



csgvalves.co.uk

PENSTOCKS WALL MOUNTED

STAINLESS STEEL / HDPE or STAINLESS STEEL

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ABOUT CSG VALVES

PRODUCTION FACILITY

In house design and manufacture of penstocks. Producing standard or project specific designs. On site penstock installation available if required.

QUALITY CONTROL SYSTEM

ISO 9001:2008 certified.

MATERIALS

Penstocks are manufactured using high quality stainless steel and HDPE. Materials are highly corrosion resistant with a longevity and low maintenance costs.

STOCK AND PROJECT SPECIFIC DESIGN

To complement the range of standard penstocks we offer project specific design and manufacture tailor made to suit the clients requirement and budget.



IMPROVED OPERATIONAL RELIABILITY AND QUALITY

CSG Valves offers improved operational reliability and quality based upon our unique design features.

STAINLESS STEEL AISI 304 OR AISI 316



CSG Valves has developed and manufactured a thrust bearing in 304/316 stainless steel which offers a reduced operating torque by a factor of 4.

The dual sealing arrangement designed by CSG offers a higher sealing capability and maintains a low friction coefficient.

The backing plate is manufactured from 30 mm HDPE sheet offering a robust construction ensuring free running of the spindle even on buried service application.

Rather than a free standing plastic spindle/cover protection tube our stainless steel protection tube contributes to the rigidity of the construction. A stainless steel spindle/cover tube offers a more robust solution than a polycarbonate or plastic protection tube.



STAINLESS STEEL Z-PROFILE

Stainless steel Z-profile rather than U-profile results in improved assembly. Additional stainless ribbing results in improved rigidity and fixing. Self-lubricating polyacetal thread block absorbs little moisture and retains its shape well.

Spindle with greater speed than DIN 103 ensures fewer revolutions are necessary resulting in a stronger thread block forming.

OPERATION

Penstocks are manually, electrically, hydraulically or pneumatically operated to suit the application.

CHARACTERISTICS

Flat structure, PVC, concrete or internal round pit with sealing on 4 sides.
4-sides closing and double sided acting.
Round, square or rectangular passage.
Non-rising spindle as standard.

INSTALLATION

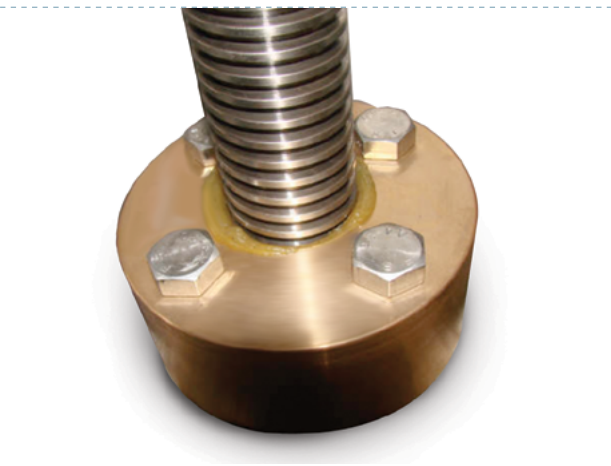
Improved operational reliability is guaranteed with the use of the symmetrically formed anchor plate which ensures the installation is undertaken with ease.

APPLICATIONS

Drainage water purification installations and culvert pipes for water authorities.



PENSTOCK – WALL MOUNTED



CERTIFICATE

ISO 9001: 2008

INDUSTRIAL STANDARD

BS7775:2005 / DIN 19569-4 class 5

ADVANTAGES

- Light construction
- High duty construction
- Minimal maintenance
- Stainless steel thrust bearing
- Backing plate HDPE thickness 30 mm
- Stainless steel Z-profile allows easy mounting
- Stainless steel spindle tube
- A sealing ring carried out with redundancy
- Self-lubricating polyacetal thread block

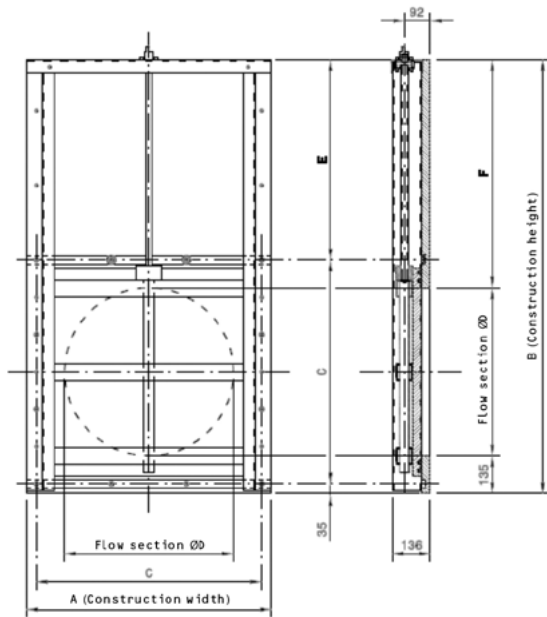
CHARACTERISTICS

- Size 100 – 3600 mm
- Standard 6 mwc
- Double acting
- 4-sides closing
- Standard non-rising spindle
- Round, square or rectangular passage

TYPES OF OPERATION

- Manual
- Electric
- Hydraulic
- Pneumatic

STANDARD SERIES DN 400 - DN 900



ØD	A	B	C	E	F	Weight
400	670	1150	600	515	615	55 kg
500	770	1350	700	615	715	75 kg
600	870	1550	800	715	815	90 kg
700	970	1750	900	815	915	110 kg
800	1070	1950	1000	915	1015	130 kg
900	1170	2150	1100	1015	1115	155 kg

INDUSTRIAL STANDARD

BS7775:2005 / DIN 19569-4 class 5

LOADING CHARACTERISTICS

6 mwc on & off-seating

4-sides closing, double acting

STANDARD CONSTRUCTION MATERIALS

Frame	RVS AISI 316
Slide gate	HDPE-300
Backing plate	HDPE-300 (30 mm)
Reinforcements	RVS AISI 316
Non-rising spindle	RVS AISI 316 TR25x7.5L
Spindle bearing	Stainless steel thrust bearing
Threaded lift block	POM (self-lubricating)
Bolts and nuts	RVS A4
Sealing	EPDM

OPTIONAL CONSTRUCTION MATERIALS

Frame	Stainless steel AISI 304
Slide gate	Stainless steel AISI 304 or AISI 316
Reinforcements	Stainless steel AISI 304
Threaded lift block	Bronze
Sealing	NBR

OPTIONAL FEATURES

Non-standard sizes

Electric, hydraulic or pneumatic operated

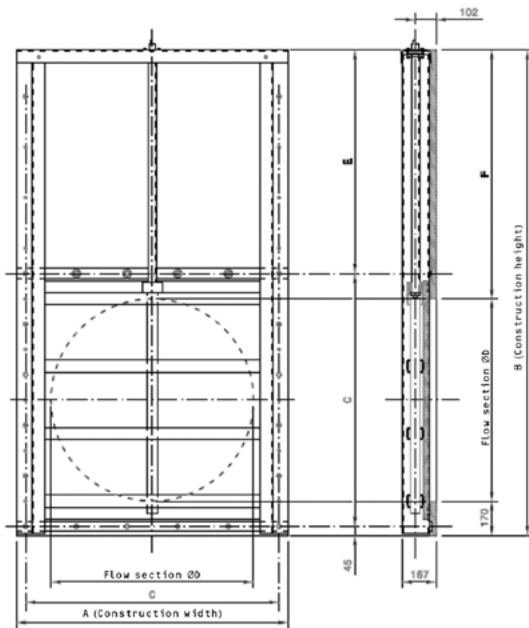
Rising spindle

Wedge construction

MOUNTING SET INCLUDING COMPRIBAND

DN 400	12x anchor M12
DN 500	12x anchor M12
DN 600	12x anchor M12
DN 700	12x anchor M12
DN 800	18x anchor M18
DN 900	18x anchor M12

STANDARD SERIES DN 1000 - DN 3000



ØD	A	B	C	E	F	Weight
1000	1340	2400	1250	1105	1230	175 kg
1250	1590	2900	1500	1355	1480	225 kg
1500	1840	3400	1750	1605	1730	255 kg



ØD	A	B	C	
1800	2200	4200	2120	Stainless steel slide gate Two synchronised spindles
2000	2400	4600	2320	
2500	2900	5600	2820	
3000	3400	6600	3320	

INDUSTRIAL STANDARD

BS7775:2005 / DIN 19569-4 class 5

LOADING CHARACTERISTICS

6 mwc on & off-seating

4-sides closing, double acting

STANDARD CONSTRUCTION MATERIALS

Frame	RVS AISI 316
Slide gate	HDPE-300
Reinforcements	RVS AISI 316
Non-rising spindle	RVS AISI 316 TR40x7.5L
Spindle bearing	RVS AISI 316 thrust bearing
Threaded lift block	POM / Bronze
Bolts and nuts	RVS A4
Sealing	EPDM

OPTIONAL CONSTRUCTION MATERIALS

Frame	Stainless steel AISI 304
Slide gate	Stainless steel AISI 304 or AISI 316
Reinforcements	Stainless steel AISI 304
Sealing	NBR

OPTIONAL FEATURES

Non-standard sizes

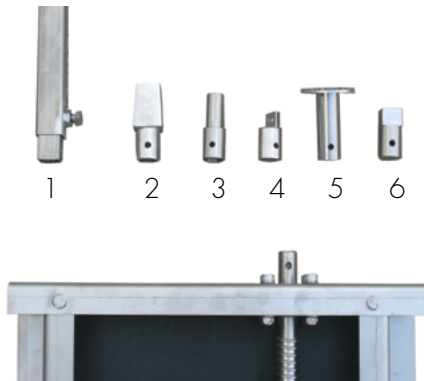
Electric, hydraulic or pneumatic operated

Rising spindle

Wedge construction

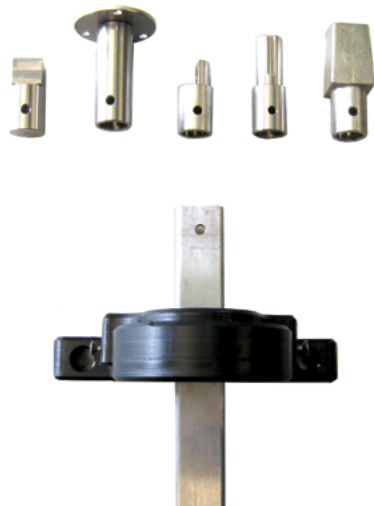
MOUNTING SET INCLUDING COMPRIBAND

DN 1000	22x anchor M16
DN 1250	22x anchor M16
DN 1500	30x anchor M16



OPERATING CONNECTORS

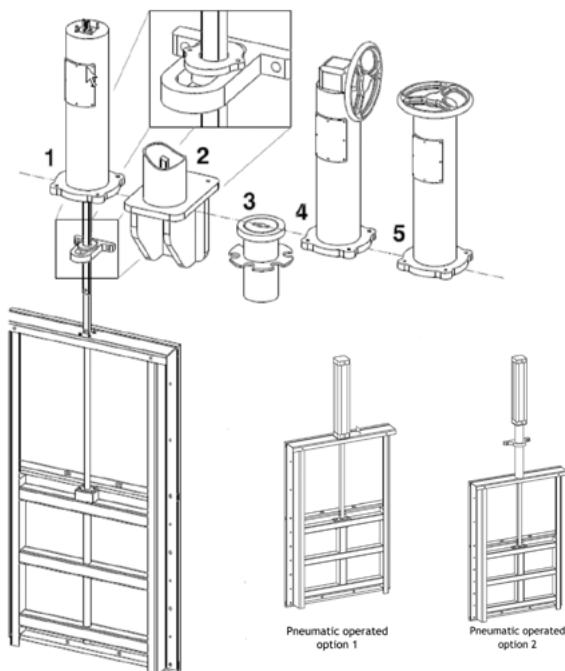
- 1 Spindle extension 0.5 – 12 meter
- 2 Conical tip 27 x 32 x 50 mm (1:10 mm)
- 3 Connector for actuator Ø20 mm with parallel key 6 mm and HMPE actuator seating 100 x 100 x 40 mm (connecting flange GO as per ISO 5210)
- 4 Standard connector Ø 20 mm
- 5 Connector for handwheel
- 6 Square tip



SPINDLE EXTENSION

Telescopic adjustable

Type	length from	length to [m]	no. of consoles
T1	0.5	0.75	1
T2	0.75	1	1
T3	v	1.5	2
T4	1.5	2	2
T5	2	2.5	3
T6	2.5	3	3
T7	3	3.5	4
T8	3.5	4	4
T9	4	4.5	5
T10	4.5	5	5



OPERATING ACCESSORIES

- 1 Pedestal with actuator seating and actuator connector
- 2 Console for flat wall mounting
- 3 Airtight operating pit for embedding in concrete
- 4 Pedestal, operation by means of handwheel, mounted on a gearbox. Gearbox and hand-wheel
- 5 Pedestal, operation by means of handwheel

Material handwheel: HDPE-300

Diameter of handwheel: Ø 350 mm