

*ON series  
163 - 355 kW*



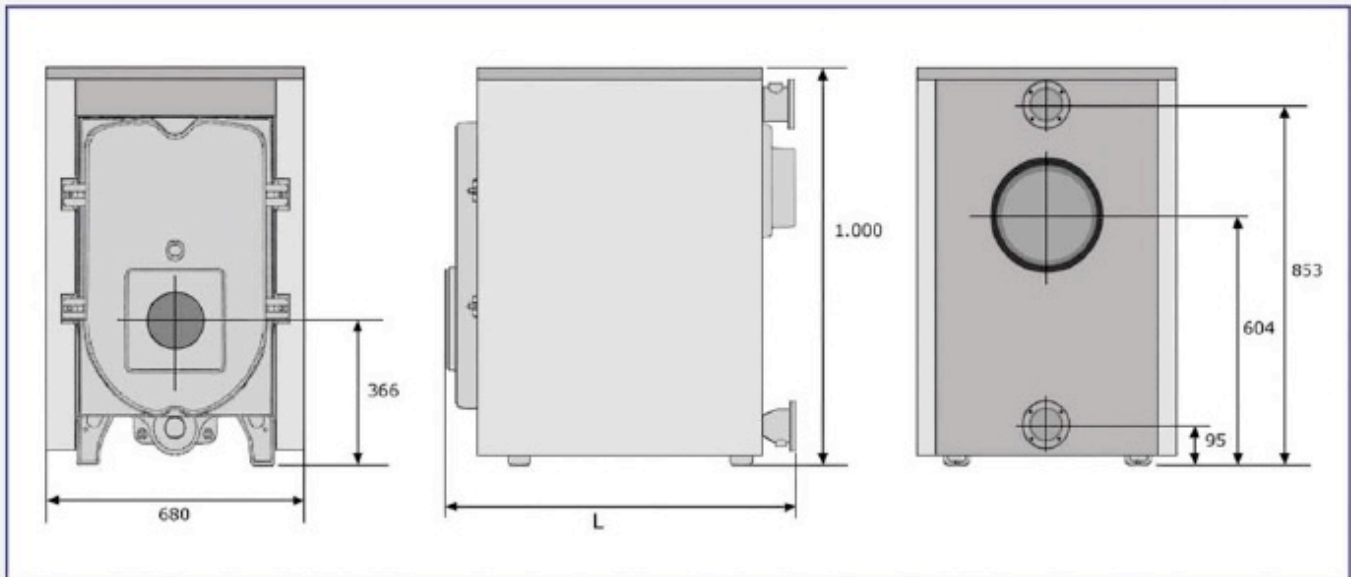
*. three - pass design*

*. high efficiency*

*. cast iron sections*



## Dimensions :



ON series cast iron boilers heat transfer surface area is enlarged with the special wings in chimney ways and combustion area . With special designed flame delay turbulators , maximum heat is transferred to the water in the sections for gaining high efficiency.

Sections are produced with flexible casting technique , EN GJL 200 special cast iron alloy , which gives high resistance against corrosion and thermal expansions.

ON series boilers produce more energy with less fuel by its high efficiency and perfect heat isolation.

Burning gases move three times in the boiler with the help of three pass cast iron sections and this minimizes the chimney gas output temperature.

Installation, operation and controls can easily be done with the help of both side opening burner door.

Boilers can easily be delivered and installed to the boiler room as it is delivered not assembled.



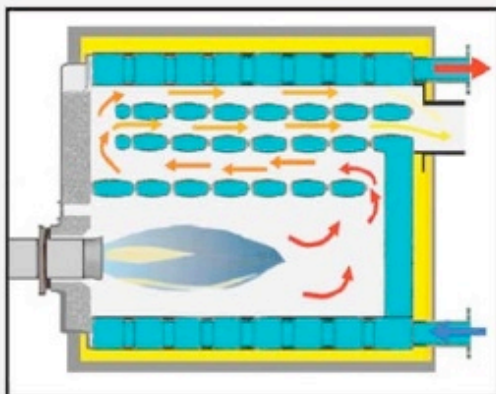
Thermix is a system designed by Önmatal . With tightening cross sectioned design and with turbulence wings , adaptor gives high speed to the return water of the boiler. Hot boiler water in the back sections of the boiler can be transferred to the front sections with the help of this turbulanced high speed water. With this way , hot water mixes with cold return water of boiler and temperature of return water increase .As temperature of the water which goes to back side of the boiler rises, condensing is prevented.



ON series automatic eco control panel

Technical Data :

Model			ON 05	ON 06	ON 07	ON 08	ON 09	ON 10	ON 11
Number Of Sections	Pcs.		5	6	7	8	9	10	11
Heat Output	kW		163	195	227	259	291	323	355
	kCal/h		140.000	167.500	195.000	222.500	250.000	277.500	305.000
Heat Input	kW		177	211	246	281	316	351	385
Operating Temperature	max °C		90						
Range Of Temperature Control	°C		30 - 90						
Gas Side Resistance	mbar		1,25 - 1,60	1,35 - 1,70	1,55- 1,90	1,78 - 2,20	2,08 - 2,50	2,37 - 2,80	2,65 - 3,10
Maximum Operating Pressure	Max. bar		6						
Boiler Water Content	Litres		77	93	109	125	141	157	173
	m³		0,077	0,093	0,109	0,125	0,141	0,157	0,173
Exit Flue Connection Diameter	mm		180			250			
Combustion Chamber Dimensions	W x H	mm	442 x 391						
	L	mm	691	835	979	1.123	1.267	1.411	1.555
Water Input - Output Connection	DN (")		DN 80 ( 3" )						
Gas Volume Of the Boiler	dm³ ( lt. )		142,17	170,43	198,69	226,95	255,21	283,47	311,73
	m³		0,142	0,170	0,199	0,227	0,255	0,283	0,312
Gas Volume Of the Combustion Chamber	dm³ ( lt. )		101,89	122,15	142,40	162,65	182,91	203,16	223,41
	m³		0,102	0,122	0,142	0,163	0,183	0,203	0,223
Safety Temperature Limiter	°C		100						
Boiler Type			ON / OFF						
Fuel Type	Gas		Natural Gas ( I2H )						
	Liquid F.		Liquid Fuel ( Extra Light Heat Oil )						
Exit Flue Gas Temperature	Full Load	°C	182 - 187	178 - 185	175 - 180	173 - 178	173 - 175	170 - 173	172 - 170
	Part Load	°C	165 - 172	164 - 170	162 - 168	161 - 165	160 - 165	158 - 163	156 - 161
Exit Flue Gas Mass Flow ( %13 CO <sub>2</sub> )      % 60	Full Load	kg / h	273	326	380	433	487	540	594
	Part Load	kg / h	164	196	228	260	292	324	356
Chimney Effect	Pa		5						
Burner Type			Short Barrel						
Burner Flange Connection Dimension	mm		185						
Standby Loss	%		0,25	0,24	0,22	0,20	0,19	0,18	0,16
	kCal/h		3.780	4.342	4.633	4.806	5.130	5.395	5.270
Boiler Length ( L )	mm		1.070	1.215	1.360	1.505	1.650	1.795	1.940
Dry Weight	Kg.		483	560	636	715	792	869	947
CE - Registration Number			CE - 1015BR261						



Three draught design forces the flue gas to circulate inside the body of the boiler three times before the chimney exit, transferring all usefull energy to the water inside the sections . The optimized combustion chamber combined with perfect heat insulation provides maximum fuel efficiency.