

# Hamworthy Clenston Air & Dirt Separator



## Features

- > Carbon steel body  
Stainless steel concentrator
- > Flanged to EN 1092-1 PN16
- > Brass automatic air vent
- > 1" BSP flushing valve
- > Supplied with gaskets and bolts for system mounting

## Ratings

- > Max working pressure 10 barg
- > Test pressure 15 barg
- > Max working temperature 110°C

## Application

- > Combines the removal of both air and dirt in a single unit
- > Protects boilers and helps prevent pump failure, energy loss and corrosion
- > Dirt particles and sludge are continually collected and drained off manually
- > Microbubble de-aerator and automatic air vent removes air continuously from the system

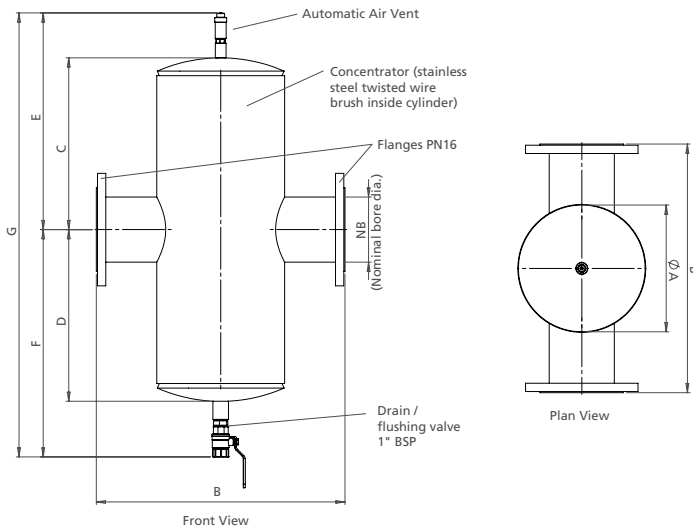
# Hamworthy Clenston Air & Dirt Separator

## Specifications

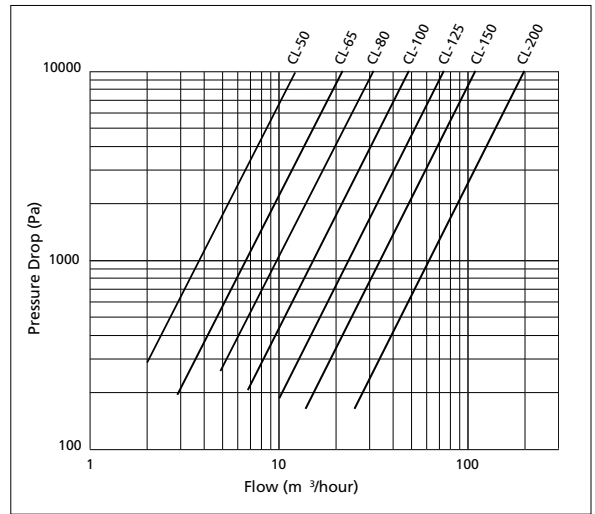
Vertical welded carbon steel body, flanged PN16, with internal stainless steel concentrator. Air collects in the air chamber before being removed by the high capacity AAV (Automatic Air Vent). The AAV includes a built-in isolation valve, allowing the removal of the AAV for maintenance purposes without having to drain the system. A full bore flushing valve is fitted to the dirt collection reservoir.

- > Operating temperature range +110°C to -10°C
- > Maximum working pressure 10 barg, tested to 15 barg
- > Maximum static head for optimum performance = 30m (3 bar)
- > Dirt removal down to 10 microns
- > Bi-directional flow
- > No need to drain system to remove dirt
- > Supplied fully assembled and tested

## Dimensions



## Calculated Pressure Drop vs Volume Flow Rate



## Installation

For the best protection for your Hamworthy boiler from particulate damage and sludge from older heating circuits, install the Clenston Air & Dirt Separator on the return line to the boiler, ideally after the strainer and before the pump on the return line. Allow sufficient clearance to attach a drain hose to safely drain out sludge during periodic maintenance. Take appropriate precautions to prevent any risk of scalding from hot system water when draining dirt and sludge.

Additional AAVs should be considered for placement on the flow side of the boiler circuit close to the boiler and/or at the highest point in the circuit.

Clenston Product Code	Nominal bore (mm)	Pipe Connection	Dimensions (mm)							Dry Weight (kg)	Volume Flow Rate*		Optimum Boiler Power* (kW)		
			A	B	C	D	E	F	G		(m <sup>3</sup> /hr)	(l/s)	@11°C ΔT	@20°C ΔT	@30°C ΔT
CL-50	50	DN50 – PN16	165	350	225	225	339	366	705	14	12.2	3.39	156	283	425
CL-65	65	DN65 – PN16	165	350	225	225	339	366	705	15	20.4	5.67	261	474	711
CL-80	80	DN80 – PN16	219	460	300	300	414	441	855	24	28.2	7.83	360	655	982
CL-100	100	DN100 – PN16	219	460	300	300	414	441	855	39	47.6	13.22	608	1105	1658
CL-125	125	DN125 – PN16	273	630	435	435	549	576	1125	47	72.3	20.08	923	1679	2518
CL-150	150	DN150 – PN16	324	630	435	435	549	576	1125	58	103.3	28.69	1319	2399	3598
CL-200	200	DN200 – PN16	406	780	475	475	589	616	1205	65	174.3	48.42	2226	4048	6071



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### Hamworthy Heating Limited

Wessex House,  
New Fields Business Park,  
Stinsford Road,  
Poole, Dorset BH17 0NF

Tel: **01202 662500**

Email: [sales@hamworthy-heating.com](mailto:sales@hamworthy-heating.com)  
[hamworthy-heating.com](http://hamworthy-heating.com)

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### Hamworthy Heating Accreditations

ISO 9001 Quality Management System  
ISO 14001 Environmental Management System  
ISO 45001 Health & Safety Management System

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