

ENERSAVE

gas-liquid fuel boiler



ENERSAVE is a highly efficient pressurized steel boiler for function on gas or liquid fuels. The function is based on reversed flame in the fire chamber. All surfaces coming in contact with fire are cooled by water.

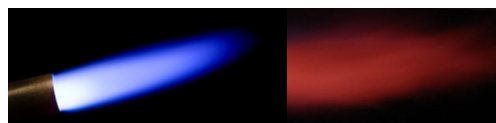
Its construction is cylindrical, with large fire chamber, improved heat exchanger surfaces and high performance turbinators. It is of high back-pressure in the fire chamber, designed to function with pressurized liquid or gas burners (the burner is not included).

The boiler has a robust construction which is ensured with quality control at every production step. Nominal working pressure is 6 bar. For models ENP 120-700, modular construction of the boiler is available on request.

Suitable control panel for one or two-stage burners.

Tested and CE marked according to the European Standard for boilers EN 303-3.

Fuel



gaseous /liquid

P235GH

High quality materials



Heating pump control



Control panel for one/two stage burner

3
years

3 years product warranty

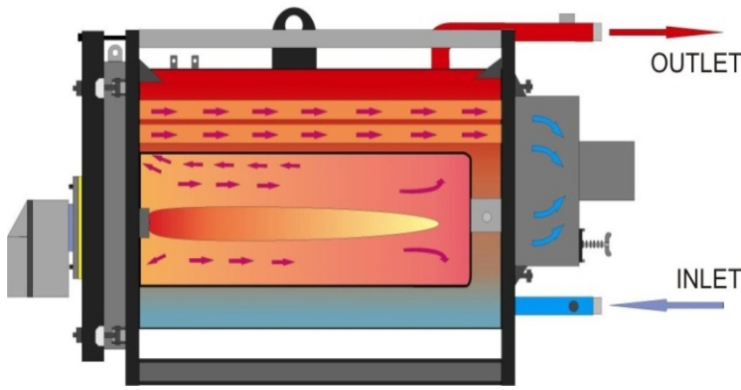


Safety thermostat

Main features

- Round-shaped fire chamber with large heat exchange surface;
- Robust construction, without elements;
- High efficiency, up to 93%;
- Comply to requirements of the latest European Energy Efficiency Directive;
- Tubed heat exchanger with stainless steel turbinators;
- Cooled-bottom construction;
- Control panel equipped with safety thermostat. Provides thermostatic control of the burner and pump;
- Compatible with all burners of European origin;
- Working pressure 6bar;
- High quality materials and compenents.

WORKING PRINCIPLE



ENP hot water boilers have high back-pressure in the fire chamber, designed to function with pressurized liquid or gas burners.

The function is based on reversed flame in the fire chamber, with three passes of the exhaust gases. All surfaces coming in contact with fire are water cooled. Most of the heat is transferred to water through radiation.

The first two passes are in the fire chamber, then the exhaust gases are guided to the peripheral smoke tubes, in which the third pass is realized. Special turbinators are positioned inside the smoke tubes to increase boiler's efficiency.

After passing the smoke tubes the exhaust gases are guided to the smoke box and then to the chimney.

CONSTRUCTION



The boiler body is constructed by special steel sheets and is cylindrical. The boiler door is positioned in the front part of the body and mounted on two hinges. It can open completely and very easy, so that it allows easy cleaning and maintenance of

the boiler.

In order to reduce the losses to minimum, the boiler is insulated with glass fiber and is equipped with exterior metal jackets, painted with electrostatic paint at temperature of 220°C.

Each boiler passes through several quality control tests throughout the production process. Every boiler is individually tested under pressure for hydraulic resistance.

CERTIFICATION



CERTIFICATE TIC

for the management system according to ISO 9001:2008

The proof of the conforming application with the regulation was furnished and in accordance with certification procedure it is certified for the company

thermostahl

S.C. Thermostahl Romania Sisteme Termice S.R.L.
Drumul Osiei no. 57-59 sector 6, 062395 Bucuresti
Romania

Scope

Manufacturing of hot water boilers for central heating and accessories for heating systems

Certificate Registration No.: TIC 15 100 138312 Valid until: 2016-01-29

Audit Report No.: 3330 2KVC A0 Valid from: 2013-01-30

This certification was conducted in accordance with the TIC auditing and verification procedures and is subject to regular surveillance audits.



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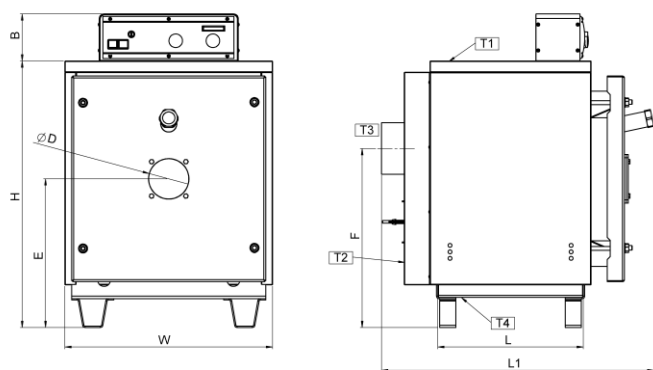
The construction is performed and certified according to European Standard concerning pressure equipment 2014/68/EC by TÜV AUSTRIA.

The production quality system is certified by EN ISO:9001.

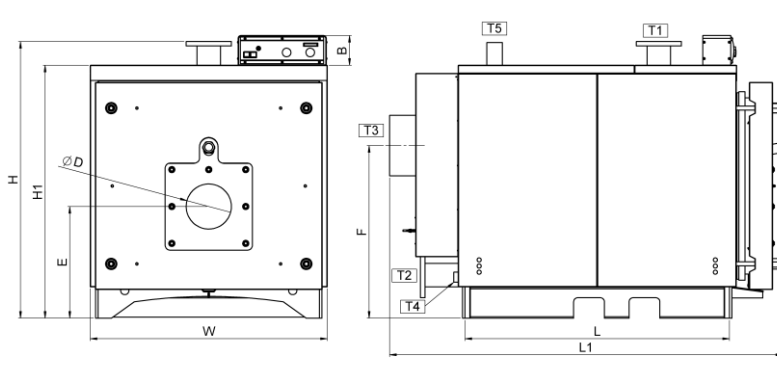
TECHNICAL DATA

Type	Power	Temp. max.	Pressure max.	Back pressure	Fire chamber dimensions ØxL	Water contents	Water pressure drop	Efficiency	Weight
	kW	°C	bar	mbar	mm	lit	mbar ΔT=20K	%	kg
ENP 35	35	90	6	0,2...0,4	320x400	55	2	91,5	165
ENP 70	70	90	6	0,4...0,6	320x600	75	3	91,5	195
ENP 90	90	90	6	0,4...0,6	320x750	95	5	91,5	220
ENP 120	120	90	6	0,6...1,0	370x700	139	6	91,5	260
ENP 140	140	90	6	0,6...1,0	370x850	165	7	91,5	290
ENP 180	180	90	6	0,6...1,0	370x1050	200	9	91,5	330
ENP 230	230	90	6	1,0...2,0	450x1000	197	12	93	510
ENP 300	300	90	6	1,0...2,0	450x1240	240	15	93	575
ENP 350	350	90	6	1,0...2,0	450x1430	270	18	93	635
ENP 420	420	90	6	1,0...2,0	610x1100	580	18	93	945
ENP 500	500	90	6	1,0...2,0	610x1250	640	22	93	1.010
ENP 600	600	90	6	1,0...2,0	610x1500	740	22	93	1.120
ENP 700	700	90	6	1,0...2,0	610x1700	820	25	93	1.205
ENP 800	800	90	6	3,0...4,0	735x1490	960	35	93	1.650
ENP 900	900	90	6	3,0...4,0	735x1690	1.060	35	93	1.760
ENP 1000	1.000	90	6	3,0...4,0	735x1840	1.130	40	93	1.845
ENP 1300	1.300	90	6	3,0...4,0	835x1950	1.890	40	93	2.580
ENP 1500	1.500	90	6	3,0...4,0	835x2200	2.070	40	93	2.780
ENP 1800	1.800	90	6	3,0...4,0	835x2500	2.290	40	93	2.980
ENP 2000	2.000	90	6	3,0...4,0	835x2650	2.400	45	93	3.090
ENP 2500	2.500	90	6	4,0...6,0	935x2960	4.500	45	93	4.995
ENP 3000	3.000	90	6	4,0...6,0	935x3390	5.000	45	93	5.450
ENP 4000	4.000	90	6	4,0...6,0	935x3820	5.700	45	93	5.885

DIMENSIONS



ENP 35-180



ENP 230-4000

Type	H	B	E	D	W	F	L1	T1-T2	T3	T4	T5
	mm							inch	mm	inch	
ENP 35	820	145	460	125	640	555	840	1 ½"	160	½"	-
ENP 70	820	145	460	125	640	555	1040	1 ½"	160	½"	-
ENP 90	820	145	460	125	640	555	1190	1 ½"	160	½"	-
ENP 120	915	145	420	150	755	615	1165	2"	200	½"	-
ENP 140	915	145	420	150	755	615	1315	2"	200	½"	-
ENP 180	915	145	420	150	755	615	1515	2"	200	½"	-
ENP 230	1135	145	480	185	860	725	1630	DN 65	250	1"	2"
ENP 300	1135	145	480	185	860	725	1870	DN 65	250	1"	2"
ENP 350	1135	145	480	185	860	725	2060	DN 80	250	1"	2"
ENP 420	1350	145	545	220	1160	840	1930	DN 100	300	1 ¼"	2 ½"
ENP 500	1350	145	545	220	1160	840	2080	DN 100	300	1 ¼"	2 ½"
ENP 600	1350	145	545	220	1160	840	2330	DN 100	300	1 ¼"	2 ½"
ENP 700	1350	145	545	220	1160	840	2530	DN 125	300	1 ¼"	2 ½"
ENP 800	1590	145	680	270	1300	965	2700	DN 125	400	1 ¼"	DN 65
ENP 900	1590	145	680	270	1300	965	2900	DN 125	400	1 ¼"	DN 65
ENP 1000	1590	145	680	270	1300	965	3050	DN 125	400	1 ¼"	DN 65
ENP 1300	1855	145	840	270	1520	1110	3225	DN 150	450	1 ½"	DN 80
ENP 1500	1855	145	840	270	1520	1110	3475	DN 150	450	1 ½"	DN 80
ENP 1800	1855	145	840	270	1520	1110	3775	DN 200	450	1 ½"	DN 100
ENP 2000	1855	145	840	270	1520	1110	4175	DN 200	450	1 ½"	DN 100
ENP 2500	2100	145	1035	425	1900	1145	4480	DN 250	620	1 ½"	DN 125
ENP 3000	2100	145	1035	425	1900	1145	4910	DN 250	620	1 ½"	DN 125
ENP 4000	2100	145	1035	425	1900	1145	5340	DN 250	620	1 ½"	DN 125