

**AVK FLOW CONTROL**

# DAMS, RESERVOIRS & HYDROPOWER SOLUTIONS

**Glenfield**  
Dams, reservoirs & hydro solutions

Glenfield

**ORBINOX**  
VALVE SOLUTIONS

Orbinox



Premier Valves

**ACMO**

ACMO

**AVR**

AVK

# NEEDLE VALVES TYPE REGFLUX

## FOR DAMS, RESERVOIRS & HYDROPOWER

### MAIN FEATURES

- Product range from DN 80 to DN 2000
- Pressure classes PN 10-16-25-40-64-100
- Design & Manufacturing according to EN 1074-1 / EN 1074-5 / EN 1349
- Face-to-face according to EN 558 S15 (F5)
- Flanges according to EN 1092-1/2 or ANSI B16.5 CL 150/300/600
- Easy installation
- Corrosion protection by FBE coating 300 microns, color RAL 5005. Potable water approved DM174 / WRAS / ACS / DVGW
- Class A tightness According to EN 12266
- Control valve in straight way type
- Reduced pressure loss
- Standardized face-to-face for the whole range

### ADVANTAGES

- State of the art design.
- Innovative design for flow optimization with a reduced pressure loss in open valve position. Reduced torque for low actuating moments aimed to facilitate the operations of all actuators.
- Long life of all sealing systems. All the gaskets are located safely in the no-flow zone.
- Long-Life of the valve in all conditions with all internal and moving parts in stainless steel. The body is completely protected by Heavy Duty Corrosion Protection FBE coating.
- Accurate construction completely made in Italy with the use of cutting edge technologies for all components.
- Linear flow control up to 96% of the total stroke of the valve.
- Cavitation prevention using sophisticate solutions in any condition.
- Advanced solutions for each application.
- Compact, lightweight and economic efficiency design.
- Wide and unique range of production.



### APPLICATION FIELDS



#### DRINKING WATER WATER TREATMENT

- Flow control
- Pressure control



#### SNOWMAKING

- Pressure control
- Flow control



#### INDUSTRY

- Flow control
- Pressure control



#### IRRIGATION

- Flow control
- Pressure control
- District Metering Area (DMA)
- Level control



#### PRESSURE MANAGEMENT

- Dynamic pressure control
- District Metering Area (DMA)
- District Metering Zone (DMZ)



#### HYDROPOWER

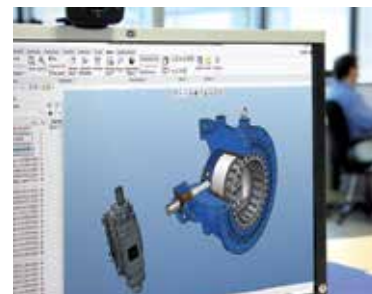
- By-pass valve
- Turbine control
- Turbine by-pass
- Safety overflow valve
- Pipe burst protection



# NEEDLE VALVES TYPE REGFLUX FOR DAMS, RESERVOIRS & HYDROPOWER

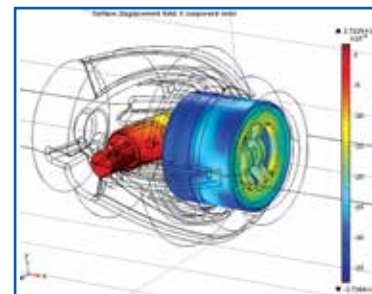
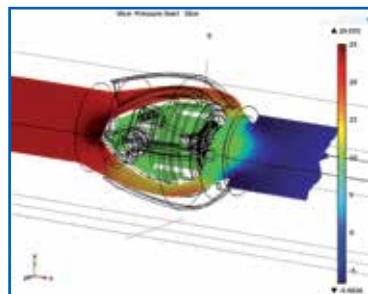
## DESIGN

State of the art design to guarantee a product at the top of the range. Use of the most sophisticated CAD-CAE programs available on the market (SolidWorks, Pro/E).



## KNOW-HOW

Thanks to a new design based on the calculation software COMSOL (FEM + FLUID DYNAMICS), AC.MO S.p.A. has done a big leap from theoretical fluid dynamics design to a simulate fluid dynamic design.



## MANUFACTURING

### HIGH QUALITY MATERIALS

- Casting
- Machining
- Painting
- Assembly

MADE IN ITALY



## QUALITY CONTROL

The quality control is carried out using the most modern equipment, static and dynamic test benches. The quality parameters are carefully checked by highly qualified staff.



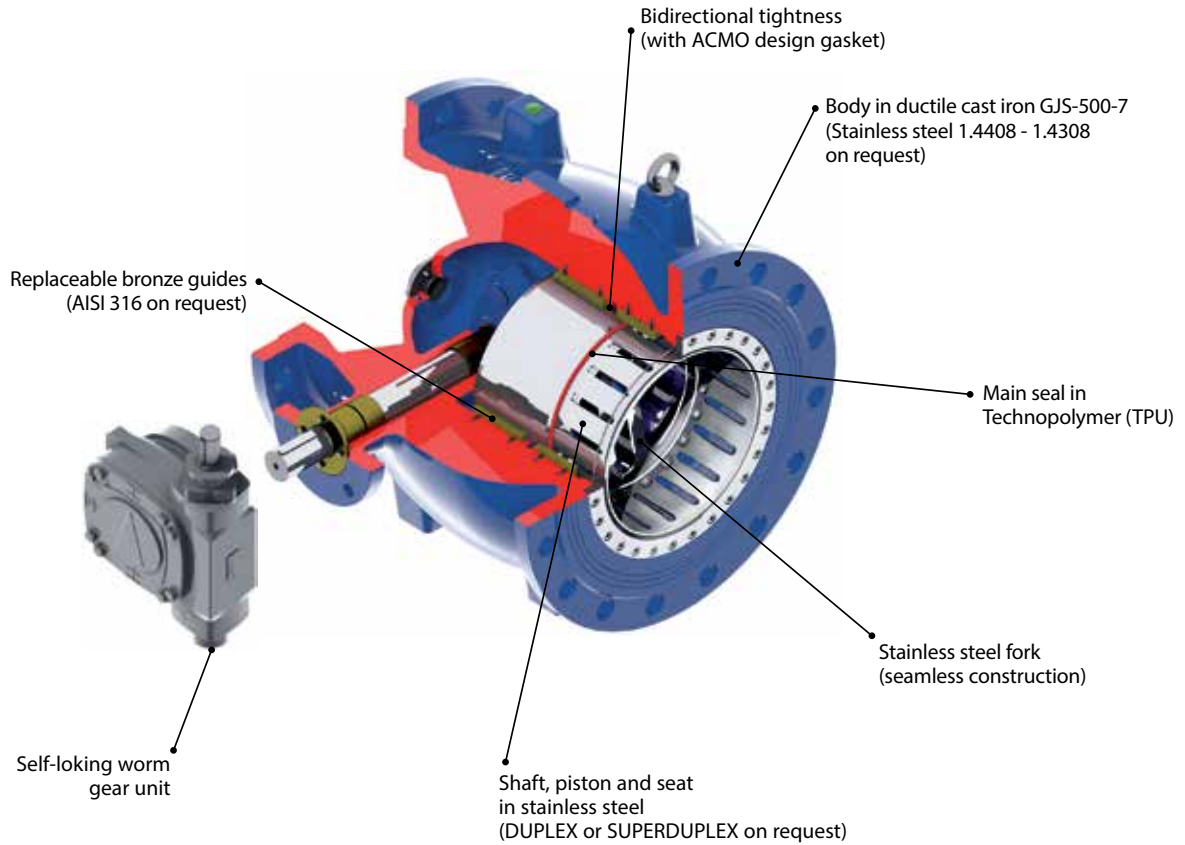
## TRAINING AND TECHNICAL SUPPORT

A highly skilled team of engineers is available for:

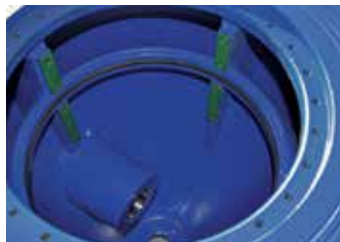
- training courses
- pre-post sale support
- technical assistance "on-site"



# THE MOST RELIABLE SOLUTION FOR CONTROL



State of the art solutions for a high performance long lasting product.



A special and innovative internal gasket for a perfect and bidirectional seat.

High performance seal, located in no-flow zone, easy replaceable without disassembling the valve from the pipeline.



Compact piston with 4/6 bronze guide strips (replaceable).

One-piece body (L=DN+200 mm) EN 558 S15 (F5).



Heavy duty corrosion protection by FBE epoxy coating 300 microns (500 microns on request).





# BUTTERFLY VALVES TYPE DOPEX FOR DAMS, RESERVOIRS & HYDROPOWER

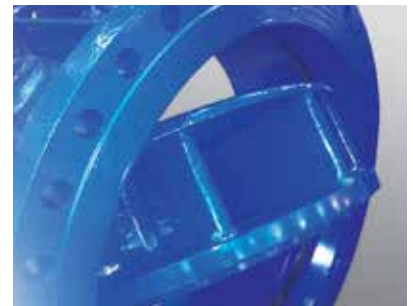
## MAIN FEATURES

- The Double Eccentric Butterfly valves type "Dopex" are normally used due to their strength and resistance even at high pressure. They are simple and lightweight and entirely made in high quality ductile cast iron with stainless steel shafts and a welded-on seat ring. The valve is operated by gear box and handwheel or electric, pneumatic, hydraulic actuators.
- Product range from DN 100 to DN 3000
- Design & Manufacturing according to EN 593 / EN 1074-1 / EN 1074-2 AWWA C504
- Face-to-face according to EN 558-S14 (F4) EN 558 S13 (BS 5155 SHORT)
- Flanges according to EN 1092-1/2 or ANSI B16.5 CL150-CL300
- Class A tightness according to EN 12266
- Pressure classes PN10-16-25-40
- Corrosion protection by FBE coating 300 microns, color RAL 5005. Potable water approved DM174 / WRAS / ACS / DVGW
- Double offset disc.
- Automatic sealing system with rubberized profile seal ring.
- Self-locking worm gearbox with mechanical position indicator.



## ADVANTAGES

- A state of the art design guarantees a high operational safety and low maintenance.
- The double o-ring and closed disc eyes allow the shaft to be completely dry.
- Replaceable sealing ring without disassembling the valve from the pipeline.
- Long-Life valve with all internal parts in stainless steel and high quality coating in fusion bonded epoxy.
- Seat tightness in both flow directions.
- Automatic sealing system that reduces the actuating moments and increase the life of the seal.
- Gearbox guaranteeing the opening /closing with the maximum  $\Delta P$  up to PN 40.
- Corrosion and wear-resistant overlay welded seat made of stainless steel.



## APPLICATION FIELDS



**DRINKING WATER  
WATER TREATMENT**



**IRRIGATION**



**INDUSTRY**



**HYDROPOWER**



**FIRE  
PROTECTION**

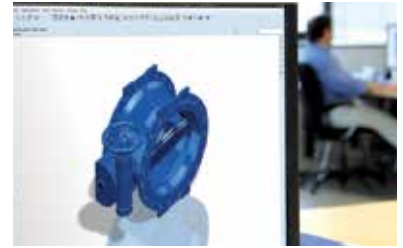
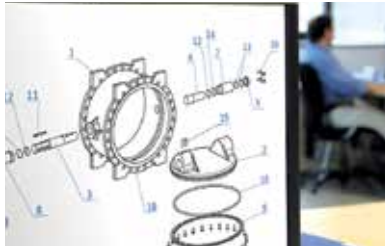


**WASTEWATER**

# BUTTERFLY VALVES TYPE DOPEX FOR DAMS, RESERVOIRS & HYDROPOWER

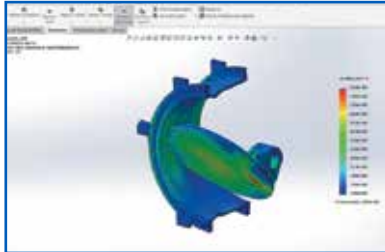
## DESIGN

State of the art design to guarantee a product at the top of the range. Use of the most sophisticated CAD-CAE programs available on the market (SolidWorks, Pro/E).



## KNOW-HOW

Thanks to a new design based on the calculation software COMSOL (FEM + FLUID DYNAMICS), AC.MO S.p.A. has done a big leap from theoretical fluid dynamics design to a simulate fluid dynamic design.

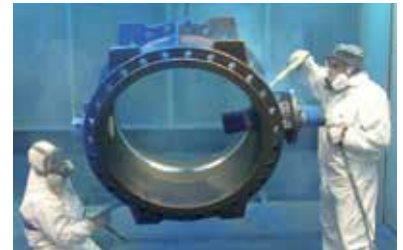


## MANUFACTURING

### HIGH QUALITY MATERIALS

- Casting
- Machining
- Painting
- Assembly

MADE IN ITALY



## QUALITY CONTROL

The quality control is carried out using the most modern equipment, static and dynamic test benches. The quality parameters are carefully checked by highly qualified staff.



## TRACEABILITY

Total product traceability. By QRcode any technical documentation is available on line.



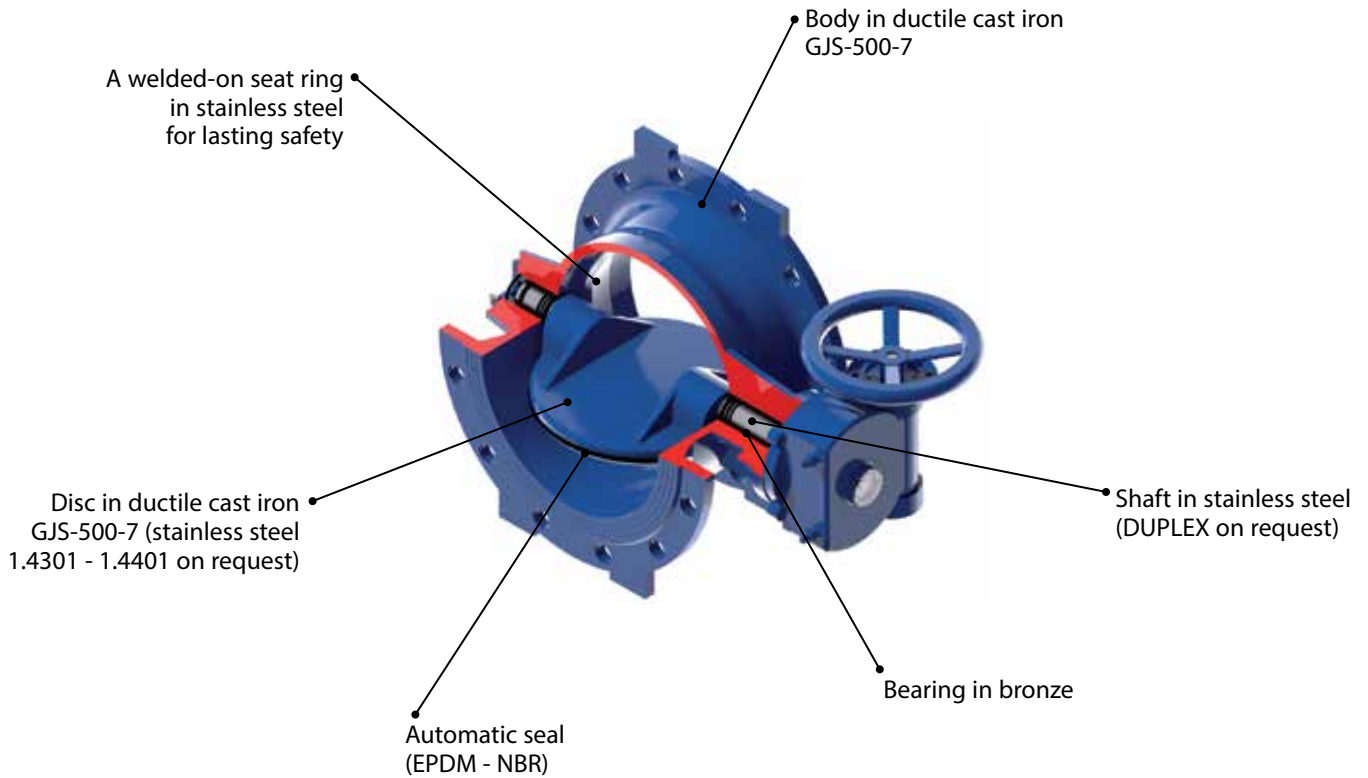
## TRAINING AND TECHNICAL SUPPORT

A highly skilled team of engineers is available for:

- training courses
- pre-post sale support
- technical assistance "on-site"



# BUTTERFLY VALVES TYPE DOPEX FOR DAMS, RESERVOIRS & HYDROPOWER



State of the art solutions for a high performance product with extended life.



Perfect tightness in both flow directions.

Compact body. Face to Face according to EN558-S14 (F4).



Dry shafts.

High stability disc and low pressure loss design.



Heavy duty corrosion protection by FBE epoxycoating 300 microns (500 microns on request).



# BUTTERFLY VALVES TYPE DOPEX

## FOR DAMS, RESERVOIRS & HYDROPOWER

### CERTIFICATIONS AND CONSTRUCTION STANDARD

The high quality standards and strict controls during the manufacturing have led to obtain major awards with internationally recognized certification bodies.

**EN 593**  
**EN 1074-1**  
**EN 1074-2**  
**AWWA C504**



Certified Company:  
AC.MO S.p.a.



Certified Company:  
AC.MO S.p.a.



Certified Company:  
AC.MO S.p.a.



**DM 174**

### CONFIGURATIONS



Worm gear box and handwheel



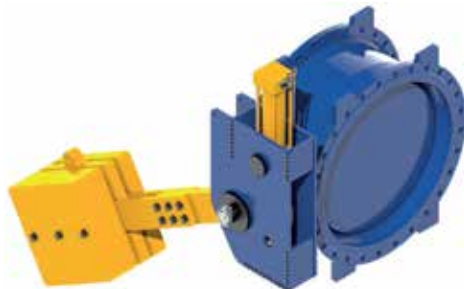
Electric actuator



Electric actuator



Worm gear box and extension spindle



Hydraulic brake  
and lift unit



Double acting  
hydraulic piston



Simple acting  
hydraulic piston



Double and simple acting  
pneumatic actuator



Speed detector

# BUTTERFLY VALVES TYPE TRIPLEX

## FOR DAMS, RESERVOIRS & HYDROPOWER

### STANDARDS

#### Manufacturing

- EN 593 METALLIC BUTTERFLY VALVES
- EN 1074-1 VALVES FOR WATER SUPPLY
- EN 1074-2 ISOLATING VALVES
- EN 558-1 S13 FACE TO FACE  
(ISO 5752)
- EN 1092-1 DRILLING FLANGES  
(ISO 7005-2)

#### Materials

- |              |              |                  |              |
|--------------|--------------|------------------|--------------|
| • ASTM A216  | BODY         | A216 WCB         | CARBON STEEL |
| • ASTM A216  | DISC         | A216 WCB         | CARBON STEEL |
| • EN 10088-3 | SEAL RING    | AISI304+GRAFITE  | GRAPHITE     |
| • EN 10088-3 | BODY SEALING | AISI304+STELLITE |              |
| • EN 10088-3 | STEM         | STAINLESS STEEL  |              |
| • EN 10088-3 | BUSHING      | NITRIDING        |              |

#### Corrosion Protection

COATED INSIDE-OUTSIDE

#### Certificates

HEALTH DEPARTMENT

#### Applications

WATER

#### Testing

- EN 12266-1 (ISO 5208)  
PRESSURE TESTS Grade "A"

#### Accessories

- ELECTRIC ACTUATOR
- OIL-DYNAMIC ACTUATOR
- PNEUMATIC ACTUATOR
- WITH OVERSPEED SYSTEM

PN 10-16-25-40-64  
DN 50 -3000



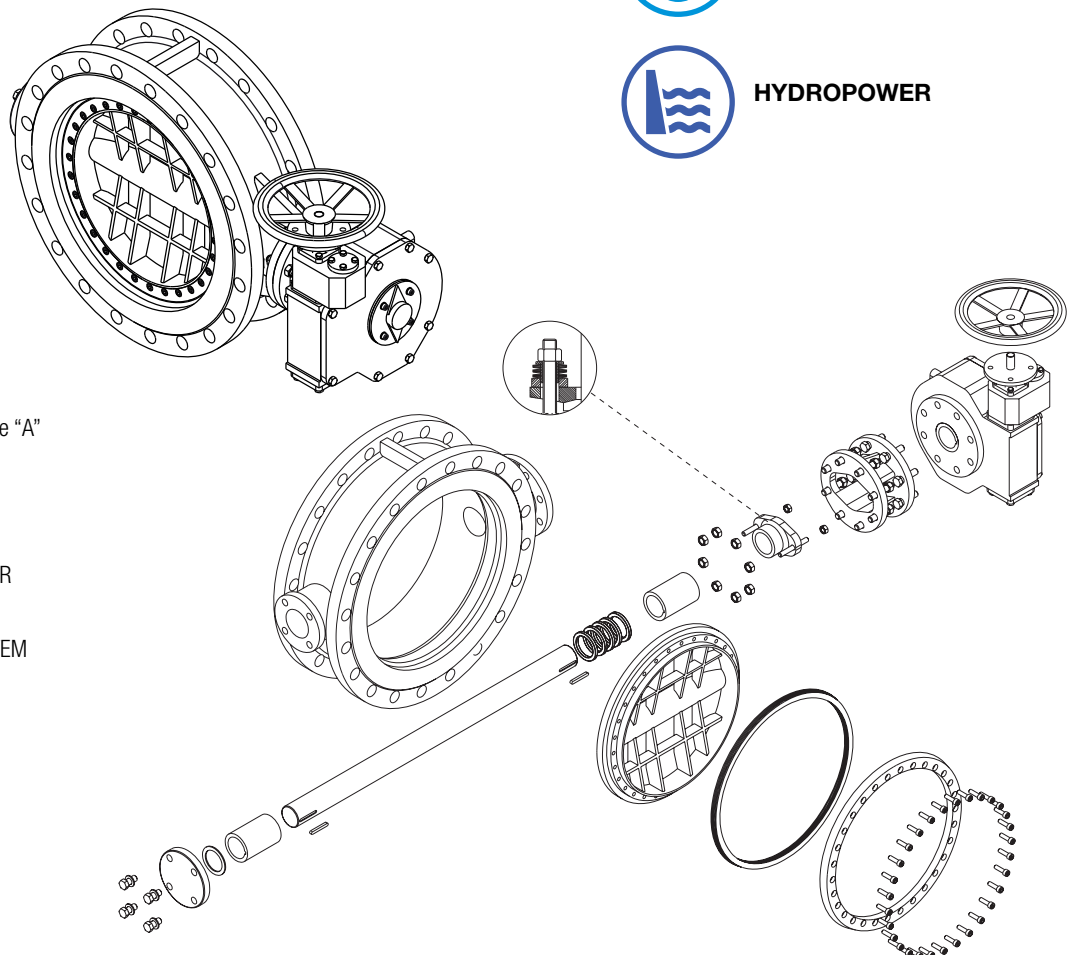
### APPLICATION FIELDS



**DRINKING WATER  
WATER TREATMENT**



**HYDROPOWER**





**Free Discharge Valve**

Castbody or carbon steel/ stainless steel fabricated body, elastomer seat and hydraulic or electric acuator.

**Specifics:**

Size:  
Up to DN3000

Pressure:  
Up to 20 bar



**Submerged Discharge Valve**

Terminal discharge valve providing submerged energy dissipation and flow control. Type - End of line single flanged.

**Specifics:**

Size:  
DN200 - 1800

Pressure:  
10 + 16 bar



**Fabricated Butterfly Valve**

Carbon or stainless steel fabricated body and disc, elastometer seal and hydraulic or electric actuator.

**Specifics:**

Size:  
Up to DN3500

Pressure:  
Up to 10 bar (DN3500)  
Up to 16 bar (DN2000)  
Up to 25 bar (DN1000)



**High Performance Butterfly Valve**

Boving type double eccentric resilient seal on disc and stainless steel body seat. Drop tight shut-off in preferred direction and double flanged connection.

**Specifics:**

Size:  
DN100 - 3000

Pressure:  
PN10, 16, 25, 40 bar





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