



PENSTOCKS  
DAMPERS



WALL PENSTOCK, 4 SIDES SEALED, - CMC -

"General information"

Industrial area "Asteasu", sector A pavillon 4, 20159, ASTEASU (GIPUZKOA) SPAIN Tel: (+34) 943 69 61 31 Fax:(+34) 943 69 62 39

Bidapro -CMC- is a 4 side sealed penstock projected to be wall mounted in ON or OFF position.

Mainly used for the following applications:

- Waste water treatment plants
- Drain manifolds
- Hydroelectric power plants
- Storm tanks
- Desalination installations
- Irrigation installations

Standard dimensions range from 200x200 to 2000x2000.

CMC working pressure conditions depend on the dimensions:

- Fm 200x200 to 1000x1000
  - 10 mWC(\*) "ON" side; 10 mWC "OFF" side
- Fm 1100x1100 to 2000x2000
  - 6 mWC "ON" side; 6 mWC "OFF" side

Other dimensions and other pressure conditions upon request.

Leakage rate below the American and European standards:

AWWAC561-04 - 1.24 l/min per seal linear meter.

Din 19569-4 Class 5 - 0.02 l/sec. per seal linear meter.

Bidapro's standard leakage:

from **0,05 to 0,15 l/min per seal linear meter.**  
depending on the water column : 5 mWC - 10mWC

High density polyethylene sliders to minimize friction coefficient

Standard product could be supplied in different options:

- Open frame
  - rising stem
- Closed frame
  - rising stem
  - non rising stem

Frame: carbon steel / AISI 304 / AISI 316  
 Plate: carbon steel / AISI 304 / AISI 316  
 Sliders: high density polyethylene  
 Column: carbon steel / AISI 304 / AISI 316  
 Extension and Guides: carbon steel / AISI 304 / AISI 316  
 Spindle: AISI 303 / AISI 304 / AISI 316  
 Nut: bronze  
 Seat: EPDM / Nitrile

Materials:





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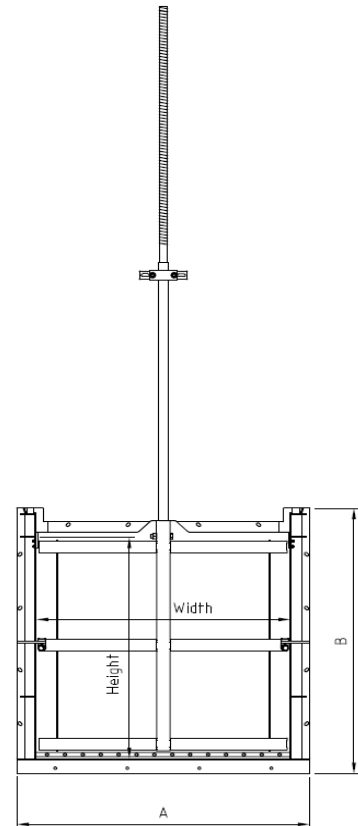
"Rising stem dimensions"

Industrial area "Asteasu" , sector A pavillon 4, 20159, ASTEASU (GIPUZKOA) SPAIN Tel: (+34) 943 69 61 31 Fax:(+34) 943 69 62 39



DIMENSIONS FROM 200X200 TO 2000X2000  
BIDIRECTIONAL

HOLE DIMENSIONS	A	B
200X200	380	330
300X300	480	430
400X400	580	530
500X500	680	630
600X600	780	730
700X700	880	830
800X800	980	930
900X900	1130	1420
1000X1000	1230	1570
1100X1100	1330	1720
1200X1200	1430	1870
1300x1300	1650	2020
1400x1400	1750	2170
1500x1500	1950	2320
1600x1600	1950	2470
1700x1700	2050	2620
1800x1800	2150	2770
1900x1900	2250	2920
2000x2000	2350	3070



*Bidapro reserves the rights to change dimensions at any time without prior notice*



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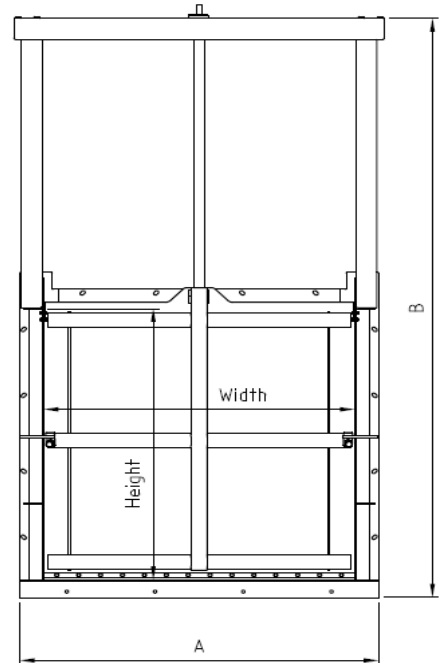
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"Non rising stem Dimensions"

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DIMENSIONS FROM 200X200 TO 2000X2000  
BIDIRECTIONAL

HOLE DIMENSIONS	A	B
200X200	380	545
300X300	480	745
400X400	580	945
500X500	680	1145
600X600	780	1345
700X700	880	1545
800X800	980	1745
900X900	1130	2016
1000X1000	1230	2216
1100X1100	1330	2416
1200X1200	1430	2616
1300X1300	1650	2916
1400X1400	1750	3116
1500X1500	1950	3316
1600X1600	1950	3530
1700X1700	2050	3730
1800X1800	2150	3980
1900X1900	2250	4180
2000x2000	2350	4458



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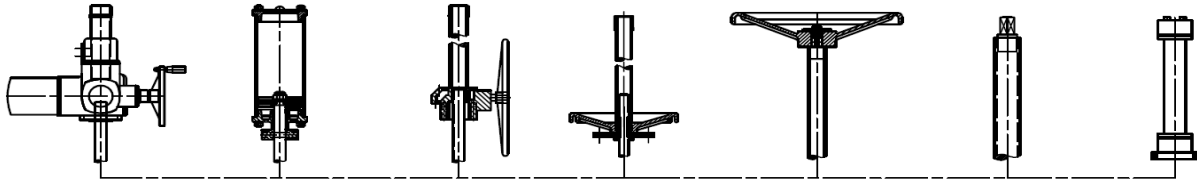


WALL PENSTOCK, 4 SIDES SEALED, - CMC -

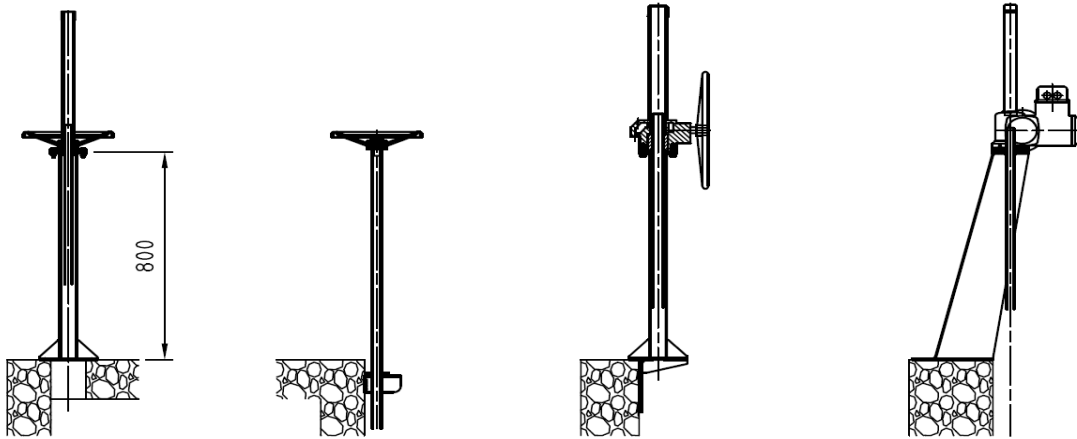
"Actuators and supports"

Industrial area "Asteasu", sector A pavillon 4, 20159, ASTEASU (GIPUZKOA) SPAIN Tel: (+34) 943 69 61 31 Fax:(+34) 943 69 62 39

Electric Motor    Pneumatic    Gear Box    Handwheel    Non rising handwheel    Square nut    Hydraulic



Straight column    Guiding support    Angular column    Inclined column



Square nut support    Wall angular support    Angular support    On the frame





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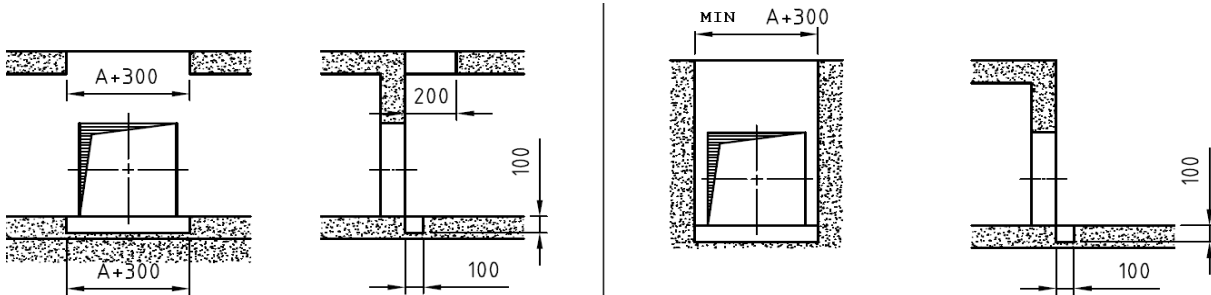


WALL PENSTOCK, 4 SIDES SEALED, - CMC -

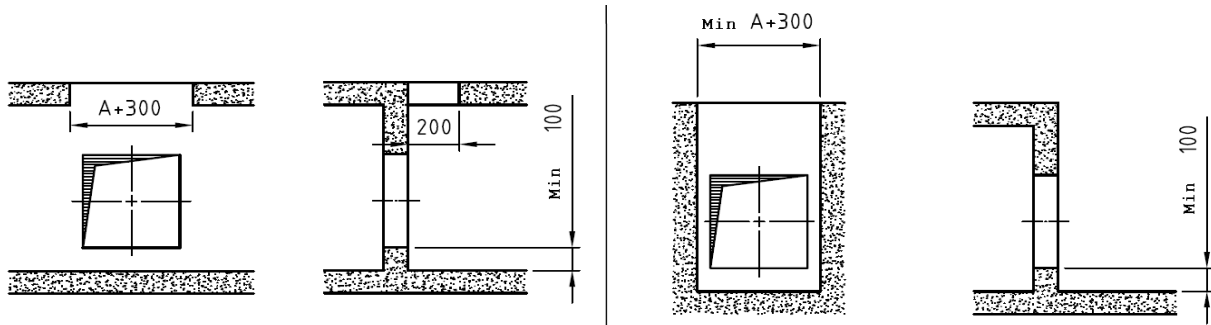
"Preparing installation"

Industrial area "Asteasu", sector A pavillon 4, 20159, ASTEASU (GIPUZKOA) SPAIN Tel: (+34) 943 69 61 31 Fax:(+34) 943 69 62 39

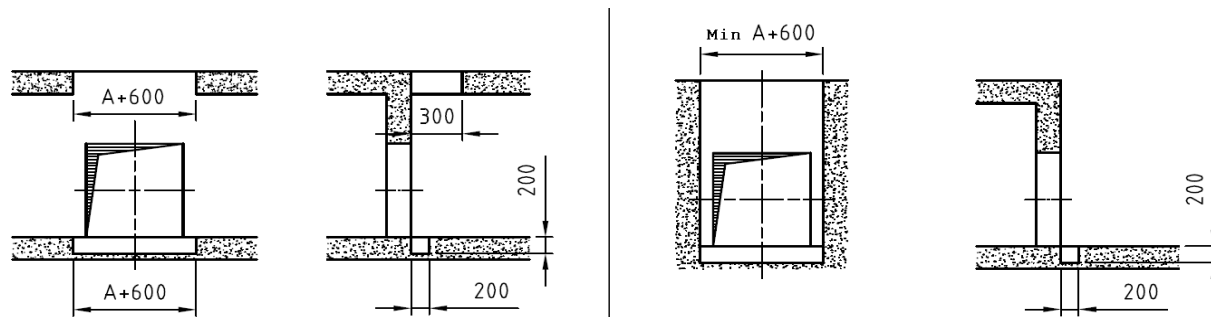
For installation "On the ground" for dimensions fm 200x200 to 1200x1200, where A: width of CMC



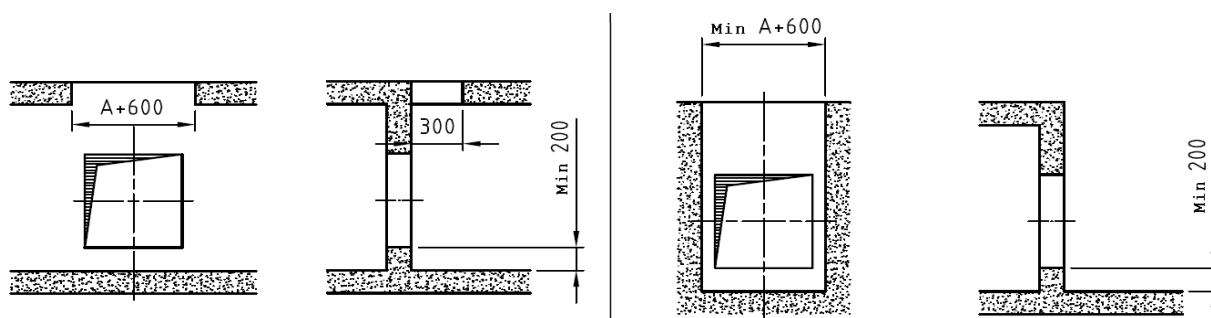
For installation "On the wall" for dimensions fm 200x200 to 1200x1200, where A: width of CMC



For installation "On the ground" for dimensions fm 1200x1200 to 2000x2000, where A: width of CMC



For installation "On the wall" for dimensions fm 200x200 to 1200x1200, where A: width of CMC





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"Installation and maintenance"

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### Installation

- Make sure of the flatness of the wall according to norm: DIN 18202;
- Place the penstock on the wall in the open position perfectly aligned with the hole in the wall;
- Using the orifices of the frame, drill the holes for expanding bolts;
- Now remove the penstock in order to apply the sealant model Sikaflex (or similar) to avoid leakages;
- Then place again the penstock on the wall and tighten bolts, being careful near by the seat and making sure not to deform the frame;
- If the frame begin to deform due to unnoticed wall irregularities, stop tightening bolts. Remove the penstock, fill gaps with an appropriate grout, wait for the grout to become dry and then start again tightening;
- Clean and grease the penstock for a open - close test.
- Bidapro is not responsible for a penstock not installed correctly.

### Maintenance

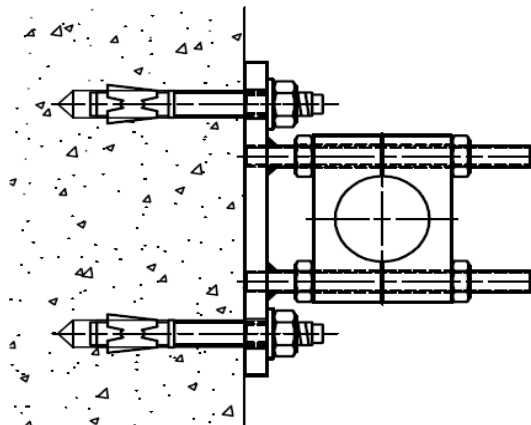
- Check the EPDM seat and change it in case of deterioration;
- Check the high density polyethylene sliders are in good condition and change them in case of deterioration. Keep the screwed part of the stem (spindle) and the actuator clean.

### Routine operations

- Opening and closing:
  - to open: turn the handwheel anticlockwise;
  - to close: turn the handwheel clockwise. Do not apply unnecessary force while closing the penstock.

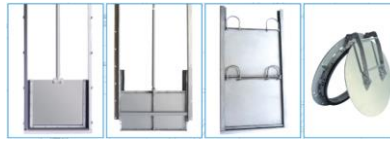
### Guiding supports installation

- Use guiding support' holes as a guidance to drill the wall keeping in mind that you have to place one guiding support for each 2 meters of extension for CMC "rising stem" and one for each 3 meters of extension for CMC "non rising" models.
- Then tighten the bolts.





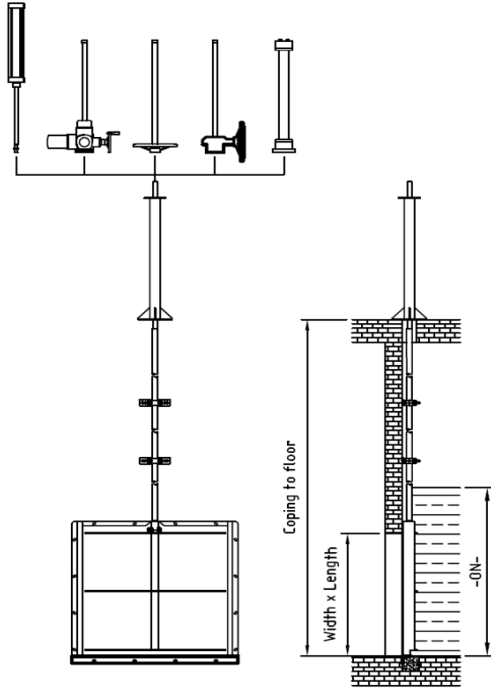
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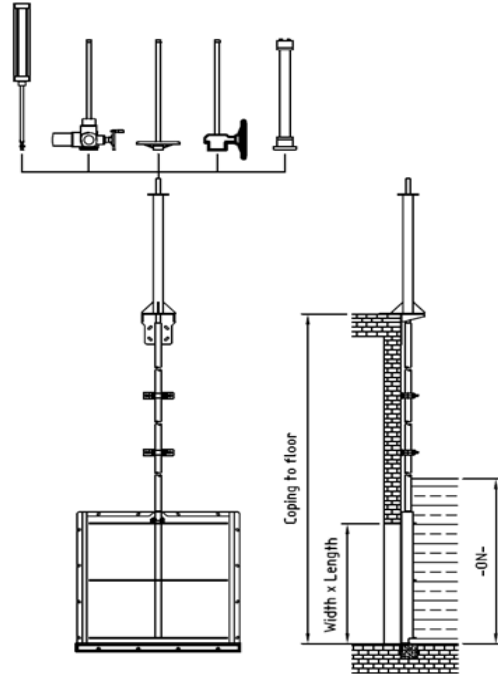
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"Rising stem applications"

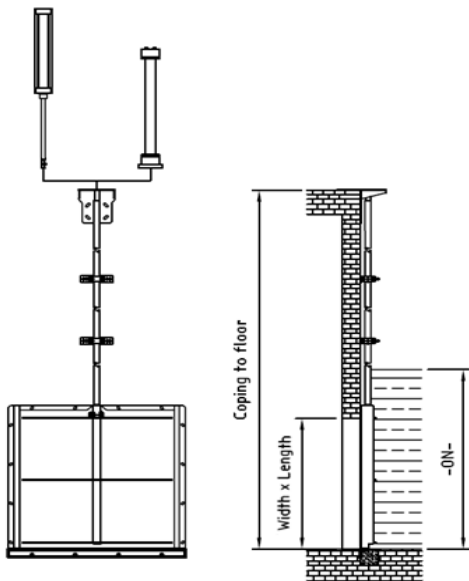
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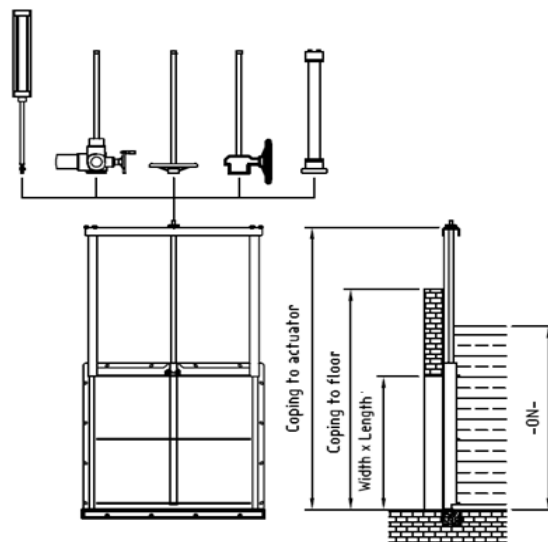
OPTION 1



OPTION 2



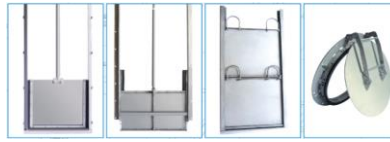
OPTION 3



OPTION 4



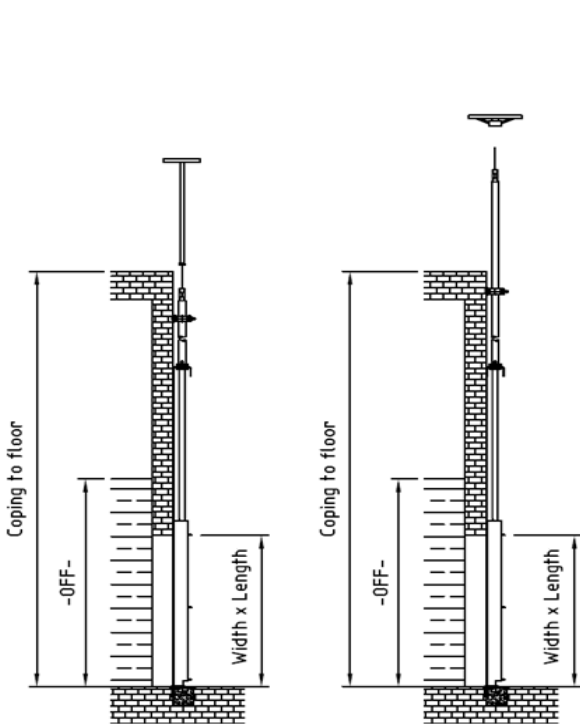
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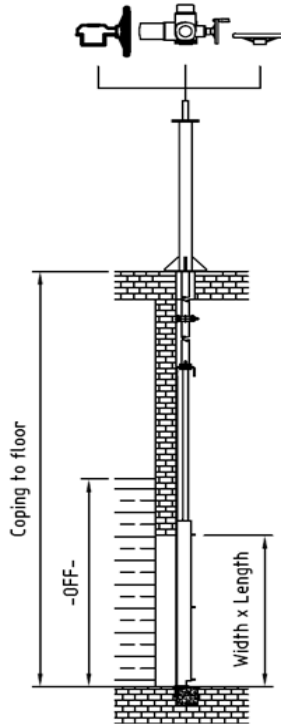
"Non rising stem applications"

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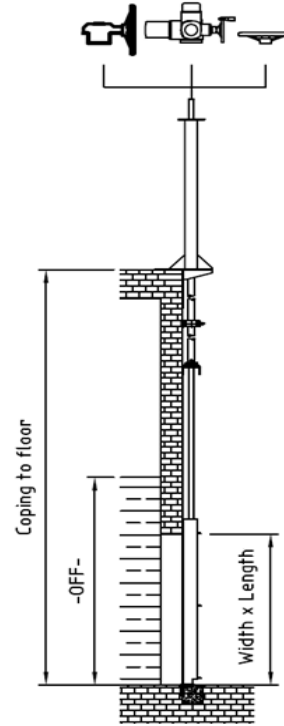


OPTION 6

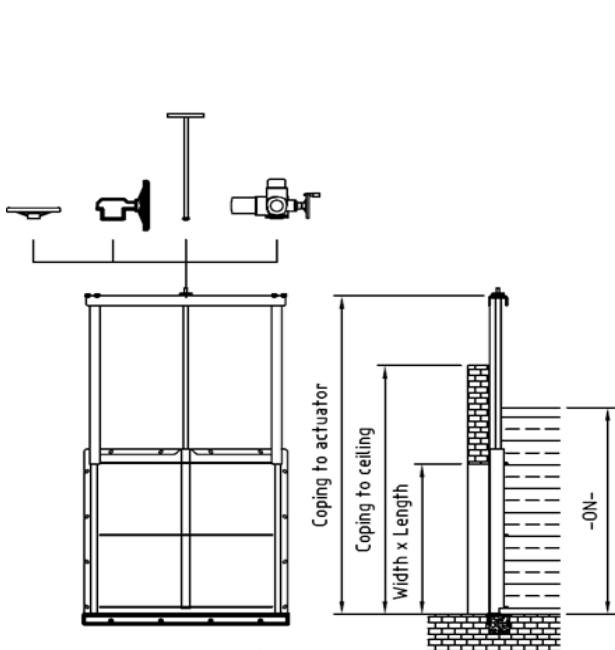
OPTION 7



OPTION 8



OPTION 9



OPTION 10

OPTION 11





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"Quotation data"

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Quantity

- .....

Hole dimensions

- Width ..... mm
- Length ..... mm

Water height & installation side

- ..... mWC "ON" side; ..... mWC "OFF" side

Model

- Rising stem
- Non rising stem

Coping to floor

- ..... mm

Material

- AISI 304
- AISI 316
- Carbon steel
- Others

Actuator

- Handwheel
- Gearbox
- Electric motor
- Hydraulic
- Pneumatic
- T key
- Others

Actuator support

- Straight column
- Angular column
- Inclined column
- Guiding support
- Wall angular support
- Angular support
- Square nut support
- On the frame

