## **Blowdown Vessels**

Founded almost 150 years ago and operating in over 100 countries around the world, Cochran are the internationally acknowledged experts in the provision of packaged steam, hot water generation and heat transfer systems utilising shell boiler designs, combustion and ancillary technology constructed to meet the most stringent UK, European and international standards.

Cochran offers the range and flexibility to deliver solutions that match the application; backed-up by a complete package of technical advice and design and manufacture, from the smallest system through to the planning, management and delivery of the largest turnkey projects.

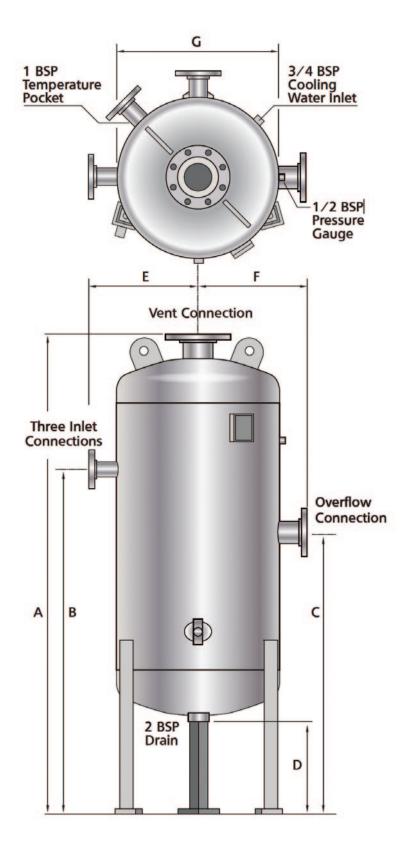
The total Cochran offering extends to include servicing, spares and planned maintenance solutions, combined with in-depth technical support throughout the long operational life of a Cochran boiler and it's ancillary equipment.

#### **Cochran Blowdown Vessels**

Every Cochran Blowdown Vessel is UKCA, UKNI+CE or CE marked to meet the requirements of the Pressure Equipment; Low Voltage; Electro-Magnetic Compliance; and Machinery Safety Directives.

In addition, each vessel meets the requirements of the UK's stringent Health and Safety Guidance Note PM60, as well as Annex D of BS EN12953-6.

- **Operational Capability:** Cochran Blowdown Vessels are designed for a pressure of 7 barg and a temperature of 171°C.
- **Coating:** Blowdown Vessels are finished in a robust, heat-resistant aluminium paint.
- **Connections:** Flanged connections are in accordance with BSEN1092 with a rating of PN16.



# **Blowdown Vessels**

#### Cochran Blowdown Vessels

Blowdown Vessel			Type 3	Type 4	Type 5	Type 6	Type 7
Dimensions (mm)	A - Overall Height		1845	1920	1995	2105	2255
	B - Height to Inlets C - Height to Outlet D - Height to Drain		1345	1380	1415	1470	1545
			1080	1125	1165	1220	1295
			358	367	368	367	367
	E - Standout of Inlets	;	330	405	485	560	705
	F - Standout of Outlet G - Vessel Diameter		330	405	485	560	705
			465	610	745	905	1205
Connection Details (inches)	Inlet Size		3 * 50	3 * 50	3 * 50	3 * 50	3 * 50
	Outlet Size		80	80	100	100	100
	Vent Size	100	100B	150	150	150	
Weights (kgs)	Empty		220	260	390	470	820
	Full of Water		425	633	967	1353	2503
	Operating Weight		337	478	733	891	1431

#### To select correct blowdown vessel size, the following information is required:

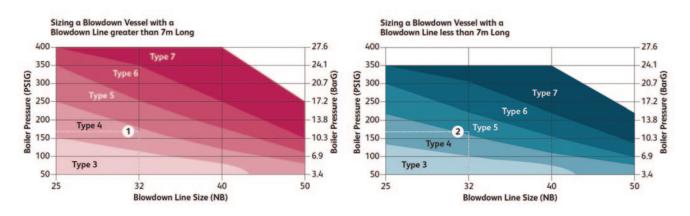
- **■** Bolier Pressure.
- Blowdown line size.
- Length of blowdown line between boiler and blowdown vessel: i.e. the equivalent straight length taking account of bends and valves in the line.

Using the chart below, enter the boiler pressure on the vertical axis and move across to intersect the blowdown size. The vessel size is then taken as the area containing the intersection. The right hand chart is for blowdown lines with an equivalent straight length less than 7m (23 ft).

Tables are based on a maximum Blowdown duration of 20 seconds. A typical main Boiler Blowdown duration would be 5 seconds.

#### **Examples:**

- 1 For a boiler of 170 PSIG with a 32NB blowdown line and an equivalent straight pipe length greater than 7m a Type 4 is required.
- 2 If the blowdown line is less than 7m a Type 5 would be required.



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