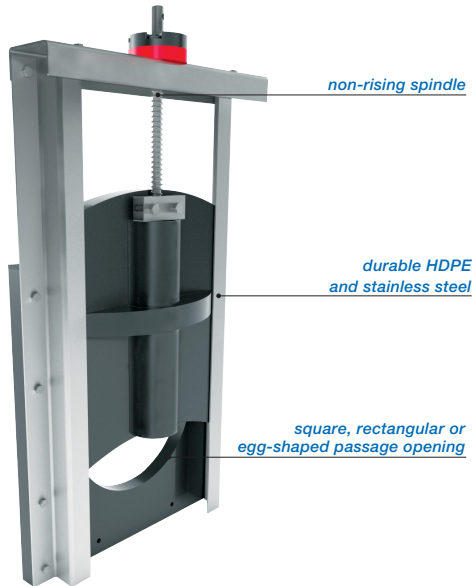




PENSTOCK HDPE / SS316L DIAMETER Ø 100 - 400 MM.



The Freedrain® penstocks are used in surface water, sewerage systems, (sewerage) water treatment system etc. to (temporarily) block or allow to pass water. They are manufactured from high quality HDPE and they will be reinforced with Stainless Steel 316L profiles. HDPE is lightweight and has a high chemical resistance. Standard, the penstocks are fitted with a SS316L non-rising spindle. The penstock contains a vertically moving door which can block the water supply on both sides. Tightening shall be effected by means of a special EPDM flat/lip shaped rubber profile to withstand 5 meter water column pressure on both sides, without any visible deformation.

Due to our revolutionary curved design of the penstock door, any contamination will have much less chance of blocking the passage. The penstock door will in many cases just cut through the dirt and still close. Due to the curved design the penstock door will be stronger, so the risk of leakage will be nil.

The maximum allowable leakage rate is less than 1 % of what is allowed in the standard of the American Water Works Association AWWA C501.

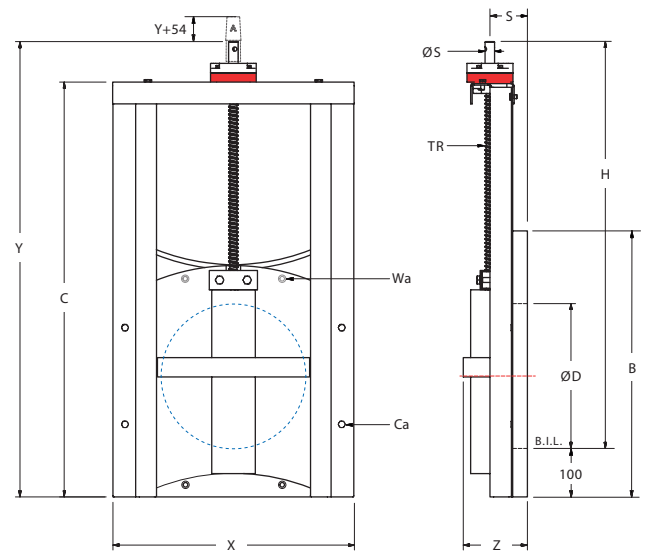
The standard version is suitable for wall mounting. As option the penstock can also be supplied with a spigot, tube or flange. Each penstock must be installed according to the operating and installation instructions provided by the manufacturer.

Advantages:

- Made of durable material, HDPE and SS316L.
- Easy to install.
- Special designed bronze nut block put in a SS316L housing, to withstand more forces on the nutblock.
- Flexible in design. No high costs for moulds.
- Design life of 50 years
- Less maintenance.
- Curved frame plate for less wear of the EPDM seal.

The options:

- Rising spindle situation.
- Several manual and electrical operations.
- Heavy duty penstocks with higher pressure on request.
- Square, rectangular or egg-shaped openings.
- Weir penstock with downwards opening
- Spigot mounting or flange mounting.



For detailed dimensions or installation instructions, please consult one of our sales advisers.

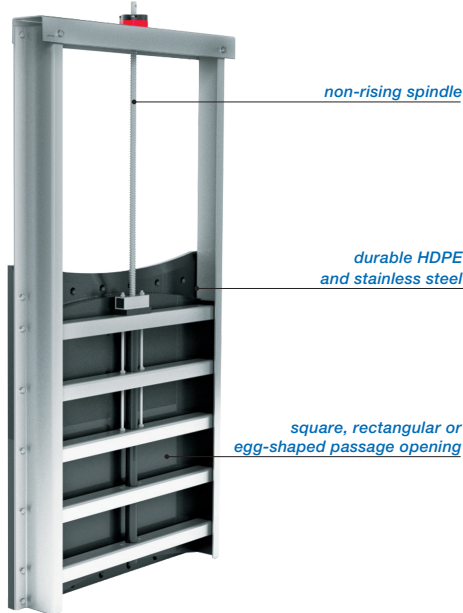


Type Freedrain®	ØD mm.	X mm.	Y mm.	Z mm.	H mm.	B mm.	C mm.	S mm.	ØS mm.	TR thread	Wedge Anchor	Chemical Anchor	Torque Nm	Rotation ↑↓	Appr. weight
670.ASG.0100G	Ø 110	400	793	127	639	480	653	79	Ø20	TR20x4L	M10x60 (4x)	M8x150 (4x)	4 Nm	63	±16 kg.
670.ASG.0121G	Ø 125	400	793	127	639	480	653	79	Ø20	TR20x4L	M10x60 (4x)	M8x150 (4x)	4 Nm	63	±16 kg.
670.ASG.0161G	Ø 160	400	793	127	639	480	653	79	Ø20	TR20x4L	M10x60 (4x)	M8x150 (4x)	4 Nm	63	±17 kg.
670.ASG.0201G	Ø 200	400	793	127	639	480	653	79	Ø20	TR20x4L	M10x60 (4x)	M8x150 (4x)	4 Nm	63	±17 kg.
670.ASG.0251G	Ø 250	500	944	134	844	580	858	79	Ø20	TR20x4L	M10x60 (4x)	M8x150 (4x)	7 Nm	88	±19 kg.
670.ASG.0311G	Ø 300	500	944	134	844	580	858	79	Ø20	TR20x4L	M10x60 (4x)	M8x150 (4x)	7 Nm	88	±19 kg.
670.ASG.0401G	Ø 400	600	1144	149	1044	700	1058	79	Ø20	TR20x4L	M10x60 (4x)	M8x150 (4x)	11 Nm	113	±21 kg.

Dimensions in millimeters, weights in kilograms. Subject to changes in images, dimensions and description. Placement, installation and use in accordance with our regulations.



PENSTOCK HDPE / SS316 DIAMETER Ø 500 - 1000 MM.



The Freedrain® penstocks are used in surface water, sewerage systems, (sewerage) water treatment system etc. to (temporarily) block or allow to pass water. They are manufactured from high quality HDPE and they will be reinforced with Stainless Steel 316L profiles. HDPE is lightweight and has a high chemical resistance. Standard, the penstocks are fitted with a SS316L non-rising spindle. The penstock contains a vertically moving door which can block the water supply on both sides. Tightening shall be effected by means of a special EPDM flat/lip shaped rubber profile to withstand 5 meter water column pressure on both sides, without any visible deformation.

Due to our revolutionary curved design of the penstock door, any contamination will have much less chance of blocking the passage. The penstock door will in many cases just cut through the dirt and still close. Due to the curved design the penstock door will be stronger, so the risk of leakage will be nil.

The maximum allowable leakage rate is less than 1 % of what is allowed in the standard of the American Water Works Association AWWA C501.

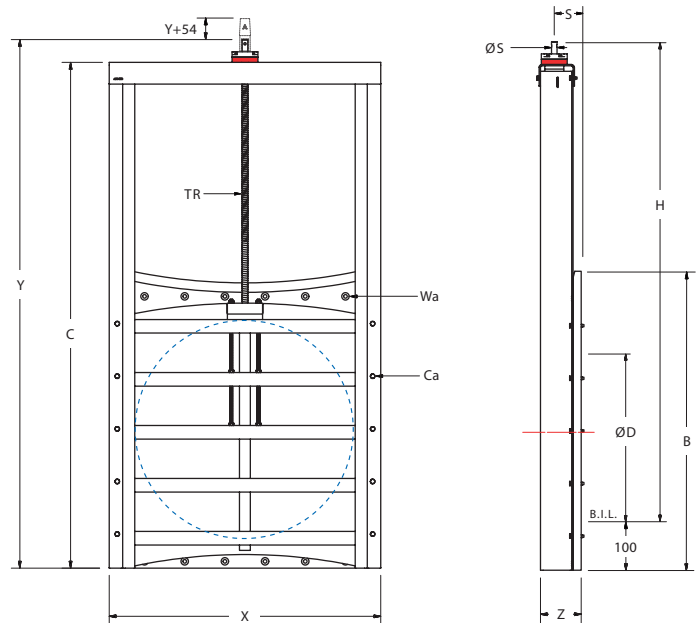
The standard version is suitable for wall mounting. As option the penstock can also be supplied with a spigot, tube or flange. Each penstock must be installed according to the operating and installation instructions provided by the manufacturer.

Advantages:

- Made of durable material, HDPE and SS316L.
- Easy to install.
- Special designed bronze nut block put in a SS316L housing, to withstand more forces on the nutblock.
- Flexible in design. No high costs for moulds.
- Design life of 50 years
- Less maintenance.
- Curved frame plate for less wear of the EPDM seal.

The options:

- Rising spindle situation.
- Several manual and electrical operations.
- Heavy duty penstocks with higher pressure on request.
- Square, rectangular or egg-shaped openings.
- Weir penstock with downwards opening
- Spigot mounting or flange mounting.



For detailed dimensions or installation instructions, please consult one of our sales advisers.

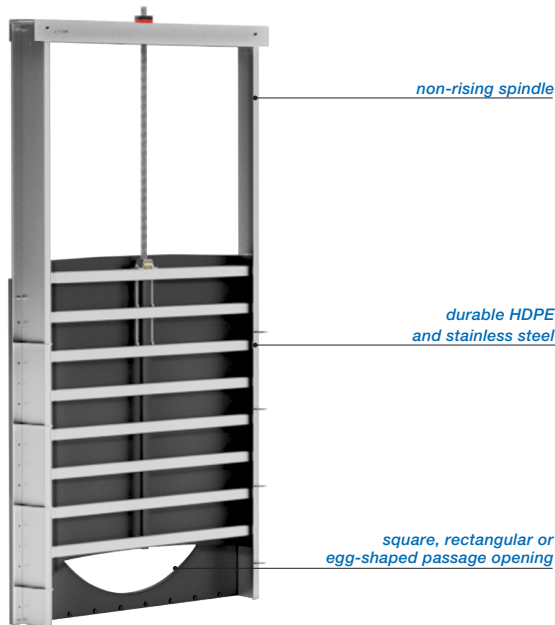


Type Freedrain®	ØD mm.	X mm.	Y mm.	Z mm.	H mm.	B mm.	C mm.	S mm.	ØS mm.	TR thread	Wedge Anchor	Chemical Anchor	Torque Nm	Rotation ↑↓	Appr. weight
670.ASG.0500G	Ø 500	700	1327	145	1227	800	1241	94	Ø20	TR20x4L	M10x60 (8x)	M8x150 (6x)	16 Nm	138	± 63 kg.
670.ASG.0600G	Ø 600	800	1547	145	1447	900	1461	94	Ø20	TR20x4L	M10x60 (8x)	M10x165 (8x)	23 Nm	163	± 72 kg.
670.ASG.0700G	Ø 700	900	1747	155	1647	1000	1661	99	Ø20	TR24x5L	M10x60 (8x)	M10x165 (8x)	28 Nm	150	± 98 kg.
670.ASG.0800G	Ø 800	1000	1947	155	1847	1100	1861	99	Ø20	TR24x5L	M10x60 (12x)	M10x165 (8x)	36 Nm	170	±118 kg.
670.ASG.0900G	Ø 900	1100	2141	165	2041	1200	2055	101	Ø20	TR30x6L	M10x60 (12x)	M10x165 (10x)	53 Nm	159	±145 kg.
670.ASG.1000G	Ø 1000	1200	2341	175	2241	1300	2255	103	Ø20	TR30x6L	M10x60 (12x)	M10x165 (12x)	65 Nm	175	±178 kg.

Dimensions in millimeters, weights in kilograms. Subject to changes in images, dimensions and description. Placement, installation and use in accordance with our regulations.



PENSTOCK HDPE / SS316 DIAMETER Ø 1100 - 1500 MM.



The Freedrain® penstocks are used in surface water, sewerage systems, (sewerage) water treatment system etc. to (temporarily) block or allow to pass water. They are manufactured from high quality HDPE and they will be reinforced with Stainless Steel 316L profiles. HDPE is lightweight and has a high chemical resistance. Standard, the penstocks are fitted with a SS316L non-rising spindle. The penstock contains a vertically moving door which can block the water supply on both sides. Tightening shall be effected by means of a special EPDM flat/lip shaped rubber profile to withstand 5 meter water column pressure on both sides, without any visible deformation.

Due to our revolutionary curved design of the penstock door, any contamination will have much less chance of blocking the passage. The penstock door will in many cases just cut through the dirt and still close. Due to the curved design the penstock door will be stronger, so the risk of leakage will be nil.

The maximum allowable leakage rate is less than 1 % of what is allowed in the standard of the American Water Works Association AWWA C501.

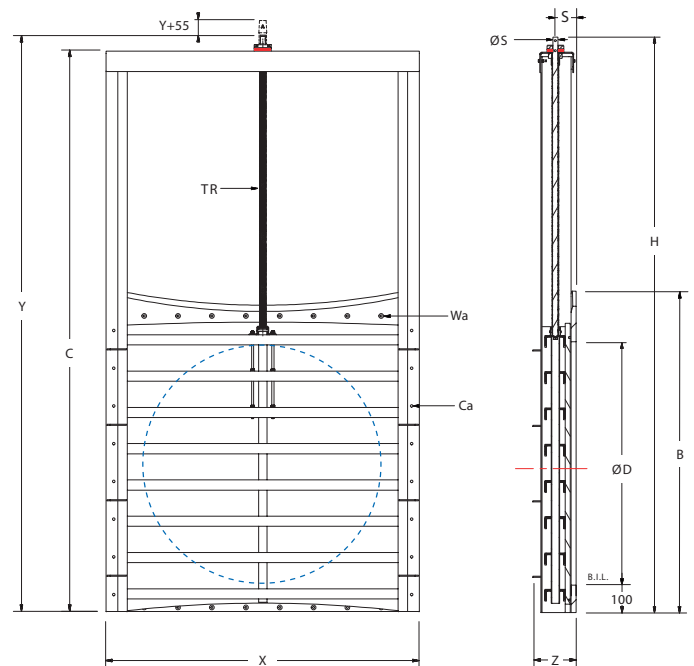
The standard version is suitable for wall mounting. As option the penstock can also be supplied with a spigot, tube or flange. Each penstock must be installed according to the operating and installation instructions provided by the manufacturer.

Advantages:

- Made of durable material, HDPE and SS316L.
- Easy to install.
- Special designed bronze nut block put in a SS316L housing, to withstand more forces on the nutblock.
- Flexible in design. No high costs for moulds.
- Design life of 50 years
- Less maintenance.
- Curved frame plate for less wear of the EPDM seal.

The options:

- Rising spindle situation.
- Several manual and electrical operations.
- Heavy duty penstocks with higher pressure on request.
- Square, rectangular or egg-shaped openings.
- Weir penstock with downwards opening
- Spigot mounting or flange mounting.



For detailed dimensions or installation instructions, please consult one of our sales advisers.



Type Freedrain®	ØD mm.	X mm.	Y mm.	Z mm.	H mm.	B mm.	C mm.	S mm.	ØS mm.	TR thread	Wedge Anchor	Chemical Anchor	Torque Nm	Rotation ↑↓	Appr. weight
670.ASG.1100G	Ø 1100	1300	2575	179	2475	1400	2485	108	Ø30	TR36x6L	M10x60 (12x)	M12x160 (12x)	90 Nm	192	±206 kg.
670.ASG.1200G	Ø 1200	1400	2805	179	2705	1500	2715	108	Ø30	TR36x6L	M10x60 (12x)	M12x160 (14x)	110 Nm	208	±228 kg.
670.ASG.1250G	Ø 1250	1500	2965	179	2865	1600	2875	108	Ø30	TR36x6L	M10x60 (16x)	M12x160 (16x)	127 Nm	225	±270 kg.
670.ASG.1300G	Ø 1300	1500	3005	179	2905	1600	2915	108	Ø30	TR36x6L	M10x60 (16x)	M12x160 (16x)	127 Nm	225	±264 kg.
670.ASG.1500G	Ø 1500	1850	3400	256	3300	1900	3310	122	Ø30	TR40x7L	M10x60 (16x)	M12x160 (16x)	195 Nm	221	±410 kg.

Dimensions in millimeters, weights in kilograms. Subject to changes in images, dimensions and description. Placement, installation and use in accordance with our regulations.