

## Industrial Systems

**erensan**

a company of **ATLANTIC** GROUPE

ООО «ТИ-СИСТЕМС» ИНЖИНИРИНГ И ПОСТАВКА ТЕХНОЛОГИЧЕСКОГО ОБОРУДОВАНИЯ

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## History

**1966**

Mechanical Engineer M. Sc Mesut EREN founded ERENSAN and started manufacturing boilers in the workshop in Çağlayan, İstanbul.

**1998**

Yozgat Factory was founded. Production of hot water boilers was separated from industrial boilers and started in a new and modern facility as a production line.

**2017**

Erensan executive office moved to its new building in Yenibosna.



**1970**

İstanbul Yenibosna factory was built. Factory was moved from Çağlayan to Yenibosna.

**2016**

Erensan joined the Groupe Atlantic



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## Industrial Systems



### ESB

Liquid and Gas Fuel Fired, Three-Pass,  
High Pressure Steam Boiler  
1-30t/h



### SP

Fluid and Gas Fired, Two-Pass,  
High Pressure Steam Boiler  
0.25-5.5 t/h



### SSG

Diesel Oil and Gas Fired, Water Tube,  
Package Steam Generator  
500-2000 kg/h



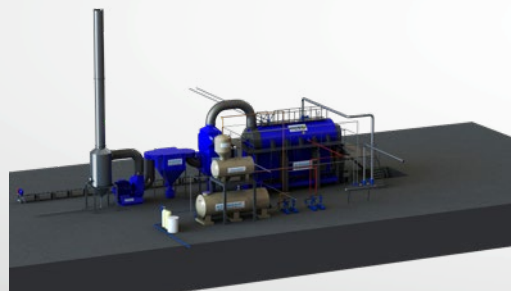
### SSG H

Diesel Oil and Gas Fired, Water Tube,  
Package Steam Generator  
500-2000 kg/h



### SR (STEAMROOM)

Fluid and gas Fired, Mobile  
Steam Boiler Room  
0.25-5.5 t/h



### ESB.K

Conveyor Grid  
Solid Fueled Steam Boiler  
2-30 t/h



**DB**

Liquid and Gas Fueled  
Package Hot Oil Boiler  
300.000 kcal/h - 6.000.000 kcal/h



**EUROMAX S**

Liquid and Gas Fired, Three-Pass  
Hot Water Boiler  
1170-10000 kW



**EUROMAX SC**

Liquid and Gas Fired, Three-Pass,  
Integrated Condensing Economizer  
Superheated Boiler  
1170-10000 kW



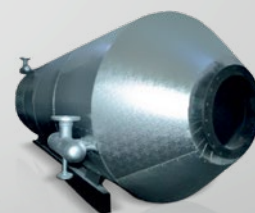
**SHW**

Liquid and Gas Fired, Three-Pass  
Superheated Boiler  
700-23200 kW



**HWR**

Liquid and Gas Fired, Two-Pass  
Package Superheated Boiler  
465-4070 kW



**WASTE HEAT BOILERS**

Smoke/Water Tube Waste Heat Boilers

## ESB

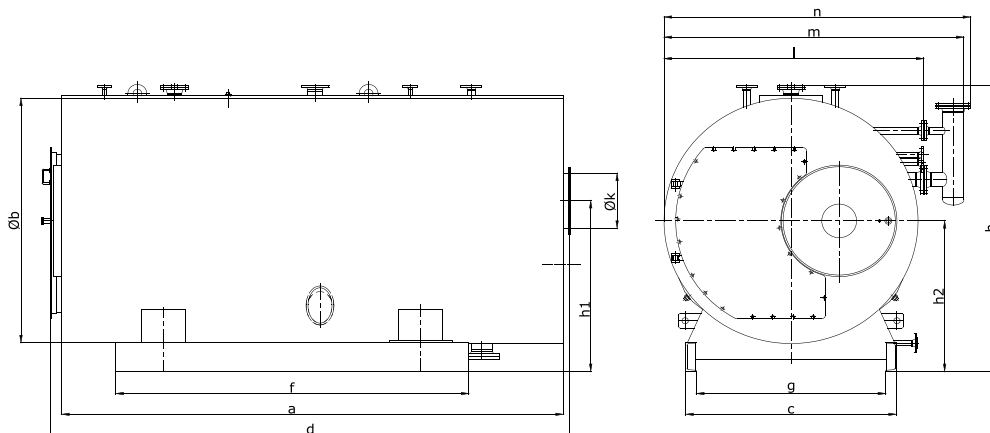
### Liquid and Gas Fuel Fired, Three-Pass, High Pressure Steam Boiler



- \* 1-30 t/h steam generation capacity
- \* 6-16 bar operating pressure
- \* Liquid and gas fired
- \* Suitable for sudden steam intake with optimum water-steam volume ratio
- \* Low furnace load to ensure burning is completed in furnace (< 1,3 MW/m<sup>3</sup>)
- \* Complete burning and low NOx emission, thanks to thermal design
- \* Wet-back design enables maximum benefit from heat transfer surface
- \* Thanks to high density insulation material used in coating boiler body, radiation and standby losses are reduced
- \* Up-to 91% boiler efficiency (Up-to 95.5% efficiency in economizer applications)
- \* Easy assembly and interference with catwalk platform on the boiler
- \* Optional water, air economizer, superheater use

## ESB

### Fluid and Gas Fueled, Three-Pass, High Pressure Steam Boiler



## ESB 100 - ESB 300

Technical Specifications	Unit	100	125	150	200	250	300
Capacity	kg/h	1000	1.250	1.500	2.000	2.500	3.000
Capacity	kW	655	818	982	1.309	1.637	1.964
Fuel Consumption (Natural Gas)	[Nm <sup>3</sup> /h]	76	96	115	153	191	229
Water Volume	m <sup>3</sup>	1,67	2,04	2,52	3,07	4,02	4,27
a	mm	2.730	2.985	3.340	3.490	3.930	3.930
Øb	mm	1.556	1.622	1.682	1.820	1.924	2.008
c	mm	1.240	1.300	1.350	1.500	1.570	1.670
d	mm	2.916	3.171	3.526	3.676	4.114	4.116
f	mm	1.870	2.125	2.270	2.370	2.810	2.800
g	mm	1.090	1.150	1.200	1.350	1.400	1.500
h	mm	1.893	1.953	2.048	2.158	2.300	2.406
h1	mm	1.114	1.137	1.248	1.290	1.380	1.400
h2	mm	956	986	1.040	1.090	1.158	1.236
Øk	mm	250	350	350	350	400	450
l	mm	1.612	1.672	1.732	1.870	1.975	2.060
m	mm	1.930	1.990	2.050	2.189	2.293	2.380
n	mm	1.983	2.043	2.103	2.242	2.346	2.432
Counter-Pressure	mbar	5,5	7	8	8	8,5	9,0
Empty Weight	ton	3,4	3,7	4,3	5,2	6	6,7

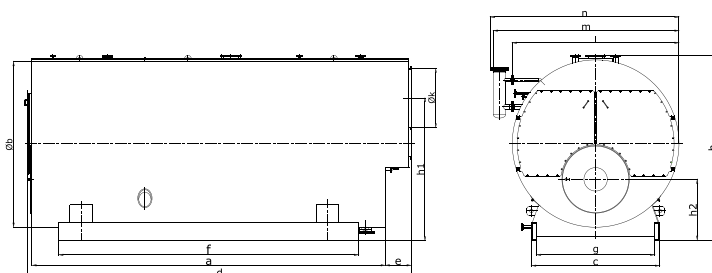
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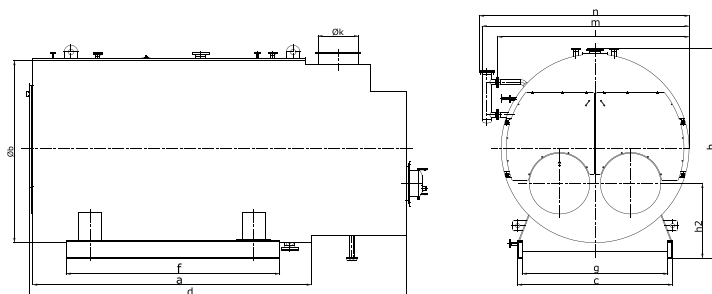
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# ESB

## Fluid and Gas Fueled, Three-Pass, High Pressure Steam Boiler



ESB 400 - ESB 3000



ESB-T 1800 - ESB-T 3000



Technical Specifications	Unit	400	500	600	700	850	1000	1200	1400	1500
Capacity	kg/h	4,000	5,000	6,000	7,000	8,500	10,000	12,000	14,000	15,000
Capacity	kW	2,619	3,273	3,928	4,583	5,565	6,547	7,856	9,165	9,820
Fuel Amount (Natural Gas)	[Nm <sup>3</sup> /h]	306	382	459	535	650	765	918	1,071	1,147
Water Volume	m <sup>3</sup>	9,41	11,77	12,80	14,53	16,63	18,16	23,86	27,09	27,92
a	mm	4,635	5,000	5,072	5,411	5,479	5,833	6,483	6,633	6,874
Øb	mm	2,416	2,590	2,698	2,798	2,970	3,040	3,247	3,417	3,440
c	mm	2,000	2,000	2,050	2,050	2,360	2,400	2,400	2,700	2,700
d	mm	5,097	5,477	5,538	5,842	5,946	6,299	6,949	7,099	7,340
e	mm	380	380	380	380	380	380	380	380	380
f	mm	3,445	3,770	3,840	4,226	4,280	4,690	5,055	5,370	5,650
g	mm	1,800	1,800	1,850	1,850	2,160	2,200	2,200	2,500	2,500
h	mm	2,771	2,925	3,060	3,120	3,336	3,401	3,606	3,787	3,810
h1	mm	2,100	2,154	2,260	2,384	2,551	2,540	2,755	2,870	2,900
h2	mm	965	985	1,040	1,052	1,161	1,173	1,223	1,246	1,313
Øk	mm	600	600	700	700	800	800	900	1,000	1,000
l	mm	2,396	2,568	2,698	2,798	2,970	3,040	3,247	3,417	3,440
m	mm	2,690	2,856	2,987	3,086	3,347	3,417	3,624	3,786	3,810
n	mm	2,742	2,909	3,040	3,139	3,407	3,477	3,684	3,852	3,875
Counter-Pressure	mbar	7,5	8,0	8,5	8,0	8,5	9,5	10	11	11
Approximate Empty Weight	ton	9	10,6	11,8	13,6	15,5	18,4	22,2	25,4	26,8

Technical Specifications	Unit	1600	1800	-T 1800	2000	-T 2000	2500	-T 2500	3000	-T 3000
Capacity	kg/h	16,000	18,000	18,000	20,000	20,000	25,000	25,000	30,000	30,000
Capacity	kW	10,474	11,784	11,784	13,093	13,093	16,366	16,366	19,640	19,640
Fuel Amount (Natural Gas)	[Nm <sup>3</sup> /h]	1,224	1,376	1,376	1,529	1,529	1,912	1,912	2,294	2,294
Water Volume	m <sup>3</sup>	29,58	34,32	27,23	33,31	32,27	38,77	38,80	40,78	46,39
a	mm	7,102	7,714	5,360	7,714	5,360	8,602	5,974	8,615	5,980
Øb	mm	3,500	3,544	3,970	3,574	4,003	3,774	4,227	3,947	4,418
c	mm	2,700	2,820	3,158	2,860	3,175	2,860	3,175	3,290	3,640
d	mm	7,568	8,180	7,240	8,180	7,240	9,068	8,025	9,078	8,000
e	mm	380	380	*	380	*	380	*	380	*
f	mm	5,840	6,200	3,950	6,200	3,950	7,340	4,640	7,340	4,640
g	mm	2,500	2,600	2,940	2,640	2,955	2,640	2,955	3,070	3,420
h	mm	3,870	3,944	4,377	3,986	4,425	4,184	4,644	4,431	4,900
h1	mm	2,950	3,023	*	3,074	*	3,241	*	3,465	*
h2	mm	1,282	1,296	1,465	1,350	1,525	1,382	1,561	1,540	1,747
Øk	mm	1,000	1,100	1,100	1,100	1,100	1,200	1,200	1,300	1,300
l	mm	3,500	3,545	4,041	3,575	4,075	3,775	4,304	3,945	4,495
m	mm	3,868	3,967	4,483	3,997	4,517	4,143	4,681	4,315	4,865
n	mm	3,935	4,033	4,547	4,063	4,583	4,210	4,747	4,380	4,930
Counter-Pressure	mbar	11	15,5	15,5	16	16	19,5	19,5	20	20
Approximate Empty Weight	ton	28,5	30,6	31,1	32,5	33,8	36,6	38,8	42,7	43,5

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# SP

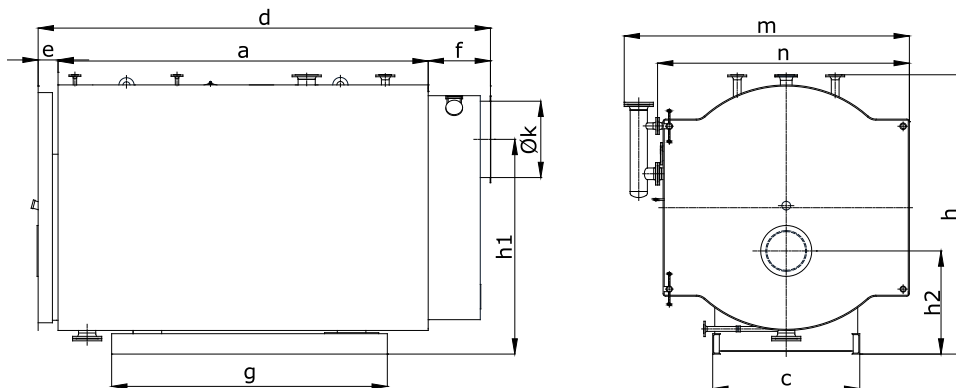
## Fluid and Gas Fueled, Two-Pass, High Pressure Steam Boiler



- \* 0,25-5,5 t/h steam generation capacity
- \* 6-16 bar operating pressure
- \* Liquid and gas fueled
- \* Can be used with pressure jet burner
- \* Up-to 91% boiler efficiency. Up-to 95.5% efficiency in economizer applications.
- \* Easy assembly and interference with platform on the boiler
- \* Standard equipment: Steam outlet, feed water intake, airvent, discharge, surface blow off valves and safety valves, feed water pump group, operation and safety accessories, electric control panel
- \* Optional water, air economizer use

### SP

#### Fluid and Gas Fueled, Two-Pass, High Pressure Steam Boiler



Technical Specifical	Unit	25	32	40	50	65	80	100	125	160	200	250	300	400
Capacity	kg/h	250	320	400	500	650	800	1000	1250	1600	2000	2500	3000	4000
Capacity	kW	164	209	262	327	426	524	655	818	1047	1309	1637	1964	2619
Fuel Amount (Natural Gas)	[Nm <sup>3</sup> /h]	19	24	30	38	49	61	76	95	121	152	190	227	303
Fuel Amount (Fuel-Oil)	kg/h	17	22	27	34	44	54	67	84	108	134	168	202	269
Water Volume	lt	510	510	750	750	930	930	1150	1530	1860	2170	3100	3460	4380
Steam Volume	lt	175	175	220	220	249	249	286	329	383	604	1003	1388	1611
a	mm	1,325	1,325	1,645	1,645	1,785	1,785	1,985	2,185	2,395	2,655	2,850	3,200	3,425
Øb	mm	1,192	1,192	1,262	1,262	1,342	1,342	1,422	1,500	1,572	1,672	1,944	2,022	2,132
c	mm	700	700	740	740	800	800	850	900	960	1,040	1,170	1,190	1,365
d	mm	1,863	1,863	2,183	2,183	2,388	2,388	2,573	2,788	2,983	3,350	3,490	3,840	4,115
e	mm	228	228	228	228	228	228	228	228	228	270	180	180	180
f	mm	310	310	310	310	360	360	360	360	360	410	460	460	510
g	mm	940	940	1,180	1,180	1,314	1,314	1,480	1,780	1,780	2,100	2,000	2,500	2,650
h	mm	1,556	1,556	1,643	1,643	1,744	1,744	1,786	1,882	1,952	2,072	2,340	2,406	2,540
h1	mm	1,115	1,115	1,182	1,182	1,282	1,282	1,312	1,370	1,415	1,531	1,776	1,794	1,898
h2	mm	655	655	697	697	743	743	750	771	796	841	948	949	992
Øk	mm	250	250	250	250	300	300	350	400	450	450	500	550	650
m	mm	1,537	1,537	1,580	1,580	1,682	1,682	1,762	1,847	1,922	2,012	2,298	2,377	2,492
n	mm	1,170	1,170	1,240	1,240	1,320	1,320	1,400	1,480	1,550	1,650	1,922	2,000	2,110
Counter-Pressure	mbar	0,8-1,2	1-1,5	2-2,5	2-2,5	2,5-3	3-3,5	4,5-5	5-5,5	5,5-6	5,5-6	6-6,5	6,5-7	7-7,5

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# SSG

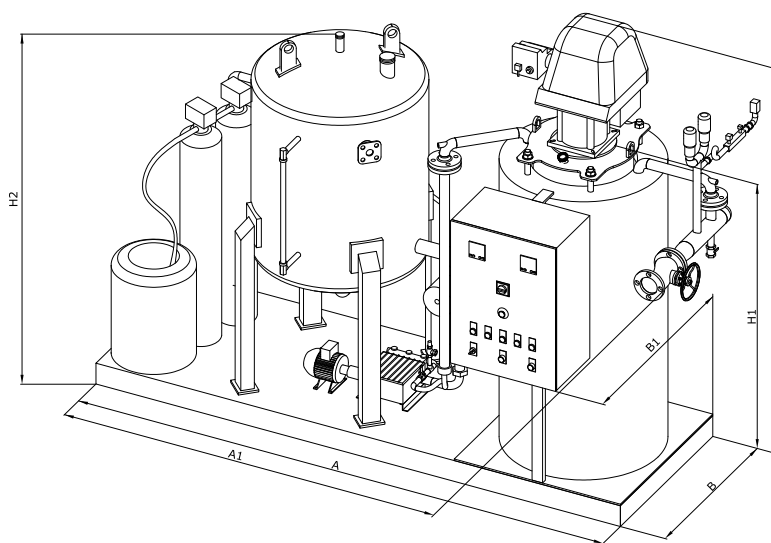
## Liquid and Gas Fired Fuel, Water Tube, Package Steam Generator



- \* 500-2000 kg/h steam generation capacity
- \* 6-10 bar operating pressure
- \* Diesel oil and gas fueled
- \* Vertical type
- \* Can be used with pressure jet burner
- \* Up-to 91% boiler efficiency
- \* Reduced space requirement with compact design
- \* Very fast and uninterrupted steam generation with optimized heating surface
- \* Capability to locate under buildings in compliance with regulations
- \* Standard Equipment: Steam generator on the chassis, burner, condensation tank, feed water pump, pressure pump, operation and safety accessories, electric control panel water softening device

# SSG

## Diesel Oil and Gas Fueled, Water Piped, Package Steam Generator



Technical Specifications	Unit	500	750	1000	1250	1500	2000
Steam Capacity	[kg/h]	500	750	1.000	1.250	1.500	2.000
Thermal Capacity	[kW]	327	491	655	818	982	1.309
Operating Pressure	[bar]	6-8-10	6-8-10	6-8-10	6-8-10	6-8-10	6-8-10
Chassis Width	A	2.600	2.810	3.010	3.230	3.300	3.475
Chassis Depth	B	1.000	1.070	1.150	1.190	1.210	1.345
Width	A1	3.130	3.250	3.395	3.647	4.097	4.225
Depth	B1	1.300	1.400	1.450	1.490	1.510	1.645
Height (Condensation Tank)	H2	2.150	2.300	2.300	2.640	2.665	2.665
Height (Generator)	H1	1.935	2.450	2.543	2.795	2.880	3.058
Height (Incl. Burner)	H	2.625	3.272	3.611	3.913	3.998	4.276
Chimney Exit	Ø	250	300	350	400	450	450
Generator Water Volume	lt	39	90	127	171	194	296
Counter Pressure	mbar	3,5	4	5	6	7	8
Approximate Empty Weight	kg	1200	1575	1845	2048	2289	2865
Approximate Full Weight	kg	1650	2275	2775	3248	3689	4765

\* 'H' values are for «ТИ СИСТЕМС» ИНЖИНИРИНГ И ПОСТАВКА ТЕХНОЛОГИЧЕСКОГО ОБОРУДОВАНИЯ

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# SSG H

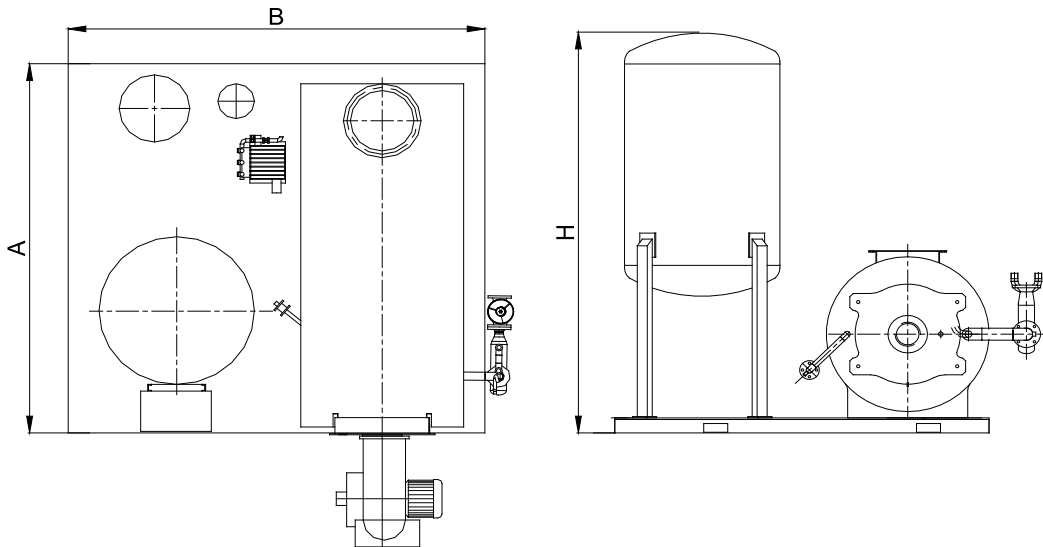
## Liquid and Gas Fired Fuel, Water Tube, Package Steam Generator



- \* 500-2000 kg/h steam generation capacity
- \* 6-10 bar operating pressure
- \* Diesel oil and gas fueled
- \* Horizontal Type
- \* Can be used with pressure jet burner
- \* Up-to 91% boiler efficiency
- \* Reduced space requirement with compact design
- \* Very fast and uninterrupted steam generation with optimized heating surface
- \* Capability to locate under buildings in compliance with regulations
- \* Standard Equipment: Steam generator on the chassis, burner, condensation tank, feed water pump, pressure pump, operation and safety accessories, electric control panel water softening device

### SSG H

#### Diesel Oil and Gas Fueled, Water Piped, Package Steam Generator



Technical Specifications	Unit	500	750	1000	1250	1500	2000
Steam Capacity	kg/h	500	750	1,000	1,250	1,500	2,000
Thermal Capacity	kW	327	491	655	818	982	1,309
Operating Pressure	bar	6-8-10	6-8-10	6-8-10	6-8-10	6-8-10	6-8-10
Chassis Width	A	1,900	2,000	2,500	2,900	3,000	3,200
Chassis Depth	B	2,340	2,370	2,700	2,900	3,100	3,100
Height (Condensation Tank)	H2	1,983	1,970	2,052	2,622	2,644	2,626
Chimney Exit	Ø	250	300	350	400	450	450
Generator Water Volume	lt	39	90	127	171	194	296
Counter Pressure	mbar	3,5	4	5	6	7	8
Approximate Empty Weight	kg	1200	1575	1845	2048	2289	2865
Approximate Full Weight	kg	1650	2275	2775	3248	3689	4765

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## SR (STEAMROOM)

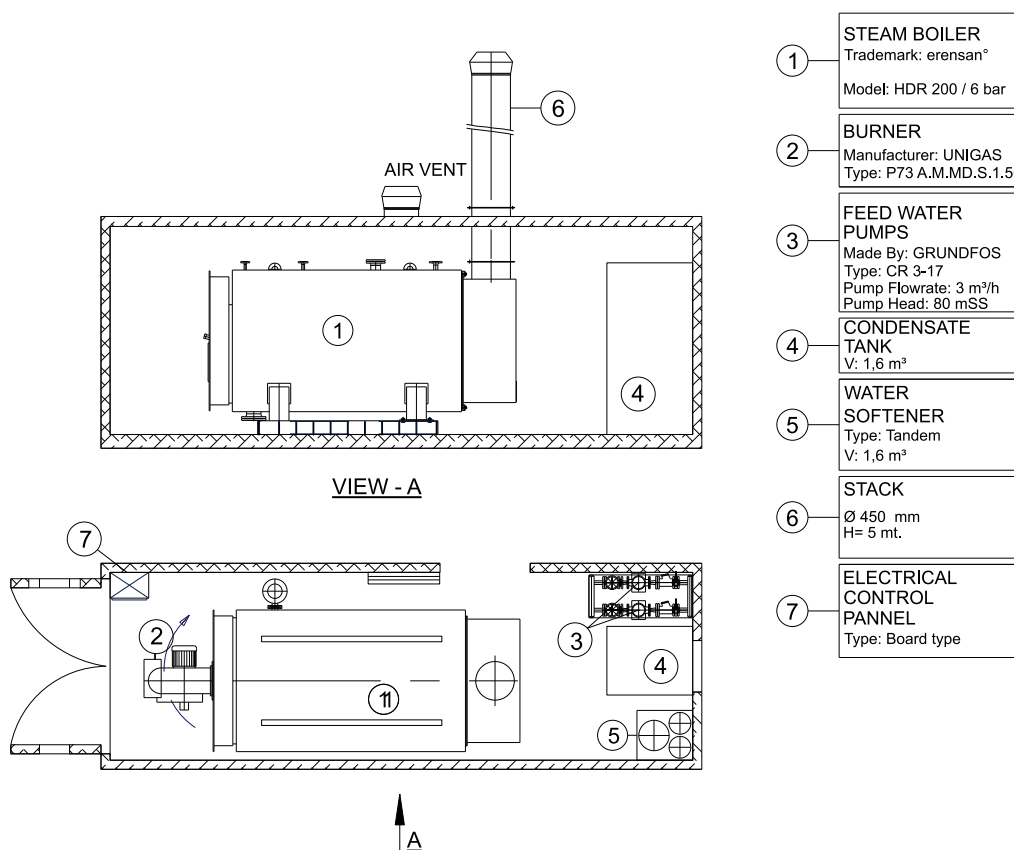
Fired and Gas Fueled, Mobile Steam Boiler Room



- \* 0,25-5,5 t/h steam generation capacity
- \* 6-16 bar operating pressure
- \* Liquid and gas fueled
- \* Can be used with pressure jet burner
- \* Up-to 91% boiler efficiency. Up-to 95.5% efficiency in economizer applications
- \* Easy assembly and interference with catwalk platform on the boiler
- \* Boiler room accessories: Steam outlet, feed water intake, air vent, discharge valves and safety valve, feed water pump group, electric control panel, operation and safety accessories optionally, condensation tank, burner, automated surface and bottom blow off system, proportional feed water system, chimney and water softening device

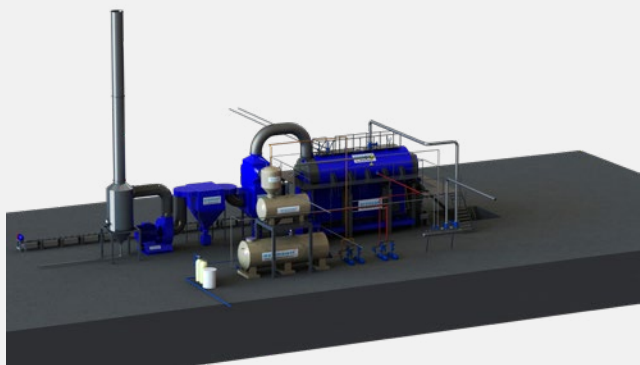
### SR (STEAMROOM)

Fluid and Gas Fueled, Mobile Steam Boiler Room



## ESB.K

### Conveyor Grid Solid Fueled Steam Boiler

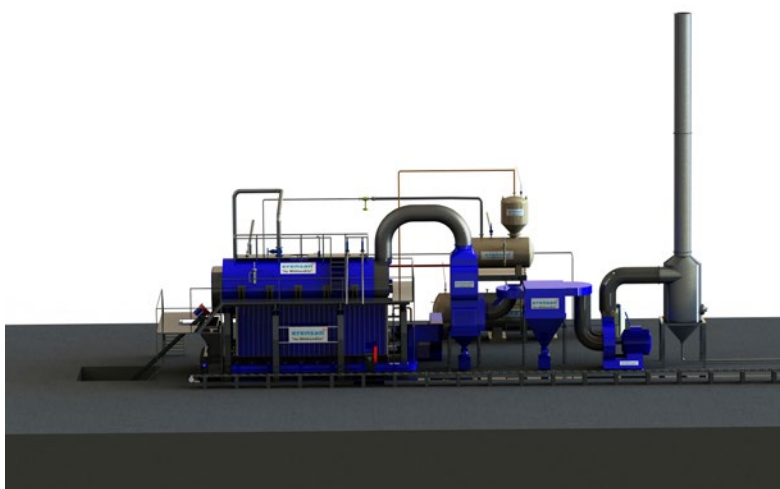
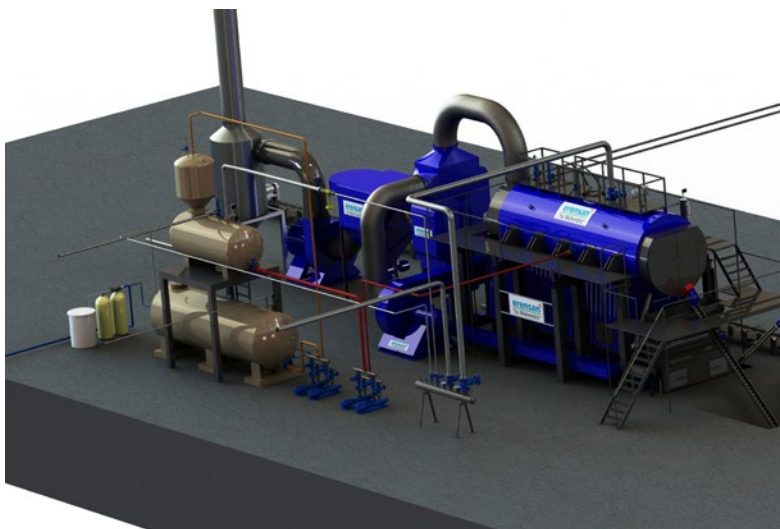


- \* 2-30 t/h steam generation capacity
- \* 6-30 bar operating pressure
- \* Design combining water tube and flame tube boiler types in a single body
- \* With conveyor grid made of cast material suitable for operating at high temperature
- \* Optimum air duct and fan adjustment design for homogeneous and efficient combustion in whole surface
- \* Maximum combustion volume and burning efficiency with high volume furnace made of water wall mounted on conveyor grid
- \* Quicker response to peak steam demands with large steam volume and quick steam generator with water piped primer furnace
- \* Easy access to steam pipes with boiler front and back hatch designs
- \* Ability to monitor and interfere with all auxiliary functions with PLC based control

## ESB.K

### Conveyor Grid Solid Fueled Steam Boiler

CE



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## DB

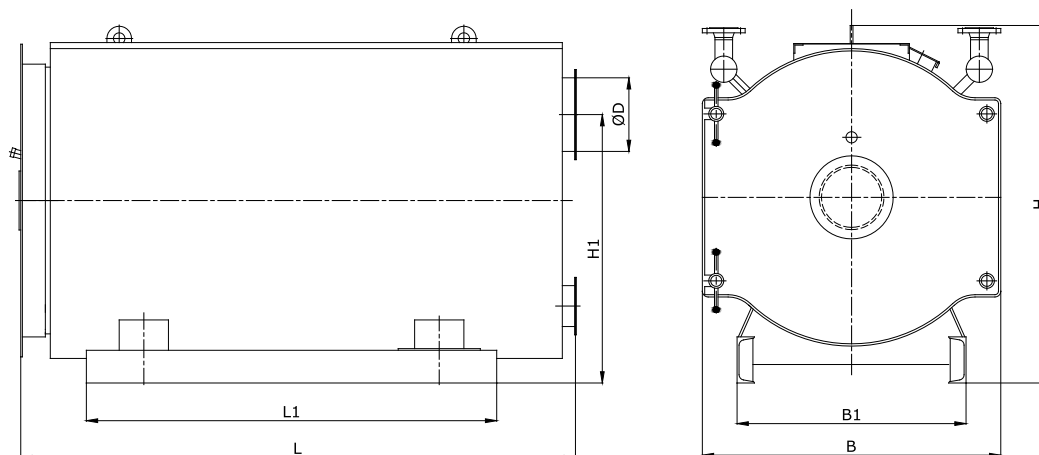
### Liquid and Gas Fueled Package Hot Oil Boiler



- \* 300.000 -6.000.000 kcal/h hot oil generation range
- \* 6 bar operating pressure
- \* Package solution for thermal oil outlet temperatures up to 300 °C
- \* Heat generation with special heat transfer oils at required temperatures
- \* Safe use in low pressures for processes where high temperature is required
- \* Special design against residue accrual and corrosion
- \* Thanks to high density insulation material used in coating boiler body, radiation and standby losses are reduced
- \* DB package system components: Liquid or gas fueled burner, hot oil circulation pumps, boiler control and safety accessories, electric control panel, getter

## DB

### Liquid and Gas Fueled Package Hot Oil Boiler



## CE

Technical Spec.	Unit	300	400	600	800	1000	1250	1500	2000	2500	3000	4000	5000	6000
Capacity	kcal/h	300.000	400.000	600.000	800.000	1.000.000	1.250.000	1.500.000	2.000.000	2.500.000	3.000.000	4.000.000	5.000.000	6.000.000
Capacity	kW	349	465	698	930	1.163	1.453	1.744	2.326	2.907	3.488	4.651	5.814	6.977
L	mm	2.170	2.390	2.600	2.890	3.040	3.248	3.640	4.120	4.300	4.630	5.300	6.400	6.500
L1	mm	1.570	1.610	1.900	2.100	2.350	2.330	2.780	3.140	3.445	3.530	4.000	4.550	5.000
B	mm	1.190	1.290	1.450	1.545	1.645	1.775	1.910	2.070	2.246	2.445	2.720	2.835	3.220
B1	mm	890	990	1.100	1.245	1.200	1.300	1.450	1.600	1.650	2.000	2.055	2.055	2.400
H	mm	1.485	1.585	1.745	1.815	1.910	2.040	2.175	2.335	2.513	2.815	3.106	3.208	3.530
H1	mm	1.015	1.040	1.210	1.245	1.290	1.408	1.530	1.640	1.800	2.043	2.267	2.308	2.596
ØD	mm	250	300	350	400	450	500	500	600	650	700	800	900	950
Counter Pressure	mbar	3	3,5	5,5	6,5	7,5	8	8,8	9,2	10	10,5	11	12	12,5

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# EUROMAX S

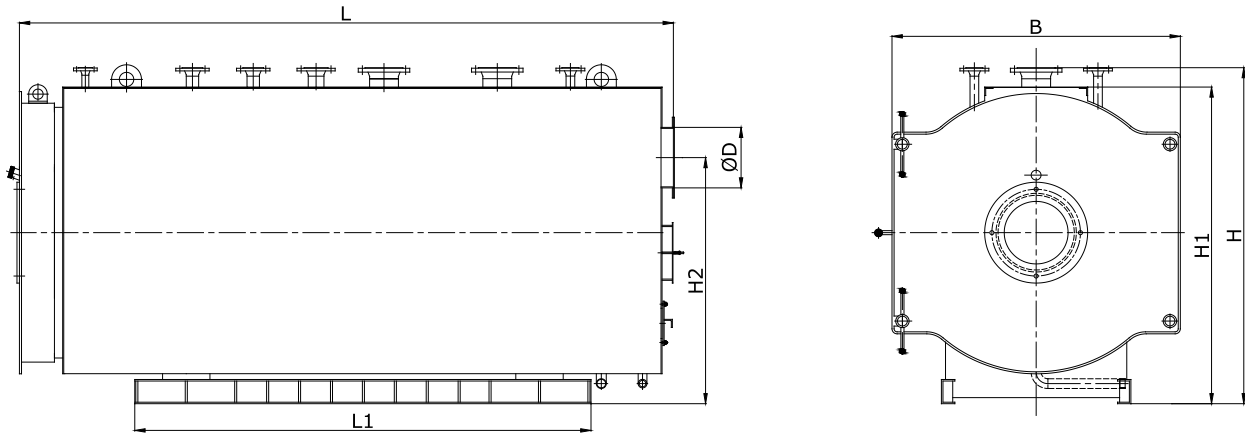
Liquid and Gas Fueled, Three-Pass Superheated Water Boiler



- \* 1170-10000 kW superheated water generation capacity
- \* 6-16 bar operating pressure
- \* Liquid and gas fueled
- \* Long boiler life with uninterrupted pass in all three suction and balanced cooling of steam gases
- \* Pollution sections is minimized with low chimney gas emissions
- \* Thanks to high density insulation material used in coating boiler body, radiation and standby losses are reduced
- \* Symmetrically positioned heat transfer surfaces provides robust boiler construction
- \* Optimum heat transfer with three-pass burning principle and water cooled reversal chamber
- \* Suitable for large capacity central heating systems

## EUROMAX S

Liquid and Gas Fueled Three-pass Hot Water Boiler



Technical Specifications	Unit	1170	1455	1745	2330	2910	3500	4000	5000	6000	8000	10000
Capacity	kW	1170	1455	1745	2330	2910	3500	4000	5000	6000	8000	10000
L	mm	3,185	3,555	3,685	3,885	4,190	4,470	4,790	4,940	5,430	6,252	6,756
L1	mm	2,215	2,570	2,700	2,915	3,210	3,500	3,736	3,880	4,370	5,260	5,760
B	mm	1,400	1,460	1,490	1,550	1,700	1,790	1,855	2,030	2,404	2,715	2,905
H	mm	1,680	1,745	1,776	1,815	1,987	2,075	2,141	2,311	2,762	3,120	3,328
H1	mm	1,570	1,632	1,663	1,704	1,873	1,962	2,028	2,200	2,577	2,934	3,143
H2	mm	1,220	1,240	1,270	1,350	1,472	1,560	1,590	1,715	2,025	2,317	2,476
ØD	mm	300	350	400	450	500	550	600	650	750	900	1,000
Water Volume	lt	1,791	2,178	2,270	2,600	2,848	3,998	4,663	6,678	10,237	15,142	18,643
Counter Pressure	mbar	5,2	6,2	7	8,7	9,2	9,4	9,4	9,8	9,8	10,2	12,4

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# EUROMAX SC

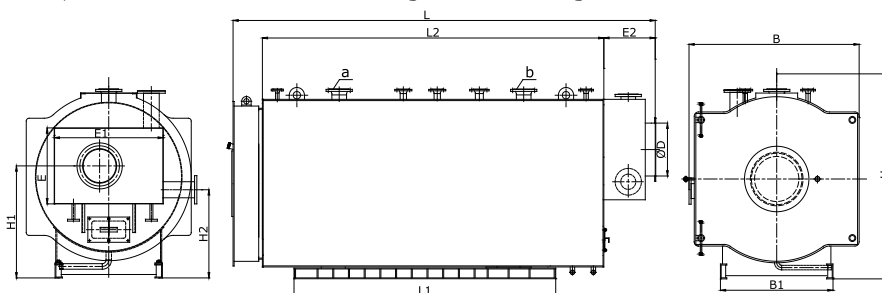
Liquid and Gas Fueled, Three-Pass, Integrated Condensing Economizer Superheated Water Boiler



- \* 1170-10000 kW superheated water generation capacity
- \* 6-16 bar operating pressure
- \* Liquid and gas fueled
- \* Long boiler life with uninterrupted pass in all three suction and balanced cooling of steam gases
- \* Pollution is minimized with low chimney gas emissions
- \* Thanks to high density insulation material used in coating boiler body, radiation and stand by losses are reduced
- \* Symmetrically positioned heat transfer surfaces provides robust boiler construction
- \* Optimum heat transfer with three-pass burning principle and water cooled reversal chamber
- \* Integrated condensing economizer condenses water vapor in steam gas from burning gas fuel, increasing boiler efficiency
- \* Suitable for large capacity central heating systems

## EUROMAX SC

Liquid and Gas Fueled, Three-Pass, Integrated Condensing Economizer Hot Water Boiler



Technical Specifications	Unit	1170	1455	1745	2330	2910	3500	4000	5000
Condensing Economizer									
30 °C	kW	78	97,5	118	158	198	239	268	340
60 °C	kW	65	81	97	131	164	198	222	280
Boiler Dimensions									
Length	mm	3775	4150	4290	4490	4795	5145	5440	5668
Width	mm	1520	1520	1625	1800	1860	2000	1985	2130
Height	mm	1750	1750	1845	1885	2055	2145	2210	2385
L	mm	3775	4150	4290	4490	4795	5145	5440	5668
L1	mm	2215	2570	2700	2915	3210	3500	3740	3880
L2	mm	2995	3375	3505	3695	4000	4350	4600	4745
B	mm	1545	1550	1746	1812	1950	2055	2061	2223
B1	mm	920	950	960	1040	1145	1210	1260	1385
H	mm	1750	1815	1845	1885	2055	2145	2210	2384
H1	mm	970	1033	1030	1140	1120	1170	1250	1356
H2	mm	712	775	772	680	740	790	870	980
ØD	mm	300	350	400	450	500	550	600	650
E	mm	820	820	877	1077	1077	1077	1077	1077
E1	mm	1085	1085	1245	1314	1445	1565	1514	1660
E2	mm	558	548	548	565	560	558	602	686
Water Outler Nozzle (a) (Δt 20-30-40)	DN	125-100-80	125-100-100	125-100-100	150-125-100	200-200-150	200-150-150	200-200-150	250-200-150
Water Inlet Nozzle (b) (Δt 20-30-40)	DN	125-100-80	125-100-100	125-100-100	150-125-100	200-200-150	200-150-150	200-200-150	250-200-150
Economizer Water Intake-outlet nozzle (Δt 20-30-40)	DN	125-100-80	125-100-100	125-100-100	150-125-100	200-200-150	200-150-150	200-200-150	250-200-150
Water Volume	lt	1.791	2.178	2.270	2.600	2.848	3.998	4.663	6.678
Economizer Water Flow Rate	m <sup>3</sup> /h	50	63	75	100	125	150	172	215
Counter Pressure	mbar	6,8	7,8	8,6	10,5	11	11,2	11,2	11,6
Chimney Gas Temperature									
Boiler Outlet	°C	200	200	200	200	200	200	200	200
30 °C returning water	°C	59,74	58,74	57,74	56,74	56,74	56,34	58,74	56,74
60 °C returning water	°C	83,24	97,5	82,74	81,24	81,24	80,99	83,24	81,84

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# SHW

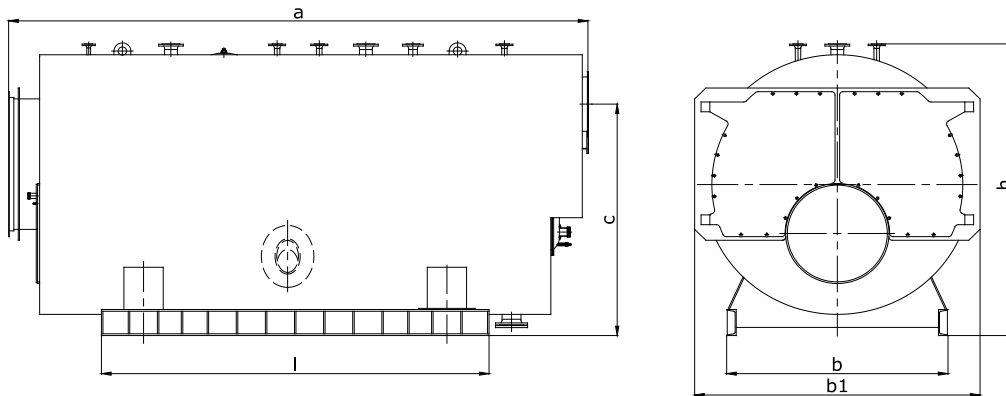
## Liquid and Gas Fueled, Three-Pass Superheated Water Boiler



- \* 700-23200 kW superheated water generation capacity
- \* 6-16 bar operating pressure
- \* Liquid and gas fueled
- \* Can be used with pressure jet burner
- \* Suitable for energy demand peaks
- \* Suitable for large capacity central heating systems
- \* Wet-back design enables maximum benefit from heat transfer surface
- \* Low furnace load to ensure burning is completed in firebox (< 1,3 MW/m<sup>3</sup>)
- \* Complete combustion and low NOx emission, thanks to thermal design
- \* Thanks to high density insulation material used in coating boiler body, radiation and standby losses are reduced
- \* Up-to 95% efficiency in economizer use

### SHW

#### Liquid and Gas Fueled, Three-Pass Superheated Water Boiler



Technical Specifications	Unit	807	1008	1210	1513	1815	2016	2520	3025	3530	4035	4540
Capacity	kcal/h	688.000	860.000	1.032.000	1.290.000	1.548.000	1.720.000	2.150.000	2.580.000	3.010.000	3.440.000	3.870.000
Capacity	kW	800	1.000	1.200	1.500	1.800	2.000	2.500	3.000	3.500	4.000	4.500
a	mm	3.936	4.180	4.400	4.460	4.555	4.618	4.933	5.273	5.555	5.806	6.050
b	mm	1.235	1.450	1.450	1.650	1.750	1.650	1.700	1.900	1.950	2.000	2.040
b1	mm	2.000	2.052	2.130	2.230	2.260	2.296	2.376	2.526	2.574	2.664	2.776
c	mm	1.599	1.600	1.722	1.780	1.932	1.838	1.903	2.022	2.064	2.128	2.211
l	mm	2.475	2.610	2.730	2.790	2.880	2.950	3.260	3.460	3.625	3.875	4.120
h	mm	2.030	2.030	2.162	2.262	2.404	2.404	2.494	2.645	2.696	2.785	2.908
Counter Pressure	mbar	5	6	6	6	6	6	6	6	7	7	7
Water Volume	lt	3,278	3,536	4,596	5,030	6,154	6,124	7,157	8,919	9,720	11,028	13,160

Technical Specifications	Unit	5045	6050	7060	8070	9080	10090	1200	-T 120100	-T 146120	-T 175146	-T 232195
Capacity	kcal/h	4.300.000	5.160.000	6.020.000	6.880.000	7.740.000	8.600.000	10.320.000	10.320.000	12.556.000	15.050.000	20.000.000
Capacity	kW	5.000	6.000	7.000	8.000	9.000	10.000	12.000	12.000	14.600	17.500	23.200
a	mm	6.270	6.740	6.785	7.170	7.515	7.844	8.190	6.948	7.450	7.972	8.240
b	mm	2.100	2.150	2.280	2.400	2.430	2.465	2.320	3.110	3.110	3.500	3.383
b1	mm	2.836	2.860	2.970	3.110	3.100	3.160	3.183	3.870	4.120	4.306	4.670
c	mm	2.270	2.282	2.430	2.490	2.550	2.607	2.677	3.148	3.300	3.374	3.893
l	mm	4.300	4.760	4.755	5.140	5.285	5.615	6.320	4.637	5.118	5.635	5.930
h	mm	2.988	3.030	3.170	3.313	3.370	3.544	3.666	4.246	4.466	4.596	5.000
Counter Pressure	mbar	7	8	9	9	9	10	10	10	10	10	10
Water Volume	lt	14,257	15,666	16,767	19,729	20,793	22,688	26,886	28,901	36,674	41,976	49,473

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# HWR

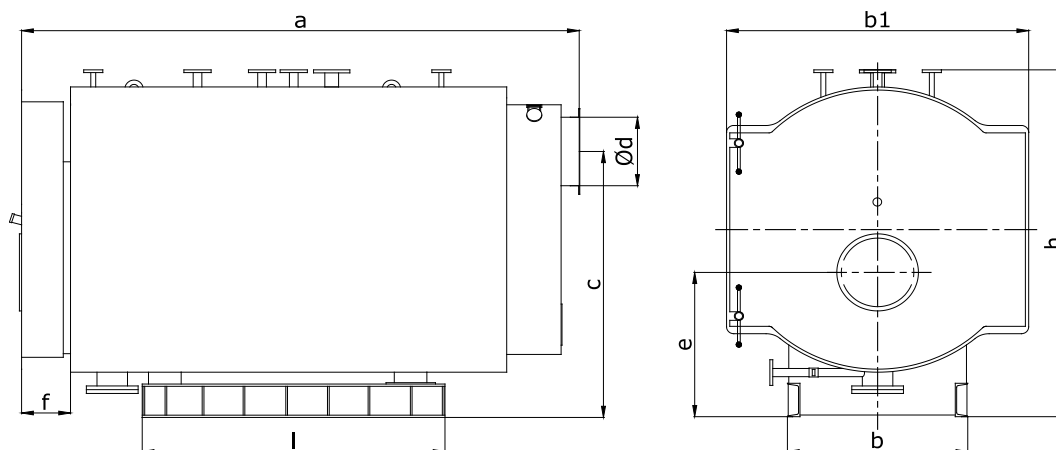
## Liquid and Gas Fueled, Two-Pass Package Superheated Water Boiler



- \* 465-4070 kW Superheated water generation capacity
- \* 6-16 bar operating pressure
- \* Liquid and gas fueled
- \* Can be used with pressure jet burner
- \* Thanks to high density insulation material used in coating boiler body, radiation and standby losses are reduced
- \* Electric control panel integrated into package system
- \* Digital temperature controlled safety system
- \* Standard Equipment: expansion tank, feed water tank, fuel tank (in liquid fuel), water softening device, PLC/Scada applications, chimney (Optional)

# HWR

## Liquid and Gas Fueled, Two-Pass Package Superheated Water Boiler



Technical Specifications	Unit	400	500	600	750	1000	1250	1500	2000	2500
Capacity	[kcal/h]	400,000	500,000	600,000	750,000	1,000,000	1,250,000	1,500,000	2,000,000	2,500,000
Fuel Amount (Fuel-Oil)	[kg/h]	45	55	69	86	110	138	172	206	275
a	[mm]	2,388	2,388	2,573	2,788	2,983	3,350	3,490	3,840	4,115
b	[mm]	800	800	850	900	960	1,040	1,170	1,190	1,365
b1	[mm]	1,320	1,320	1,400	1,480	1,550	1,650	1,922	2,000	2,110
c	[mm]	1,282	1,257	1,312	1,370	1,415	1,500	1,750	1,769	1,898
Ød	[mm]	300	350	350	400	450	500	550	600	650
e	[mm]	743	743	750	771	796	841	948	949	992
f	[mm]	228	228	228	228	228	270	180	180	180
h	[mm]	1,688	1,688	1,751	1,825	1,896	2,016	2,285	2,350	2,480
l	[mm]	1,314	1,314	1,480	1,780	1,780	2,100	2,000	2,500	2,650
Water Volume	[lt]	1,178	1,178	1,440	1,858	2,246	2,772	3,100	3,464	4,384
Counter Pressure	[mbar]	2,5-3	3-3,5	4,5-5	5-5,5	5,5-6	5,5-6	6-6,5	6,5-7	7-7,5

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# WASTE HEAT BOILERS

## Smoke Tube Waste Heat Boilers



- \* Generation of steam, superheated water and hot water at requested pressure for turbines, furnaces, gas and liquid fueled motor waste gases
- \* Heat and electricity generation using the energy from high temperature waste flue gas
- \* Project specific design solutions suitable for process data
- \* Material selection and design solutions suitable for chemical and physical properties of the waste gas
- \* Ability to monitor and interfere with all auxiliary functions with PLC based control systems
- \* All necessary equipment required for the system such as economizer superheater and damper (Optional)
- \* Type design options such as ground type, or over the chimney or vertical type depending on system layout
- \* High Energy recovery with duct burner addition

**WHB-ESB Smoke Tube Waste Heat Steam Boiler**  
**WHB-HW Smoke Tube Waste Heat Hot Water Boiler**  
**WHB-SHW Smoke Tube Waste Heat Superheated Water Boiler**



	WHB-ESB	WHB-HW	WHB-SHW	V/WHB-HW	V/WHB-SHW	WHB-S	WHB-DB
Capacity	Selected depending on motor flow rate and Temperature			Selected depending on motor flow rate and Temperature		Selected depending on motor flow rate and Temperature	Selected depending on motor flow rate and Temperature
						Selected depending on turbine flow rate and Temperature	
Design	Cylindrical			Prismatic		Prismatic	Cylindrical
	Horizontal			Vertical		Vertical (Economizer, Evaporator Superheater Units)	Horizontal
	Smoke Tube			Water Tube		Water Tube (Finned pipe, serrated pipe)	Spiral Coiled
Type	Without Burner			Without Burner		Without Burner	Without Burner
	Waste Gas Heat			Waste Gas Heat		Waste Gas Heat	Waste Gas Heat
Steam/Water	Steam	Hot Water	Superheated Water	Hot Water	Superheated Water	Steam /Superheated Steam	Superheated Oil
Control	Erensan PLC			Erensan PLC		Erensan PLC	Erensan PLC
	Erensan HMI			Erensan HMI		Erensan HMI	Erensan HMI

## WASTE HEAT BOILERS

Water Tube, Waste Heat Boilers



- \* Maximum steam and superheated steam generation from turbine waste gasses at high pressures
- \* Heat and electricity generation using the energy from high temperature waste flue gas
- \* Project specific design yielding solutions suitable for process data
- \* Material selection and design solutions suitable for chemical and physical properties of the waste gas
- \* High frequency welded serrated tube and special design finned tube based on the fuel type used in the system with consideration of cleaning of heating surfaces of the boiler and specific heating surface options depending on the properties of waste gas
- \* High quality dry steam generation in the steam storage drum
- \* Uninterrupted and integrated design including all heating surfaces (economizer - evaporator - superheater) in a single body
- \* Ability to monitor and interfere with all auxiliary functions with PLC based control systems

**WHB-S Water Tube Waste Heat Superheated Steam Boiler**

CE



## Some of our References





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HOLDİNG

veskim

YTONG

ak Ak Gıda

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BULGUR

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modern enerji

modern  
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