



Millennium

THE SMALL BIG WALL-HANGED BOILER

SANT'ANDREA 

ISO 9001

THE FUTURE IS NOW

Millennium

THE SMALL BIG WALL-HANGED BOILER BY SANT'ANDREA

HIGH TECHNOLOGY, SAFETY, SILENT OPERATION, RELIABILITY, EASY INSTALLATION AND MAINTENANCE, EVERYTHING INCLUDED IN LESS THAN 90 dm³ (400x305x720).

HIGH TECHNOLOGY

Electronics allows to achieve increasingly important goals all industry fields. The integrated ignition system, the flame control and modulation that are included in *Millennium* boiler represent the most innovative features currently available on the market as they are designed to look into the future of heating management. Thermoregulation is obtained the combination of an external probe, which perfectly controls – through a microprocessor – the system set temperature according to the external temperature and the environment dispersion coefficient, for maximum comfort. Heating and hot domestic water management is differentiated. In both cases the adjustment is modulated to the **PID (Derivated Proportional Integrated) electronic system**. It can be set to operate with traditional or low temperature systems.



INCREDIBLY SILENT OPERATION

Special attention was given to design of the furnace and of the fume exhaust fan obtain from pressure casting and a special technology that allows reduction of noises deriving from fumes outflow (room-sealed version). The hydraulic system of the boiler is equipped with an automatic air vent built-in pump which avoid the bothering noises deriving from possible air presence.



The heating circuit built-in by-pass adapts the water circulation to the system needs.



Millennium is equipped with „**Blue button**”.



Blue as the color of serenity. Serenity of having a constant HDW temperature at a re-settable value (between 35 and 45° C) which can be enabled or disabled by simply pressing the „**Blue button**”. **Blue** as **SANT'ANDREA's** color.

SAFETY ABOVE ALL

Our commitment is the safety and quality of our products, which is guaranteed by a design carried out according to ISO-9001 requirements, and which means:



- safety ignition and ionization flame detecting in one unit.
- safety fume-gas ducting
- activate safety in case of heating probe failure which cancel the boiler operation request
- primary circuit over-temperature safety
- anti-freeze function: if the boiler water temperature falls below 5° C the boiler starts up until 19° C are reached.
- pump anti-lockout function with start-up every 24 hours.

Reliability „CE”

All parts used must pass severe stress and wear and tear tests. The company quality system has set high quality standards for best customer satisfaction.



EASY MAINTENANCE

Our customers are serviced by professional technical staff whose expertise is guaranteed by specific training courses and by the SANT'ANDREA's 45 years of experience.

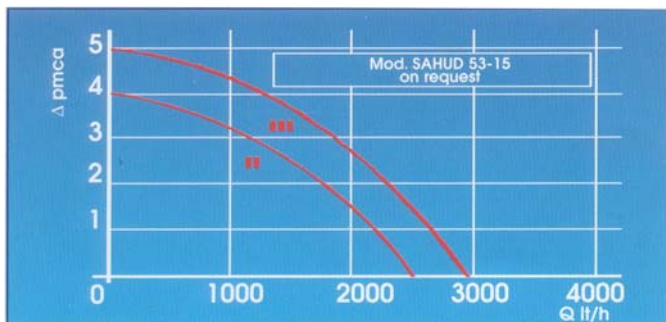
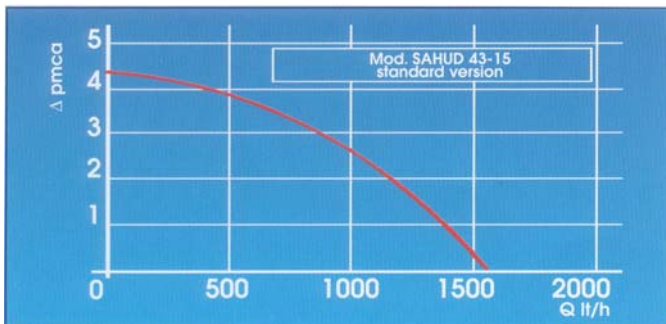
Millennium boiler represents our effort to simplify and dramatically reduce expensive servicing and fault diagnosis.

The electronic card provides on screen the reasons of the fault and allows the operator to immediately locate them and to restore boiler operation. All parts can be reached from the boiler front.

The pump and both the primary and the HDW exchangers have snap connections.

Furthermore the „chimney sweeper” test function of the electronic card allows efficiency check without having to readjust the boiler power.

CIRCULATION PUMPS OUTPUT CHARACTERISTICS



NOTE: The characteristics show the capacity and the prevalence available on the boiler delivery and return heating connections.

DESIGN

Millennium SANT' ANDREA boiler is also exclusive in design. White color, peel-like painting, round edges, foldaway control panel with light display and keys and limited size make the boiler suitable for all environments.

EASY INSTALLATION

The boiler small size and light weight guarantee easy handling and adaptability.

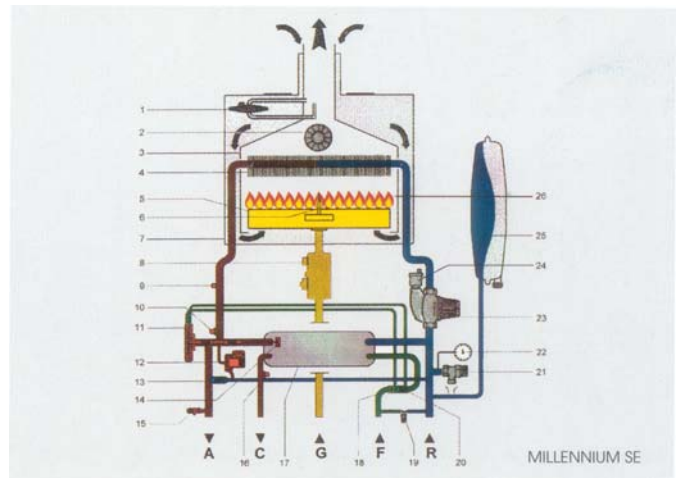
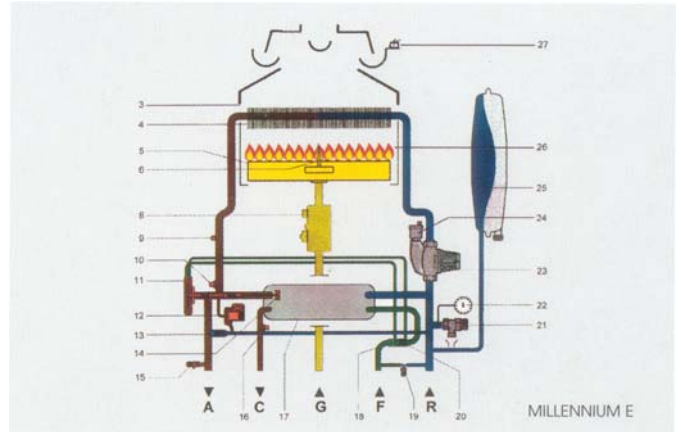
Available an optional kit which includes small bulk connection piping and pipe sheathing.

Fume exhaust piping for room-sealed version has been designed to meet any application

Four different kits are available:

- coaxial fume-duct
- separated fume-duct with tap-joint
- vertical coaxial fume-duct
- separated fume-duct

HIDRAULIC CIRCUIT SYSTEMS

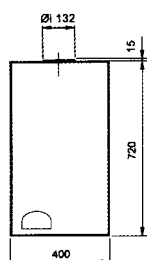


LEGEND

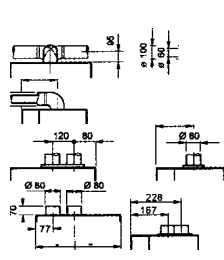
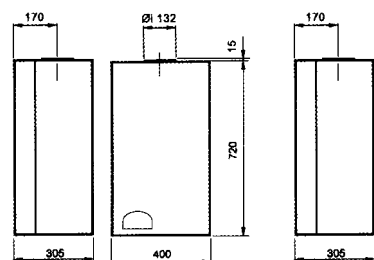
- | | | | |
|----|---|----|--|
| 1 | Fume differential pressure switch | 14 | Sanitary water priority pressure switch |
| 2 | Fume blower fan | 15 | Boiler draining tap |
| 3 | Fume collector | 16 | Sanitary warm-water sensor |
| 4 | Primary heating heat-exchanger | 17 | Sanitary water heat-exchanger (HDW) |
| 5 | Burner | 18 | 10 lit. sanitary water capacity limit-switch |
| 6 | Ignition and ionization electrodes | 19 | Filling cock |
| 7 | Sealed combustion chamber | 20 | Sanitary warm-water filter |
| 8 | Solenoid gas valve | 21 | Safety valve |
| 9 | Safety thermostat | 22 | Water pressure gauge |
| 10 | Heating sensor | 23 | Circulation pump |
| 11 | Three-way valve | 24 | Air vent |
| 12 | Water low-pressure switch (heating circuit) | 25 | Expansion tank |
| 13 | Automatic by-pass | 26 | Combustion chamber |
| | | 27 | Fume detector safety thermosta |

TECHNICAL DATA AND OUTLINE DIMENSIONS

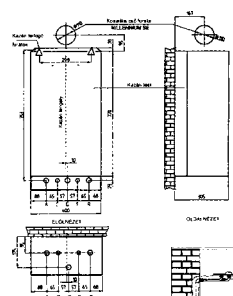
Millennium E



Millennium SE



WALL DRILLING PLAN



A = Heating forward 3/4"
 C = HDW forward 1/2"
 G = Gas inlet 3/4"
 F = Cold water inlet 1/2"
 R = Heating return 3/4"

Millennium type-versions		E	SE	26 E	26 SE
Nominal thermal load	(kW)	25,35	25,6	33,6	33,6
Minimum thermal load	(kW)	10,5	10,5	12,8	12,8
Nominal thermal output	(W)	23,2	23,2	30,2	30,4
Minimum thermal output	(kW)	8,9	8,9	11,5	14,5
Efficiency					
At nominal output	(%)	89,75	90,7	90,0	90,6
At 30% output	(%)	37	33	87,5	87,8
Heating data					
Temperature adjustment range	(°C)	30/30	30/80	30/80	30/80
Inner low temperature adjustment range	(°C)	30/40	30/40	30/40	30/40
Maximum working water pressure	(bar)	3	3	3	3
Expansion tank capacity	(l)	6	6	8	8
Expansion tank pre-load	(bar)	1	1	1	1
HDW data					
Temperature adjustment range min / max	(°C)	30/60 or 30/50	30/60 or 330/50	30/60 or 30/50	30/60 or 30/50
Temperature adjustment range with „Blue button”	(°C)	35/45	35/45	35/45	35/45
Maximum working water pressure	(bar)	6	6	6	6
Minimum working water pressure	(bar)	0,2	0,2	0,2	0,2
HDW capacity = at ~t 25 °C temperature stage	(l/min)	13,3	13,3	17,4	17,4
HDW capacity = at ~t 30 °C temperature stage	(l/min)	11,1	11,1	14,5	14,5
Electrical features					
Voltage/Frequency	(V)/(Hz)	230/50	230/50	230/50	230/50
Maximum electrical power consumption	(W)	100	145	100	158
Electrical protection		IP 44 (IP X4D)	IP 44 (IP X4D)	IP 44 (IP X4D)	IP 44 (IP X4D)
Weight	(kg)	37	39	40/42	42/45
Connections					
Heating forward/return	(φ)	C 3/4"	C 3/4"	C 3/4"	C 3/4"
Gas inlet	(φ)	C 3/4"	C 3/4"	C 3/4"	C 3/4"
	(φ)	C 1/2"	C 1/2"	C 1/2"	C 1/2"
Fume/air coaxial tube-duct	(φ mm)		60/100		60/100
Separated fume-gas/air tube-ducts	(φmm)		80/80		80/80
Coaxial tube-duct length	(m)		max. 3		Max. 2
Separated tube-ducts length	(m)		max. 35		Max. 23
Chimney connection	(φmm)	132		152	

Boilers have obtained the „CE” marking in compliance with the requirement of European provisions (Gas Directives 90/396/CEE, Efficiency Directives 92/42/CEE, Electromagnetic Compatibility Directives 89/336/CEE, Low Tension Devices Directives 73/23 CEE).

Wholesaler in Hungary and abroad:

GB-GANZ

Tüzeléstechnikai Kft.
 HUNGARY

H-1103 Budapest, Szlávy u. 22-30. Tel.: +36-1-260-2727 F:+36-1-260-0033

Internet: www.gb-ganz.hu E-mail: gbganz@gb-ganz.hu

Regional Sales Office in Hungary:

GB-GANZ Transdanubian Sales Office: 8300 Tapolca Juhász Gy.u. 2/1. Tel/F.: +36-87-510-670