Byworth
BOILERS

Hot Water

MADE IN BRITAIN

CELEBRATING 50 YEARS IN BUSINESS 1968 - 2018

Dennis Baldwin, Founder of Byworth Boilers. Dennis used steam to heat his commercial greenhouses where he grew Chrysanthemums.

Byworth BOILERS

Our Story

Dennis Baldwin – the customer turned entrepreneur - the essence of our brand and our heritage.

Byworth was founded in 1968 by Dennis Baldwin. Dennis became a well-established chrysanthemum and tomato grower. The entrepreneur ran his own successful business from the young age of 17.

Based on 3 sites around Yorkshire, Dennis used steam boilers to heat his 3 acres of glasshouses.

He came from a long line of engineers and with that inherent talent, he decided to design and install his own heating and boiler systems. Soon after, other horticultural businesses were recognising his flair for producing high-quality steam boilers and the demand for his products rose.
With two sons more interested in engineering than growing, Dennis took the brave decision (aged 42) to make a career change. He sold his successful horticultural company to finance a land investment to set up a factory. This was when Dennis Baldwin & Sons boiler manufacturers were first established; later to be known as Byworth Boilers. They supplied steam boilers, not only to growers but to other industries as well.

Dennis was able to build a product that better suited the needs of his industry. These values remain today as Byworth seek to produce solutions that fit the customer's requirements, never offering a 'one size' fits all. We understand the challenges organisations often face, and our team of experts will work in partnership with you to deliver solutions that better support your individual needs.

Our Customers

Today we serve a diverse range of customers, big and small, in a multitude of industries including:

- Food
- Beverage
- Healthcare
- Paper and Packaging
- Pharmaceutical
- Architecture/M&E/Civil Engineering
- Petrochemical
- Animal Feeds & Farming
- Laundries
- Textiles

Your Guide

FELLSMAN

The Fellsman reverse flame hot water boiler is a compact and highly efficient solution for commercial heating and industrial process applications.

Pages 5 – 8

DALESMAN

The Dalesman is a traditional three pass wet back shell hot water boilers that is ideally suited to cope with the rigorous and continual heavy workload demanded for commercial heating and industrial process applications.

Pages 9 – 12

PHW

The PHW's reverse flame, wet back design ensures a highly efficient and economical boiler that is compact in size, simple to operate and easy to install.

Pages 13 – 16

BOILER HOUSES

Complete boiler houses and skid-packages built off-site and delivered to your door for the quickest possible installation.

Pages 17 - 18

FELLSMAN

Sizes from – 250kW to 3,000kW
Working Pressure – Up to 10 barg, maximum temperature 140˚C

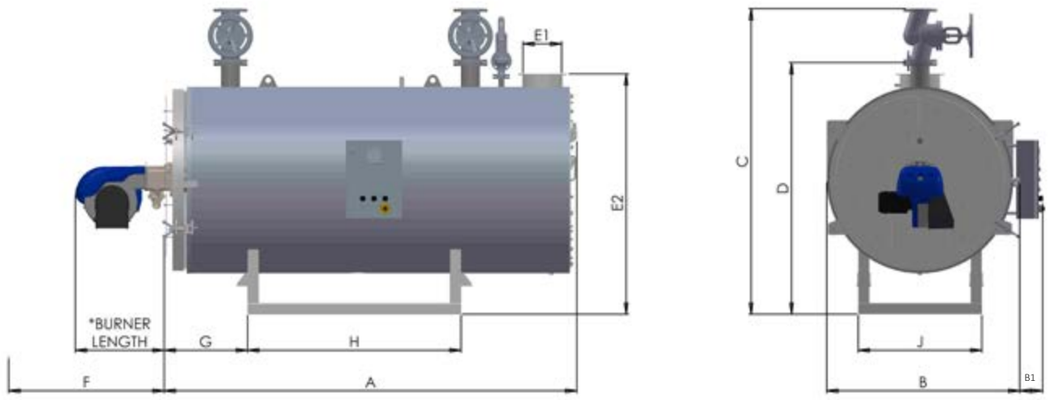
Crafted exclusively in the UK, the Byworth Fellsman is a popular choice for small and medium-sized applications.

Renowned for its robust construction and reliable performance, the Fellsman range offers a compact and highly efficient heating solution for commercial and industrial processes, designed with long-term ease of maintenance in mind.

Key Features

- Full wet back design for maximizing heat transfer
- Reliable with a long life span
- Suitable for a range of liquid and gaseous fuels including natural gas, LPG, LNG, biogas and heating oils
- Perfect balance of efficiency and size
- Lightweight hinged front-door
- Designed and manufactured in the UK to exceptional standards
- Removable rear doors
- Spiral wound turbulators significantly improve boiler efficiency without increasing footprint
- Generous shell and furnace sizes
- Easy access for cleaning and inspection

The Fellsman Dimensions



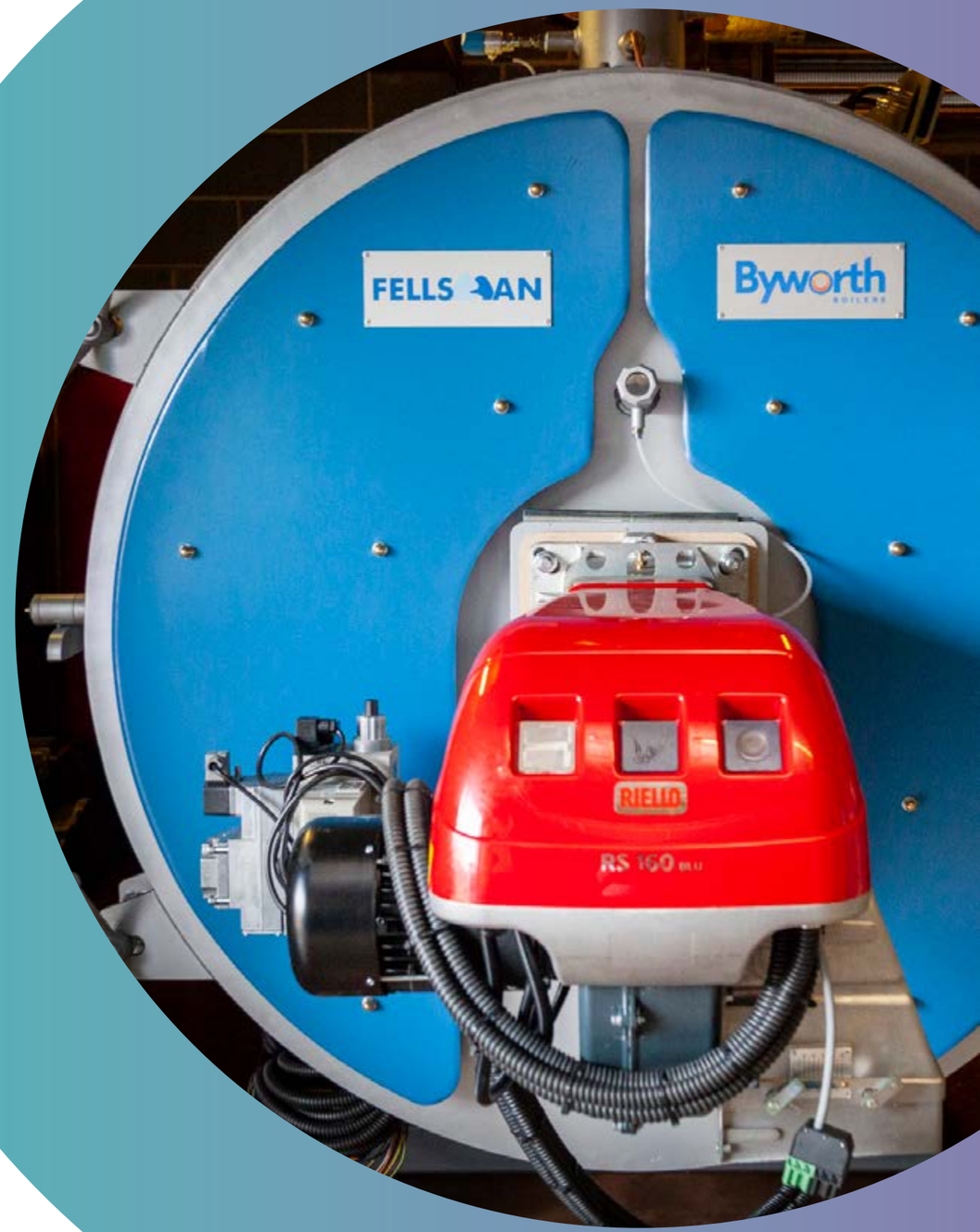
FELLSMAN - BOILER DIMENSIONS

Model FM		250	500	750	1000	1250	1500	1750	2000	2500	3000
Boiler Output	**kW**	250	500	750	1000	1250	1500	1750	2000	2500	3000
Length (*excl. Burner)	**A**	1900	2220	2400	2550	2750	3270	3600	3630	3720	3920
Width (*excl. Panel)	**B**	1090	1250	1350	1560	250	1560	1690	1910	2000	2070
Panel Width	**B1**	300	300	300	300	300	300	300	300	300	300
Overall Height	**C**	1946	2106	2206	2431	2541	2516	2766	2921	3011	3081
Minimum Height	**D**	1516	1676	1776	1986	2096	1986	2236	2336	2426	2496
Chimney I/D Standard	**E1**	200	225	250	300	300	350	350	400	450	450
Chimney Height	**E2**	1430	1590	1690	1900	2010	1900	2150	2250	2340	2410
Tube Withdrawal	**F**	1200	1500	1700	1800	1980	2400	2660	2660	2700	2900
Base Inset	**G**	410	510	580	580	585	595	730	730	730	730
Base Length	**H**	1125	1230	1275	1520	1520	1590	1900	1900	2000	2100
Base Width	**J**	880	900	900	900	900	950	1100	1100	1100	1200
Standard Flow & Return Size	**DN**	100	150	150	150	200	200	150	200	250	250
Weight Empty	**kg**	1480	1920	2670	3610	4970	5370	6030	7000	7800	8460
Weight - Fully Flooded	**kg**	1895	2560	3530	5280	6540	6330	8550	9800	10700	11760

** Variable depending upon burner manufacturer*

For illustration purposes only. Design drawing available upon request.

MADE IN BRITAIN



DALESMAN

Sizes from – 1000kW to 10,000kW

Working Pressure – Up to 16 barg, maximum temperature 180˚C

Designed for demanding industrial applications, the Dalesman is a traditional three-pass, fully wet-back hot water boiler capable of handling continuous heavy workloads.

Exclusively manufactured in the UK, each Dalesman is custom-built to meet specific customer hot water requirements.

The high and medium-temperature versions incorporate the unique X-ID boiler tube, featuring special helical internal ribs that optimize heat transfer efficiency, making the Dalesman a highly energy-efficient and cost-effective hot water solution.

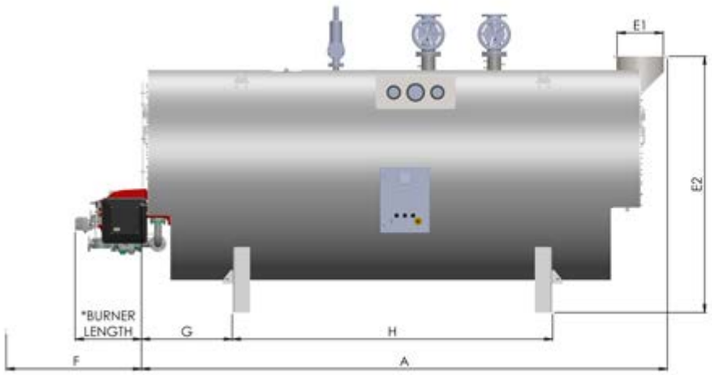
Key Features

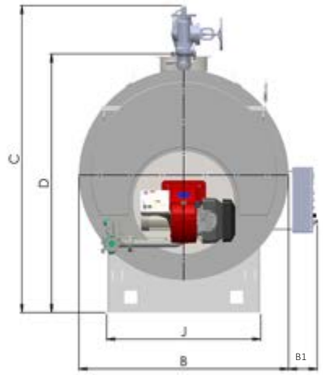
- High Efficiency
- Low NOx
- Reliable and robust with long lifespan
- Generous shell and furnace size
- Central furnace with bowling hoops
- Easy access for cleaning and inspection
- High performance X-ID firetubes (high temperature models)
- High performance ceramic fireside insulation
- Thermal stresses alleviated due to the central furnace and flat flanged end plates
- Heat losses are minimised with high-density external insulation
- By using high performance ceramic materials we have eliminated problems associated with traditional refractory cement
- Quality assured. Our internal inspection regime exceeds BS and EN requirements. This includes 100% ultrasonic inspections of all major welds
- Removable NDT inspection panels
- Boiler access platform available on request

Our unique X-ID tubes are built into all high temperature boilers.
Reducing fuel consumption and minimising maintenance.

Each boiler is designed and manufactured in our UK facility, ensuring the highest standards of quality control.

The Dalesman Dimensions





DALESMAN - BOILER DIMENSIONS

Model DM		1000	1500	2000	2500	3000	3500	4000	4500	5000	6000	7000	8000	9000	10000
OTP		3100	3610	3960	4160	4400	4800	4900	5010	5100	5300	5410	5600	5700	6100
Output kW	**kW**	1000	1500	2000	2500	3000	3500	4000	4500	5000	6000	7000	8000	9000	10000
Overall Length*	**A**	3730	4370	4860	5165	5465	5895	6070	6165	6395	6640	6845	7190	7400	7800
Overall Width	**B1**	1770	1890	2060	2170	2290	2350	2430	2490	2590	2780	2890	3040	3160	3250
Overall Height	**C1**	2650	3025	3185	3295	3385	3475	3685	3745	3845	4041	4141	4335	4505	4595
Minimum Height	**D**	2220	2440	2600	2710	2800	2890	2970	3030	3130	3326	3336	3530	3700	3790
Chimney I/D Standard	**E1**	250	300	350	400	400	450	500	500	550	600	650	700	750	800
Chimney Height	**E2**	1780	2300	2460	2570	2660	2750	2870	2890	3090	3190	3190	3390	3560	3650
Tube Withdrawal	**F**	2780	3030	3960	4160	4400	4800	4900	5010	5100	5300	5410	5600	5700	5900
Base inset	**G**	570	750	745	830	870	900	950	1020	1030	1230	1230	1330	1370	1390
Max. distance over base	**H**	2300	3030	3315	3470	3665	4025	3530	4170	3900	4330	4150	4230	4570	4730
Max. width base	**J**	1170	1450	1450	1770	1770	1770	1770	1870	1870	2070	2070	2070	2320	2320
10 degC	**DN**	100	150	150	150	200	200	200	200	250	250	250	300	300	300
20 DegC	**DN**	80	100	125	125	150	150	150	150	200	200	200	250	250	250
30 DegC	**DN**	65	80	100	100	125	125	125	125	150	150	150	200	200	200
Weight Empty	**kg**	7908	9840	10930	12050	13250	15420	17680	18700	19500	22430	23630	24860	28064	31220
Weight Floaded	**kg**	10414	13930	16750	18825	21350	24730	27070	29780	31695	37270	40390	43390	49284	54224

Note - for DM5000 and above support saddles supplied only

** Variable depending upon burner manufacturer*

For illustration purposes only. Design drawing available upon request.

MADE IN BRITAIN

Eliminating the cracks
We only weld the heat transfer tubes at the hottest end to allow the tubes to expand and contract with the boiler, eliminating tube-end cracks that are typical of boilers with tubes fixed at both ends.

PHW

Sizes from – 93kW to 930kW
Working Pressure – Up to 5 barg, maximum temperature 95 ˚C

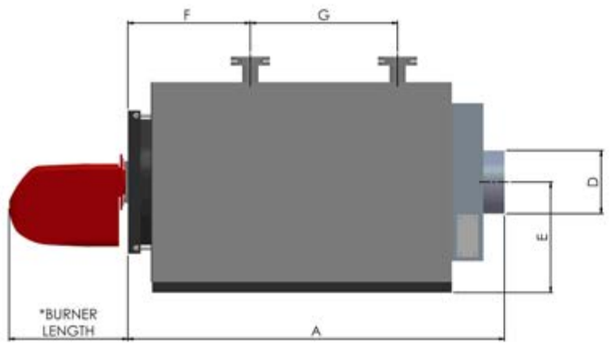
The PHW boiler of the PACK-P AR range are efficient and economical boilers for temperatures up to 95 ˚C.

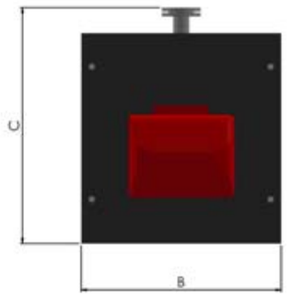
The horizontal reverse flame, wet back design ensures a simple to operate and easy to maintain boiler that is compact in size.

Key Features

- Suitable for a range of liquid or gas fuels
- Lightweight front door
- Designed to manufacturing standard EN303
- Pressure Equipment Directive compliant
- Compact Design
- Low maintenance and simple to operate
- High density external insulation
- Stainless steel retarders for maximum thermal exchange
- Factory fitted control panel

The PHW Dimensions





Pack-P AR - BOILER DIMENSIONS

Model: Pack-P AR		93	105	150	190	230	290	345	405	465	520	580	695	810	930
Output	**kW**	93	105	150	190	230	290	345	405	465	520	580	695	810	930
Max. working pressure	**bar**	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Combustion chamber press.	**mbar**	0.5	0.7	1.2	1.2	1.5	2.3	3.3	4.4	3.3	4.3	4.8	4.5	5.6	5.4
Water content	**Litres**	119	119	155	228	228	285	276	329	402	402	476	697	795	733
Water pressure drop (ΔT 15°C)	**mbar**	4.5	5.6	11.8	6.9	10	16.3	23	31	18	22	28	18	25	33
A: Length (excl. burner)	**mm**	1110	1110	1360	1405	1405	1655	1655	1905	1990	1990	2290	2345	2545	2545
B: Width	**mm**	790	790	790	940	940	940	940	940	1040	1040	1040	1240	1240	1240
C: Height	**mm**	980	980	980	1090	1090	1090	1090	1090	1250	1250	1250	1380	1380	1380
D: Chimney Connection	**mm**	200	200	200	220	220	220	220	220	250	250	250	350	350	350
E: Chimney Outet Height	**E**	460	460	460	510	510	510	510	510	595	595	595	640	640	640
Distance from front to Inlet	**F**	430	430	430	465	465	465	465	465	625	625	625	625	625	625
Inlet to Outlet Centres	**G**	260	260	510	450	450	700	700	950	792	792	1092	1092	1174	1174
Connections Size	**mm**	50	50	50	65	65	65	65	65	80	80	80	100	100	100
Connection Safety Valve	**mm**	32	32	32	38	38	38	38	38	50	50	50	65	65	65
Approx. Weight Empty	**kg**	250	270	310	460	480	540	550	610	870	890	940	1310	1380	1440

** Variable depending upon burner manufacturer*

For illustration purposes only. Design drawing available upon request.

The prefabricated boiler house is easily transportable with minimal onsite disruption during installation.

Pre-fabricated Boiler House

Save time and improve installation efficiency with a packaged hot water boiler.

Options include a cost-effective range of hot water boilers with ancillaries, and purpose-built containerised boiler houses.

Boilers and ancillary tanks are fully installed, piped, and wired at our factory before being transported to site ensuring that your prefabricated boiler plant arrives ready for use.

Pre-fabricated boiler houses

A complete boiler house built off-site and delivered to your door for the quickest possible installation.

Pre-fabricated boiler houses are fully customisable and manufactured to your specific requirements.

Key Features:

- High efficiency hot water boiler
- Architectural cladded solution with factory complete enclosure
- Customisable - bespoke manufacture to customer's requirements
- Factory fitted pipework, guttering, pitched roof, flues and controls minimises work onsite

Byworth BOILERS

Contact us

+44 (0)1535 665225

training@byworth.co.uk

service@byworth.co.uk

spares@byworth.co.uk

byworth.co.uk

OEM Partner

Endress+Hauser