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

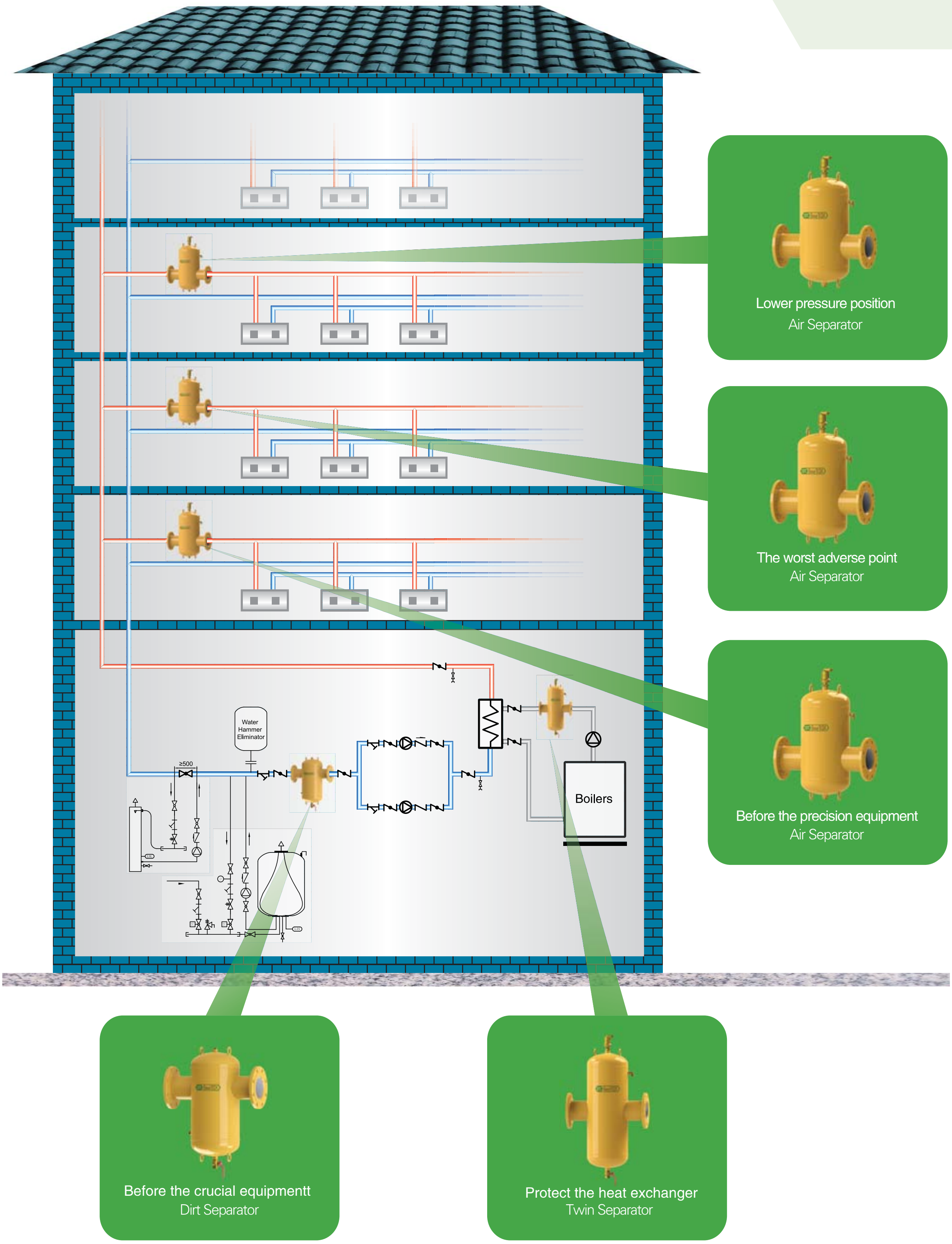
Automatic Separators

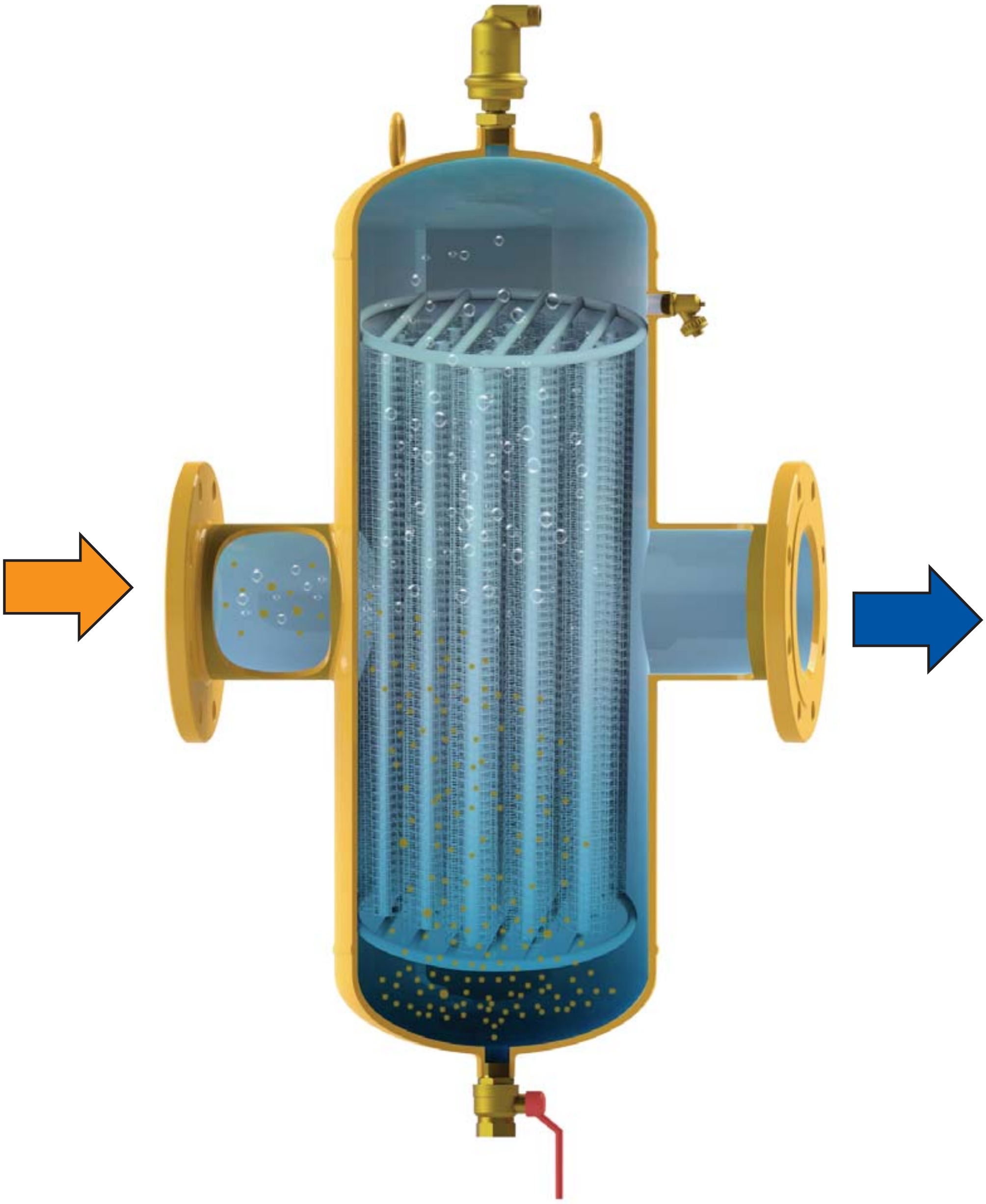
OaseTECH Automatic separators can quickly remove free gas, microbubbles, dissolved gas in the system. At the same time, it can continue to collect the dirt to reduce pipe scale and effectively solve problems such as vapor lock ,oxygen corrosion and equipment wear in heating and air conditioning systems, therefore also extend the service life of the equipments. Especially for the improvement of the system and the transformation of the old system, which can effectively solve the problem of gas and dirt.


Benefits of OaseTECH Separators Include:

- Greatly reduce cavitation erosion in the system;
- Reduce the system noise;
- Impurities can be discharged when the systems are running;
- Enhance heat exchange efficiency;
- Protect the precision instrumentation valves from damage;
- Eliminate vapor lock so that the terminal devices heating (cooling) better.

Good placement of the separator is important. Actual placements chosen depend on the function the separator is performing. Examples include:





- Copper filter element with special helical structure, or stainless steel rhombus filter element;
- The unique filter structure creates turbulence as fluid flow through the separators and also generates a relative rest zone at the same time;
- In the relatively rest zone , micro–bubbles and dirt can be separated from the fluid.

- The separator selection is very simple, no matter choose what kind of separators, the type only depends on the maximum flow.

The formula of pressure loss

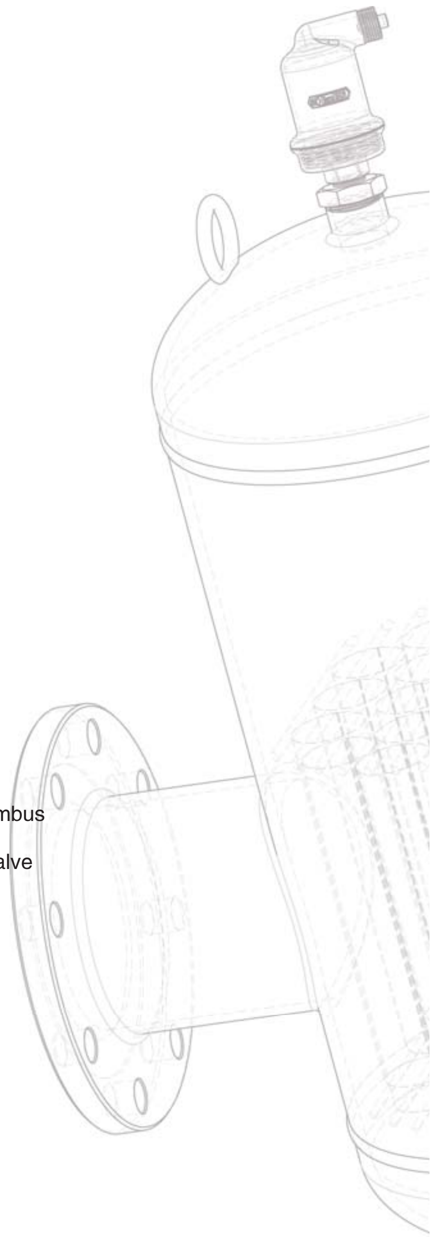
$$\triangle P = \left(\frac{\dot{Q}}{K_{VS}}\right)^2 \cdot 100\text{kpa}$$

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

Look–up table of the flow rate coefficient

Connection	K_{VS} in m^3/h	Connection	K_{VS} in m^3/h	Connection	K_{VS} in m^3/h
DN 50	72.2	DN 150	487.9	DN 400	2668.4
DN 65	121.7	DN 200	780.6	DN 450	3148.8
DN 80	158.5	DN 250	1185.7	DN 500	3589.6
DN 100	244.3	DN 300	1696.4	DN 600	4630.6
DN 125	351.3	DN 350	2155.7		

The most efficient micro–bubbles air separator



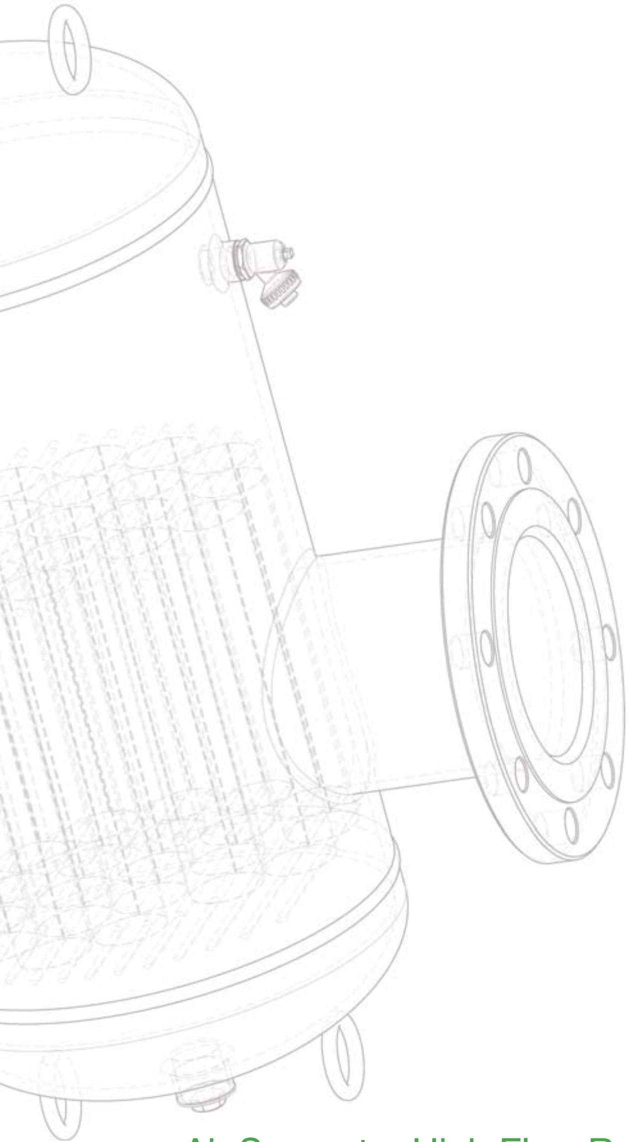
- The discharge rate of primary–gas produced by water passing through air release assembly is 80%;
- The gas content can be reduced by half or more after the system has been running 4–6hours;
- The gas content in the system can be reduced to 0.4% after a period of operation;
- Maximum working temperature: 110℃, maximum allowable working pressure: 10bar; the maximum customizable design conditions are 150℃or 25bar;
- For water and water/glycol mixtures (max. 50% glycol share);
- Horizontal installation and flange connection; connecting diameter of pipeline is above DN50;
- The minimum diameter of removed air bubbles is 10 μm;
- The product meets PED/DEP 97/23/EC(CE) standard;
- General structure, built–in copper filter element with specially helical structure, or stainless steel rhombus filter element, barrel is made of carbon steel, with superior powder spraying on the surface and air valve at the top is made of brass.

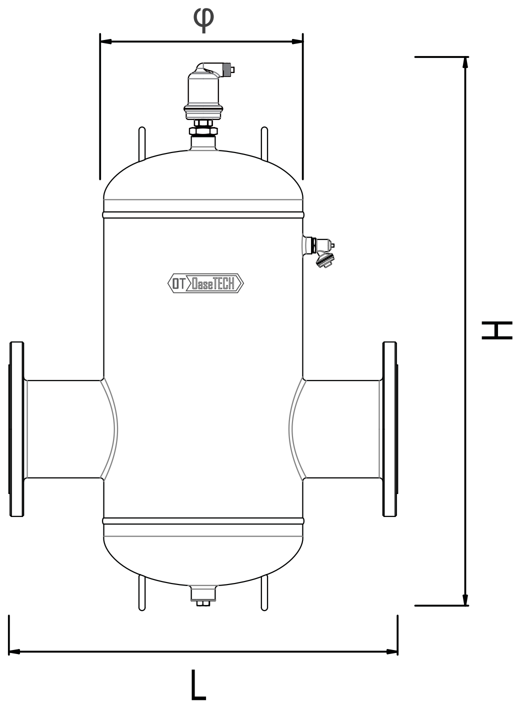
Air Separator

Type	DN	L mm	φ mm	H mm	Flow m^3/h	Weight kg
AS 50	50	350	150	550	12.5	15
AS 65	65	350	150	550	20	16
AS 80	80	470	200	650	27	28
AS 100	100	475	200	650	47	30
AS 125	125	635	300	850	72	48
AS 150	150	635	300	850	108	62
AS 200	200	775	400	1100	180	81

Type	DN	L mm	φ mm	H mm	Flow m^3/h	Weight kg
AS 250	250	890	500	1300	288	125
AS 300	300	1005	600	1500	405	178
AS 350	350	1100	600	1900	500	224
AS 400	400	1200	800	2200	650	318
AS 450	450	1300	800	2300	850	455
AS 500	500	1400	1000	2600	1060	670
AS 600	600	1600	1200	3000	1530	1003

Note：φ is the inner diameter.
The above parameters are for the condition where the maximum working pressure is 10 bar and the maximum working temperature is 110℃. Please consult us for pressure of 16 bar,25bar or temperature of 150℃.





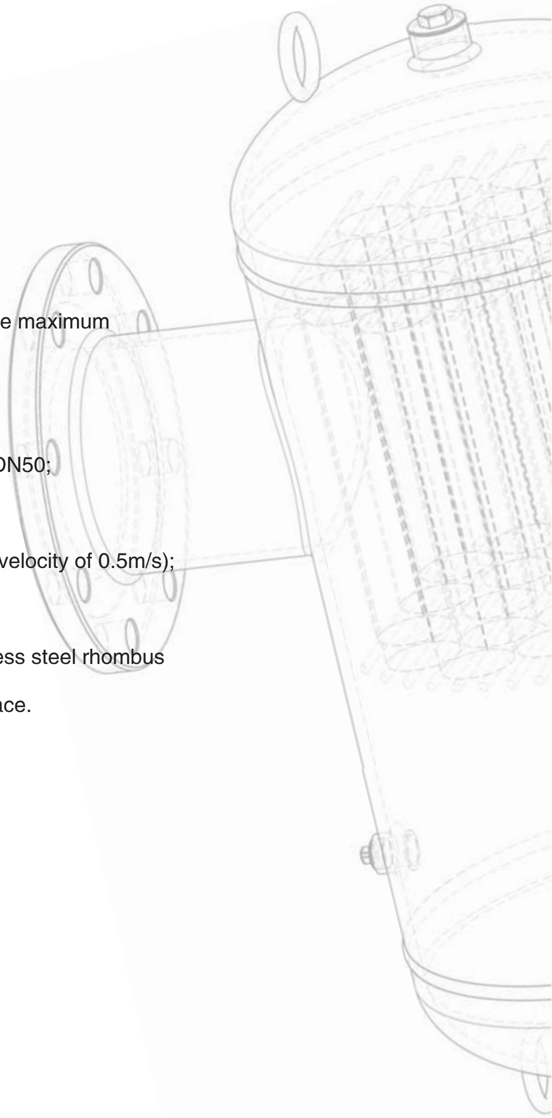
Air Separator High Flow Rate

Type	DN	L mm	φ mm	H mm	Flow m³/h	Weight kg
ASH 50	50	350	150	700	25	20
ASH 65	65	350	150	700	40	21
ASH 80	80	470	200	900	54	35
ASH 100	100	475	200	900	94	38
ASH 125	125	635	300	1150	144	63
ASH 150	150	635	300	1150	215	79
ASH 200	200	775	400	1500	360	103
ASH 250	250	890	500	1750	575	153
ASH 300	300	1005	600	1900	810	214
ASH 350	350	1100	600	2300	1000	250
ASH 400	400	1200	800	2700	1300	374
ASH 450	450	1300	800	2800	1700	533
ASH 500	500	1400	1000	3200	2120	788
ASH 600	600	1600	1200	3700	3000	1190

Note：φ is the inner diameter.
The above parameters are for the condition where the maximum working pressure is 10 bar and the maximum working temperature is 110℃. Please consult us for pressure of 16 bar,25bar or temperature of 150℃.

The surest micron–sized dirt separator

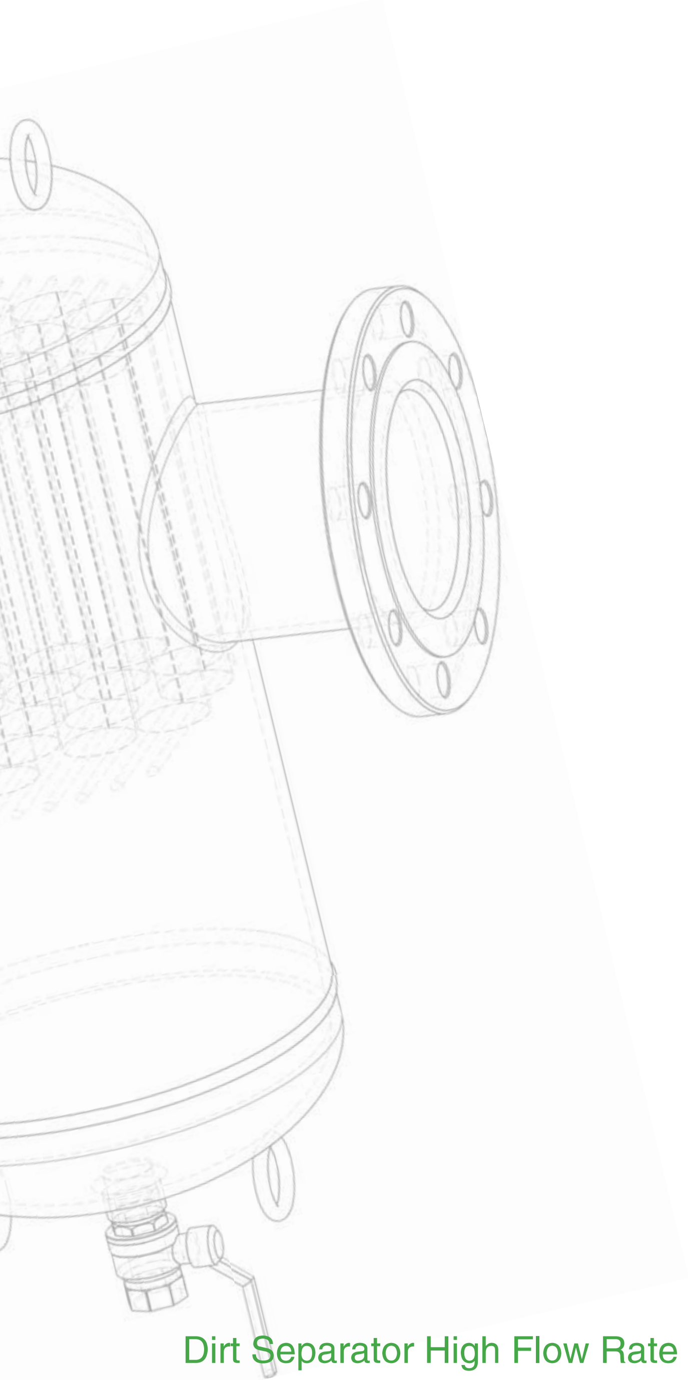
- Separation of dirt and discharge after accumulation;
- Maximum working temperature: 110℃, maximum allowable working pressure: 10bar; the maximum customizable design conditions are 150℃ or 25bar;
- For water and water/glycol mixtures (max. 50% glycol share);
- Horizontal installation and flange connection; connecting diameter of pipeline is above DN50;
- The minimum diameter of removed contamination particles is 5 μm;
- The content of dirt is reduced to 4% or less of the initial after 50 circulations(with a flow velocity of 0.5m/s);
- The product meets PED/DEP 97/23/EC(CE) standard;
- General structure, built–in copper filter element with specially helical structure, or stainless steel rhombus filter element, barrel is made of carbon steel, with superior powder spraying on the surface.

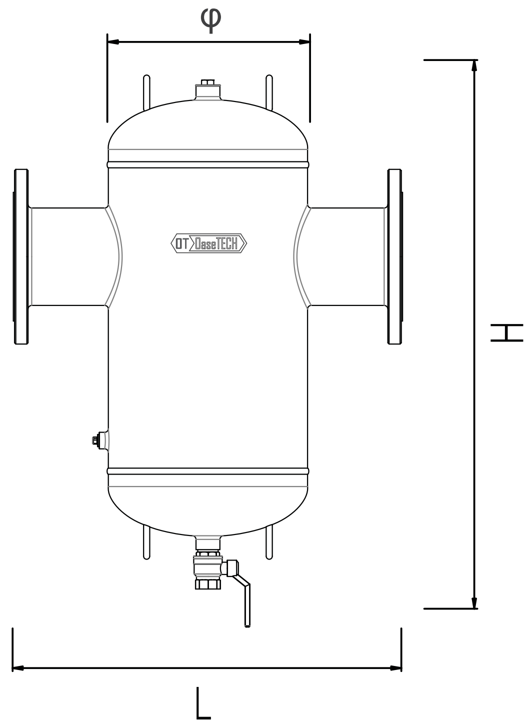


Dirt Separator

Type	DN	L mm	φ mm	H mm	Flow m^3/h	Weight kg
DS 50	50	350	150	550	12.5	15
DS 65	65	350	150	550	20	16
DS 80	80	470	200	650	27	28
DS 100	100	475	200	650	47	30
DS 125	125	635	300	900	72	48
DS 150	150	635	300	900	108	62
DS 200	200	775	400	1150	180	81
DS 250	250	890	500	1350	288	125
DS 300	300	1005	600	1550	405	178
DS 350	350	1100	600	1800	500	224
DS 400	400	1200	800	2100	650	318
DS 450	450	1300	800	2200	850	455
DS 500	500	1400	1000	2500	1060	670
DS 600	600	1600	1200	2900	1530	1003

Note： φ is the inner diameter.
The above parameters are for the condition where the maximum working pressure is 10 bar and the maximum working temperature is 110℃. Please consult us for pressure of 16 bar,25bar or temperature of 150℃.



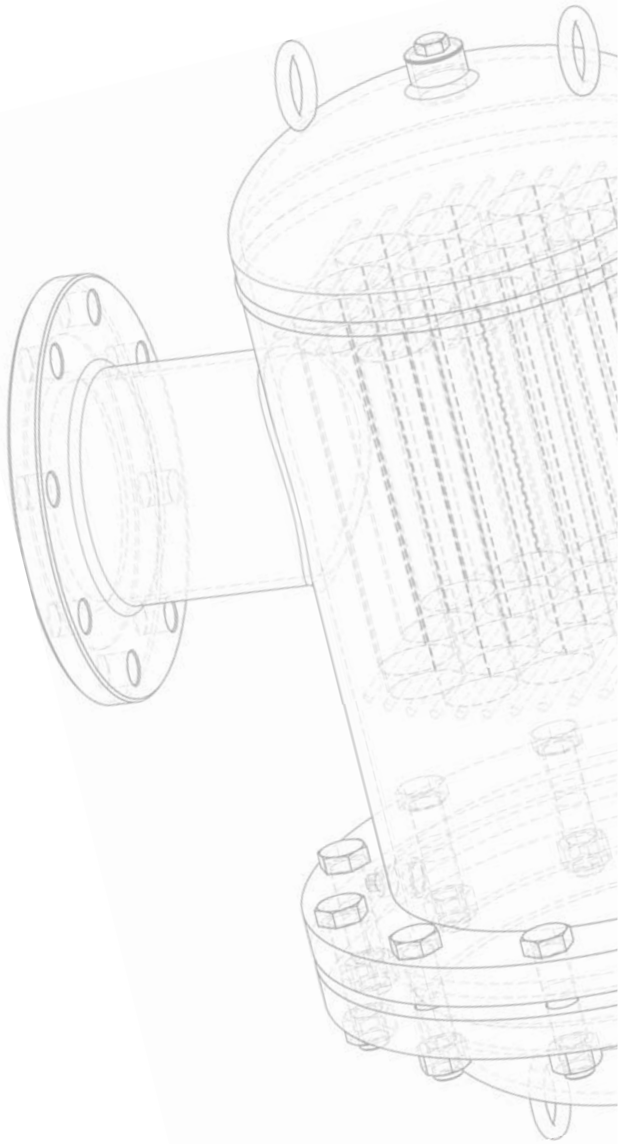


Dirt Separator High Flow Rate

Type	DN	L mm	φ mm	H mm	Flow m³/h	Weight kg
DSH 50	50	350	150	680	25	20
DSH 65	65	350	150	680	40	21
DSH 80	80	470	200	850	54	35
DSH 100	100	475	200	850	94	38
DSH 125	125	635	300	1100	144	63
DSH 150	150	635	300	1100	215	79
DSH 200	200	775	400	1500	360	103

Type	DN	L mm	φ mm	H mm	Flow m³/h	Weight kg
DSH 250	250	890	500	1750	575	153
DSH 300	300	1005	600	1900	810	214
DSH 350	350	1100	600	2200	1000	250
DSH 400	400	1200	800	2600	1300	374
DSH 450	450	1300	800	2700	1700	533
DSH 500	500	1400	1000	3100	2120	788
DSH 600	600	1600	1200	3600	3000	1190

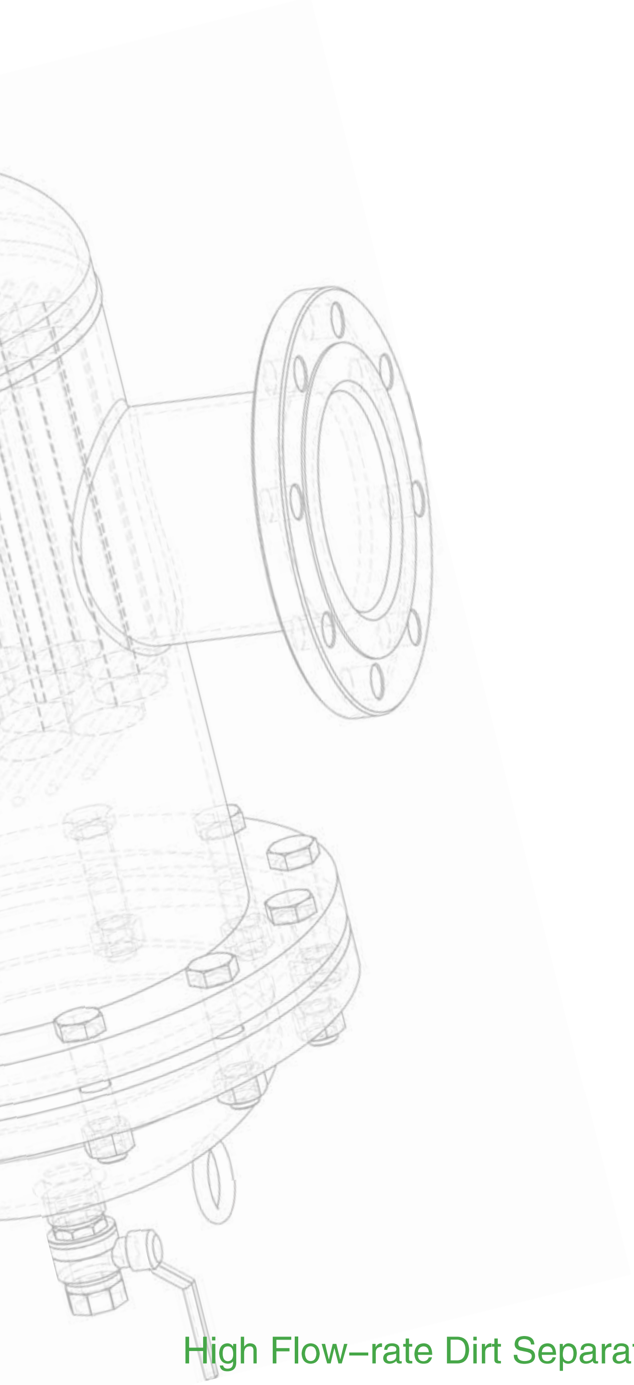
Note：φ is the inner diameter.
The above parameters are for the condition where the maximum working pressure is 10 bar and the maximum working temperature is 110℃. Please consult us for pressure of 16 bar,25bar or temperature of 150℃.

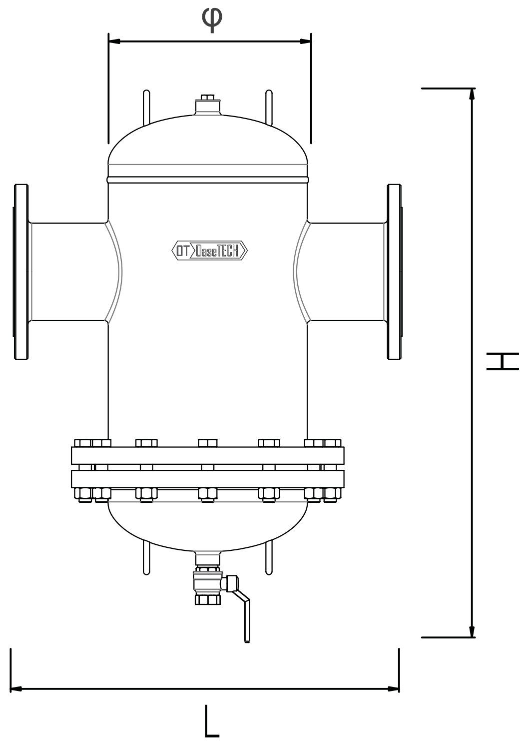


Dirt Separator with Inspection Flange

Type	DN	L mm	φ mm	H mm	Flow m³/h	Weight kg
DSR 50	50	350	150	550	12.5	29
DSR 65	65	350	150	550	20	30
DSR 80	80	470	200	650	27	46
DSR 100	100	475	200	650	47	48
DSR 125	125	635	300	900	72	74
DSR 150	150	635	300	900	108	98
DSR 200	200	775	400	1150	180	142
DSR 250	250	890	500	1350	288	203
DSR 300	300	1005	600	1550	405	286
DSR 350	350	1100	600	1800	500	332
DSR 400	400	1200	800	2100	650	516
DSR 450	450	1300	800	2200	850	653
DSR 500	500	1400	1000	2500	1060	941
DSR 600	600	1600	1200	2900	1530	1369

Note： φ is the inner diameter.
The above parameters are for the condition where the maximum working pressure is 10 bar and the maximum working temperature is 110℃. Please consult us for pressure of 16 bar,25bar or temperature of 150℃.



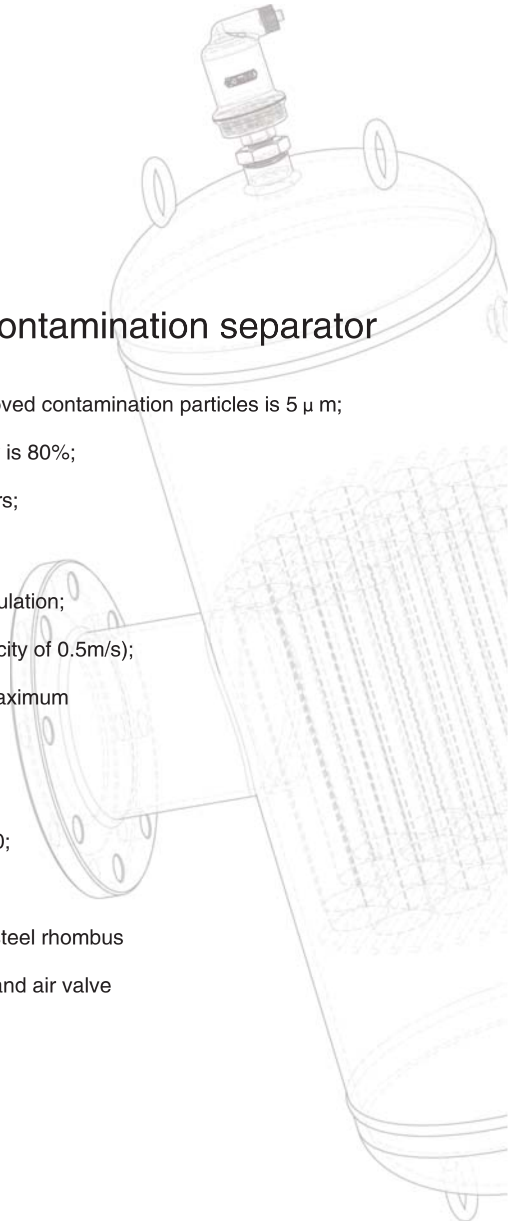


High Flow-rate Dirt Separator with Inspection Flange

Type	DN	L mm	φ mm	H mm	Flow m³/h	Weight kg
DSHR 50	50	350	150	680	25	33
DSHR 65	65	350	150	680	40	34
DSHR 80	80	470	200	850	54	54
DSHR 100	100	475	200	850	94	56
DSHR 125	125	635	300	1100	144	89
DSHR 150	150	635	300	1100	215	115
DSHR 200	200	775	400	1500	360	164

Type	DN	L mm	φ mm	H mm	Flow m³/h	Weight kg
DSHR 250	250	890	500	1750	575	231
DSHR 300	300	1005	600	1900	810	322
DSHR 350	350	1100	600	2200	1000	358
DSHR 400	400	1200	800	2600	1300	571
DSHR 450	450	1300	800	2700	1700	730
DSHR 500	500	1400	1000	3100	2120	1050
DSHR 600	600	1600	1200	3600	3000	1552

Note： φ is the inner diameter.
The above parameters are for the condition where the maximum working pressure is 10 bar and the maximum working temperature is 110℃. Please consult us for pressure of 16 bar,25bar or temperature of 150℃.



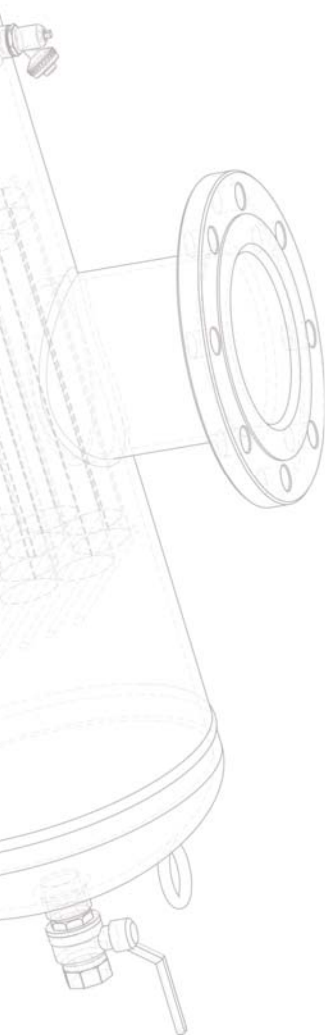
The most convenient micro–bubbles deaeration & decontamination separator

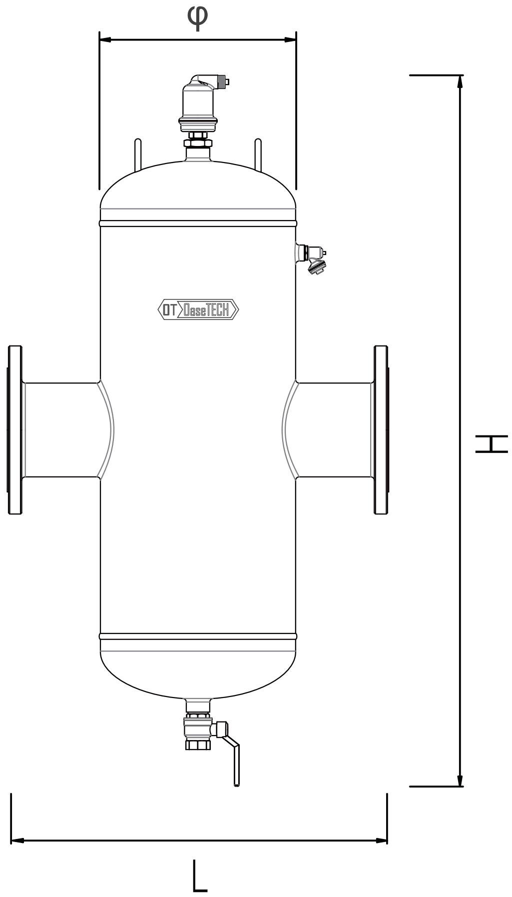
- The minimum diameter of removed air bubbles is 10 μ m and the minimum diameter of removed contamination particles is 5 μ m;
- The discharge rate of primary–gas produced by water passing through air release assembly is 80%;
- The gas content can be reduced by half or more after the system has been running 4–6hours;
- 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 after 50 circulations(with a flow velocity of 0.5m/s);
- Maximum working temperature: 110℃, maximum allowable working pressure: 10bar; the maximum customizable design conditions are 150℃ or 25bar;
- For water and water/glycol mixtures (max. 50% glycol share);
- Horizontal installation and flange connection; connecting diameter of pipeline is above DN50;
- The product meets PED/DEP 97/23/EC (CE) standard；
- General structure, built–in copper filter element with specially helical structure, or stainless steel rhombus filter element, barrel is made of carbon steel, with superior powder spraying on the surface and air valve at the top is made of brass.

Twin Separator

Type	DN	L mm	φ mm	H mm	Flow m^3/h	Weight kg
TS 50	50	350	150	820	12.5	20
TS 65	65	350	150	820	20	21
TS 80	80	470	200	1000	27	35
TS 100	100	475	200	1000	47	38
TS 125	125	635	300	1300	72	63
TS 150	150	635	300	1300	108	79
TS 200	200	775	400	1650	180	103
TS 250	250	890	500	1900	288	153
TS 300	300	1005	600	2050	405	214
TS 350	350	1100	600	2300	500	250
TS 400	400	1200	800	2700	650	374
TS 450	450	1300	800	2800	850	533
TS 500	500	1400	1000	3200	1060	788
TS 600	600	1600	1200	3700	1530	1190

Note：φ is the inner diameter.
The above parameters are for the condition where the maximum working pressure is 10 bar and the maximum working temperature is 110℃. Please consult us for pressure of 16 bar,25bar or temperature of 150℃.





Twin Separator High Flow Rate

Type	DN	L mm	φ mm	H mm	Flow m^3/h	Weight kg
TSH 50	50	350	150	950	25	24
TSH 65	65	350	150	950	40	25
TSH 80	80	470	200	1200	54	45
TSH 100	100	475	200	1200	94	47
TSH 125	125	635	300	1600	144	78
TSH 150	150	635	300	1600	215	96
TSH 200	200	775	400	2000	360	125

Type	DN	L mm	φ mm	H mm	Flow m^3/h	Weight kg
TSH 250	250	890	500	2700	575	204
TSH 300	300	1005	600	3200	810	326
TSH 350	350	1100	600	3600	1000	370
TSH 400	400	1200	800	4200	1300	534
TSH 450	450	1300	800	4600	1700	831
TSH 500	500	1400	1000	5100	2120	1177
TSH 600	600	1600	1200	6000	3000	1711

Note： φ is the inner diameter.
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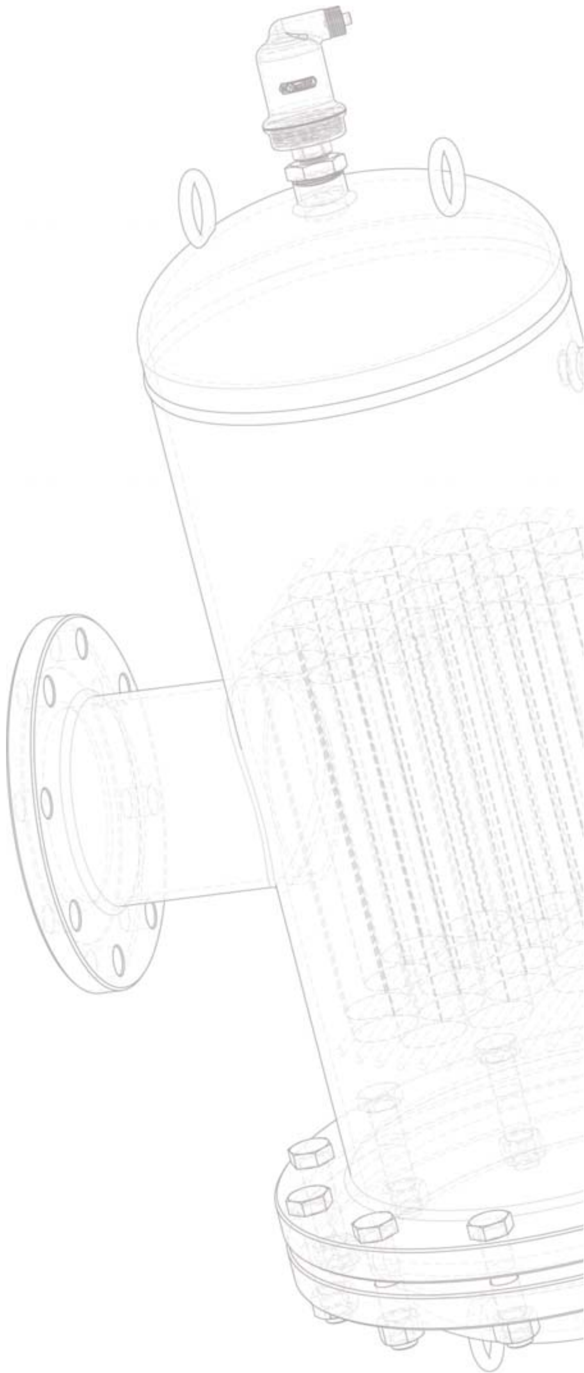

Twin Separator Inspection Flange

Type	DN	L mm	φ mm	H mm	Flow m^3/h	Weight kg
TSR 50	50	350	150	820	12.5	33
TSR 65	65	350	150	820	20	34
TSR 80	80	470	200	1000	27	54
TSR 100	100	475	200	1000	47	56
TSR 125	125	635	300	1300	72	89
TSR 150	150	635	300	1300	108	115
TSR 200	200	775	400	1650	180	164
TSR 250	250	890	500	1900	288	231
TSR 300	300	1005	600	2050	405	322
TSR 350	350	1100	600	2300	500	358
TSR 400	400	1200	800	2700	650	571
TSR 450	450	1300	800	2800	850	730
TSR 500	500	1400	1000	3200	1060	1059
TSR 600	600	1600	1200	3700	1530	1552

Note： φ is the inner diameter.
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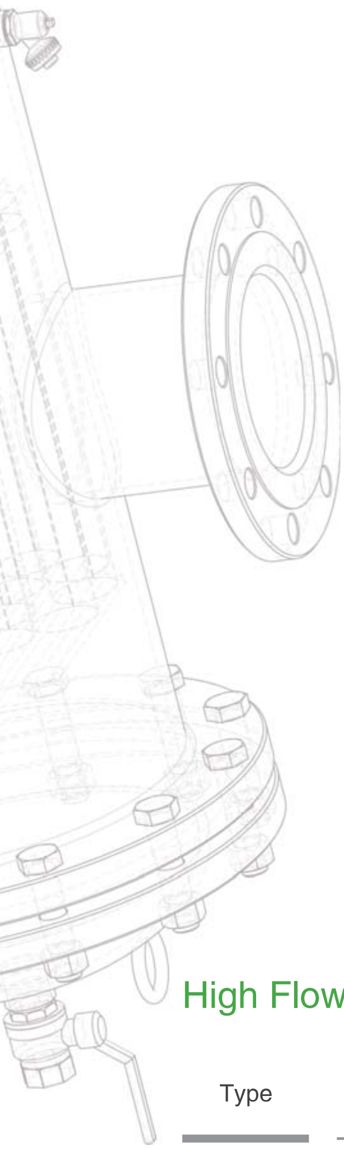

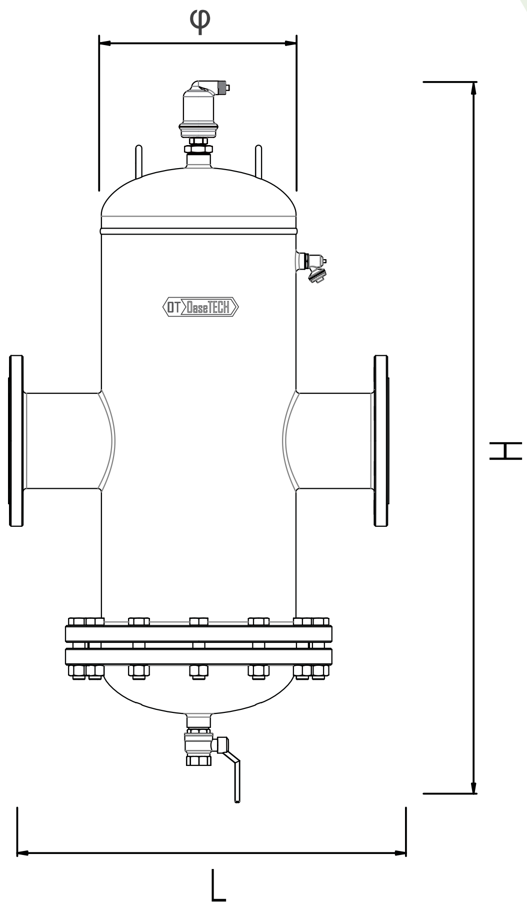

High Flow-rate Twin Separator Inspection Flange

Type	DN	L mm	φ mm	H mm	Flow m^3/h	Weight kg
TSHR 50	50	350	150	950	25	37
TSHR 65	65	350	150	950	40	38
TSHR 80	80	470	200	1200	54	63
TSHR 100	100	475	200	1200	94	65
TSHR 125	125	635	300	1600	144	104
TSHR 150	150	635	300	1600	215	133
TSHR 200	200	775	400	2000	360	186

Type	DN	L mm	φ mm	H mm	Flow m^3/h	Weight kg
TSHR 250	250	890	500	2700	575	282
TSHR 300	300	1005	600	3200	810	435
TSHR 350	350	1100	600	3600	1000	478
TSHR 400	400	1200	800	4200	1300	732
TSHR 450	450	1300	800	4600	1700	1028
TSHR 500	500	1400	1000	5100	2120	1448
TSHR 600	600	1600	1200	6000	3000	2077

Note： φ is the inner diameter.
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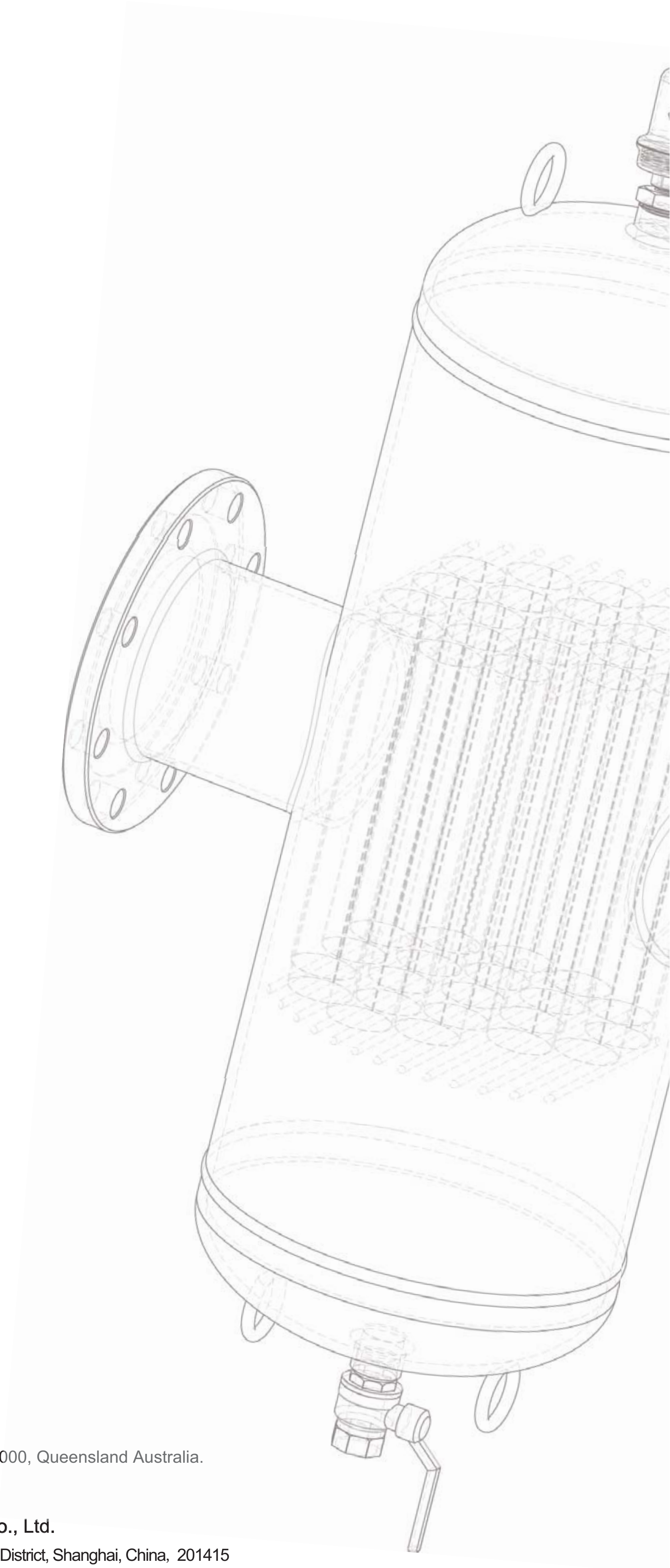

OaseTECH Fluid Technology Pty Ltd.
level 54 , one one one Eagle Street, Brisbane 4000, Queensland Australia.
Tel：+61 7 30126615　　Fax：+61 7 30126699

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

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Companies continue to improve and innovate products, if technical parameters changed after the data subject to change.