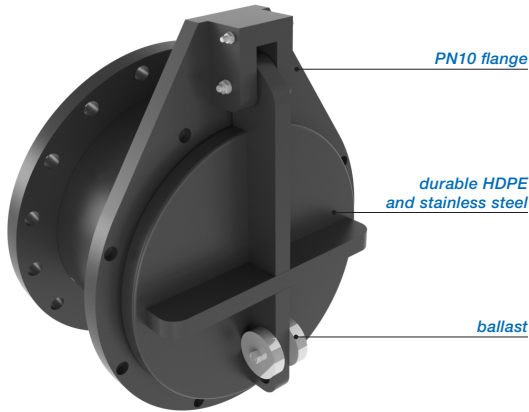


FLAP VALVE - HDPE / SS316L TYPE FLANGE CONNECTION PN10 (F), Ø110 - 400 MM.



The Freedrain® non-return valve is standard mounted at an angle of 10 degrees. The flap valve will mostly installed partly or completely submerged (in surface water / sewage / in case of emergency / flood protection), regulating a water flow in a single direction and preventing any back flow. The flap valve can be applied practically in all kinds of environments with free flow / gravitation. These flap valves are manufactured in our own factory from high quality HDPE, which is lightweight material and has a high chemical resistance. The flap valve will be equipped with SS316L hinge pins and extra ballast weight to prevent the flap valve door from floating. The larger flap valves will be equipped with SS316L reinforcement profiles.

The On-seating tightening shall be effected by means of a special EDPM lip seal to withstand 1 meter water column (long duration - 50 years) above the culvert and 5 meter water column from bottom invert (short duration - 72 hours) without any visible deformation. The flap valves shall be water tight in on-seating situation.

The ATK-F version with flange is suitable for mounting with flange connection. However, the flap valve can also be supplied with a spigot (model S or model BS), or for standard wall mounting (model G or A).

Advantages:

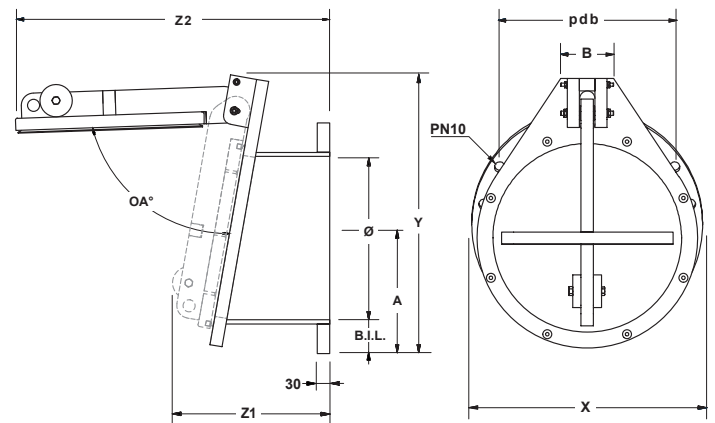
- Made of durable material, HDPE and SS316L.
- Light weight, easy to install.
- Design life of 50 years.
- Maintenance free
- Fast opening moment, no accumulation of dirt in pipe.
- As from Ø 500 mm the flap valve will be equipped with 2 hinge systems.
- Will act as double hung, by means of special designed sleeve in hinge frame.
- Opening angle is limited, so it can't remain open.
- High UV protection.
- Easy replaceable lip seal.

Other options:

- Wall mounting (model ATK-G and ATK-A).
- Flange connection (model ATK-PF).
- Spigot end for connecting with socket/coupling (model ATK-S) or to be inserted in existing pipe (model ATK-BS).
- Opening moments of the flap valve can be adjusted on request.

Installation:

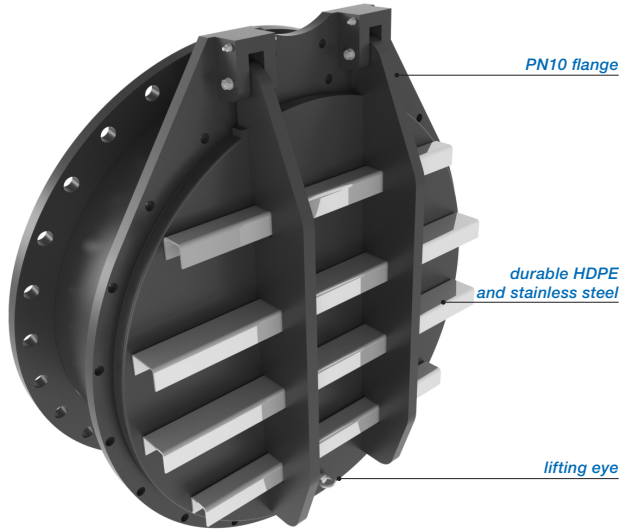
- The flap valve shall be suitable for flange connection DIN EN 1092-2 PN10. (Other flange drillings on request).



type Freedrain®	Ø mm.	B.I.L. mm.	X mm.	Y mm.	Z1 mm.	Z2 mm.	A mm.	B mm.	opening angle	pdb mm.	PN10 drillig	approx. weight
670.ATK.0100F	Ø 103	71	250	380	290	± 440	123	130	± 78°	Ø 180	Ø 19 (8x)	±5 kg.
670.ATK.0125F	Ø 117	89	300	430	290	± 490	148	130	± 78°	Ø 210	Ø 19 (8x)	±6 kg.
670.ATK.0150F	Ø 150	73	300	430	330	± 520	148	130	± 78°	Ø 240	Ø 23 (8x)	±6 kg.
670.ATK.0200F	Ø 188	76	340	475	340	± 565	170	130	± 78°	Ø 295	Ø 23 (8x)	±8 kg.
670.ATK.0250F	Ø 235	80	390	525	350	± 620	198	130	± 78°	Ø 350	Ø 23 (12x)	±12 kg.
670.ATK.0300F	Ø 296	75	445	575	360	± 670	223	130	± 78°	Ø 400	Ø 23 (12x)	±12 kg.
670.ATK.0400F	Ø 400	83	565	685	385	± 770	283	130	± 78°	Ø 515	Ø 28 (16x)	±18 kg.

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

FLAP VALVE - HDPE / SS316L TYPE FLANGE CONNECTION PN10 (F), Ø500 - 1000 MM.



The Freedrain® non-return valve is standard mounted at an angle of 10 degrees. The flap valve will mostly installed partly or completely submerged (in surface water / sewage / in case of emergency / flood protection), regulating a water flow in a single direction and preventing any back flow. The flap valve can be applied practically in all kinds of environments with free flow / gravitation. These flap valves are manufactured in our own factory from high quality HDPE, which is lightweight material and has a high chemical resistance. The flap valve will be equipped with SS316L hinge pins and extra ballast weight to prevent the flap valve door from floating. The larger flap valves will be equipped with SS316L reinforcement profiles.

The On-seating tightening shall be effected by means of a special EDPM lip seal to withstand 1 meter water column (long duration - 50 years) above the culvert and 5 meter water column from bottom invert (short duration - 72 hours) without any visible deformation. The flap valves shall be water tight in on-seating situation.

The ATK-F version with flange is suitable for mounting with flange connection. However, the flap valve can also be supplied with a spigot (model S or model BS), or for standard wall mounting (model G or A).

Advantages:

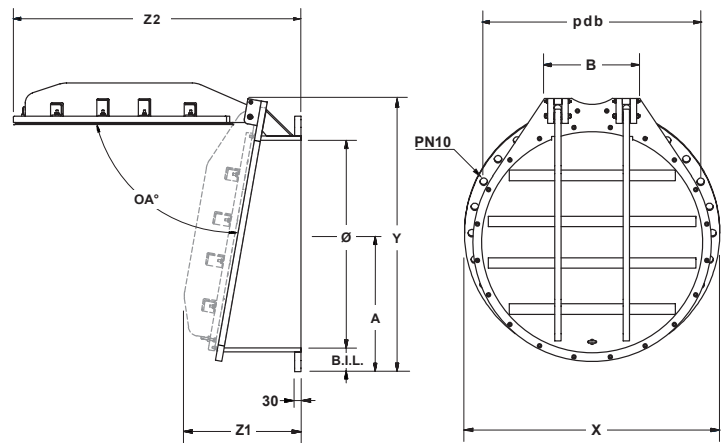
- Made of durable material, HDPE and SS316L.
- Light weight, easy to install.
- Design life of 50 years.
- Maintenance free
- Fast opening moment, no accumulation of dirt in pipe.
- As from Ø 500 mm the flap valve will be equipped with 2 hinge systems.
- Will act as double hung, by means of special designed sleeve in hinge frame.
- Opening angle is limited, so it can't remain open.
- High UV protection.
- Easy replaceable lip seal.

Other options:

- Wall mounting (model ATK-G and ATK-A).
- Flange connection (model ATK-PF).
- Spigot end for connecting with socket/coupling (model ATK-S) or to be inserted in existing pipe (model ATK-BS).
- Opening moments of the flap valve can be adjusted on request.

Installation:

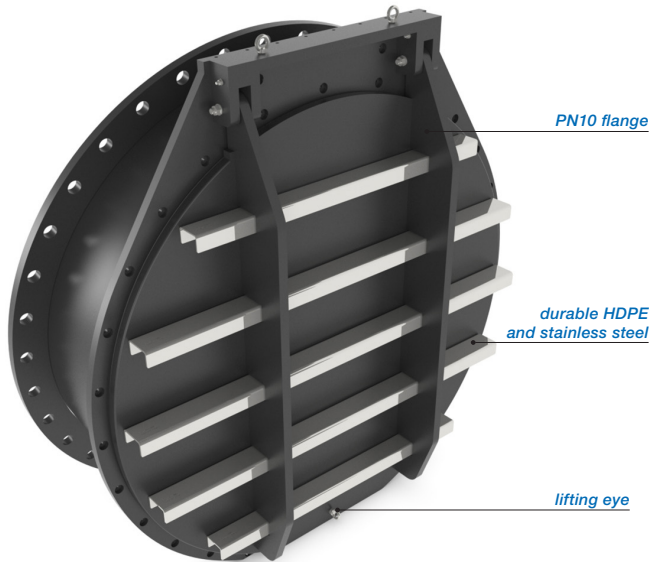
- The flap valve shall be suitable for flange connection DIN EN 1092-2 PN10. (Other flange drillings on request).



type Freedrain®	Ø mm.	B.I.L. mm.	X mm.	Y mm.	Z1 mm.	Z2 mm.	A mm.	B mm.	opening angle	pdb mm.	PN10 drilling	approx. weight
670.ATK.0500F	Ø 500	85	670	765	420	± 870	335	378	± 78°	Ø 620	Ø 28 (20x)	±27 kg.
670.ATK.0600F	Ø 600	90	780	865	445	± 970	390	378	± 78°	Ø 725	Ø 31 (20x)	±35 kg.
670.ATK.0700F	Ø 700	98	895	1000	475	± 1080	448	378	± 78°	Ø 840	Ø 31 (24x)	±46 kg.
670.ATK.0800F	Ø 800	108	1015	1100	510	± 1190	508	478	± 78°	Ø 950	Ø 34 (24x)	±63 kg.
670.ATK.0900F	Ø 900	108	1115	1200	510	± 1290	558	438	± 78°	Ø 1050	Ø 34 (28x)	±73 kg.
670.ATK.1000F	Ø 1000	115	1230	1310	565	± 1390	615	458	± 80°	Ø 1160	Ø 37 (28x)	±92 kg.

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

FLAP VALVE - HDPE / SS316L TYPE FLANGE CONNECTION PN10 (F), Ø1100 - 2000 MM.



The Freedrain® non-return valve is standard mounted at an angle of 10 degrees. The flap valve will mostly installed partly or completely submerged (in surface water / sewage / in case of emergency / flood protection), regulating a water flow in a single direction and preventing any back flow. The flap valve can be applied practically in all kinds of environments with free flow / gravitation. These flap valves are manufactured in our own factory from high quality HDPE, which is lightweight material and has a high chemical resistance. The flap valve will be equipped with SS316L hinge pins and extra ballast weight to prevent the flap valve door from floating. The larger flap valves will be equipped with SS316L reinforcement profiles.

The On-seating tightening shall be effected by means of a special EDPM lip seal to withstand 1 meter water column (long duration - 50 years) above the culvert and 5 meter water column from bottom invert (short duration - 72 hours) without any visible deformation. The flap valves shall be water tight in on-seating situation.

The ATK-F version with flange is suitable for mounting with flange connection. However, the flap valve can also be supplied with a spigot (model S or model BS), or for standard wall mounting (model G or A).

Advantages:

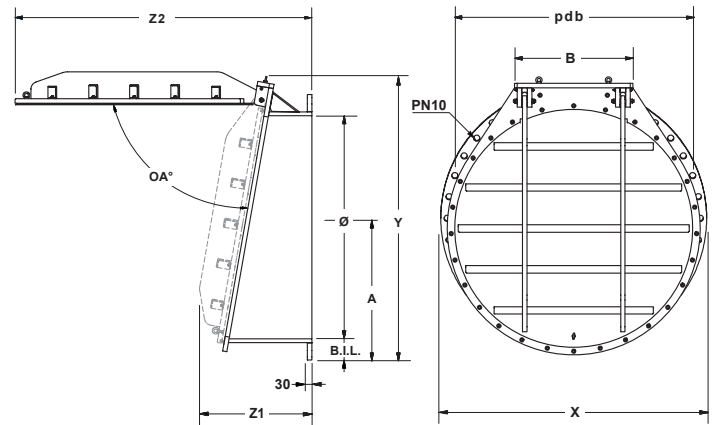
- Made of durable material, HDPE and SS316L.
- Light weight, easy to install.
- Design life of 50 years.
- Maintenance free
- Fast opening moment, no accumulation of dirt in pipe.
- As from Ø 500 mm the flap valve will be equipped with 2 hinge systems.
- Will act as double hung, by means of special designed sleeve in hinge frame.
- Opening angle is limited, so it can't remain open.
- High UV protection.
- Easy replaceable lip seal.

Other options:

- Wall mounting (model ATK-G and ATK-A).
- Flange connection (model ATK-PF).
- Spigot end for connecting with socket/coupling (model ATK-S) or to be inserted in existing pipe (model ATK-BS).
- Opening moments of the flap valve can be adjusted on request.

Installation:

- The flap valve shall be suitable for flange connection DIN EN 1092-2 PN10. (Other flange drillings on request).



type Freedrain®	Ø mm.	B.I.L. mm.	X mm.	Y mm.	Z1 mm.	Z2 mm.	A mm.	B mm.	opening angle	pdB mm.	PN10 drilling	approx. weight
670.ATK.1200F	Ø 1200	128	1455	1580	635	± 1635	728	645	± 80°	Ø1380	Ø 41 (32x)	±130 kg.
670.ATK.1500F	Ø 1500	143	1785	1910	750	± 2000	893	795	± 80°	Ø 1700	Ø 44 (36x)	±205 kg.
670.ATK.1600F	Ø 1600	158	1915	2030	975	± 2280	958	845	± 80°	Ø 1820	Ø 50 (40x)	±280 kg.
670.ATK.1800F	Ø 1800	158	2115	2250	1145	± 2565	1058	945	± 80°	Ø 2020	Ø 50 (44x)	±370 kg.
670.ATK.2000F	Ø 2000	168	2325	2450	1190	± 2770	1163	1045	± 80°	Ø 2230	Ø 50 (48x)	±484 kg.

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