

# Reliable and safe valve solutions

Power plants –  
Expertise in demanding environments



# Efficiency in power plants

The energy market is changing. Years ago nuclear power dominated, today the energy industry is increasingly promoting the use of renewable energies. As a recognised supplier of reliable and durable industrial valves, we offer efficient solutions for the most diverse energy sectors.

## Renewable energy

Renewable energies are on the rise worldwide. For a sustainable energy supply, InterApp provides valve solutions for biomass, hydropower as well as wind and solar plants.

### Biomass

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Biomass power plants and biomass heating plants generate energy from solid fuels. To ensure efficient plant operation, our valves are made of highly wear-resistant materials. They are used in a wide variety of processes to generate electricity and heat.

### Hydropower

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Hydropower plants have a long-life cycle. As a reliable partner, we provide long-term, reliable and readily available valve solutions for small power plants.

### Wind and solar plants

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Solar thermal power/electric generation systems collect and concentrate sunlight to produce the high temperature heat needed to generate electricity. InterApp supplies high quality valves ready to work under these extreme conditions providing reliability and proven performance.

## Conventional energy

Fossil fuels and nuclear fuels still account for a large share of the global primary energy consumption.

### Coal

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Coal-fired power plants are usually operated cyclically, so that the valves used are exposed to high load changes. Unplanned failures have a negative impact on profitable plant operation. InterApp contributes to improved plant profitability of coal-fired power plants with abrasion-resistant valves and quick availability of valves and spare parts.

# A partner you can rely on

Irrespective of the kind of power plant, a reliable and sustainable partner is essential to guarantee the efficiency of your power plant during its entire lifecycle. As an European manufacturer with an own R&D department and two manufacturing sites in Switzerland and Spain, InterApp stands for high quality valves and a long-term partnership.

InterApp valves are used in power plant processes, such as flue gas desulphurisation in coal and oil-fired power plants or water cooling and water treatment including demineralisation in general.

## Coal-fired power plants

- InterApp provides safe valve solutions to power plants for more than 50 years.
- Our valves are installed e.g. in coal-fired power plants in Belgium, Czech Republic, Germany, Lithuania, Poland, Serbia, Slovakia, Ukraine, UK.
- They are used in water cooling systems, water circuits, desulfurization (FGD) and reduction of NOx.
- To meet the specific requirements, a wide range of materials is available for bodies and discs e.g. cast steel bodies and Super Duplex and Super Austenitic discs.
- Desponia® valves are approved according to SIL-2 and Bianca valves according to SIL-3.

## Biomass

- InterApp supplies industrial valves for biomass plants for more than 20 years.
- They are used for water treatment, cooling and heating applications as well as air and biogas applications.
- To meet the specific requirements, a wide range of materials is available, e.g. long-lasting NBR-gas liners, specially developed for biomass plants.
- EN161 and SIL-2 certified butterfly valves are available.
- Quality tests comprise pressure test and material test according to DIN EN10204/3.1.
- Our valves can be supplied in special versions suitable for potentially explosive atmospheres and explosive media.

## Solar energy

- InterApp's valves solutions have convinced in solar plants for more than 15 years.
- Our valves are used in water treatment plants and power islands or cooling and heating applications.
- In order to meet the specific requirements, we are able to supply centric butterfly valves, as well as double and triple eccentric butterfly valves for severe pressure and temperature conditions.

## InterApp quality

- InterApp valves are manufactured in our own premises in Europe. They comply with international rules and regulations.
- All InterApp factories and entities are audited regularly and comply with ISO 9001:2015.



# Consistent reliability



6

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## Reliability

Our butterfly valves have proven themselves with their superior technical features. They guarantee a trouble-free operation and long lifetime.

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## Ensured quality

Inspection and testing plans (ITP) as well as factory acceptance tests (FAT) can be provided on request.

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## Availability

Flexible production sites in Switzerland and Spain and a high availability of valves and spare parts enable short delivery times, even for large sizes.

4

## Long-term partnership

InterApp valves have proven themselves in power plants since many years. Customers all over the world rely on our proven products and know-how.

## Desponia® Elastomer-lined butterfly valve

Centric butterfly valve for all kind of power plants and working pressures up to 16 bar.

Body construction	Wafer, Lug, U-Section
Nominal diameter	DN 25–1600 (1"–64")
Max. working pressure	Up to 16 bar
Flange connection	PN 6, PN 10, PN 16, ANSI cl. 150, JIS, AS, etc.
Temperature range	-20°C to 200°C
Body material	Ductile iron
Disc material	Stainless steel, Super austenitic steel, Ultralene coating™ and Hastelloy
Liner material	EPDM, EPDM-HT, NBR, NBR gas, NBR-H, FPM, Flucast® family and others
Special executions	Executions for explosive atmospheres, Quick closing valve EN 161

## Desponia® plus Elastomer-lined butterfly valve

Centric butterfly valve for all kind of power plants and working pressures up to 20 bar.

Body construction	Wafer, Lug
Nominal diameter	DN 25–600 (2"–24")
Max. working pressure	Up to 20 bar
Flange connection	PN 6, PN 10, PN 16, PN 25, ANSI cl. 150, JIS, AS, etc.
Temperature range	-40°C to 200°C
Body material	Ductile iron, Carbon steel and Stainless steel
Disc material	Stainless steel, Super austenitic steel, Ultralene coating™ and Hastelloy
Liner material	EPDM, EPDM-HT, NBR, FPM, Flucast® family and others
Special executions	Bonded liner for vacuum

7

## Elara Double eccentric butterfly valve

Double eccentric butterfly valve for heavy-duty applications up to 50 bar.

Body construction	Wafer, Lug
Nominal diameter	DN 50–600 (2"–24")
Max. working pressure	Up to 50 bar
Flange connection	PN10, PN16, PN25, PN40, ANSI cl. 150/300
Temperature range	-50°C* to 400°C
Body material	Carbon steel, Stainless steel
Disc material	Stainless steel
Seat material	MPTFE, Metal, Fire Safe

# The right selection for your power generation processes

Process	Media	Pressure range	Temperature range	Abrasion	Corrosion	Valve
<b>Water treatment</b>						
Screening and filtration	Water	Ambient	Ambient	Moderate	Low	Desponia® with SS disc and EPDM liner
Coagulation and flocculation	Water	Ambient	Ambient	Low	Low	Desponia® with SS disc and EPDM liner
	Chemicals	Ambient	Ambient	Low	Moderate	Mostly PVC-U or PP valves in smaller sizes
Sedimentation and clarification	Water	Ambient	Ambient	Low	Low	Desponia® with SS disc and EPDM liner
Filtration	Water	2-10 bar	Ambient	Low	Low	Desponia® with SS disc and EPDM liner
Disinfection	Water	Ambient	Ambient	Low	Low	Desponia® with SS disc and EPDM or FPM liner
Demineralisation/desalination	Water	Below 20 bar	20-30°C	Low	Low	Desponia® (plus) with SS disc and EPDM or FPM liner
	Water	20-60 bar	20-30°C	Low	Low	Elara or Titania with SS disc and EPDM seat
<b>Steam generation</b>						
Preheating	Water, steam	100-200 bar	60-250°C	Low	Moderate	Ball or globe valves
Boiling and steam generation	Steam	100-200 bar	220-380°C	Low	High	Ball or globe valves
Superheating	Steam	100-200 bar	370-540°C	Low	High	Ball or globe valves
<b>Cooling</b>						
Condensation	Spent steam	Partial vacuum	100-120°C	Low	Low	Desponia® plus with SS disc and bonded bonded EPDM-HT liner
	Condensed water	Ambient	20-40°C	Low	Low	Desponia® with SS disc and EPDM liner
	Cooling water	Ambient	15-40°C	Low	Low	Desponia® with SS disc and EPDM liner
Cooling water circulation	Cooling water	Ambient	35-40°C	Low	Low	Desponia® with SS disc and EPDM liner
Transformers oil cooling	Cooling oil	Ambient	40-100°C	Low	Low	Ball or globe valve
	Transformer oil	Ambient	40-100°C	Low	Low	Desponia® with SS disc and NBR liner
<b>Flue gas desulfurisation (FGD)</b>						
Scrubbing	Flue gas	1 bar	120-180°C	Low	High	Saturnia
	Scrubber media	Ambient	Ambient	Moderate	Moderate	Desponia® with Super Austenitic or Hastelloy disc and EPDM liner
	Water	Ambient	Ambient	Low	Low	Desponia® with SS disc and EPDM liner
Scrubber media recirculation	Effluent	Ambient	30-60°C	Moderate	High	Desponia® with Super Austenitic or Hastelloy disc and EPDM liner
	Sludge	Ambient	Ambient	High	High	Desponia® with Ultralene coating™ or Hastelloy disc and EPDM liner
	Scrubber media	Ambient	Ambient	Moderate	Moderate	Desponia® with Super Austenitic or Hastelloy disc and EPDM liner

## Other products



### Saturnia

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



### Ball valves

2 and 3 way valves in different materials, and different actuators.



### Neptunia

Dual plate check valve, DN 50–600  
Ductile iron, Stainless steel, Duplex and Super Duplex.



### Actuators

Depending on the specific requirements, InterApp valves can be operated manually or automatically by pneumatic, electric or hydraulic actuators.

# Convincing in power plants worldwide

## **Biomass Plant EOS Stadt Wien, Austria**

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Since 1999, InterApp supplied Desponia® valves up to DN 400, IA motion, Quick closing valve EN161 and Ball valves 3-piece body BVH23 for the biomass plant of EOS in Vienna. The products are used for water treatment, cooling and heating applications, air and biogas applications.

## **Biomass Plant Hitachi Zosen Inova AG, Plant AD-Kirchberg, Germany and Plant Jönköping, Sweden**

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For more than 5 years, InterApp has been supplying Desponia® butterfly valves up to DN 300 in yellow colour, Orbinox knife gate valves type EB up to DN 400 and ball valves 3-piece body BVH23 for the biomass plant. The products are used in the biogas inlet process.

## **Biomass Plant Cubillos de Sil, Spain**

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With a surface area of 100,000 square meters and 280,000 tons of biomass per year, this biomass plant will generate renewable energy for the consumption of 50,000 households, where InterApp has supplied Desponia® butterfly valves electric and pneumatic operated since 2021.

## **Combined Gas Cycle Plant Tamazunchale, Mexico**

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Since 2021 InterApp has supplied 170 Desponia® butterfly valves with manual and pneumatic actuators, for the biggest power station in Latin America with two gas turbines and one steam turbine and 1,179 MW generation capacity.

**“Even after 20 months of operation InterApp valves show no damages at all. They are of excellent quality and convince in terms of reliability and safety.”**

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**Technician** – *Coal-fired power plant,  
Germany*

## **Power plant for chemical plant GA Puławy, Poland**

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For the new unit, InterApp started to supply in 2021 Bianca and Desponia® butterfly valves for water treatment station.

## **Coal-fired power plant Power station Ostrołęka, Poland**

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In 2020, 800 Desponia® and Bianca butterfly valves in DN 25-1000, as well as ball valves and check valves were supplied to the new full flue gas desulphurization plant.

## **Brown-coal-fired power plant Power Station Konin, Poland**

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Since 2008, more than 1300 Desponia® and Bianca butterfly valves in DN 50-1200 have been supplied for the full flue gas desulphurization plant of 1 new and 3 existing power units.

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