



Automatic Separators
for Air, Micro-bubbles, Dirt and Sludge

The formula of pressure loss

$$\Delta P = \left(\frac{\dot{Q}}{K_{VS}} \right)^2 \cdot 100 \text{kPa}$$

Note:

1. \dot{Q} : The flow of system
2. K_{VS} : The flow coefficient
3. $Q \leq Q_{max}$

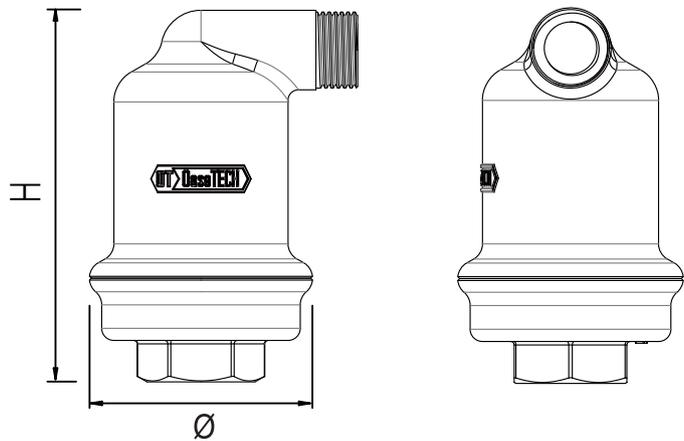
Look-up table for the system flow coefficient

Connection	K_{VS} in m ³ /h	Q_{max} m ³ /h
Rp3/4	10.7	1.30
Rp1	17.2	2.00
Rp1 ¹ / ₄	31.8	3.70
Rp1 ¹ / ₂	40.0	5.00
Rp2	56.1	7.50

Top Vent

OaseTECH automatic air vent valve can continuously release air from the system steadily.

Automatic air vent valve are typically installed vertically at a high location in a circulating water system, where air is likely to accumulate, such as a heat generation device. The specially-designed air cavity with high-capacity enables the inner floater to move up and down with a longer travel, allowing the system to operate steadily even if there is a little dirt in it.



- The valve will release air when the new system fill water or refill water is added, after the water in the system is completely evacuated;
- The valve will regularly release air at the high point or air accumulation point, and the system can automatically complement pressure;
- Forged brass body, vertical installation and threaded connection;
- Maximum working temperature: 110 or 180°C; Maximum allowable working pressure: 16bar.

Top Vent

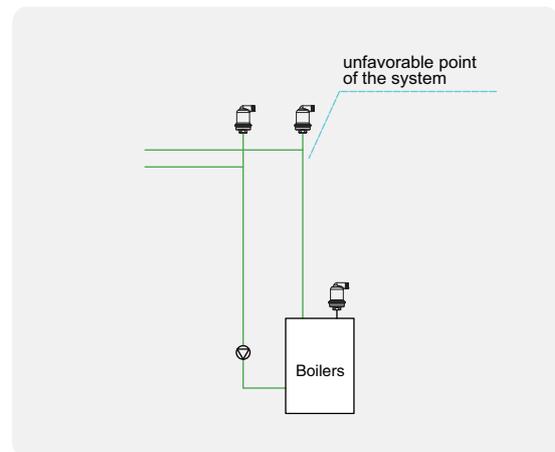
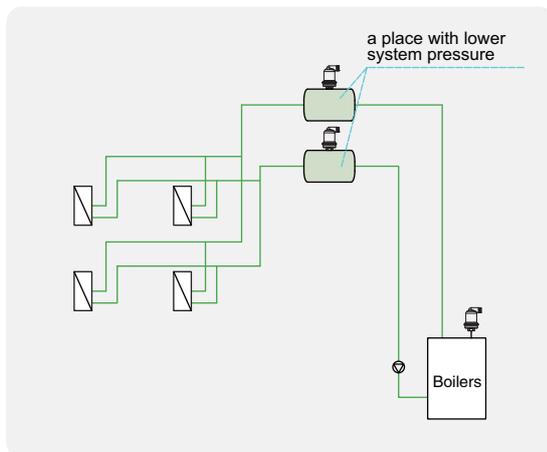
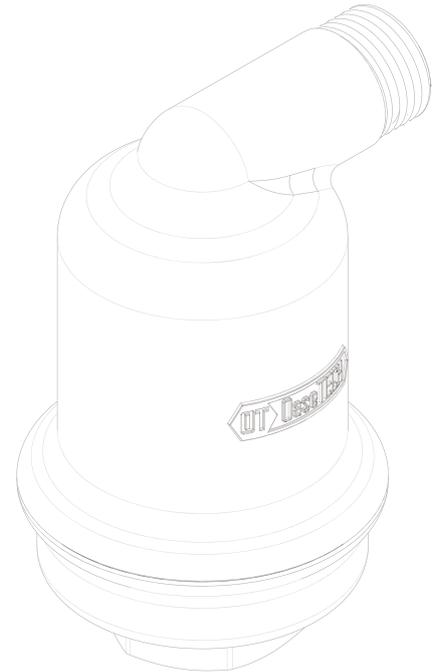
(Brass, 110°C, 16bar)

Model	H mm	Ø mm	Weight kg	Connection
TV 1/2	108	64	0.7	Rp1/2
TV 3/4	108	64	0.7	Rp3/4
TV 1	113	64	0.7	Rp1

Top Vent Solar

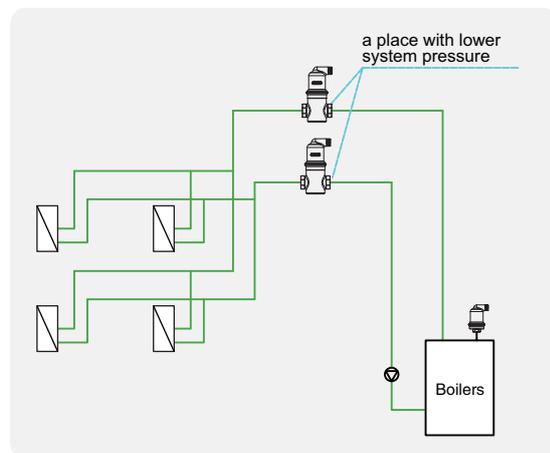
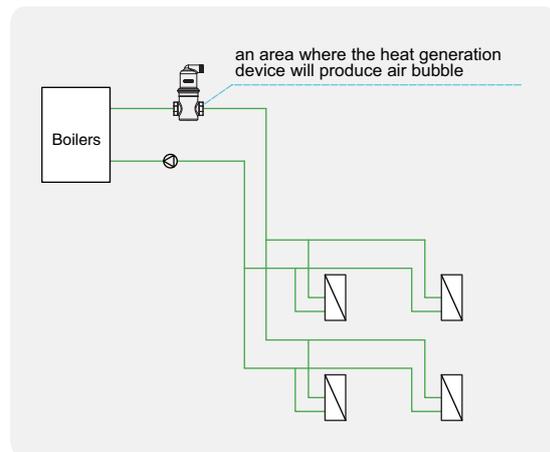
(Brass, 180°C, 16bar)

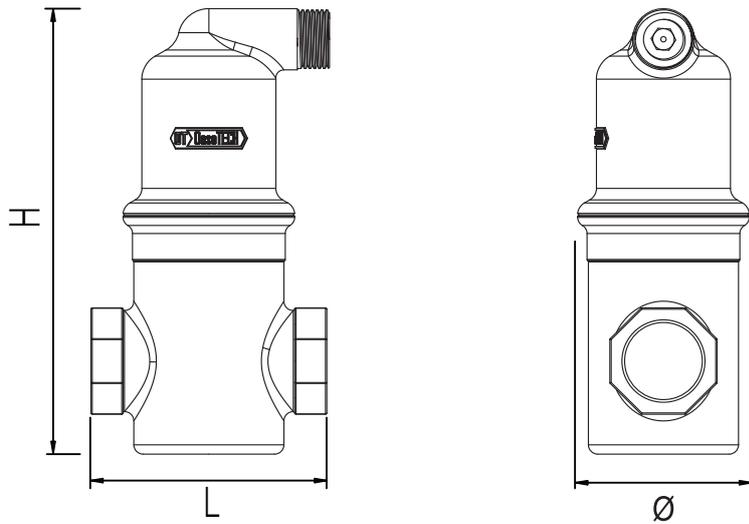
Model	H mm	Ø mm	Weight kg	Connection
TV 1/2S	108	64	0.7	Rp1/2
TV 3/4S	108	64	0.7	Rp3/4
TV 1S	113	64	0.7	Rp1



The most efficient spiral micro-bubbles vent valve

- The discharge rate of primary-gas produced by water passing through air release assembly is 80%;
- The gas content in the system can be reduced to 0.4% after a period of operation;
- Maximum working temperature: 110°C, maximum allowable working pressure: 16bar; the maximum customizable design conditions are 180°C or 25bar;
- For water and water/glycol mixtures (max. 50% glycol share);
- Horizontal installation or vertical installation. Threaded connection and exclusion seal;
- The minimum diameter of removed air bubbles is 10 μ m;
- The product meets PED/DEP 97/23/EC(CE) standard;
- General construction, built-in copper filter element with helical structure, and the body is made of brass.





Air Separator

(Brass, Horizontal Installation, 110°C, 16bar)

Model	H mm	L mm	Ø mm	Weight kg	Connection
※ AS 22	165	106	64	1.2	22mm
AS 3/4	153	85	64	1.1	Rp3/4
AS 1	168	88	64	1.3	Rp1
AS 1 ¹ / ₄	188	88	64	1.4	Rp1 ¹ / ₄
AS 1 ¹ / ₂	218	88	64	1.6	Rp1 ¹ / ₂
AS 2	254	132	100	3.9	Rp2

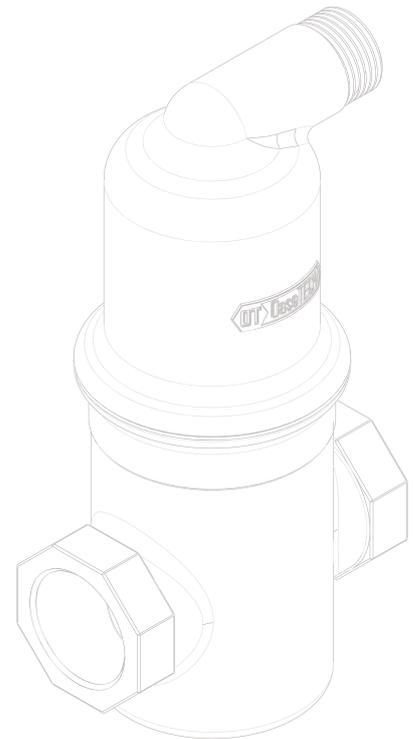
※ Exclusion Seal

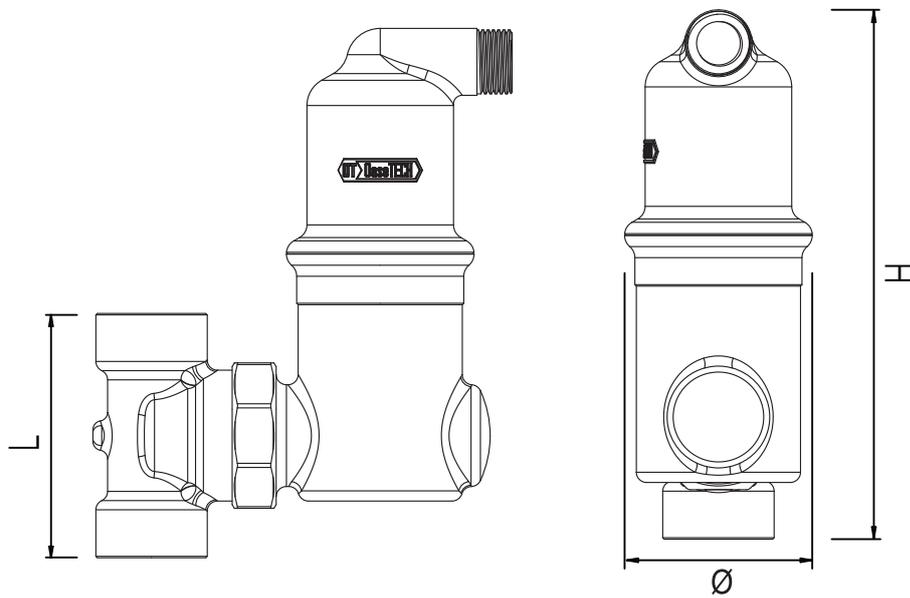
Air Separator Solar

(Brass, Horizontal Installation, 180°C, 16bar)

Model	H mm	L mm	Ø mm	Weight kg	Connection
※ AS 22S	165	106	64	1.2	22mm
AS 3/4S	153	85	64	1.1	Rp3/4
AS 1S	168	88	64	1.3	Rp1
AS 1 ¹ / ₄ S	188	88	64	1.4	Rp1 ¹ / ₄
AS 1 ¹ / ₂ S	218	88	64	1.6	Rp1 ¹ / ₂
AS 2S	254	132	100	3.9	Rp2

※ Exclusion Seal





Air Separator

(Brass, Vertical Installation, 110°C, 16bar)

Model	H mm	L mm	Ø mm	Weight kg	Connection
※ AS 22V	220	104	64	2.0	22mm
AS 3/4V	182	84	64	1.9	Rp3/4
AS 1V	182	84	64	1.9	Rp1

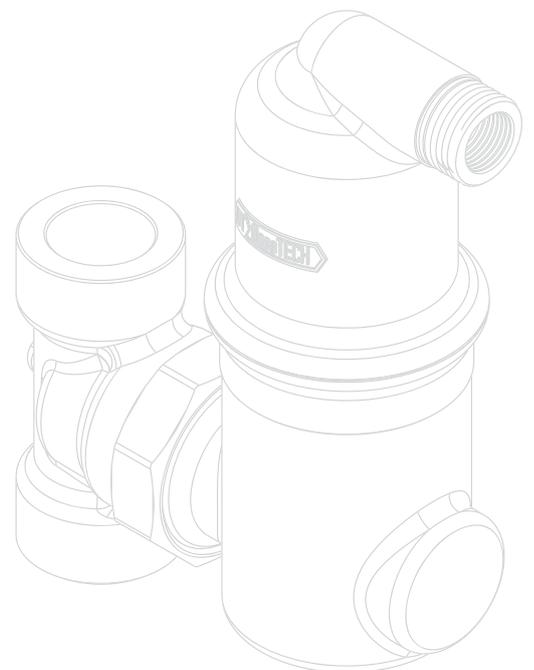
※ Exclusion Seal

Air Separator Solar

(Brass, Vertical Installation, 180°C, 16bar)

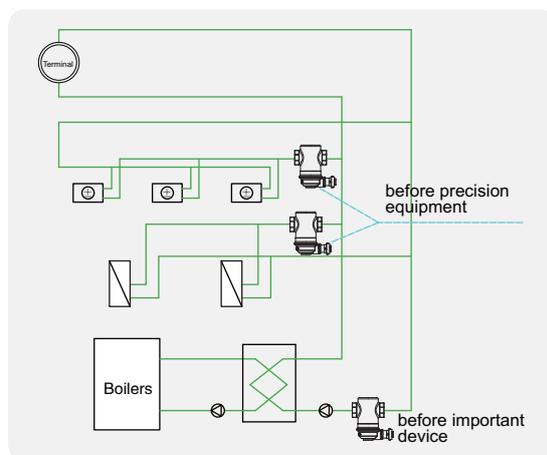
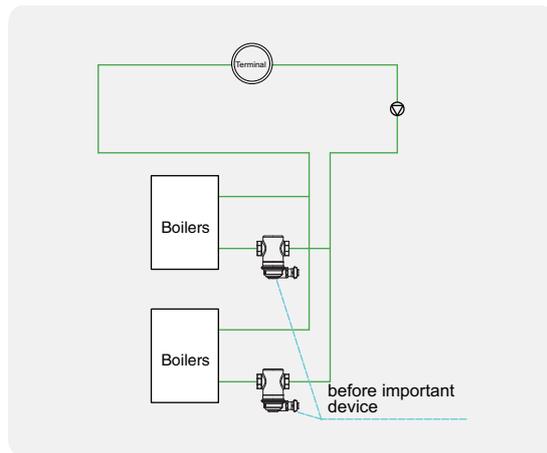
Model	H mm	L mm	Ø mm	Weight kg	Connection
※ AS 22VS	220	104	64	2.0	22mm
AS 3/4VS	182	84	64	1.9	Rp3/4
AS 1VS	182	84	64	1.9	Rp1

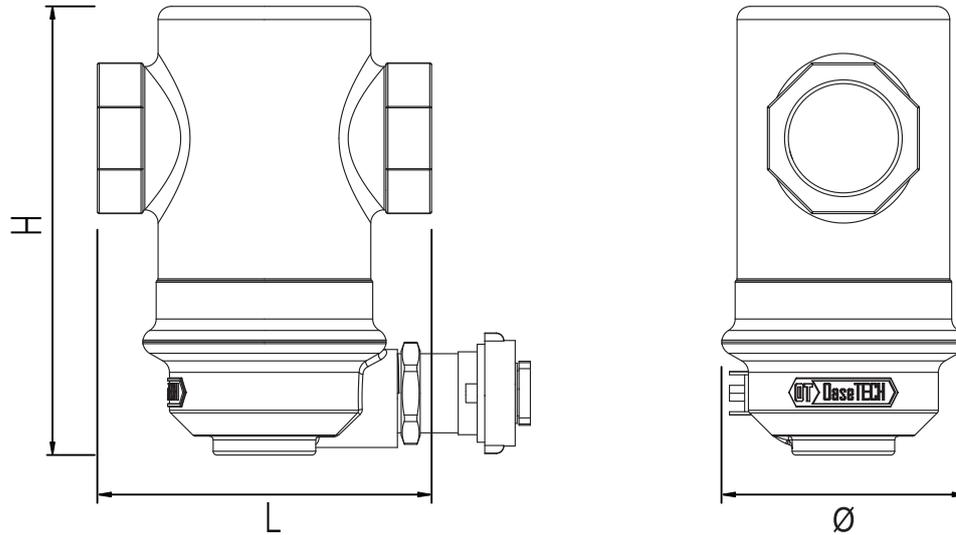
※ Exclusion Seal



The surest micron-sized spiral decontamination valve

- Separation of dirt and discharge after accumulation;
- Maximum working temperature: 110°C, maximum allowable working pressure: 16bar; the maximum customizable design conditions are 180°C or 25bar;
- For water and water/glycol mixtures (max. 50% glycol share);
- Horizontal installation or vertical installation. Threaded connection and exclusion seal;
- The minimum diameter of removed contamination particles is $\leq 5 \mu m$;
- The content of dirt is reduced to 4% or less of the initial contamination level after 50 circulations (with a flow velocity of 0.5m/s);
- The product meets PED/DEP 97/23/EC(CE) standard;
- General construction, built-in copper filter element with helical structure, and the body is made of brass.



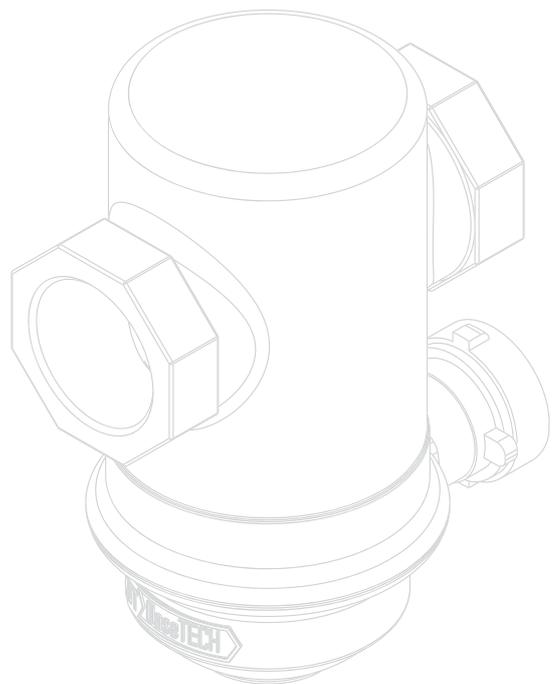


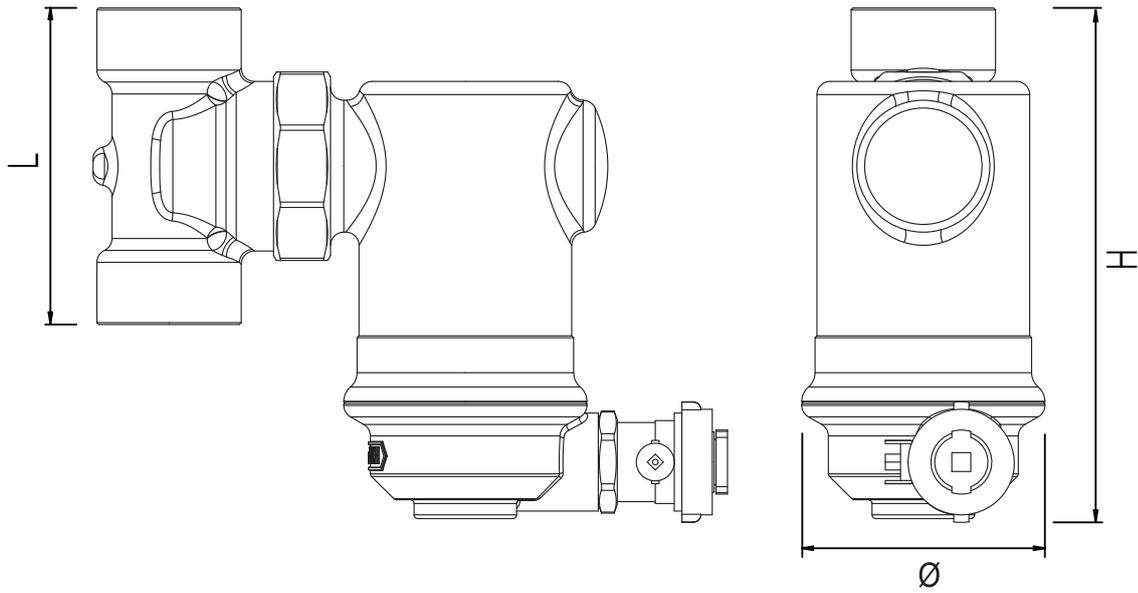
Dirt Separator

(Brass, Horizontal Installation, 110°C, 16bar)

Model	H mm	L mm	Ø mm	Weight kg	Connection
※ DS 22	105	106	64	1.0	22mm
DS 3/4	106	85	64	1.0	Rp3/4
DS 1	121	88	64	1.2	Rp1
DS 1 1/4	141	88	64	1.3	Rp1 1/4
DS 1 1/2	171	88	64	1.5	Rp1 1/2
DS 2	207	132	100	3.9	Rp2

※ Exclusion Seal



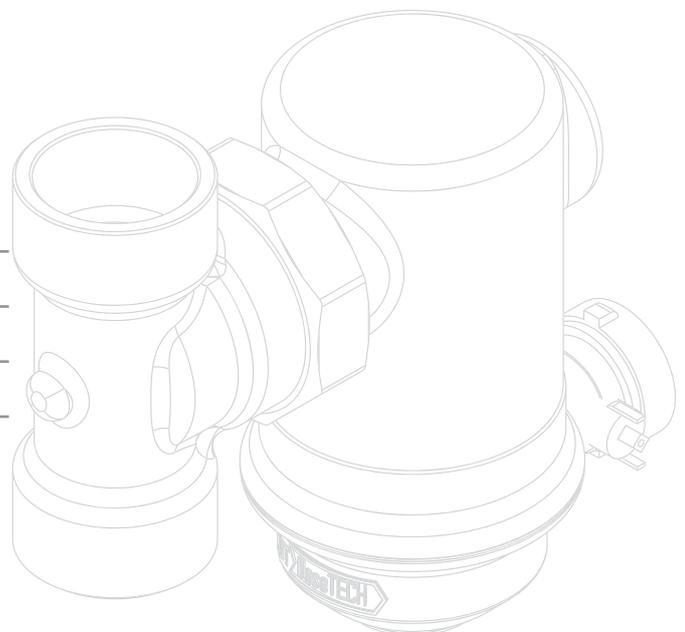


Dirt Separator

(Brass, Vertical Installation, 110°C, 16bar)

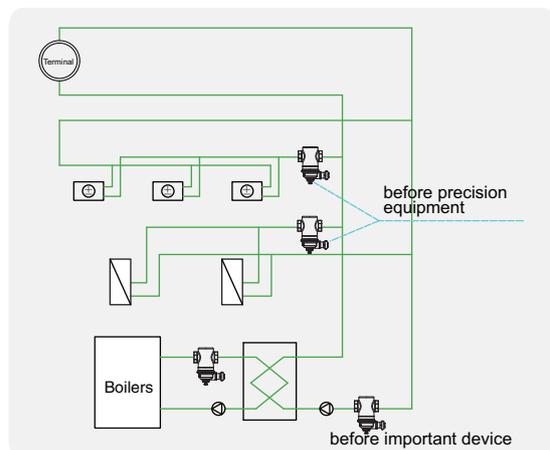
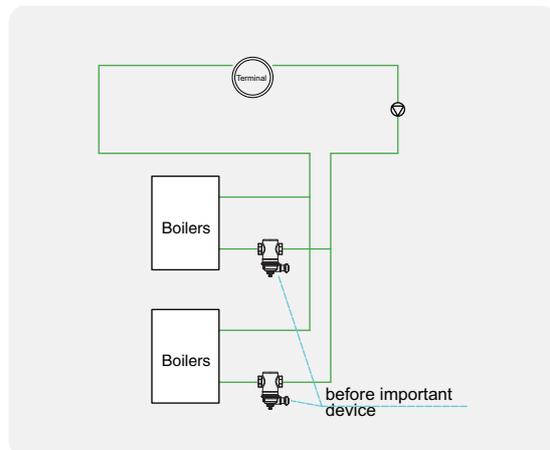
Model	H mm	L mm	Ø mm	Weight kg	Connection
※ DS 22V	158	104	64	1.9	22mm
DS 3/4V	136	84	64	1.8	Rp3/4
DS 1V	136	84	64	1.8	Rp1

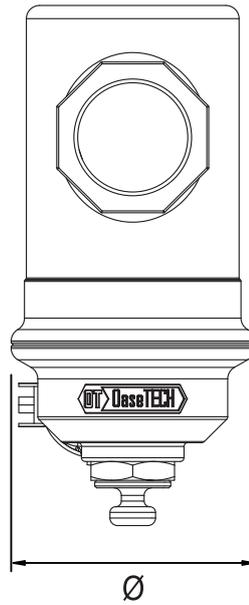
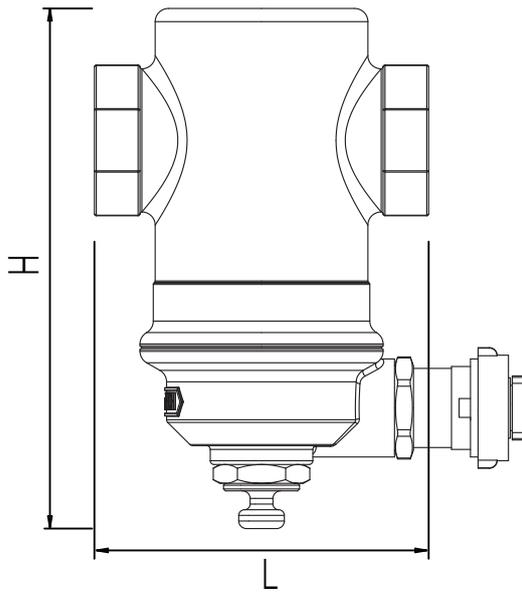
※ Exclusion Seal



The surest micron-sized spiral magnetic decontamination valve

- Separation of dirt and discharge after accumulation;
- Maximum working temperature: 110°C, maximum allowable working pressure: 16bar; the maximum customizable design conditions are 180°C or 25bar;
- For water and water/glycol mixtures (max. 50% glycol share);
- Horizontal installation or vertical installation. Threaded connection and exclusion seal;
- The minimum diameter of removed contamination particles is $\leq 5 \mu\text{m}$;
- The content of dirt is reduced to 4% or less of the former initial contamination level after 50 circulations (with a flow velocity of 0.5m/s);
- The product meets PED/DEP 97/23/EC(CE) standard;
- With a magnetic induction function, the filter element can absorb slight iron particles, powder and other magnetic material;
- General construction, built-in copper filter element with helical structure, and the body is made of brass;
- Widely used in thermal systems, chemical engineering, the food industry and other applications.



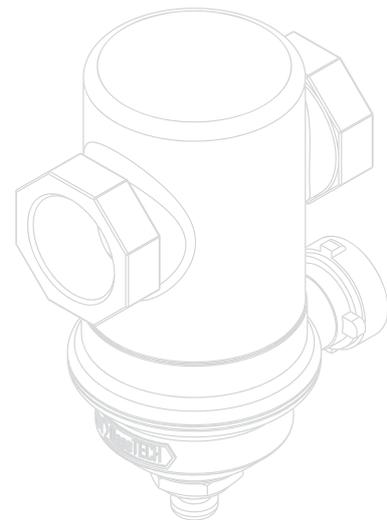


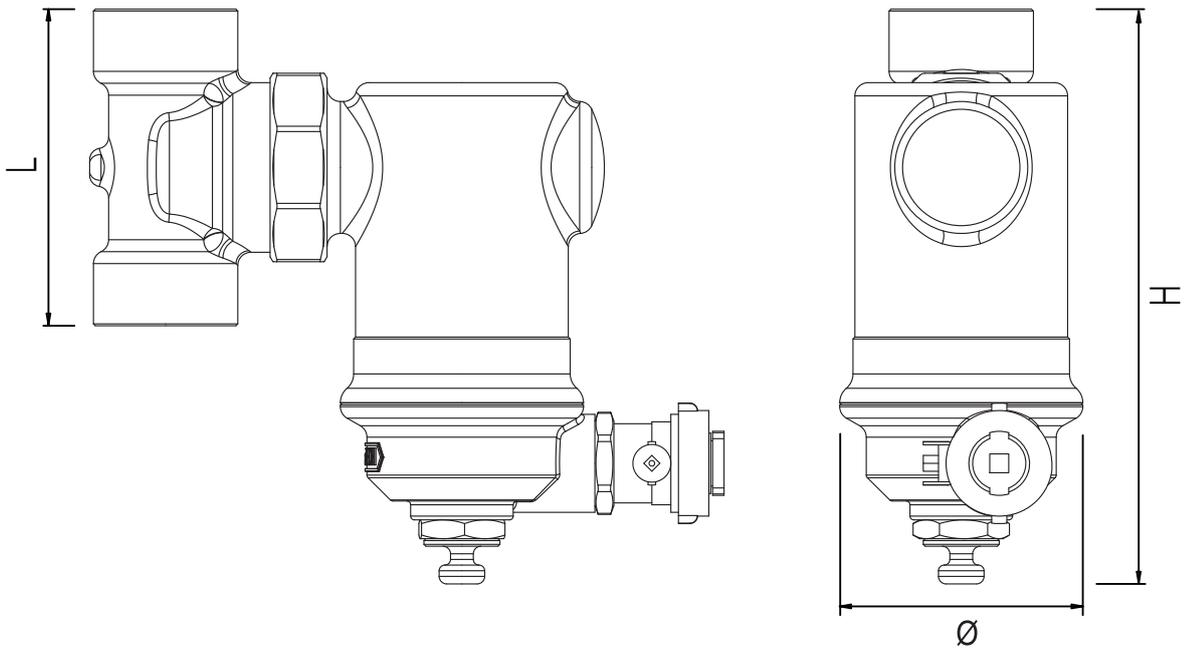
Dirtmagnet Separator

(Brass, Horizontal Installation, 110°C, 16bar)

Model	H mm	L mm	Ø mm	Weight kg	Connection
※ DS 22M	112	106	64	1.1	22mm
DS 3/4M	113	85	64	1.1	Rp3/4
DS 1M	128	88	64	1.3	Rp1
DS 1 ¹ / ₄ M	148	88	64	1.4	Rp1 ¹ / ₄
DS 1 ¹ / ₂ M	178	88	64	1.6	Rp1 ¹ / ₂
DS 2M	214	132	100	4.0	Rp2

※ Exclusion Seal



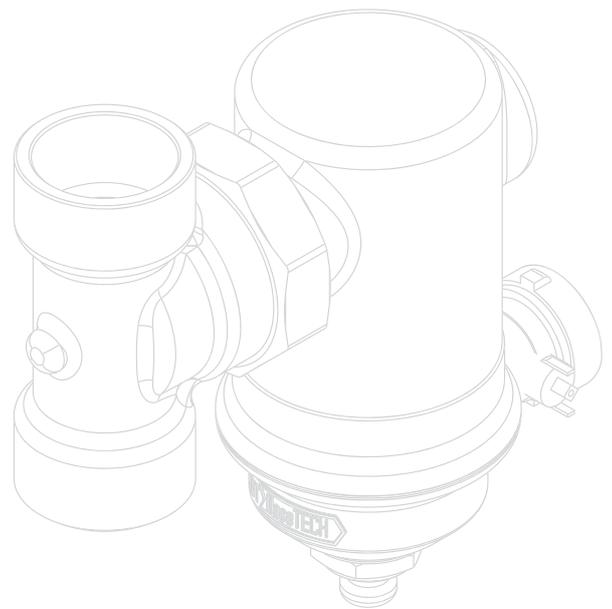


Dirtmagnet Separator

(Brass, Vertical Installation, 110°C, 16bar)

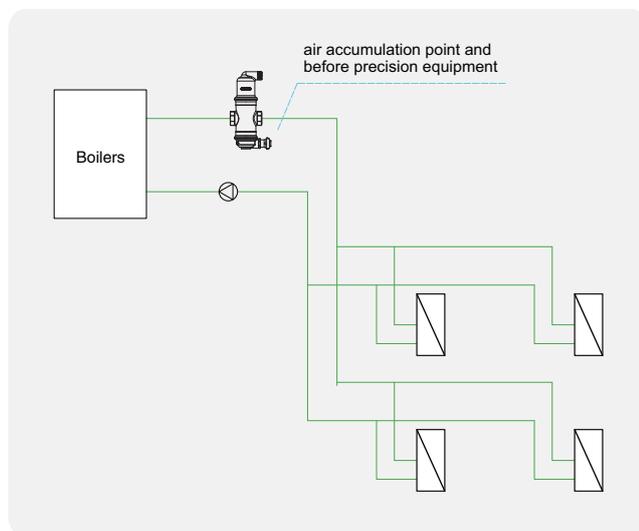
Model	H mm	L mm	Ø mm	Weight kg	Connection
※ DS 22VM	165	104	64	2.0	22mm
DS 3/4VM	153	84	64	1.9	Rp3/4
DS 1VM	153	84	64	1.9	Rp1

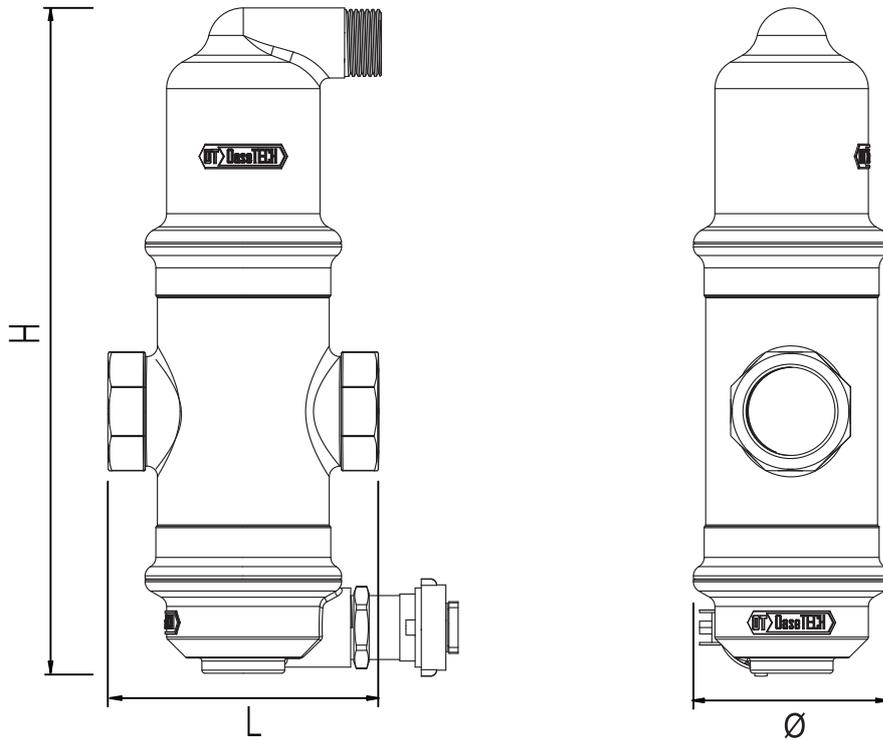
※ Exclusion Seal



The most convenient spiral micro-bubbles deaeration & decontamination valve

- The minimum diameter of removed air bubbles is 10 μ m and the minimum diameter of removed contamination particles is 5 μ m;
- The discharge rate of primary-gas produced by water passing through air release assembly is 80%;
- The gas content in the system can be reduced to 0.4% after a period of operation;
- Exhausting gas and separation of dirt at the same time, and then discharge dirt after accumulation;
- The content of dirt is reduced to 4% or less of the initial contamination level after 50 circulations (with a flow velocity of 0.5m/s);
- Maximum working temperature: 110°C, maximum allowable working pressure: 16bar; the maximum customizable design conditions are 180°C or 25bar;
- For water and water/glycol mixtures (max. 50% glycol share);
- Horizontal installation or vertical installation. Threaded connection and exclusion seal;
- The product meets PED/DEP 97/23/EC(CE) standard;
- General construction, built-in copper filter element with helical structure, and the body is made of brass.





Twin Separator

(Brass, Horizontal Installation, 110°C, 16bar)

Model	H mm	L mm	Ø mm	Weight kg	Connection
※ TS 22	257	106	64	1.8	22mm
TS 1	219	88	64	1.7	Rp1

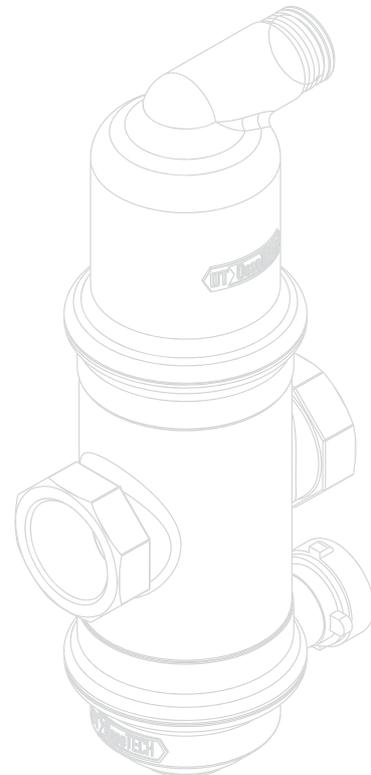
※ Exclusion Seal

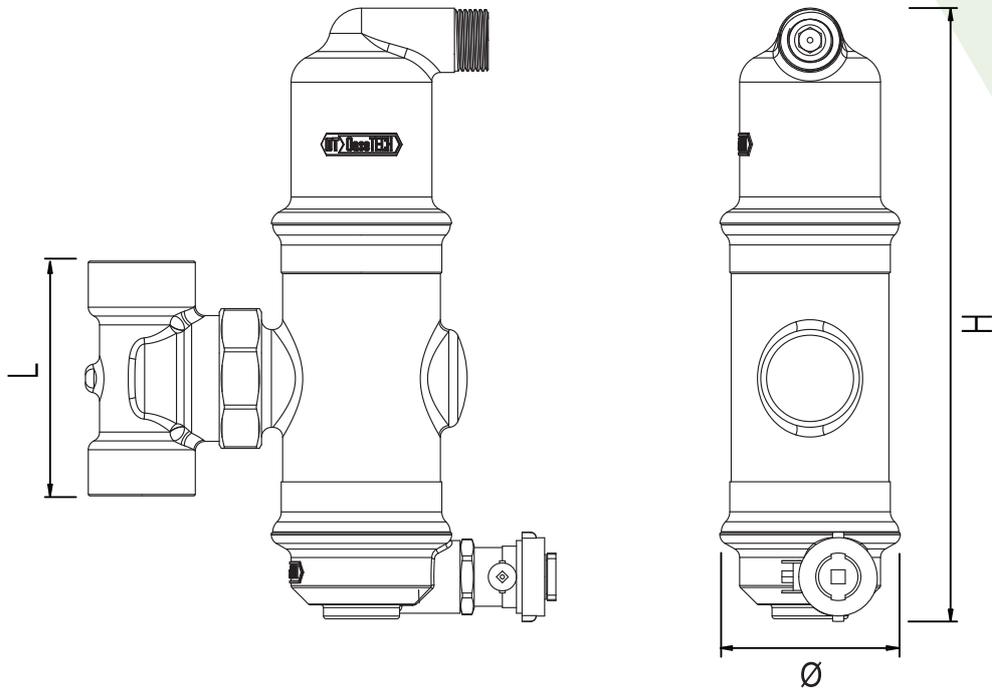
Twin Separator Solar

(Brass, Horizontal Installation, 180°C, 16bar)

Model	H mm	L mm	Ø mm	Weight kg	Connection
※ TS 22S	257	106	64	1.8	22mm
TS 1S	219	88	64	1.7	Rp1

※ Exclusion Seal





Twin Separator

(Brass, Vertical Installation, 110°C, 16bar)

Model	H mm	L mm	Ø mm	Weight kg	Connection
※ TS 22V	257	106	64	1.8	22mm
TS 1V	219	84	64	1.7	Rp1

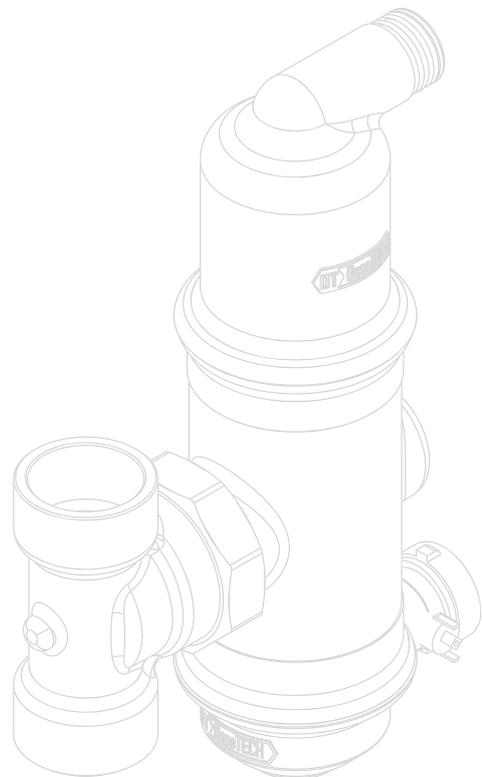
※ Exclusion Seal

Twin Separator Solar

(Brass, Vertical Installation, 180°C, 16bar)

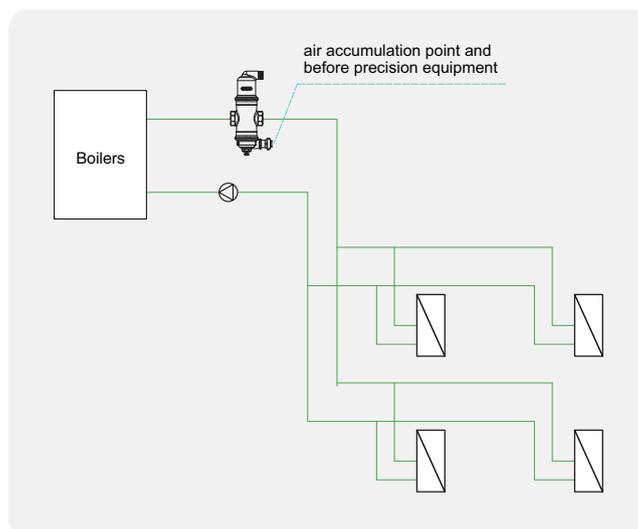
Model	H mm	L mm	Ø mm	Weight kg	Connection
※ TS 22VS	257	106	64	1.8	22mm
TS 1VS	219	84	64	1.7	Rp1

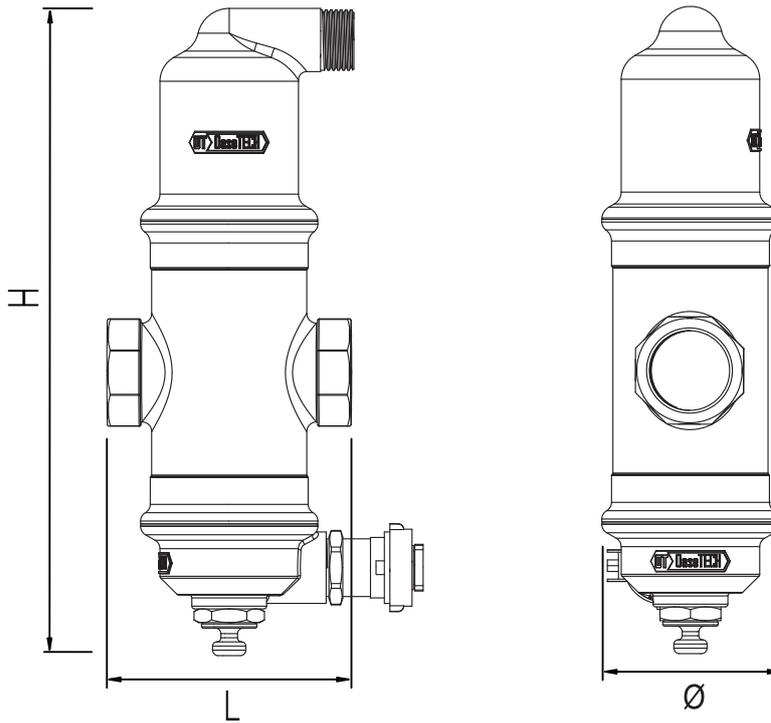
※ Exclusion Seal



The most convenient spiral micro-bubbles magnetic deaeration & decontamination valve

- The minimum diameter of removed air bubbles is 10 μm and the minimum diameter of removed contamination particles is 5 μm ;
- The discharge rate of primary-gas produced by water passing through air release assembly is 80%;
- The gas content in the system can be reduced to 0.4% after a period of operation;
- Exhausting gas and separation of dirt at the same time, and then discharge dirt after accumulation;
- The content of dirt is reduced to 4% or less of the initial contamination level after 50 circulations (with a flow velocity of 0.5m/s);
- Maximum working temperature: 110°C, maximum allowable working pressure: 16bar; the maximum customizable design conditions are 180°C or 25bar;
- For water and water/glycol mixtures (max. 50% glycol share), Horizontal installation or vertical installation. Threaded connection or exclusion seal;
- The product meets PED/DEP 97/23/EC(CE) standard;
- With a magnetic induction function, the filter element can absorb slight iron particles, powder and other magnetic material;
- General construction, built-in copper filter element with helical structure, and the body is made of brass;
- Widely used in thermal systems, chemical engineering, the food industry and other applications.



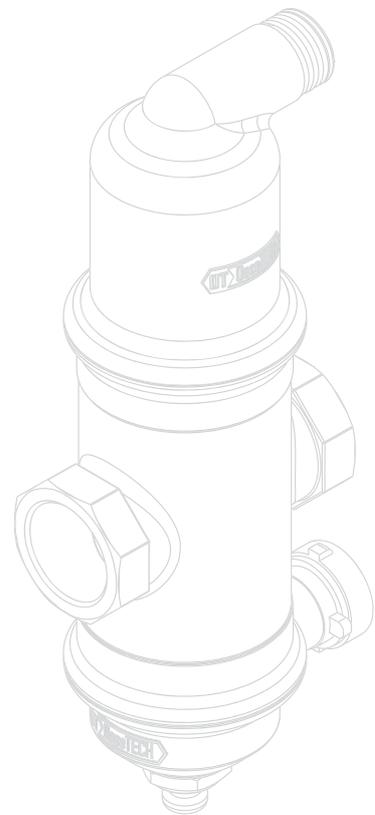


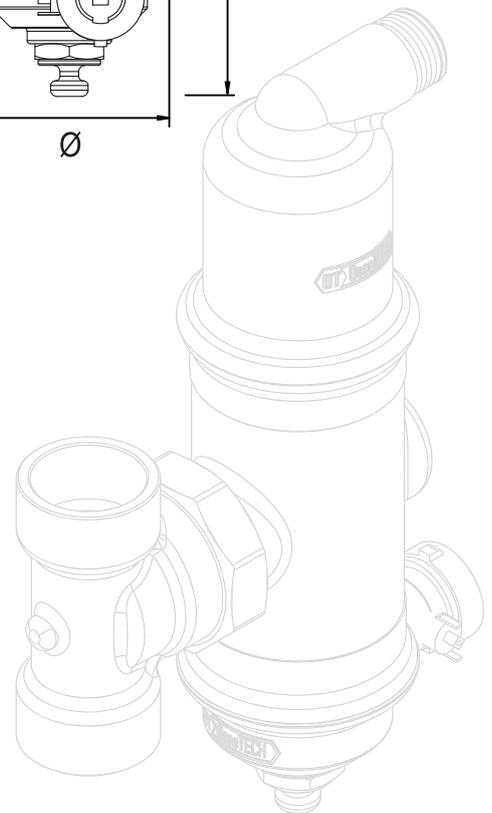
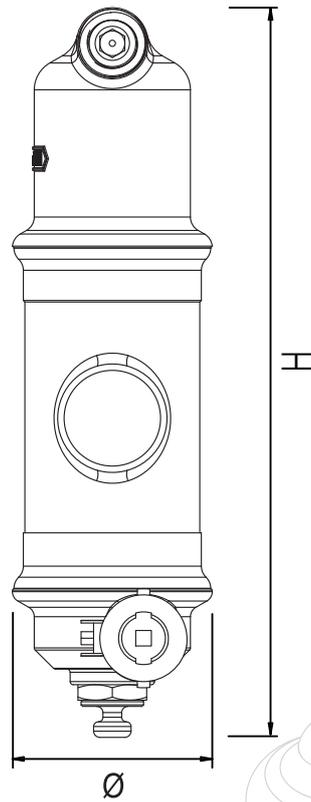
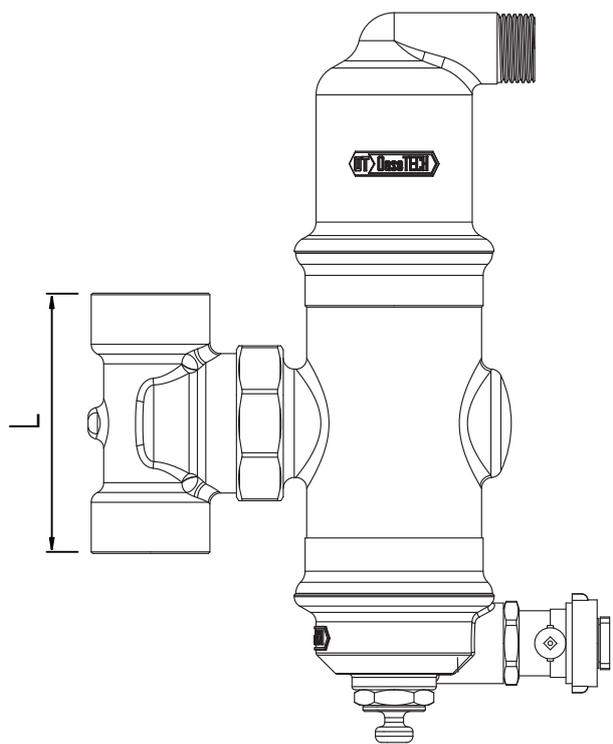
Twinmagnet Separator

(Brass, Horizontal Installation, 110°C, 16bar)

Model	H mm	L mm	Ø mm	Weight kg	Connection
※ TS 22M	264	106	64	1.9	22mm
TS 1M	235	88	64	1.8	Rp1

※ Exclusion Seal





Twinmagnet Separator

(Brass, Vertical Installation, 110°C, 16bar)

Model	H mm	L mm	Ø mm	Weight kg	Connection
※ TS 22VM	264	106	64	1.9	22mm
TS 1VM	235	84	64	1.8	Rp1

※ Exclusion Seal

Optional Accessories:

Anti-suction

Can be installed at the air outlet of the exhaust valve for one-way exhaust, preventing external gas from entering the exhaust valve.

Model	Connection
TVP	Rp ^{1/2} x G ^{3/8}



Heat Holding Cover

- Top Vent;
- Air Separator;
- Dirt Separator, Dirtmagnet Separator;
- Twin Separator, Twinmagnet Separator.





OaseTECH Fluid Technology Pty Ltd.

level 54 , one one one Eagle Street, Brisbane 4000, Queensland Australia.

Tel: +61 7 30126615 Fax: +61 7 30126699

Shanghai OaseTECH Fluid Technology Co., Ltd.

No.5555 Puwei Road, Zhuanghang Town, Fengxian District, Shanghai, China, 201415

Tel: +86 21 34785900 Fax: +86 21 34785900 E-mail: info@oasetech.com

www.oasetech.com

