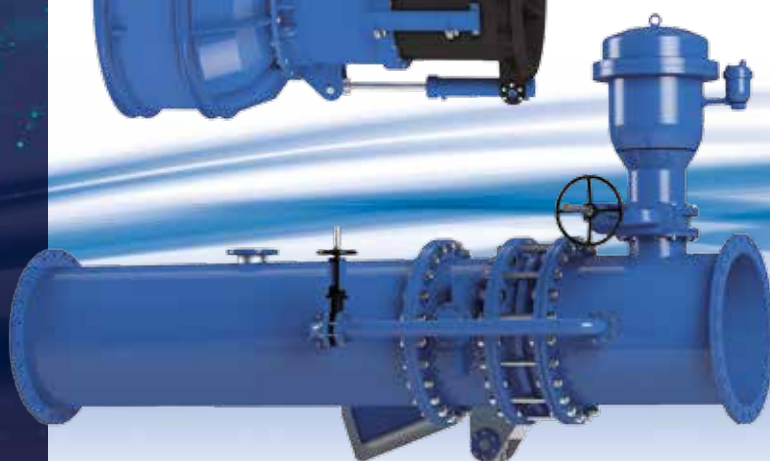


VALVES AND
PENSTOCKS
FOR
WATER



www.cmo.es



CMO VALVES
manufacturing the valve you need



Our COMPANY

CMO is a company dedicated to the **design, manufacture and assembly of standard and special valves and penstocks**. Its extensive manufacture range allows it to take on any number of industrial applications and control all kinds of fluids, solids, liquids and gases at different pressures and temperatures.

Founded in February 1993, we count on people with **extensive experience in this industry**. This experience and work well done has helped us to evolve and become the company we are today, and means we can ensure customer satisfaction.

Teamwork is our major asset. Experience and knowledge, combined with technological innovation capability, are the driving force behind the company. For this reason it is one of our greatest values, and helps us to maintain a **competitive position in the sector on a global level**.



**ISO 9001
EAC CERTIFICATION
AWWA STANDARDS**



**ASME STANDARDS
EC PED DIRECTIVE
ALL INTERNATIONAL STANDARDS**

SUMMARY



CMO FACILITIES ARE DIVIDED INTO FIVE SECTIONS:

Offices: 740 m² (Tolosa / Madrid / S. Chile)

Production: 8200 m² (Tolosa / Altzo / Madrid / S. Chile)

Testing: 400 m²

Shipping: 525 m²

Quality Assurance: 300 m²

CMO is one of the largest manufacturers of valves and penstocks both nationally and internationally, and counts on a young team of skilled personnel to provide the best service to its customers.

MC-MR series | 04

CA series | 05

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VM series | 08

ME series | 09

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MC-MR series



Product Description

- Wall-type penstock for clean liquids or liquids loaded with solids, with perimeter and four-side seal acc. to DIN 19569-4/5.
- Bespoke penstock design - square/rectangular (MC) or round (MR), suited to customer requirements.
- Option of unidirectional or bidirectional fluid direction.
- Various construction materials and seals available.
- Installation supported on walls using anchors or concrete.
- Flexible manufacture for different water loads and drive heights.
- Manual or automatic drives in line with demand.

General Applications

- This wall penstock is designed for installation in orifices in walls.
- It can be rectangular, square or round.
- It is suitable to work with clean liquids or loaded with solids.



Product Description

- Channel-type penstock for clean liquids or liquids loaded with solids, with three-side seal acc. to DIN 19569-4/5.
- Bespoke penstock design - square/rectangular.
- Option of unidirectional or bidirectional fluid direction.
- Various construction materials and seals available.
- Installation supported on walls using anchors or concrete.
- Flexible manufacture for different water loads and drive heights.
- Manual or automatic drives in line with demand.

General Applications

- This penstock is designed for installation in open channels.
- It can be rectangular or square.
- It is suitable to work with clean liquids or loaded with solids.





Product Description

- Upper overflow or spillway gate for clean liquids or liquids loaded with solids, with three-side seal acc. to DIN 19569-4/5.
- Bespoke penstock design - square/rectangular.
- Option of unidirectional or bidirectional fluid direction.
- Various construction materials and seals available.
- Installation supported on walls using anchors.
- Flexible manufacture for different water loads and drive heights.
- Manual or automatic drives in line with demand.

General Applications

- The spillway gate is used to control the level of fluid stored, with discharge through the upper section.
- Typically used to discharge any foam and floating materials accumulated on the top of the stored fluid.



Product Description

- Retention with swing check for end of line.
- Bespoke penstock design - square/rectangular/round.
- Option of unidirectional or bidirectional fluid direction.
- Variable installation, supported on walls using anchors, concrete or flanges.
- Flexible manufacture for different water loads.
- Different design combinations:
 - Straight seat/straight swing check.
 - Straight seat/concave swing check.
 - Slanted seat/straight swing check.
 - Slanted seat/concave swing check.

General Applications

Its design prevents the fluid from returning against the circulating flow direction.





Product Description

- Vertical-lift wall-type penstock with wheels for clean liquids or liquids loaded with solids, with perimeter and four-side seal acc. to DIN 19569-4/5, particularly suitable for large loads.
- Bespoke penstock design - square/rectangular (MC) or round (MR), suited to customer requirements.
- Option of unidirectional or bidirectional fluid direction.
- Various construction materials and seals available.
- Installation supported on walls using anchors or concrete.
- Flexible manufacture for different water loads and drive heights.
- Manual or automatic drives in line with demand.



General Applications

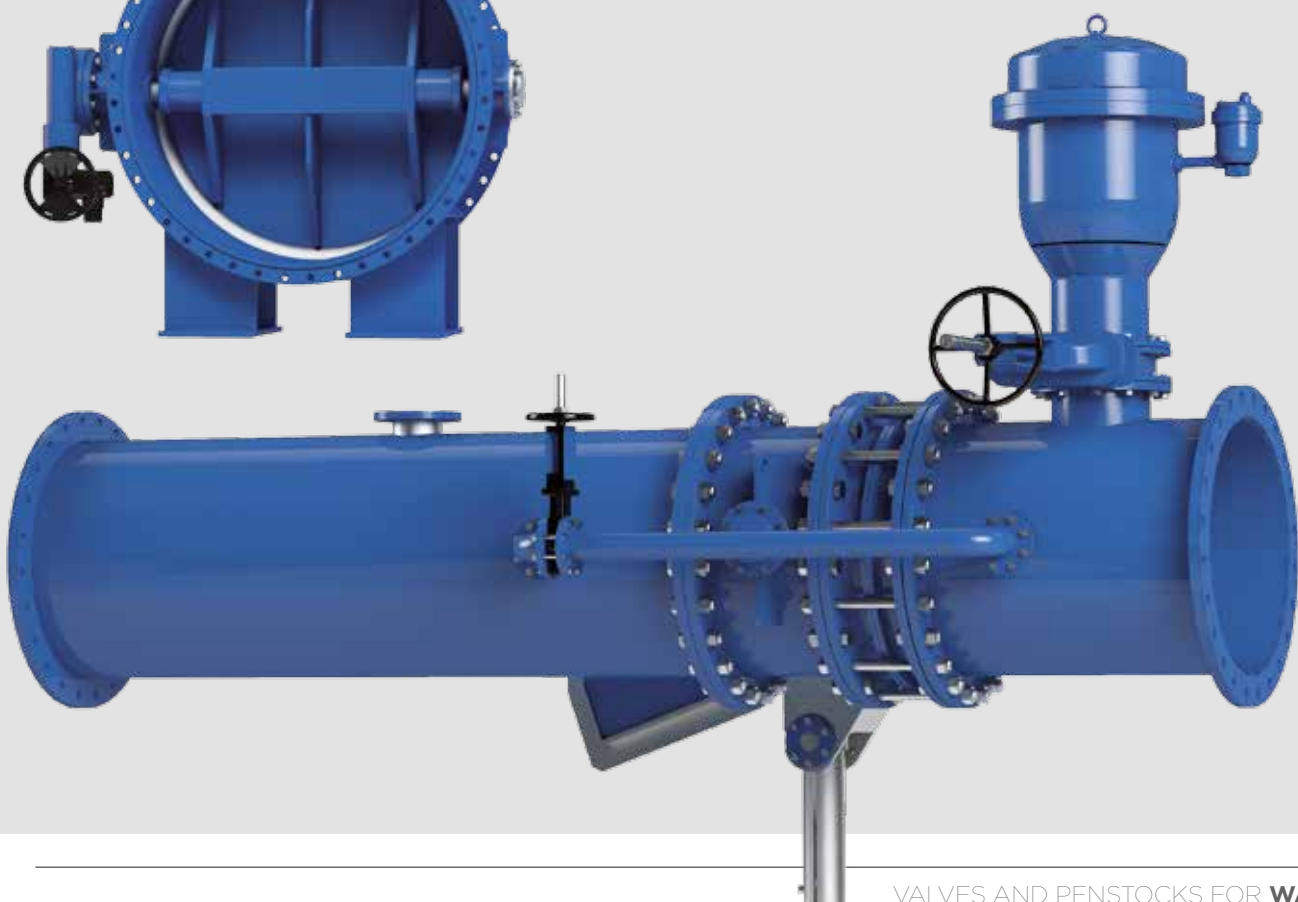
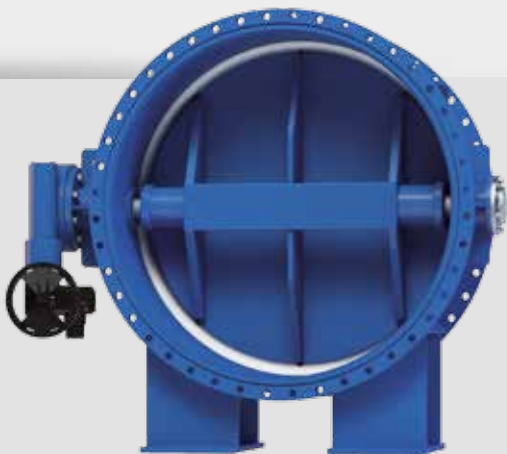
- This vertical-lift gate is designed for installation in channels or in orifices in walls.
- The orifice can be rectangular, round or square, and this penstock can have a 3-side or 4-side seal.
- It is suitable to work with clean liquids or loaded with solids.
- Used mainly in: Water treatment plants - Irrigation - Hydroelectric power stations - Pipelines.

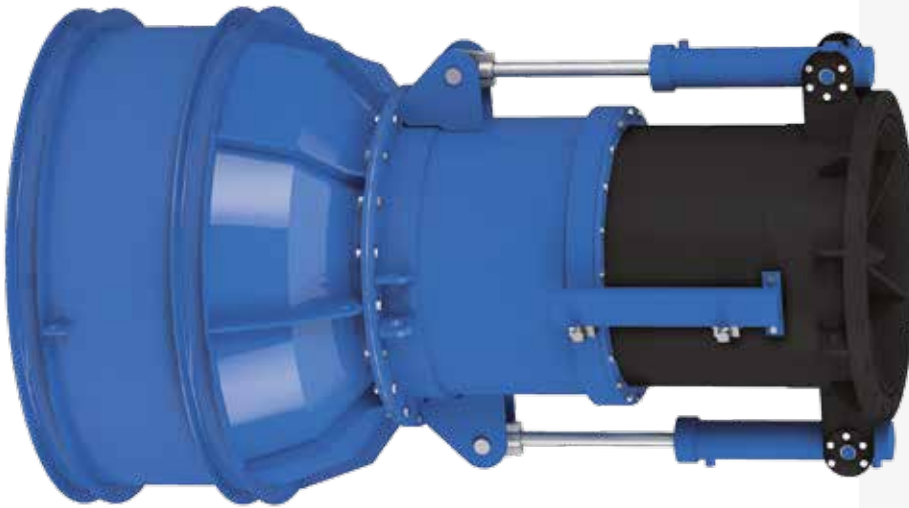
Product Description

- Unidirectional butterfly valve with double eccentricity.
- Various construction materials available.
- Two options for width over flats:
 - Short series: in accordance with Standard EN 558 SERIES 13.
 - Long series: in accordance with Standard EN 558 SERIES 14.
- It has an arrow on the body indicating the flow direction.

General Applications

- This butterfly valve is suitable for working in pipes and as an overspeed valve in the event of emergency when a detector device is fitted.
- It is widely used in pressure pipes in hydroelectric plants.





Product Description

HOLLOW JET VALVE - Divergent jet discharge valves.

- Standard manufacture with stainless steel body and casing with EPDM seat.
- Standard drive: two lateral hydraulic cylinders.
- The valve is controlled using a hydraulic unit and an electrical cabinet.
- Other drive options (electrical, manual, etc.).

Use

This valve is used especially as an ecological flow regulation organ in dams and reservoirs.

Accessorios

Deflector.

Concentrator (fixed deflector).



Product Description

Narrow groove sliding penstock for fluids. Mechanically welded body, comprising two bolted parts, with internal guides for smooth movement of the penstock during operation and flat seat.

Penstock design in accordance with "U.S. BUREAU OF RECLAMATION" criteria. Rectangular section penstock, although there is also the option of the inlet and outlet having a circular section. Various construction materials available.

General Applications

This narrow groove sliding penstock is designed to work with fluids at high speeds. Its main application is in run-offs at the bottom of dams.





Product Description

MULTIPLE JET REGULATION VALVE.

- Standard construction with GJS500 body and stainless steel sliding shutter. EPDM seal between penstock and body.

General Applications

- Free discharge fluid regulation valve.
- Seal between body and flange for installation included.

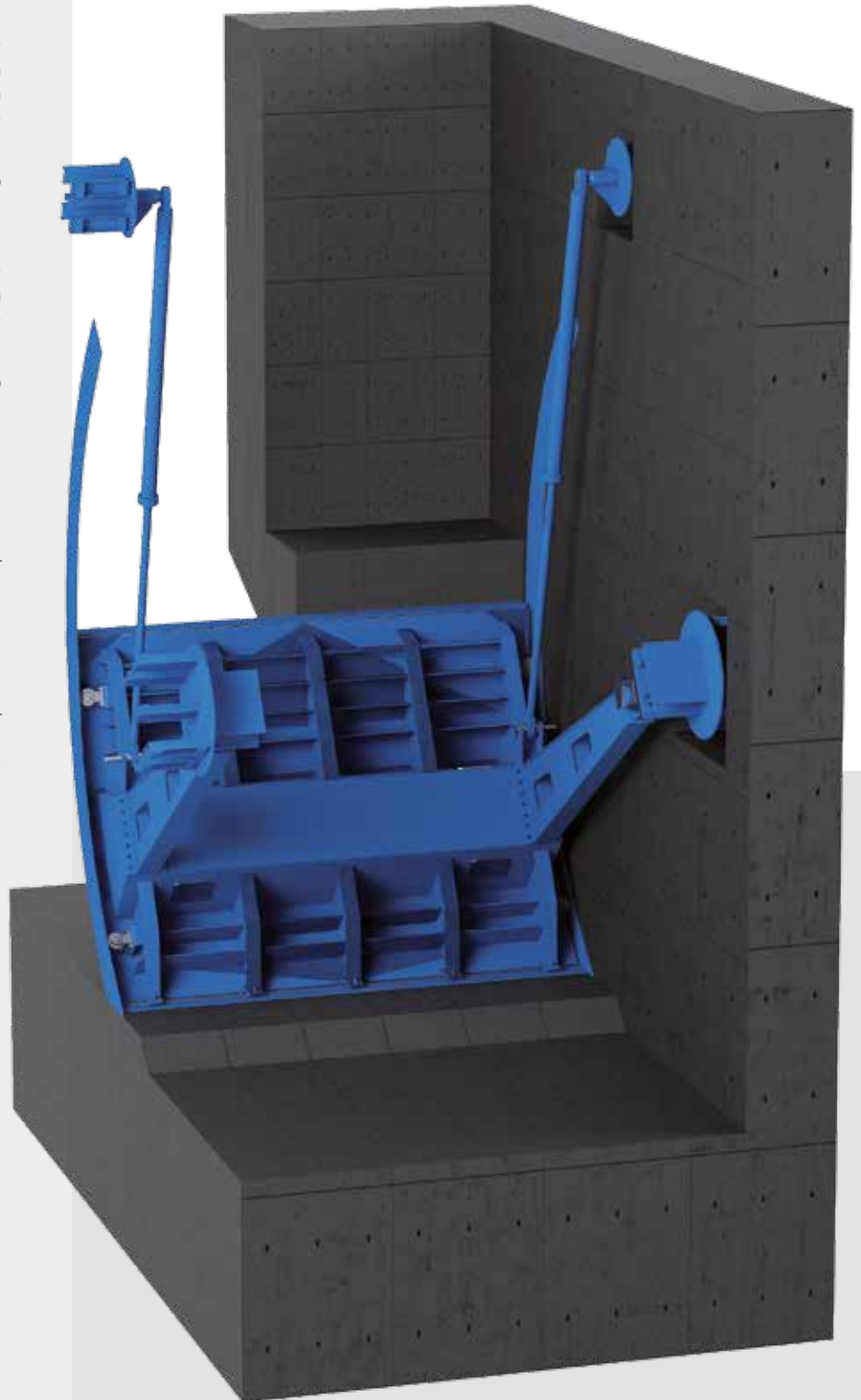
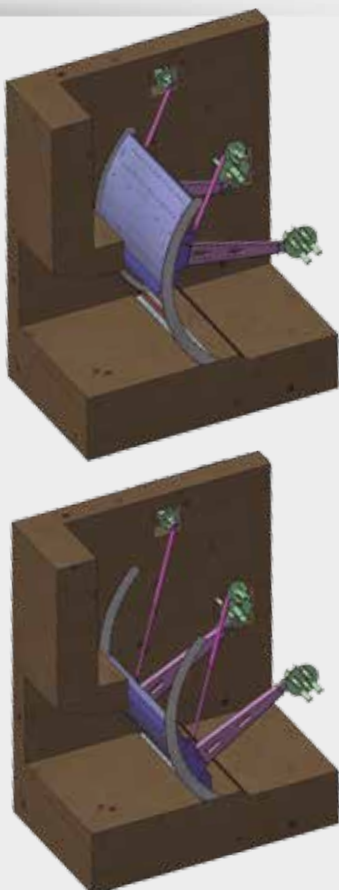
Product Description

There are several types of radial penstocks in our manufacture range (Taintor). The most important include:

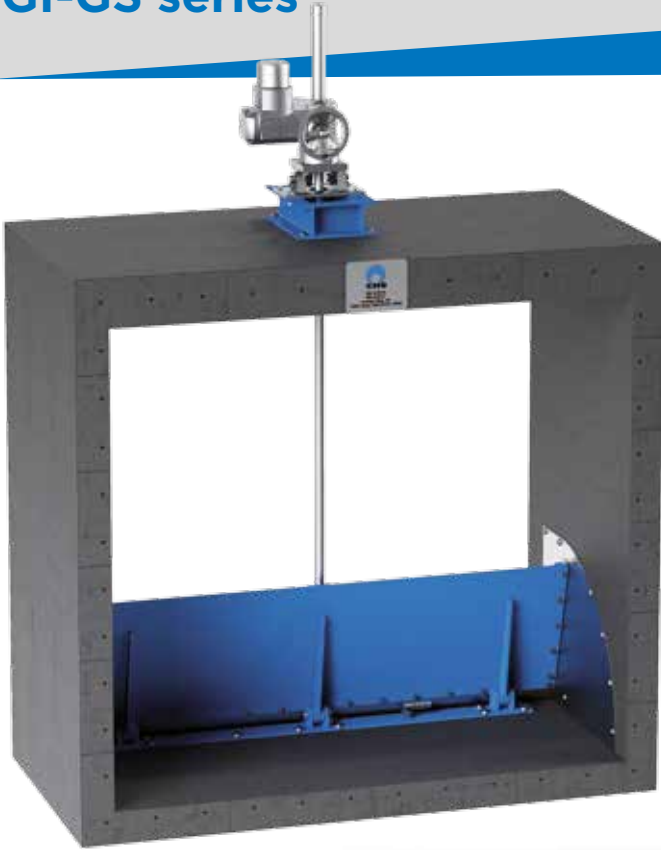
- 3-side watertight radial penstock (bottom and sides). Manufactured in carbon steel with machine welded construction in accordance with customer specifications.
 - Radial opening or closing relative to a rotation axis.
 - Drives: hydraulic, electrical, etc.
- 4-side watertight bottom radial penstock. Manufactured in carbon steel with machine welded construction in accordance with customer specifications.
 - Radial opening or closing relative to a rotation axis.
 - Drives: hydraulic, electrical, etc.

General Applications

- Surface radial penstock: fluid level control.
- Bottom radial penstock: discharge of fluids in reservoirs.

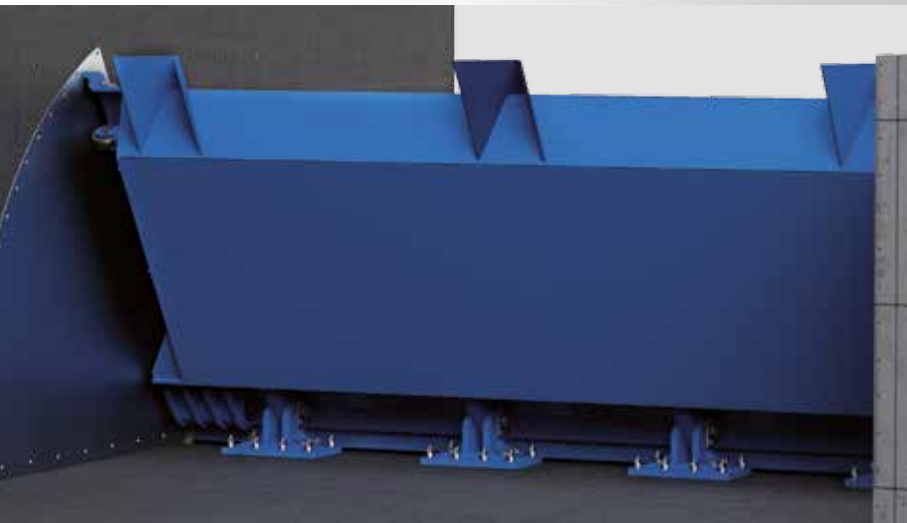


GI-GS series



Product Description

- Descending penstock with rotating shaft in the base (GI) or top section (GS).
- Machine welded construction.
- Bespoke penstock design - square/rectangular.
- Option of unidirectional or bidirectional fluid direction.
- Various construction materials and seals available.
- Installation supported on walls using anchors or concrete.
- Flexible manufacture for different water loads and drive heights.
- Manual or automatic drives in line with demand.



General Applications

Regulation of flows in channels and level control.

Common Accessories

Overspeed detector - Electrical and Mechanical.

Limit switches, inductive sensors, positioners, etc.

Bypass, vents, air valves, etc.

Interlocking for long duration positions.

Hydraulic unit.

Control electrical cabinet.

Pipelines, flanges, etc.

Special disassembly cartridges.



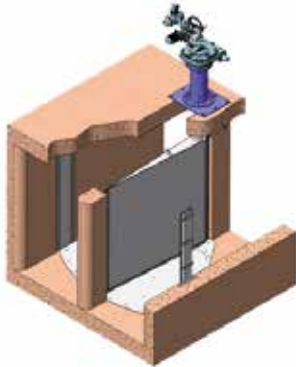
AN series

PRODUCT DESCRIPTION:

Needle valve with body and sleeve made from carbon steel and a sliding interior in stainless steel. Casing with EPDM seat controlled using a hydraulic cylinder (electric cylinder also available).

GENERAL APPLICATIONS:

Installation on water lines in dams to control the flow, essentially used to regulate water level in large reservoirs. Normally operated by a flotation system.



CG series

PRODUCT DESCRIPTION:

Penstock designed to divert flow. Panel designed with supporting wheel to reduce lever effect on rotating axle. Bespoke penstock design - square or rectangular. Various sealing materials available. Designed to be embedded in concrete or supported on walls using expansion or chemical anchoring means.

GENERAL APPLICATIONS:

Rotating penstock designed for installation on canals. The canal area may be rectangular or square and this penstock can have seals on 2 or 3 sides since it is designed to divert the flow. It is suitable for working with clean liquids or liquids loaded with solids. Mainly used in water treatment plants, irrigation, hydroelectric plants and channels.



DC series

PRODUCT DESCRIPTION:

These storm tanks are designed to regulate the volume of water produced during rainy periods and/or avoid uncontrolled overflow to the discharge area (river, sea, etc.). While the water is stored in the storm tank, sedimentation of solids takes place at the bottom of the tank. These decanted components should be removed as soon as possible before it starts to rain again and the untreated waste is sent directly to the discharge area. The operation of this self-tilting cleaner is very simple. It receives a reduced flow of water for a long period and then when it is full it releases it all at once.

GENERAL APPLICATIONS:

Self-tilting cleaners have considerable advantages over other cleaning systems:

- The wave of water generated is very powerful but at the same time it lasts for a very short time.
- No auxiliary means are required for drive it or return it to the standby position.

Due to these features, the maintenance required is minimal and the useful life is very long.



TE series

PRODUCT DESCRIPTION:

This telescopic valve is an overflow valve to be fitted in an upright position perfectly in line with the drive to avoid excess effort. These valves are suitable for regulation because the intake can be regulated in any intermediate position.

GENERAL APPLICATIONS:

The telescopic valve, just like the spillway gate, is used to control the level of fluids stored.

It is also used for discharge by overflow of any foam and solids that may build up in the top part of the liquids.



AT series

PRODUCT DESCRIPTION:

Penstock for clean liquids or liquids loaded with solids. Bespoke penstock design - square /rectangular. Possibility of unidirectional or bi-directional fluid direction. Standard design for fitting to canal walls or to walls using expansion or chemical anchors.

GENERAL APPLICATIONS:

Appropriate for working with clean liquids or liquids loaded with solids.

Mainly used in water treatment plants, irrigation, hydroelectric plants and channels.

**CMO uses
the latest
design and
engineering
tools to
offer our
customers the
best solution
possible.**

CMO is renowned on the international market thanks to its technical capability and its ability to offer customers products specially designed and manufactured in line with their specifications, both CMO standard and non-standard, all fully tailored to requirements.



CMO VALVES

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