Industrial Gases

SG-C 1650 - 11000
Cyclone Separator

MAIN FEATURES & BENEFITS

- **High liquid condensate retention efficiency at variable flow rates**
  Retention efficiency >99% for liquid droplets and condensate can be achieved. Separates also solid particles

- **Integrated automatic condensate drains**
  Electronic drains either time-controlled or level-controlled included help support reliable removal of collected condensate

- **Flange connections**
  Flange connection at inlet and outlet supports proper sealing to leakages

- **Cyclone separation concept**
  A centrifugal insert causes the incoming air to move centrifugally so that drops of condensate are thrown onto the side walls of the separator due to the centrifugal force and then flow down into the bottom of the housing. No maintenance of separation components required (except for automatic drain).

PRODUCT DESCRIPTION

Cyclone separator range with automatic condensate drains for the separation of liquid water and solid particles from compressed air or other fluids of PED 2014/68/EU group 2.

Designed for operating pressures up to 16 bar and temperatures from 0°C up to 200°C. With installed automatic condensate drains the maximum temperature is limited to 65°C.

Typical applications are installations downstream compressed air coolers or when a high amount of liquid condensate is generated in a compressed air system to protect downstream equipment like filters or dryers.

The flow-optimized housing and cyclone separation design help support high retention efficiencies at low differential pressure even at high and variable flow rates.

INDUSTRIES

- Industrial Gases

- Automotive

- Food Processing

- Industrial Machinery

F119246_2025_12_EN_REV 06

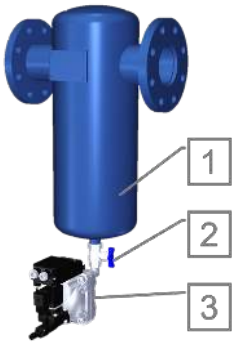
PRODUCT DESCRIPTION

Technical data	
Allowable operating pressure	16 bar
Allowable operating temperature	0°C / +200°C
Housing material	Carbon steel
Surface treatment	Epoxy painted
Fluids PED 2014/86/EU	Group 2
Marking	CE PED2014/68/EU

Features	Benefits
Cyclone separation concept	High retention efficiencies (>99% of water droplets) at low differential pressure even at high and variable flow rates can be achieved. Designed to separate liquid condensate aerosols. No moving parts inside – no maintenance of separator needed.
Flange connection to pipeline system with soft sealing	Supports leakage proof design for safe and reliable operation
Standard version with time-controlled condensate drain	Supports separation of high amount of condensate. Opening times can be adjusted individually on application
Superplus version with electronic level-controlled condensate drain	No loss of compressed air under normal operating conditions; alarm contact available for condition monitoring
Separator – condensate drain connection kit including ball valve	Easy installation of condensate drain on separator housing; isolation of condensate drain for maintenance possible

PRODUCT DESCRIPTION

Component	
1	Separator housing
2	Connection kit including ball valve
3	Condensate drain



Separator Size SG-C	Flow Capacity at 7 bar g m³/h *)	Condensate Capacity l/h *)	Maximum Codensate Peak Load
1650	1650	20	120
2250	2250	30	120
3500	3500	40	350
5000	5000	60	350
6000	6000	70	350
7500	7500	90	350
11000	11000	130	350

*) Related to ambient conditions 1bar, 25°C, 50%RH and **7bar g** operating pressure

Working Overpressure (bar)	1	2	3	4	5	6	7	8
Conversion factor fp	0.25	0.38	0.50	0.63	0.75	0.88	1.00	1.13

Working Overpressure (bar)	9	10	11	12	13	14	15	16
Conversion factor fp	1.25	1.38	1.50	1.63	1.75	1.88	2.00	2.13

Sizing example for pressure which deviate from nominal pressure

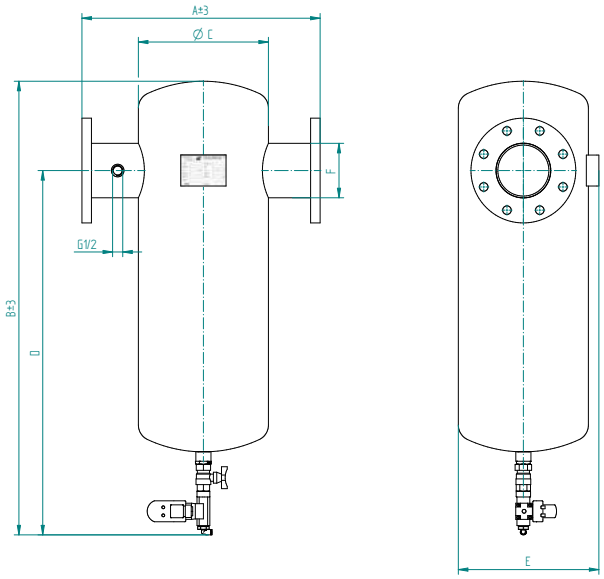
V_{nom} = 4200 m³/h, Pressure = 9 bar (g)

$$Vcorr = \frac{Vnom}{f_P} = \frac{4200\ m^3/n}{1.25} = 3360\ \mathrm{m^3/h}$$

Selected separator size Type SG-C 3500

DIMENSIONS / WEIGHT

SG-C 1650 - 7500 Standard

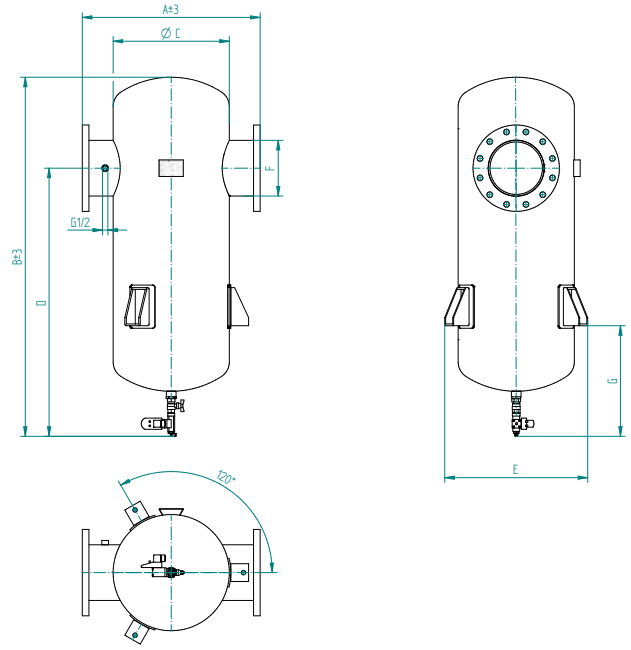


*

Housing Size SG-C	Weight kg	A mm	B mm	C mm	D mm	E mm	F Flange Connection
1650	27	360	697	194	568	217	DN80
2250	41	400	890	219	739	240	DN100
3500	51	500	952	273	765	295	DN100
5000	85	490	1127	324	906	347	DN150
6000	104	600	1169	356	918	379	DN150
7500	127	680	1182	406	927	430	DN150

SG-C 1100 Standard

*

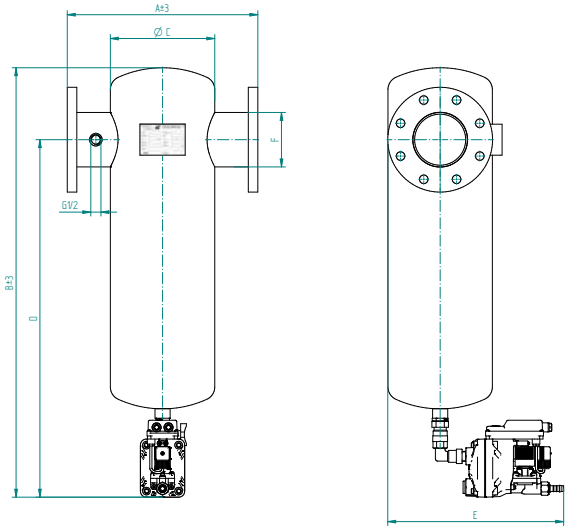


Housing Size SG-C	Weight kg	A mm	B mm	C mm	D mm	E mm	F Flange Connection	G mm
11000	191	700	1413	457	1055	435	DN200	435

Donaldson FILTRATION SOLUTIONS

DIMENSIONS / WEIGHT

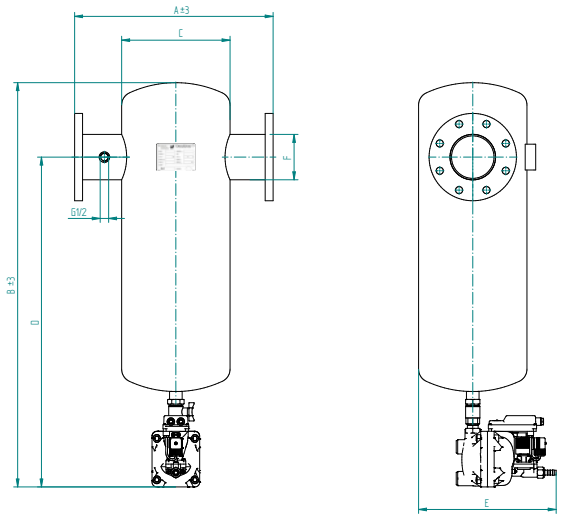
SG-C 1650 - 2250 Superplus



*

Housing Size SG-C	Weight kg	A mm	B mm	C mm	D mm	E mm	F Flange Connection
1650	28	360	708	194	579	356	DN80
2250	42	400	901	219	750	369	DN 100

SG-C 3500 - 7500 Superplus

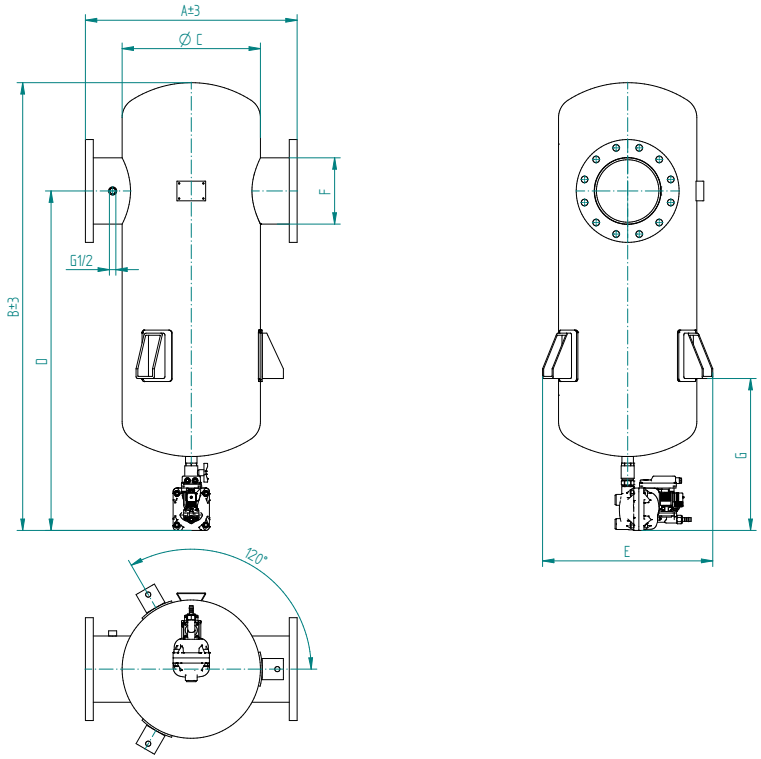


*

Housing Size SG-C	Weight kg	A mm	B mm	C mm	D mm	E mm	F Flange Connection
3500	53	500	1018	273	831	347	DN 100
5000	87	490	1198	324	977	372	DN 150
6000	106	600	1236	356	985	388	DN 150
7500	129	680	1249	406	994	430	DN 150

DIMENSIONS / WEIGHT

SG-C 11000 Superplus



*

Housing Size SG-C	Weight kg	A mm	B mm	C mm	D mm	E mm	F Flange Connection	G mm
11000	193	700	1480	457	1122	563	DN 200	502

For more information please contact your Donaldson Sales Representative and visit our website at **www.donaldson.com**.

Donaldson. FILTRATION SOLUTIONS

Explore our solutions at shop.donaldson.com

Contact us

Donaldson Europe BV
Research Park No. 1303, Interleuvenlaan, 1
B-3001 Leuven, Belgium
Telephone: +32 (0) 16 38 38 11

Technical Data Sheet No. F119246 EN (12/25) SG-C Cyclone Separator.