, ANSI cl. 150, AS 2129 tab D and E, JIS B2220                          |  |  |  |  |
| Temperature range     | -20°C to 200°C  |  |  |  |  |
| Body material         | Ductile iron, Stainless steel   |  |  |  |  |
| Disc material         | Stainless steel, Halar coated, Hastelloy, Super duplex,<br>Super austenitic steel |  |  |  |  |
| Liner material        | EPDM, NBR, FPM  |  |  |  |  |
| Special executions    | LABS-free execution   |  |  |  |  |

#### 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 tab D and E, JIS B2220 |  |  |  |
| Temperature range               | -20°C to 200°C   |  |  |  |
| Body material                   | Ductile iron, Stainless steel                            |  |  |  |
| Disc-shaft material (one piece) | PFA overmoulded  |  |  |  |
| Liner material                  | PTFE, Ultraflon®   |  |  |  |

# Other products



#### Saturnia

Damper valve to regulate the flow of fumes and air up to 600°C.



#### **Check valves**

Check valves, Swing and Disco, 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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