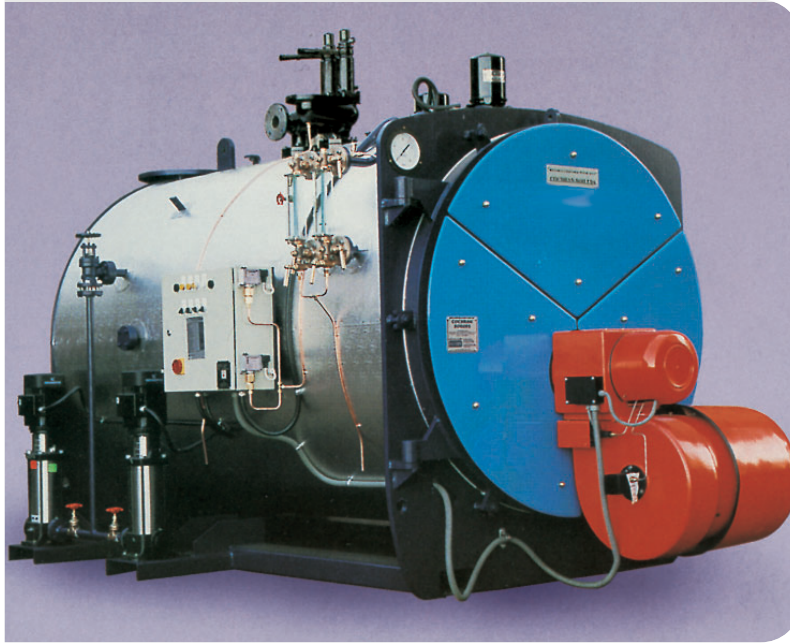




COCHRAN

Minster M Package Steam Boiler



E N E R G Y S O L U T I O N S W O R L D W I D E

The BIB Cochran Minster M is probably the world's best-known industrial boiler. The 3 pass wetback design is renowned for reliability, durability and its robust design. Available in its classic square form or the modern round version, the range can be found working hard in over 100 countries world-wide. Suitable for any application, the Minster M features Cochran low NO_x, low noise burners as standard with a wide range of control options available.

Ratings (F&A 100BC):

From 1000 kg/hr to 5000 kg/hr
(2205 lb/hr to 11023 lb/hr)
(627 kW to 3134 kW)

Standard Working Pressures:

10.34 BAR
(DESIGNS AVAILABLE UP TO 28 BAR G)

Design concept:

- 3-pass conventional wetback
- Manufactured to B.S. 2790 (or equivalent international standards i.e. EN 12953, PD 2790). Products are normally CE marked
- Robust design and construction for long life
- Total package incorporates combustion equipment, feed water pump and controls, control panel, all necessary valves and fittings

Quality:

- Procedures are third party audited to ISO 9001; boilers are third party insurance authority inspected before dispatch

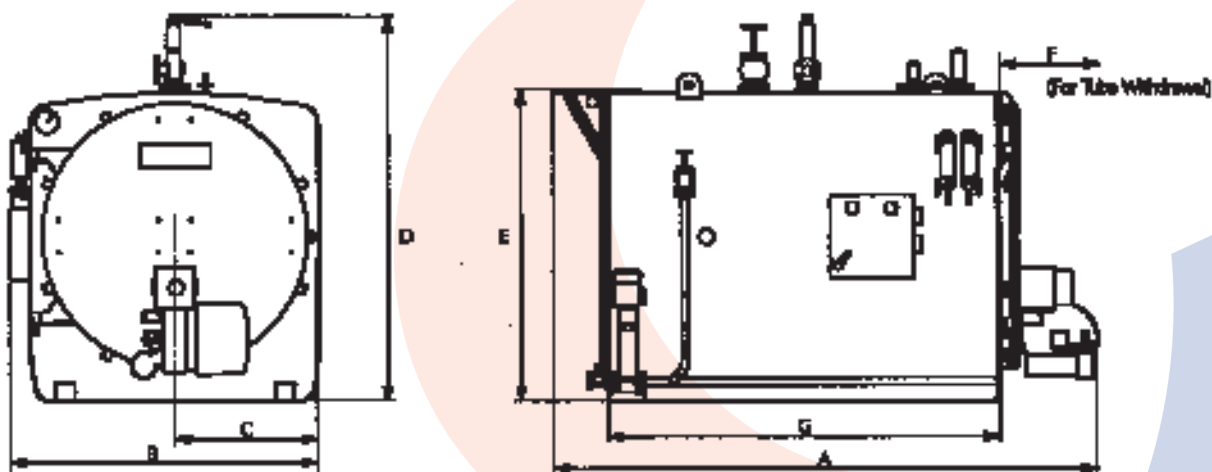
Efficiencies:

- Typical 89% gas firing*
 - Typical 90% oil firing*
- * Efficiencies based upon
N.C.V. of 34828 kJ/m³ (gas)
N.C.V. of 35863 kJ/l (oil)

Full range of support services available including:

- Turnkey boilerhouse supply
- Installation and project management
- International commissioning & maintenance service
- Full spares support

BIB Cochran Minster M Package Steam Boiler



| | | | | | | | | | | | | |
|-----------------------------|--------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|
| Evaporation | kW | 627 | 940 | 1254 | 1567 | 1881 | 2194 | 2507 | 2821 | 3134 | | |
| F&A. 100BC(212BF) | kg/h | 1000 | 1500 | 2000 | 2500 | 3000 | 3500 | 4000 | 4500 | 5000 | | |
| | lb/h | 2205 | 3307 | 4409 | 5512 | 6614 | 7716 | 8818 | 9921 | 11023 | | |
| Dimensions | (Oil) | A | mm | 3145 | 3763 | 3763 | 4347 | 4391 | 4391 | 4896 | 4901 | 5414 |
| | (Nat. Gas) | A | mm | 3355 | 3953 | 3953 | 4552 | 4727 | 4753 | 5009 | 5009 | 5522 |
| | | B | mm | 1784 | 1984 | 1984 | 2368 | 2520 | 2620 | 2690 | 2690 | 2822 |
| | | C | mm | 781 | 881 | 881 | 1073 | 1149 | 1149 | 1184 | 1184 | 1250 |
| | | D | mm | 2153 | 2413 | 2413 | 2882 | 3034 | 3034 | 3251 | 3251 | 3366 |
| | | E | mm | 1766 | 1966 | 1966 | 2350 | 2502 | 2502 | 2647 | 2647 | 2779 |
| | | F | mm | 1980 | 2440 | 2440 | 2964 | 2950 | 2950 | 3170 | 3170 | 3650 |
| | | G | mm | 2153 | 2633 | 2633 | 3154 | 3140 | 3140 | 3360 | 3360 | 3840 |
| Recommended Chimney Dia | mm | 230 | 280 | 305 | 355 | 380 | 405 | 430 | 455 | 485 | | |
| Safety Valve Exhaust Dia. | mm | 40 | 50 | 50 | 65 | 65 | 65 | 80 | 80 | 80 | | |
| Steam stop Valve Dia. | mm | 50 | 65 | 65 | 80 | 100 | 100 | 100 | 100 | 100 | | |
| Blow Down Valve Dia. | mm | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | | |
| Feed Check Valve Dia. | mm | 25 | 25 | 25 | 25 | 40 | 40 | 40 | 40 | 40 | | |
| Feed Pump Inlet Dia. | mm | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | | |
| Feed Water Strainer Dia. | mm | 25 | 25 | 25 | 25 | 40 | 40 | 40 | 40 | 40 | | |
| Oil Inlet Connection Dia. | B.S.P. | 3/8" | 3/8" | 3/8" | 3/8" | 3/8" | 1" | 1" | 1" | 1" | | |
| Fuel Consumption (Diesel) | l/hr | 71.1 | 106.1 | 142.7 | 176.4 | 211.3 | 246.2 | 282.0 | 318.2 | 352.8 | | |
| Fuel Consumption (Nat. Gas) | m ³ /hr | 74.3 | 111.4 | 150.0 | 184.7 | 221.4 | 258.5 | 296.2 | 334.3 | 370.0 | | |
| Boiler Weight-Empty | Tonne | 3.7 | 5.0 | 5.1 | 8.1 | 9.2 | 9.2 | 11.3 | 11.4 | 14.2 | | |
| Boiler Weight-To N.W.L. | Tonne | 5.2 | 7.4 | 7.5 | 13.3 | 14.9 | 14.9 | 17.6 | 17.7 | 22.7 | | |
| Boiler Weight-Full of Water | Tonne | 5.6 | 8.0 | 8.1 | 14.4 | 16.3 | 16.3 | 19.2 | 19.3 | 24.7 | | |

Notes

- Oil Fuel Consumption based on Class D:BS 2869 N.C.V.36076 kJ/l (18355 BTU/lb)
- Gas Fuel Consumption based on Gas N.C.V.34828 kJ/m³ (935 BTU/Ft³)
- All Dimensions and weights are approximate only based on boiler working pressure of 10.34 Bar g
- Fuel Consumptions based on boiler working pressure of 10.34 Bar g

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