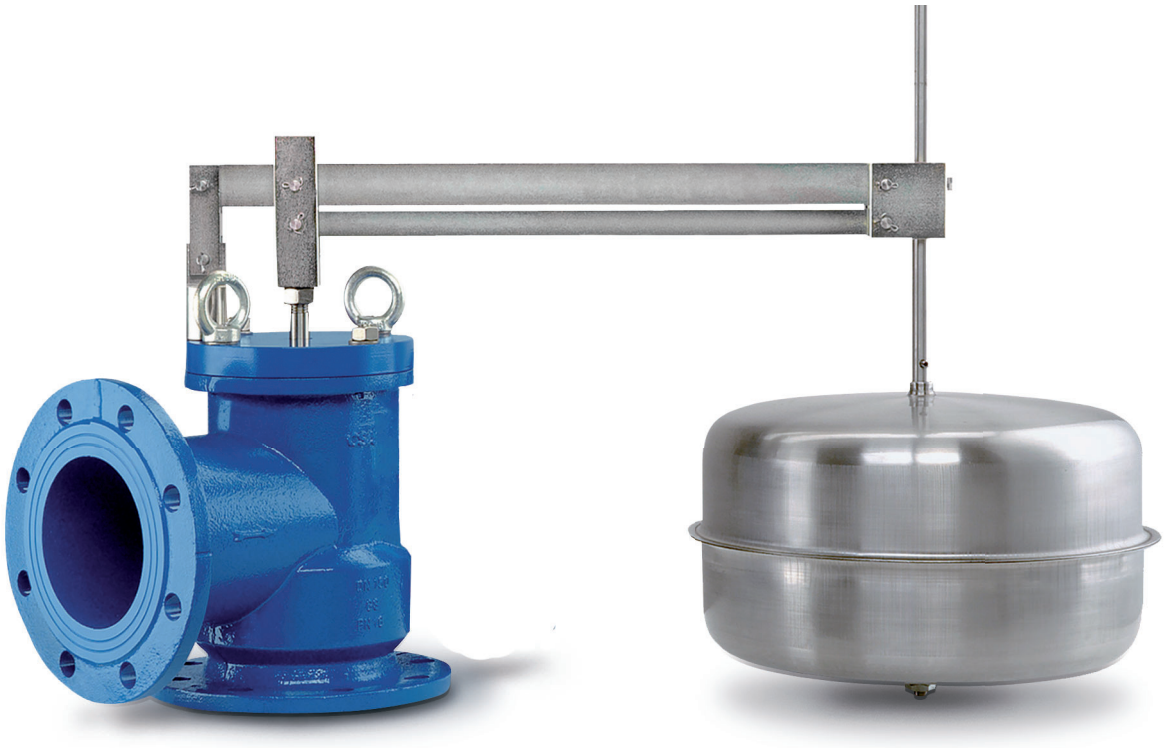
Equilibrium ball float valve with balanced single seat - Mod. ODESSA

The ODESSA is a single seat upstream pressure balanced equilibrium ball float valve, which automatically controls the constant level of a tank or reservoir, regardless of upstream pressure variations, and shuts off when the maximum level is reached. Thanks to its exclusive technology ODESSA brings the concept of reliability and performance to the highest standards.



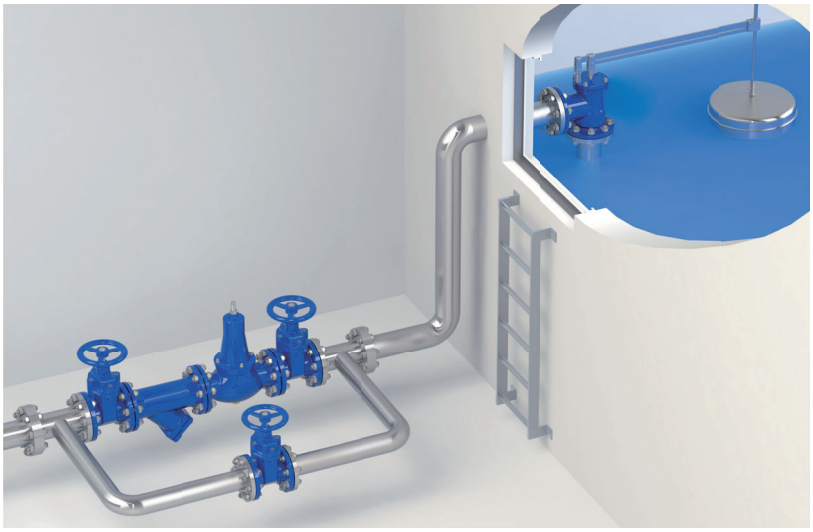
Technical features and benefits

- Body in ductile cast iron with three ways, allowing the installation both with an angle or a globe pattern, containing an interchangeable sealing seat and piston in stainless steel and a guiding bush in bronze.
- Mobile block composed of the main shaft, obturator, gasket retainer and piston featuring a unique self-cleaning technology (pat. pending) to reduce the accumulation of dirt and maintenance operations.
- The lever mechanism, in zinc-plated or stainless steel, is obtained from a double rod (single rod for DN 40/50/65) which, by means of pivots, puts the shaft in communication with the float which imparts the movement allowing the opening or closing of the valve.
- A large float in stainless steel AISI 304/316 is connected to the lever mechanism by means of a stainless steel pipe, onto which it exerts a vertical force.
- The valves modulates and throttle the inflow proportionally to the consumption, accuracy and perfect water-tightness is guaranteed also with low pressure values.
- Thanks to the upstream pressure balanced seat the movement of the obturator and valve performance is not affected by upstream pressure fluctuations, transient and unwanted surges are therefore avoided.

Applications

- Water distribution systems.
- Fire protection storage tanks.
- Irrigation systems.
- Whenever the constant level regulation and control function is required.

Technical data



Installation

- Make sure that the supply pipe has the flanges drilled according to the requested PN and that ODESSA is installed horizontally, properly fixed and sustained.
- Gate valves and filters have to be installed to allow for maintenance operations, and to prevent dirt from reaching the internal components of the valve.
- Position the valve in a place which is easy to reach and wide enough for maintenance and control purposes.
- Observe the overflow level and make sure that the outlet flange remains always above it, this is to avoid back-flow.
- In case of excessive Δp, to avoid cavitation and possible damages to the valve, a direct acting pressure reducing valve CSA VRCD series should be installed.

*Consult the sizing calculator on the CSA website.

Working conditions

Fluid: treated water.
Maximum temperature: 70°C.
Maximum pressure: 16 bar; contact CSA for higher values.

Standard

Certified and tested in compliance with EN-1074/5.
Flanges according to EN 1092/2.
Epoxy painting applied through fluidized bed technology blue RAL 5005. Variations on flanges and painting on request.

DN mm	40	50	65	80	100	125	150	200	250	300
Kv (m^3/h)/bar	21,6	21,6	21,6	46,8	68,4	108	155	245	360	648

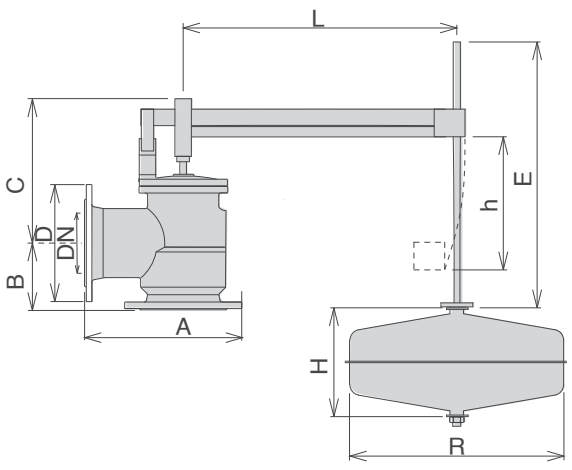
Head loss coefficient

Kv coefficient representing the flow rate flowing through the valve fully open, and producing a head loss of 1 bar.

Weights and dimensions

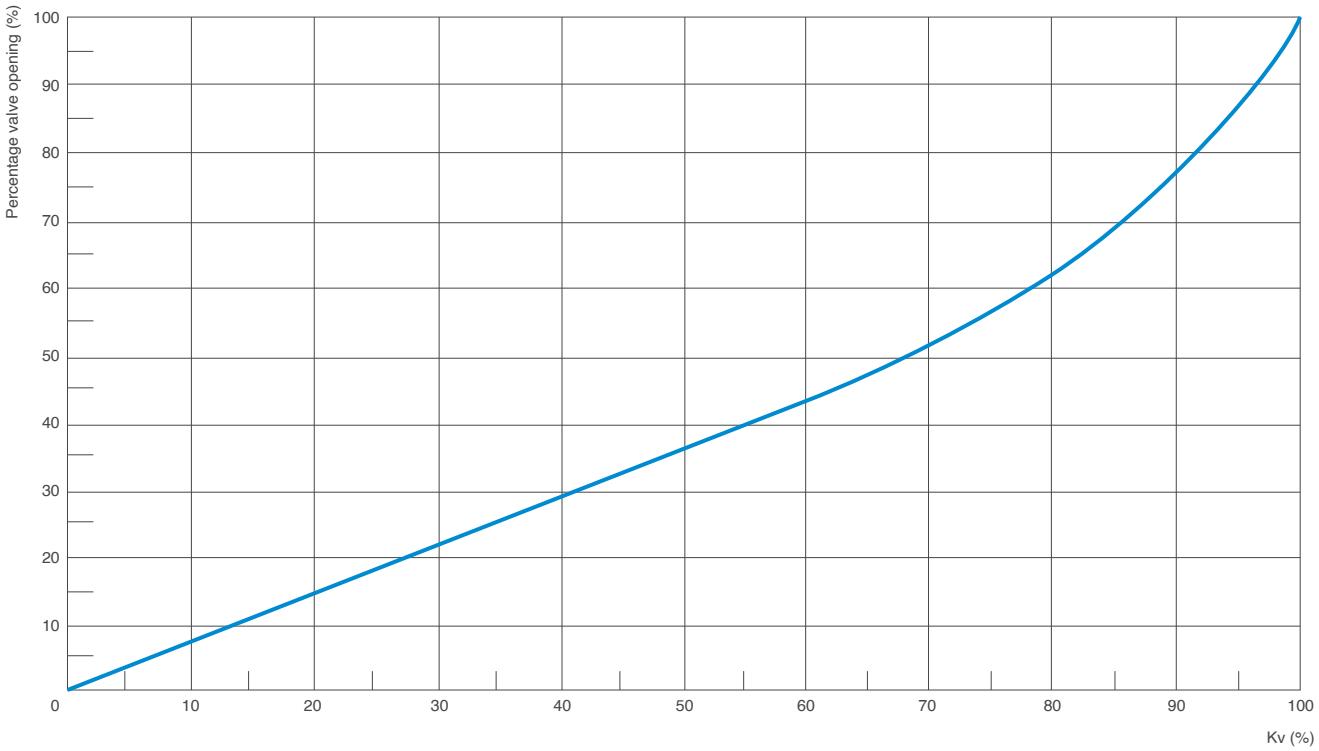
DN mm	A mm	B mm	C mm	D mm	L mm	H mm	R mm	h mm	E mm	Wt Kg
40	230	82,5	183	165	600	Ø220		145	525	14
50	230	82,5	183	165	600	Ø220		145	525	14
65	290	92,5	197	185	600	Ø220		205	525	17
80	310	100	205	200	600	Ø220		205	525	21
100	350	125	250	220	830	200	300	250	600	27
125	400	125	250	250	830	180	400	220	600	32
150	480	162	316	285	830	180	400	221	600	49
200	600	183	400	340	1000	250	400	400	540	77
250	730	273	485	405	1000	250	400	300	540	140
300	850	300	568	460	1220	300	500	510	945	162

All values are approximate, consult CSA service for more details.



Kv to valve opening chart

The following chart shows the opening percentage of Odessa valves versus the Kv.

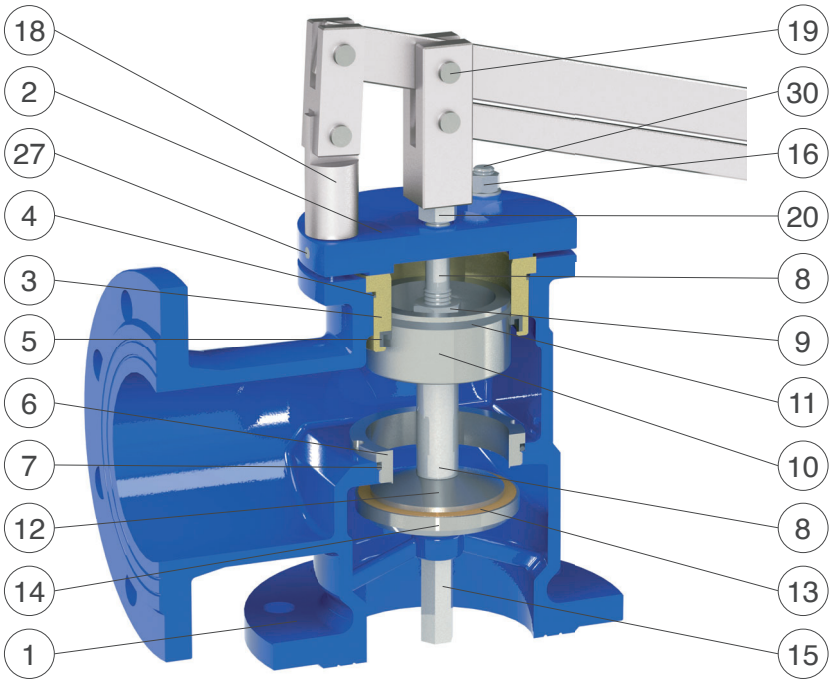


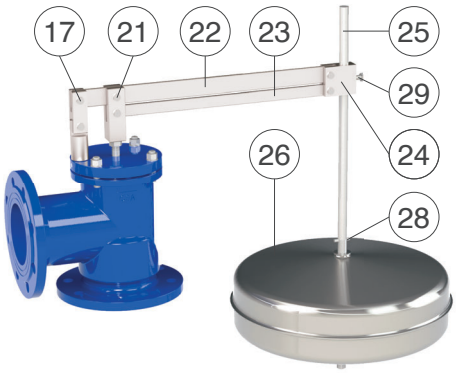
Recommended flow rate

The following chart shows the recommended flow rate for the proper sizing of Odessa valves.

DN (mm)	40/50	65	80	100	125	150	200	250	300
Portata min. (l/s)	0,3	0,3	0,5	0,8	1,2	1,9	2,7	4,8	7,4
Portata max. (l/s)	6,4	6,4	10	16	25	40	58	103	161
Portata emergenza (l/s)	7,8	7,8	13	20	31	49	70	125	196

Technical details







Athena DN 40/50-65

N.	Component	Standard material	Optional
1	Body	ductile cast iron GJS 450-10	
2	Cap	painted steel	
3	Guiding bushing	bronze CuSn5Zn5Pb5 (painted steel for DN 250-300)	stainless s. AISI 304/316
4	O-ring	NBR	EPDM/Viton
5	Lip gasket	NBR	EPDM/Viton
6	Seat	stainless steel AISI 304	stainless steel AISI 316
7	O-ring	NBR	EPDM/Viton
8	Guiding shaft	stainless steel AISI 303	stainless steel AISI 316
9	Blocking nut	stainless steel AISI 304	stainless steel AISI 316
10	Piston	stainless steel AISI 303	stainless steel AISI 316
11	Guiding ring	PTFE	
12	Counter-seat	stainless s. AISI 303 (painted steel for DN 250-300)	stainless s. AISI 304/316
13	Plane gasket	NBR	polyurethane
14	Obturator	stainless s. AISI 303 (AISI 304 for DN 200-250-300)	stainless steel AISI 316
15	Tightening nut	stainless steel AISI 303	stainless steel AISI 316
16	Nuts (or screws) and washers	stainless steel AISI 304	stainless steel AISI 316
17	Upper coupling	zinc-plated steel	stainless s. AISI 304/316
18	Lower coupling	zinc-plated steel	stainless s. AISI 304/316
19	Pivots	stainless steel AISI 303	stainless steel AISI 316
20	Blocking nut	stainless steel AISI 304	stainless steel AISI 316
21	Shaft pivot	zinc-plated steel	stainless s. AISI 304/316
22	Upper lever	zinc-plated steel	stainless s. AISI 304/316
23	Lower lever (from DN 80)	zinc-plated steel	stainless s. AISI 304/316
24	Float coupling (from DN 80)	zinc-plated steel	stainless s. AISI 304/316
25	Float rod	stainless steel AISI 304	stainless steel AISI 316
26	Float	stainless steel AISI 304	stainless steel AISI 316
27	Plug (screw from DN 150 to 300)	stainless steel AISI 304	stainless steel AISI 316
28	Elastic pin (from DN 80)	stainless steel AISI 304	
29	Screw	stainless steel AISI 304	stainless steel AISI 316
30	Studs (from DN 150 to 300)	stainless steel AISI 304	stainless steel AISI 316

The list of materials and components is subject to changes without notice.