

# SHW

Super-heated 3-pass wet-back hot water boilers for MTHW and HTHW application

- Wet-back design: maximum benefit from heating surface
- **Minimum 80% GCV efficiency**
- Add-on condensing economisers for further fuel saving
- **Easier combustion, less burner power consumption**
- Three Pass - suitable to operate with Pressure-Jet and Rotary-Cup burners
- **Low flue gas resistance with low NOx & SOx combustion**
- Welded Construction, safe operation and easy tube replacement
- **Low thermal inertia, leading to better heat transfer**
- Well distributed thermal loading

A TLANTIC  
B OILERS

C  
D B

E

F

G

H DR HPS HWR

I

J

K

L

M

N A R

O

P

Q

R

S HW

T

U

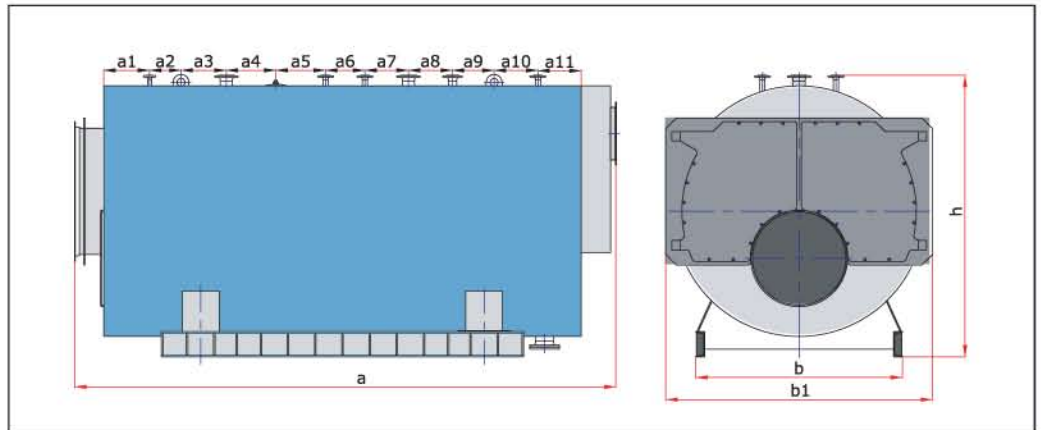
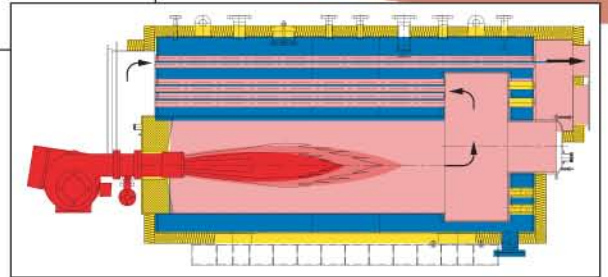
V

W

X

Y

Z



STANDARDS

Directive: 97/23/EEC PED modules B & F  
 Electrical appliances: 89/336/EEC EMC, 73/23 EEC LVD  
 Steel plate material: P 295 GH & EN 10028 PART 1,2  
 Tubes material: P 235 GH & EN 10216 PART 2  
 Flanges material: P 235 GH & ISO 7005-1

Norms applied: EN 12953

Certification: EN 10204 - 3.1.C  
 Certification: EN 10204 - 3.1.B  
 Certification: EN 10204 - 3.1.B

## PERFORMANCE

Type: SHW	T120100	T146120	T175146	T232195
Output kW	12000	14600	17500	23255
Cap. BthU/hr '000s	34.40	41.28	50.22	80.00
Gas Input '000 m3/hr	13.25	15.89	19.33	25.71
Oil Input kg/h	1018	1222	1487	1977
<b>Minimum Flow</b>				
Rate l/sec	57.3	69.8	83.6	111.1
<b>Flue Gas</b>				
Pressure Drop mbar	10	10	10	10
Dry Weight kg	32086	37697	44490	56921
Water Volume lt	28901	36674	41976	49473
<b>Burner Head Min.</b>				
Projection mm	215	215	215	215

Full dimensions and connections of T120100 up to T232195 will be given against a specific project

**OUTPUTS**  
800kW to 23255kW

**OPERATING PRESSURE**  
6, 8, 10, 12, 14 & 16 BARS  
**OPERATING TEMP 120°C to 190°C**

## PERFORMANCE

Type: SHW	0807	1008	1210	1513	1815	2016	2520	3025	3530	4035	4540	5045	6050	7060	8070	9080	10090	
Output kW	800	1000	1200	1500	1800	2000	2500	3000	3500	4000	4500	5000	6000	7000	8000	9000	10000	
Cap. BthU/hr '000s	2.75	3.44	4.13	5.16	6.19	6.88	8.60	10.32	12.04	13.76	15.48	17.20	20.64	24.08	27.52	30.96	34.12	
Gas Input Nm3/h	921	1053	1331	1711	1974	2106	2633	3291	3949	4607	5265	5923	6581	7898	9214	10530	11846	
Oil Input kg/h	71	81	102	132	152	162	203	253	304	354	405	456	506	608	709	810	911	
<b>Minimum Flow</b>																		
Rate l/sec	3.82	4.78	5.73	7.17	8.6	9.56	11.94	14.33	16.72	19.11	21.5	23.89	28.67	33.44	38.22	43.00	47.78	
<b>Flue Gas</b>																		
Pressure Drop mbar	5	6	6	6	6	6	6	6	7	7	7	7	8	9	9	9	10	
Dry Weight kg	4277	4537	5304	6081	7009	7403	8642	10571	11647	13290	14727	16252	17578	19625	21515	25350	26817	
Water Volume lt	3278	3536	4596	5030	6154	6124	7157	8919	9720	11028	13160	14257	15666	16767	19729	20793	22688	
<b>Burner Head Min.</b>																		
Projection mm	215	215	215	215	215	215	215	215	215	215	215	215	215	215	215	215	215	

## DIMENSIONS mm

Type: SHW	0807	1008	1210	1513	1815	2016	2520	3025	3530	4035	4540	5045	6050	7060	8070	9080	10090
<b>a</b> Length	3936	4180	4400	4460	4555	4620	4935	5275	5555	5810	6050	6270	6740	6785	7170	7515	7860
<b>a1</b>	150	150	150	200	200	200	200	200	200	200	200	200	250	300	300	370	370
<b>a2</b>	227	300	235	230	250	260	260	300	300	300	300	300	350	350	350	510	510
<b>a3</b>	330	400	320	350	360	340	340	310	310	330	330	330	580	530	530	730	730
<b>a4</b>	370	400	400	450	431	435	435	400	400	400	400	400	700	730	730	750	750
<b>a5</b>	300	365	300	365	351	435	475	580	670	670	650	650	770	730	750	800	850
<b>a6</b>	350	240	315	290	300	300	470	680	680	730	770	770	635	725	805	750	775
<b>a7</b>	300	265	340	300	300	415	470	480	655	840	640	860	550	550	640	850	850
<b>a8</b>	250	280	350	350	315	375	420	395	380	375	570	570	575	485	680	475	495
<b>a9</b>	250	250	350	270	335	320	320	345	360	360	460	460	400	455	455	450	460
<b>a10</b>	250	250	350	320	350	270	270	270	270	270	350	350	450	400	400	400	400
<b>a11</b>	190	320	320	365	392	300	300	300	300	300	350	350	400	400	400	400	400
<b>b</b>	1235	1450	1450	1650	1750	1650	1700	1900	1950	2000	2040	2100	2150	2280	2400	2430	2460
<b>b1</b> Width	2000	2052	2130	2230	2260	2300	2380	2530	2575	2670	2780	2840	2860	2970	3110	3100	3200
<b>h</b> Height	2021	2021	2154	2255	2400	2400	2490	2640	2690	2780	2900	2980	3000	3170	3290	3370	3490
Flue outlet	300	300	350	400	450	450	500	600	600	600	700	700	700	800	800	800	800

## CONNECTIONS mm

Type: SHW	0807	1008	1210	1513	1815	2016	2520	3025	3530	4035	4540	5045	6050	7060	8070	9080	10090
flow/return 20°C temp diff	100	100	100	125	125	150	150	200	200	200	250	250	250	300	300	300	250x2
flow/return 30°C temp diff	80	80	80	100	100	12	125	150	150	200	200	200	200	250	250	250	200x2
flow/return 20°C temp diff	65	65	65	100	100	100	100	0125	150	150	150	150	200	200	200	250	150x2

## SPECIFICATION

- All welded three-pass wet back chamber
- ERW steel flue gas tubes to P235GH (DIN EN 10217-20 & construction to EN10216 )
- Front & back plates, body & combustion chamber made with 112 or 17 Mn4 quality steel with tensile strength 42-59 kg/mm2 according to P295GH (DIN EN 10028 EN) and DIN 17155
- Boiler body insulated with 100mm thick 80kg/m3 density Rockwool and enclosed in 1mm thick steel plate painted on completion
- Prior to construction, steel sheets for the front & back plates, boiler body & combustion chamber are exposed to ultrasonic material test
- Upon completion, an hydrostatic pressure test is applied and X-ray of welding spots are carried out under Lloyd's supervision to 97/23/AT PED Module B
- Quality certificates are issued according to EN ISO 9001 TUV and to Lloyds EN 287-1
- Welding Procedure Tests carried out and approved according to EN288