



## CARBON STEEL PRESSURE JET BOILERS



# RIELLO 3300

### central heating only



Reverse flame horizontal furnace boiler manufactured from carbon steel. These appliances can be fired ( on oil or gas ) with pressure jet burners. Fitted with removable stainless steel turbulators that optimise heat exchange and uniformly distribute the thermal load. Suitable for operation with inside-outside compensation (climate control), with 55°C minimum return temperature for all fuel. Insulated boiler body. Double hinged front door with ceramic insulation and removable rear smoke box cover. These boilers are available in 6 models, with output from 19.1 to 91.5 kW.

The control panel is available as optional.

### PRODUCT ADVANTAGES

High efficiency (>90%) with low operating costs.

Combination available with Domestic Hot Water Calorifier

Thermostatic or climate control

Suitable for operation with temperature modulation (inside out side compensation), with a minimum return temperature of 55°C. Combi

### INSTALLATION/MAINTENANCE ADVANTAGES

Easy to transport: delivered in separate packages.

Easy installation: simple assembly, standardised fittings.

Flexible installation: differentiated boiler management (thermostatic or climate control with room thermostat), available with domestic hot water calorifier as optional (RIELLO 7300)

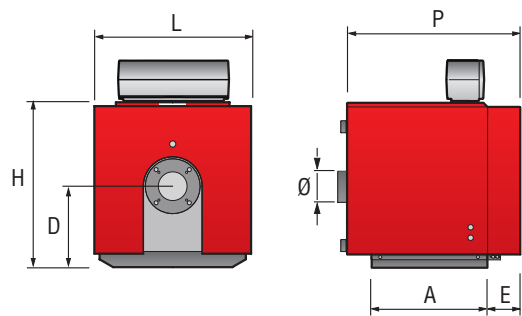
Extremely easy maintenance: complete access to the internal components.

Combination available with Riello 7300 DHW.



CHARACTERISTICS			RIELLO 3300.17	RIELLO 3300.27	RIELLO 3300.36	RIELLO 3300.45	RIELLO 3300.63	RIELLO 3300.80
Fuel			Gas (Natural Gas or LPG)/ Light oil					
Input	max	kW	21	34,5	45	57	80	100
	max	Mcal/h	18,06	29,67	38,7	49,02	68,8	86
	min	kW	-	-	32	42	56	80
	min	Mcal/h	-	-	27,52	36,12	48,16	68,8
Output	max	kW	19,1	31,3	40,8	52,2	73,1	91,5
	max	Mcal/h	16,426	26,918	35,088	44,892	62,866	78,69
	min	kW	-	-	29,5	38,9	52	74,2
	min	Mcal/h	-	-	25,37	33,454	44,72	63,812
Efficiency at Maximum Output		%	90,8	90,8	90,7	91,5	91,4	91,5
Efficiency at Minimum Output		%	-	-	92,2	92,5	92,9	92,8
Efficiency at 30% Load		%	89,6	92,4	91,6	93,6	94,3	94,9
Heat losses through flue gas	burner lock-out	%	0,1	0,1	0,1	0,1	0,1	0,1
	100 % load	%	7,5	7,5	7,5	7,5	7,7	7,7
Heat losses through insulation		%	1,5	1,8	1,8	0,9	0,9	0,8
Flue Gas Temperature		~°C	150-170	150-170	150-170	150-170	150-170	150-170
Flue gas mass flow rate		kg/sec	0,008	0,013	0,017	0,023	0,03	0,038
Flue Gas volume		dm <sup>3</sup>	39,9	49,9	62	69,9	126,8	142,4
Combustion chamber volume		dm <sup>3</sup>	24,6	31,2	39,8	46,4	85,1	97,3
Volumetric thermal load		kW/m <sup>3</sup>	852	1106	1130	1220	940	1020
Combustion Chamber Pressure Drop		mbar	0,13	0,21	0,42	0,59	0,54	1,1
		Pa	13	21	42	59	54	110
Maximum Flow temperature		°C	100	100	100	100	100	100
Minimum Return temperature		°C	55	55	55	55	55	55
Water-side pressure drop	ΔT 10°C	mbar	12	20	38	70	20	50
		Pa	1200	2000	3800	7000	2000	5000
	ΔT 20°C	mbar	3	5	9	16	6	15
		Pa	300	500	900	1600	600	1500
Capacity:		litri	32	42	55	64	97	113
Maximum working pressure		bar	5	5	5	5	5	5
		KPa	500	500	500	500	500	500
Boiler weight with casing		kg	104	110	123	138	195	210

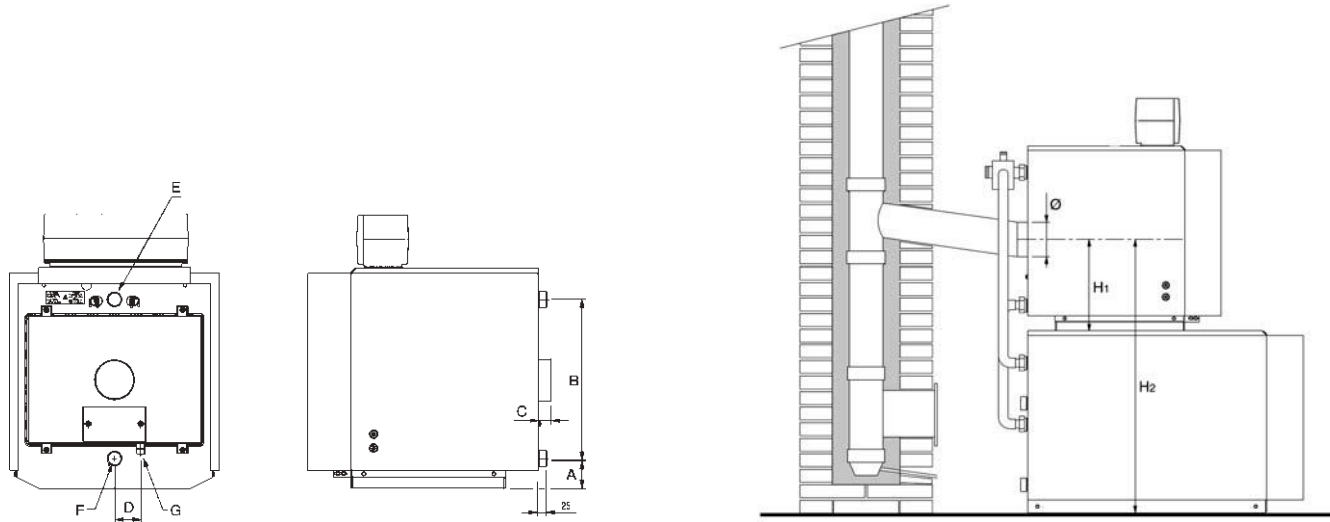
## DIMENSIONS (mm)



Models 3300		17	27	36	45	63	80
L - Width	mm	600	600	600	600	700	700
P - Boiler Length	mm	565	665	805	905	925	1025
H - Boiler Height	mm	625	625	625	625	759	759
A - Boiler base Length	mm	338	442	572	672	672	772
D - Burner axis Central Line	mm	310	310	310	310	384	394
E - Front panel Length	mm	125	125	125	125	145	145
Ø - Flue Gas outlet	mm	120	120	140	140	180	180



## WATER - FLUE CONNECTIONS

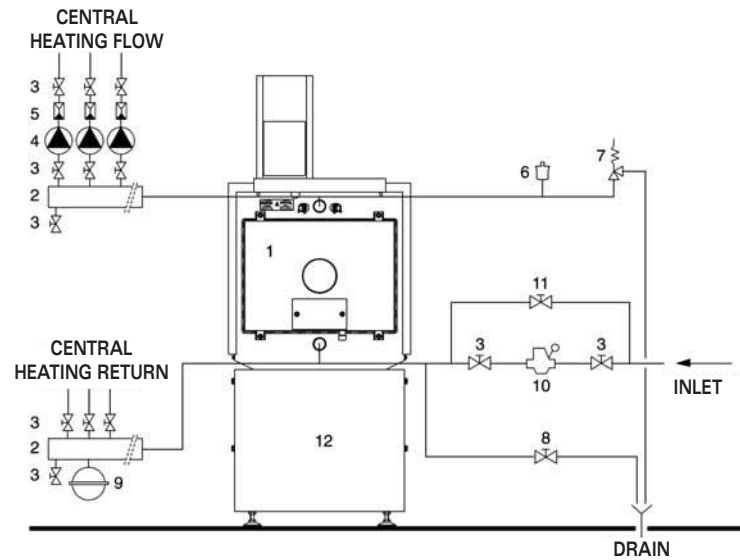


Models		RIELLO 3300.17	RIELLO 3300.27	RIELLO 3300.36	RIELLO 3300.45	RIELLO 3300.63	RIELLO 3300.80
A - Distance	mm	85	85	85	85	110	110
B - Flow/Return Distance	mm	465	465	465	465	553	553
C - Exhaust outlet protrusion	mm	40	440	40	40	50	50
D - Dist. between O/R-safety/cond. drain	mm	75	75	75	75	85	85
E - Central heating flow	DN	1"1/4	1"1/4	1"1/4	1"1/4	1"1/2	1"1/2
F - Central heating Return inlet/boiler drain	DN	1"1/4	1"1/4	1"1/4	1"1/4	1"1/2	1"1/2
G - Flue condensate drain	DN	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"
Ø - Flue gas diameter	mm	119	119	139	139	179	179
H1 - Flue Central Line	mm	310	310	325	325	384	384
H2 - Flue Fitting Height (with 7300 storage cylinder)	mm	935	935	950	950	1010	1010



## EXAMPLE OF BOILER CALORIFIER CONNECTION SCHEME

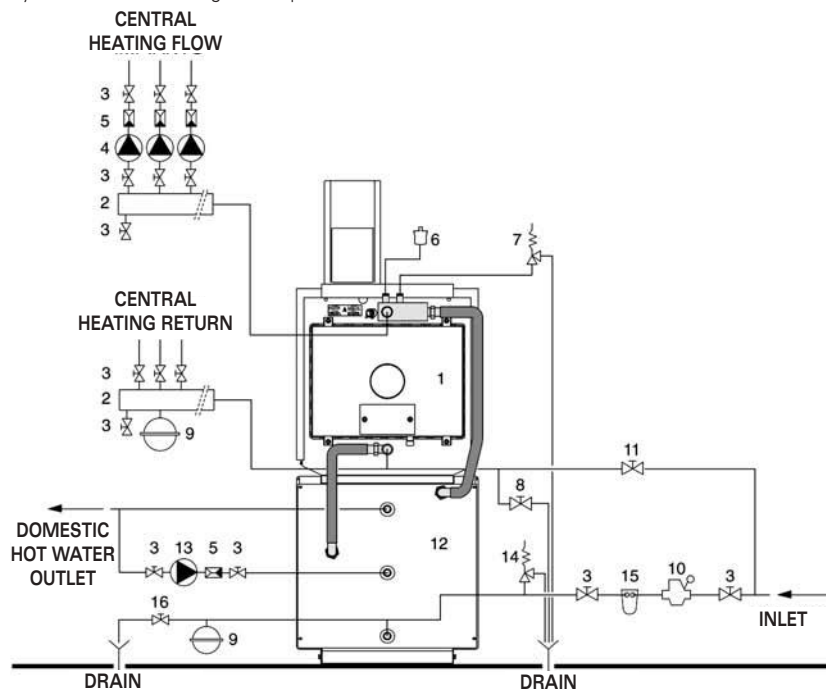
System for central heating only



Key

- 1 Boiler
- 2 CH header
- 3 Isolating valve
- 4 CH pumps
- 5 Non-return valves
- 6 Automatic air vent
- 7 Boiler safety valve
- 8 Boiler drain
- 9 Expansion vessels
- 10 Pressure Reducing Valve
- 11 Manual quick fill valve
- 12 Base/support Stay Support

System for central heating and the production of domestic hot water



Key

- 1 Boiler
- 2 CH manifolds
- 3 Isolating valve
- 4 CH pumps
- 5 Non-return valves
- 6 Automatic air-vent
- 7 Boiler safety valve
- 8 Boiler drain
- 9 Expansion vessels
- 10 Reducing unit
- 11 Manual quick fill valve
- 12 RIELLO 7300 DHW
- 13 DHW circulating pump
- 14 Calorifier safety valve
- 15 Filter
- 16 Calorifier Drain

The choice of system components and the installation are up to the installer. Installers must use their experience to guarantee a proper installation and functioning in compliance with all applicable legislation.

Circuits filled with anti-frost must be fitted with water disconnectors

## INSTALLATION

The boiler must be installed, where possible, raised from the floor in order to minimise / quantity of dust draft going to the burner fan

The Riello 3300 steel boilers can be installed:

- directly on the floor: this solution is possible but not recommended due to the reduced space between the burner and floor; in addition, the boiler room must be very clean;
- on a stay base/support: this is the best solution;
- stacked on DHW calorifier: this solution is ideal for combination systems (central heating and domestic hot water). In this case, the Riello 3300 boilers (from model 17 to 45) are combined with the Riello 7300 storage cylinder, designed and built specifically to support the weight of the boiler.



<b>BURNERS MATCHING</b>		RIELLO 3300.17	RIELLO 3300.27	RIELLO 3300.36	RIELLO 3300.45	RIELLO 3300.63	RIELLO 3300.80
<b>BURNERS</b>							
<b>GAS</b>	GULLIVER BS 1*	●	●	●			
	GULLIVER BS 2*				●	●	
	GULLIVER BS 3*						●
	GULLIVER BS 1D*	●	●	●			
	GULLIVER BS 2D*				●	●	
	GULLIVER BS 3D*						●
	GULLIVER BGK2*			●			
	GULLIVER BG6D*					●	
	GULLIVER BG7D*						●
<b>LHGT OIL</b>	GULLIVER RG 0.R	●		●			
	GULLIVER RG 1NR		●	●			
	GULLIVER RG 2				●	●	
	GULLIVER RG 3						●
	GULLIVER RG 1 RDK	●	●	●			
	GULLIVER RG 2D				●	●	
	GULLIVER RG 3D						●

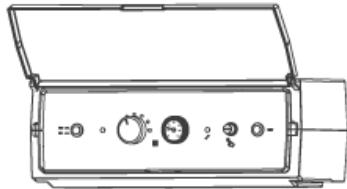
\* Low NOx, low nitrogen oxide emissions. NATURAL GAS: NOx < 80mg/kWh; CO < 60mg/kWh. OIL: NOx < 120mg/kWh; CO < 60mg/kWh

<b>COMBINATIONS WITH RIELLO 7300</b>		RIELLO 3300.17	RIELLO 3300.27	RIELLO 3300.36	RIELLO 3300.45	RIELLO 3300.63	RIELLO 3300.80
<b>HOT WATER CALORIFER</b>							
7300.130 H 130 litres		●	●	●	●		
7300.170 H 170 litres			●	●	●		
7300.220 H 220 litres				●	●		
7300.270 H 270 litres						●	●
7300.330 H 330 litres						●	●



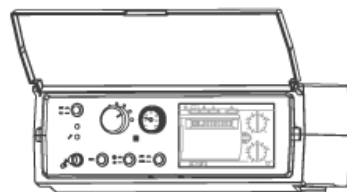
## CONTROL PANELS (ACCESSORY)

The RIELLO 5000 control panels for use with the Riello 3300 carbon steel boilers are described below, and are designed for the different needs of both the central heating system and the various devices used.



**TMR**  
for central heating only, on-off burner

**TMK**  
for central heating and domestic hot water production with RIELLO 7300 calorifier, on-off burner



**BOX**  
control boiler functions control  
with a Riello Esatto series electronic control unit.

## RIELLO 3300

### DESCRIPTION FOR SUMMARY SPECIFICATIONS

Reverse flame floor standing horizontal furnace boiler manufactured from carbon steel.  
Maximum working pressure 5 bar.

### DESCRIPTION FOR SPECIFICATIONS

The hot water boiler is made up of:

- Casing constructed from sheet steel finished in power coating with easy to fit couplings and removable for servicing
  - Insulation with a double layer of high density fibre-glass wool
  - Double hinged front door with ceramic insulation
  - reverse flame horizontal combustion chamber, concentric flue tube battery and adjustable stainless steel turbulators
  - burner mounting flange
  - control panel chosen according to the type of system used
  - maximum working temperature 100°C and maximum working temperature 93°C
  - minimum return temperature 55°C
  - maximum working pressure 5 bar
  - compliant with 90/396/EEC directive (gas) - CE mark
  - compliant with 89/336/EEC directive (electromagnetic compatibility)
  - compliant with 72/23/EEC directive (low voltage)
  - compliant with 92/42/EEC directive (efficiency)
- Combination available with the Riello 7300 series horizontal vitrified calorifier complete with special kit.

### MATERIAL SUPPLIED

- installation, use and maintenance manual
- hydraulic test certificate
- product identification plate

Boiler delivered in two separate packages: boiler body and the casing complete with lagging and assembly accessories

## ACCESSORIES

The following accessories are available separately, upon request.  
RIELLO 7300 calorifier water connection kit (for 3300 models 17-45)  
RIELLO 7300 calorifier water connection kit (for 3300 models 63-80)  
RIELLO 5000 TMR control panel  
RIELLO 5000 TMK control panel  
RIELLO 5000 EB/T control panel  
RIELLO 5000 BOX control panel