



BYWORTH
BOILERS
QUALITY THROUGH DESIGN & WORKMANSHIP

**E Type YORKSHIREMAN
PACKAGED STEAM BOILERS**

E Type YORKSHIREMAN PACKAGED STEAM BOILERS

It is no coincidence that the E type Yorkshireman boiler embodies many of the same attributes and strengths of the people of its county of origin. Not only is the Yorkshireman a sturdy and reliable workhorse, it is also uncannily thrifty!

The traditional three pass wetback design of the E type Yorkshireman range is ideally suited for a continual heavy workload. Add to this the latest combustion technology and control equipment and you'll achieve impressively low running costs and emissions.

Every E type Yorkshireman boiler is individually built to meet your specific needs and is manufactured from start to finish in our own factory, thereby ensuring quality control of the very highest standard. All fittings are mounted in the factory to make installation on site as easy and quick as possible.



PRINCIPAL DESIGN FEATURES & BENEFITS

Traditional three pass wetback design

- Reliability
- Robustness

Shell & furnace diameter larger than comparable boilers

- Generous heating surfaces
- Low heat transfer
- High steam volume
- Quality dry steam
- Low NOx emissions
- Output easily achieved

Central furnace with bowling hoops

- Stress is minimised and distributed evenly
- Extends life of boiler
- Easy access for inspection
- Absorbs expansion & contraction

Shell, tube plates and smoke boxes heavily insulated

- Minimal heat loss
- Increased operating efficiency



Aluzinc cladding with removable panels

- Strong and durable casing
- Corrosion resistant
- Smart appearance
- Easy access for inspection

Unique design of rear fireside access door with removable ceramic plug

- Minimal heat loss
- Quick & easy access for inspection & maintenance

Tube plate ligaments are in excess of BS2790 requirements, 'J-prepped' and TIG welded in combustion chamber

- Eliminates tube end and ligament failure which is quite common in other boilers of this type

Top manhole, two side head holes and rear tube plate mud hole

- Unequaled internal access
- Preferred by inspection authorities

COMBUSTION EQUIPMENT

The E type Yorkshireman can accommodate pressure jet or rotary cup burners depending on customer preference and the type of fuel or fuels used.

Whichever burner is chosen it will be carefully selected in conjunction with the manufacturer to achieve:-

- Reliable performance
- Low NOx emissions which easily achieve EU standards
- Fuel efficiency
- Energy efficiency
- Minimum noise levels
- Easy maintenance
- Directive compliance

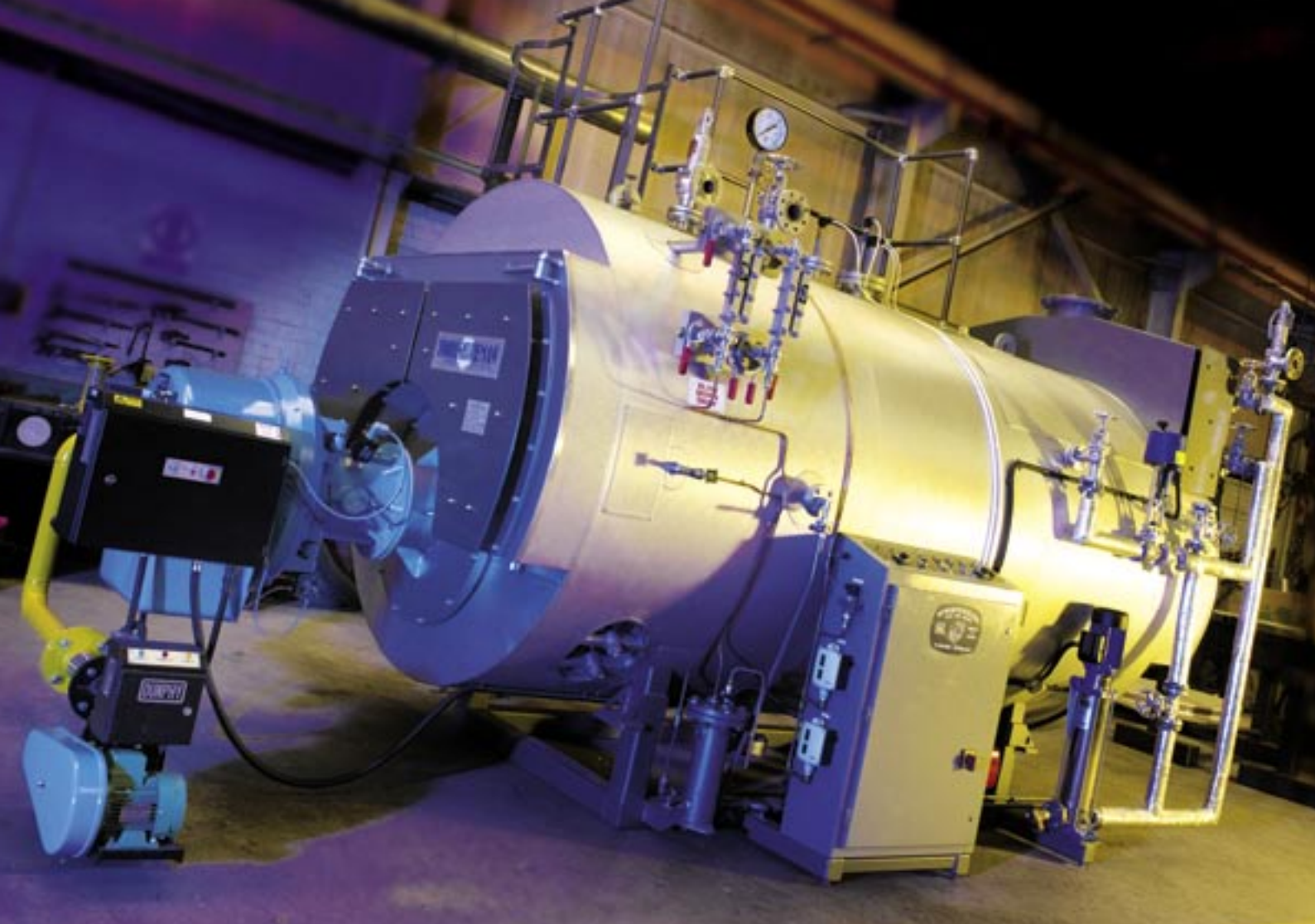
With the addition of a combustion management system efficiency levels are continually monitored and trimmed to guarantee peak performance throughout the full firing range. The system will also electronically monitor demand to ensure the exact amount of fuel and air is fired to follow the boiler's required load pattern accurately.

ANCILLARY EQUIPMENT

To satisfy the diverse operational needs and specifications of industry E type Yorkshireman boilers are offered with a choice of ancillary equipment including:

- Flue gas economiser mounted in the rear smoke box to improve efficiency by up to 5% by increasing feed water temperature
- Full PM5 equipment including automatic blowdown and TDS control for unattended operation
- Variable speed feed pump & burner fan motor to reduce power consumption
- Modulating water feed
- Factory mounted standby feed pump
- Boilers can be built left or right handed





QUALITY FITTINGS & MOUNTINGS

To ensure long and reliable service every boiler is built using quality fittings and mountings as standard.

- Steel angle pattern crown valve
- Safety valve/s
- Screw down feed check valve
- Disk type feed check valve
- In-line pump strainer
- Key operated blow down valve
- Twin reflex style water level gauges
- Pressure gauge with inspectors test cock
- Water sample cooler
- 25mm pad on centre line for optional TDS control
- Flue thermometer
- Walkway with handrail and access ladder as standard on most models
- Davit arms on smoke box doors for ease of removal
- Four jacking points & lashing eyes

TRIED & TESTED

During manufacture every E type Yorkshireman boiler undergoes rigorous tests and inspections and is subjected to X-Ray and NDT tests of the main welded seams.

All E type Yorkshireman boilers are built to BS 2790 Class 1, comply with current Pressure Equipment Directive (PED) requirements and are CE marked on completion. They are also designed to meet governmental and health service standards.

In addition, they are subjected to hydraulic testing and are independently inspected and certified by Lloyds Register at all stages of manufacture.

Plate thicknesses on the E type Yorkshireman are in excess of BS requirements and they are made from best quality, certified materials.

E type Yorkshireman boilers cover a duty range of between 1000 and 20,000 Kgs / hour, with working pressures of up to 20 bar/g.

SUPPORT DOCUMENTATION

Every E type Yorkshireman boiler is supplied with a complete operator manual and manufacturing report. This contains 'as built' drawings, electrical wiring diagram, test reports and material certificates.

**THE STEAM PROVIDER FOR
MANY SUCCESSFUL COMPANIES**

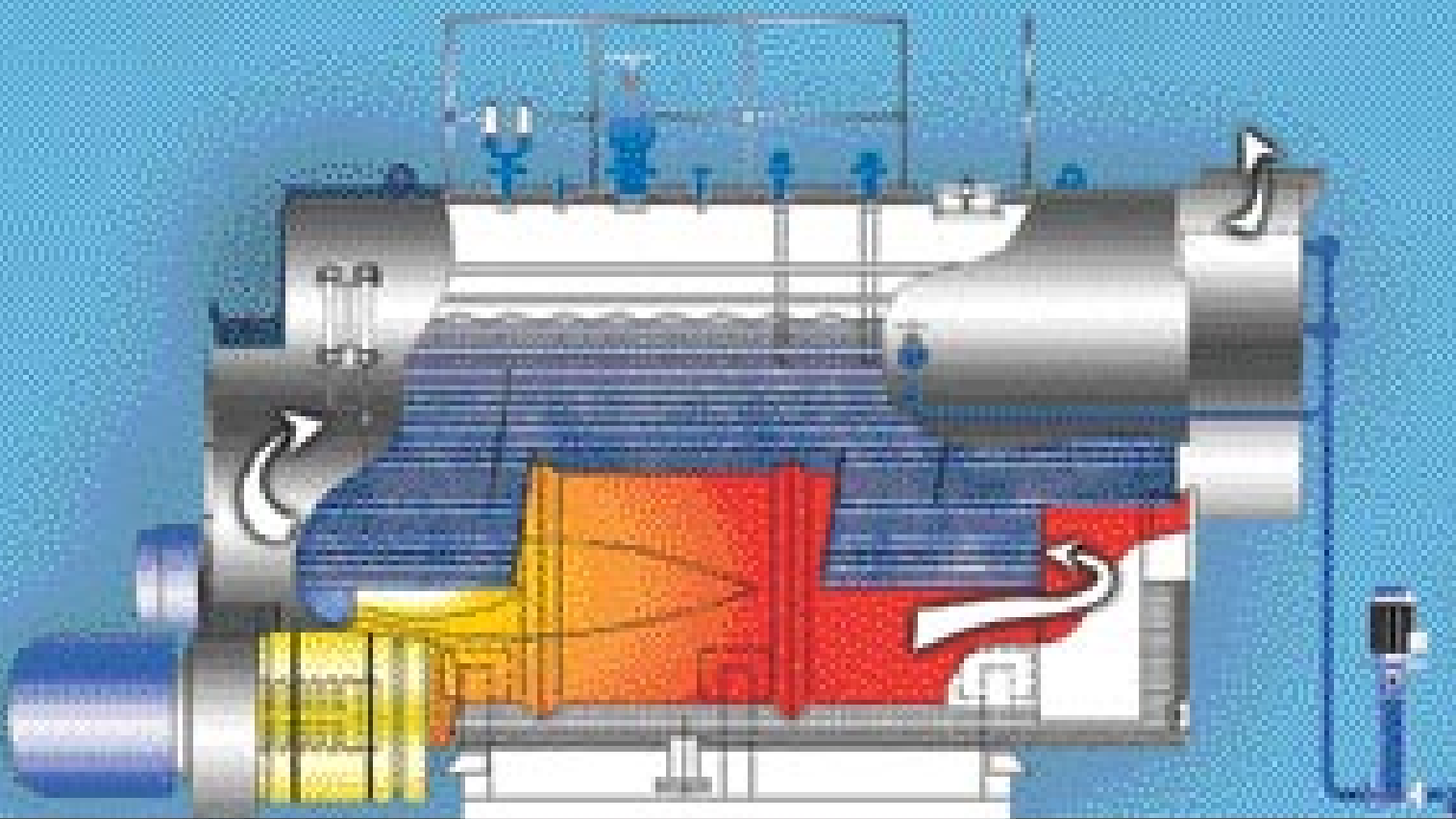
E Type Yorkshireman boilers are successfully producing steam for many of the world's leading companies and organisations operating in a diverse range of industries, including:

- Abattoirs • Brewing • Chemical
- Confectionery • Dairy Produce • Drinks
- Feed & Flour Mills • Food Processing
- Government and MOD Establishments
- Health Authorities • Laundry
- Oil & Petro Chemical • Pharmaceutical
- Paper & Cardboard • Rubber & Plastics
- Soil Sterilisation • Toiletries

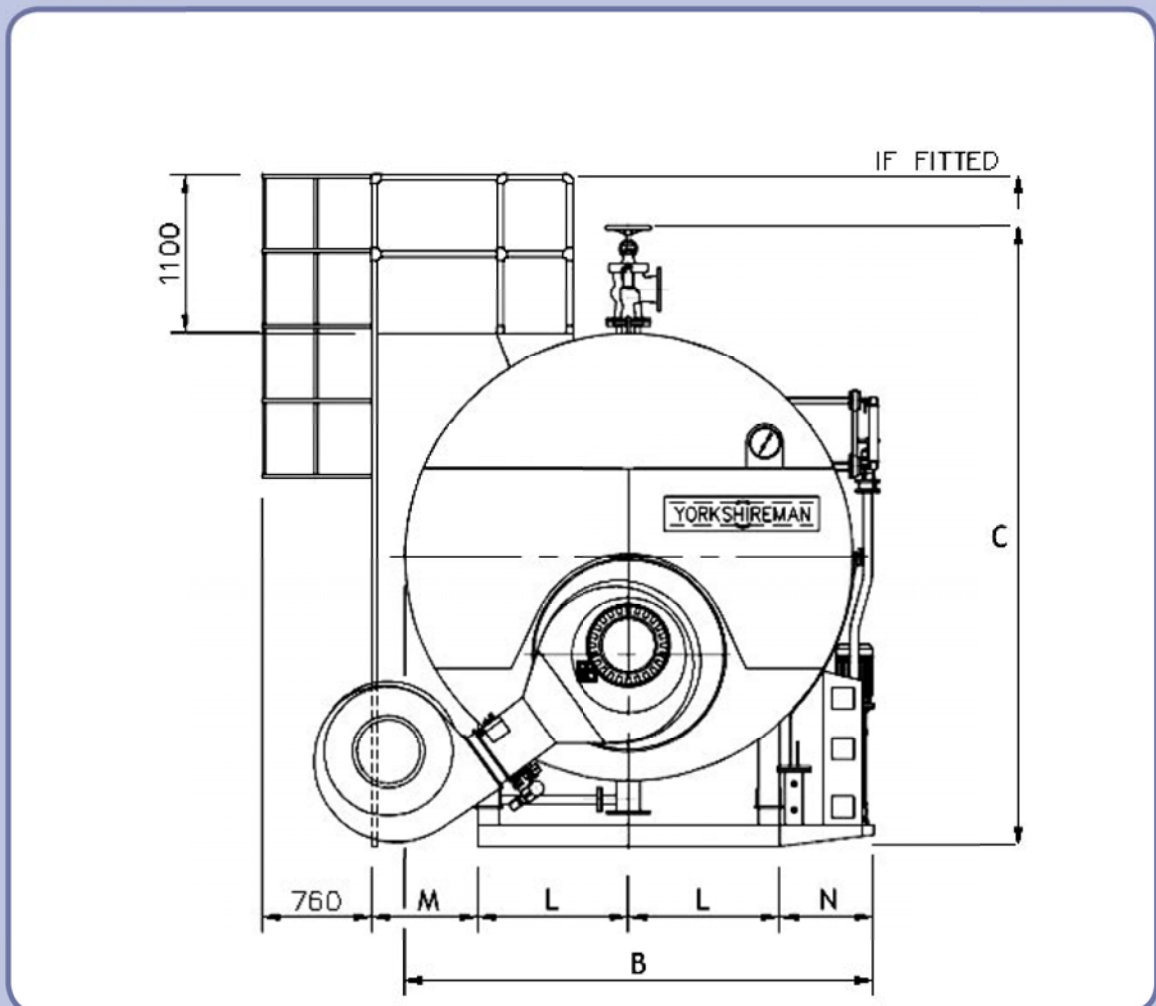
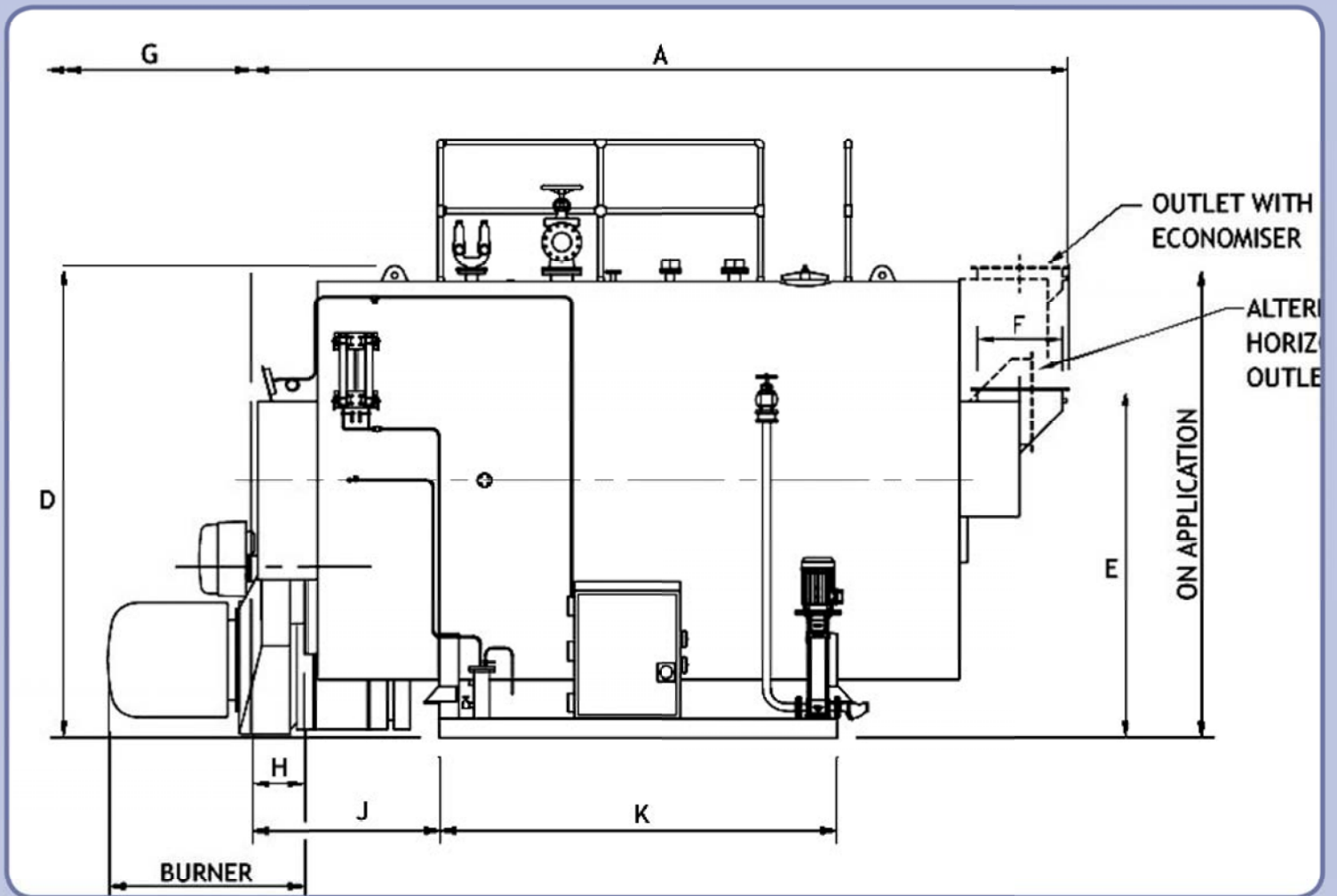
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THE E-TYPE YORKSHIREMAN
A time proven three pass wetback boiler



British Boilers at their Best



E TYPE YORKSHIREMAN SERIES - BOILER DIMENSIONS

Model EYX		1100	1650	2400	3000	3500	4000	4600	5100	5700	6600	7800	9000	10000	11250	14000	15000	16500	17500	19000	20250
Duty F & A 100°C	lb/hr	2400	3600	5300	6600	7700	8800	10100	11200	12600	14600	17200	19800	22000	24800	30900	33100	36400	38600	41900	44600
	kg/hr	1100	1650	2400	3000	3500	4000	4600	5100	5700	6600	7800	9000	10000	11250	14000	15000	16500	17500	19000	20250
	kW	690	1034	1505	1881	2194	2508	2884	3197	3574	4138	4890	5642	6269	7053	8777	9404	10345	10972	11912	12696
	BoHP	70	104	154	191	223	255	293	325	365	423	499	574	638	719	896	959	1055	1119	1214	1293
Overall Length	A	3126	3506	3767	4084	4258	4424	4707	5005	5042	5613	5666	5773	5799	6368	6412	6489	6597	6597	7671	7671
Overall Width	B	1780	2000	2125	2240	2310	2415	2490	2565	2620	2670	2826	3128	3245	3245	3340	3510	3665	3840	3875	3875
Overall Height	C	2280	2505	2693	3336	3457	3538	3740	3795	3895	3960	4142	4406	4570	4550	4750	4889	5024	5129	5164	5164
Minimum Height	D	1940	2115	2258	2336	2457	2538	2740	2795	2895	2960	3142	3406	3570	3550	3750	3889	4024	4129	4164	4164
Chimney Height	E	1660	1810	1873	1973	1975	2115	2245	2300	2350	2435	2444	2736	2740	2660	2724	2815	2925	3172	3720	3720
Chimney I/D	F	200	250	275	326	353	377	402	428	453	504	529	606	606	656	758	758	758	758	758	758
Tube Withdrawal	G	2220	2480	2660	2900	3010	3110	3350	3580	3570	4050	4030	4000	3970	4450	4430	4400	4400	4400	5330	5330
To End of Smokebox	H	167	207	231	237	257	277	287	307	322	337	357	387	417	436	461	487	487	487	559	559
To Baseframe Front	J	672	812	866	862	932	962	972	1032	1082	1122	1292	1332	1372	1446	1496	1522	1625	1222	1394	1394
Baseframe Length	K	1660	1760	1900	2170	2200	2300	2550	2720	2650	3100	2800	2780	2760	3150	3100	3100	2980	2920	4500	4500
Half Baseframe Width	L	450	500	550	625	635	700	725	750	800	825	875	925	975	1000	1050	1100	1170	1100	1300	1300
Mounting Plate	N	555	655	655	655	655	655	655	670	625	625	640	760	745	720	675	710	765	765	765	765
Burner Length*		1075	1255	1255	1255	1360	1360	1360	1360	1360	1409	1409	1409	1409	1409	1700	1700	1700	1700	1700	1700
Feed Pump - 150psi	DN	25	25	25	32	32	32	32	32	40	40	40	40	40	50	50	50	50	50	50	50
Crown Valve Outlet - 150psi	DN	50	65	80	80	100	100	125	125	125	125	150	150	150	200	200	200	200	200	200	200
Safety Valve Outlet - 150psi		1½"	1¼"	1½"	2"	2"	2"	2½"	2½"	2½"	3"	3"	3"	3"	DN100	DN125	DN125	DN125	DN125	DN125	DN150
Blowdown Valve	DN	25	25	25	25	32	32	40	40	40	50	50	50	50	50	50	50	50	50	50	50
Weight Empty	kg	3210	4620	5900	6860	7860	8730	10210	11220	12030	14150	16530	20370	23100	25620	27710	30310	34330	36590	42580	42620
Weight to NWL	kg	5230	7400	9320	10930	12600	14160	16690	18520	20160	23670	27360	33420	37440	41560	45450	50440	54820	59050	80195	80235

This chart relates to the EYX series boilers with working pressure up to 150 psi (10 bar). For higher working pressures please contact your local sales representative.
Some design features may change depending on the destination country

BYWORTH

B O I L E R S

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