Safety Instructions Booklet BP104/SI, Rev. B January 2023

Vertical Boiler Chamber

Pressure Equipment Directive/Pressure Equipment Safety Regulation:

Safety Instructions

₽K CE







Safety Information:

Vertical Boiler Chambers manufactured from carbon steel\

Pressure Equipment Directive (2014/68/EU) / Pressure Equipment (Safety) Regulation 2016 (Incl. Brexit amendments 2021)

These safety instructions are to be used in conjunction with the "Boiler Controls" product manual.

Definitions:

 P_s max = Maximum allowable chamber pressure at the stated temperature - bar

 T_s max = Maximum allowable chamber temperature - °C

 T_s min = Minimum allowable chamber temperature - °C

Pt = Chamber Test pressure - bar

This product is designed and manufactured to comply with Module H of the Pressure Equipment Directive 2014/68/EU; the Pressure Equipment (safety) Regulation (Inc. Brexit amendments 2021) Module H. It carries a CE and/or UKCA mark and has a Declaration of Conformity to show compliance with the relevant Directive/Regulation.

It is the responsibility of the installer/user of this equipment to ensure: -

- The product is installed and used by suitably trained personnel in accordance with all relevant Local and National regulations and codes.
- Safe working practices for the media and process concerned are followed during installation and maintenance.
- The materials of construction are suitable for the application. See also Table 1
- The pressure and temperature limits for this equipment are not exceeded, if necessary by the use of suitable safety accessories. See also Table 3
- All Delta Mobrey supplied installation fixing bolts are used where applicable, and are only replaced by exact equivalents. On all other flanges, the correct quantity, size and strength of bolts (clamp type) are used. All fasteners are evenly tightened to the correct torque. See also Table 2.
- Correct gaskets/seals are fitted and are compatible with the media and process.
- The product is protected from fire.
- The product is protected from impact.
- This product is not used as a support for other equipment or personnel.
- Regular inspection for corrosion and wear are carried out, both internal and external.

Table 1 - Vessel Pressure Materials

Component	Material Specification	
Switch Mounting Flange – M12	ASTM A105	
Switch Mounting Flange – M20	BS1501 224-490B LT50	
Chamber Body Tube	ASTM A106 Grade B	
Chamber End Cap	ASTM A105	
Process Flange / Fitting	ASTM A105	
Studs (where supplied)	ASTM A193 B7	
Nuts (where supplied)	ASTM A194 2H	

Table 2 - Bolt Torques (Flanges)

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Flange Type	Bolting	Torque (Nm)			
Switch Mounting Flange	M12	50			
Switch Mounting Flange	M20	150			
Bottom Flange	M12	50			
Side Flange	M12	60			
For use with high tensile bolts only.					

For use with high tensile bolts only. For further bolting torque details see L1880 + L1882

Table 3:

Vertical Boiler Chambers manufactured from Carbon Steel

Chamber Typ	hamber Type				
4561, 4661 8621, 8631, 8641		4671 8645			
21	5	32	5		
21	214	32	237		
48		72			

Ps max 20C is the same as Ps max at Ts max

Ts min for boiler chamber is always 5C = 5

Ts max for 21 bar steam is 214C = 214

Ts max for 32 bar steam is 237C = 237

Nameplate Stamping Explanation

e.g. 8645

Ps max 20C	Ts min
Ps max	at Ts max
Pt	
32	
32	237
78	

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Standard Terms and Conditions of Sale can be found at: www.delta-mobrey.com

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