

ANTEA Monothermal CTFS 40

INSTALLATION, USE AND MAINTENANCE



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BE INNOVATIVE

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Translation of the
original instructions (in
Italian)

1. Instructions for the user

1.1 Control panel

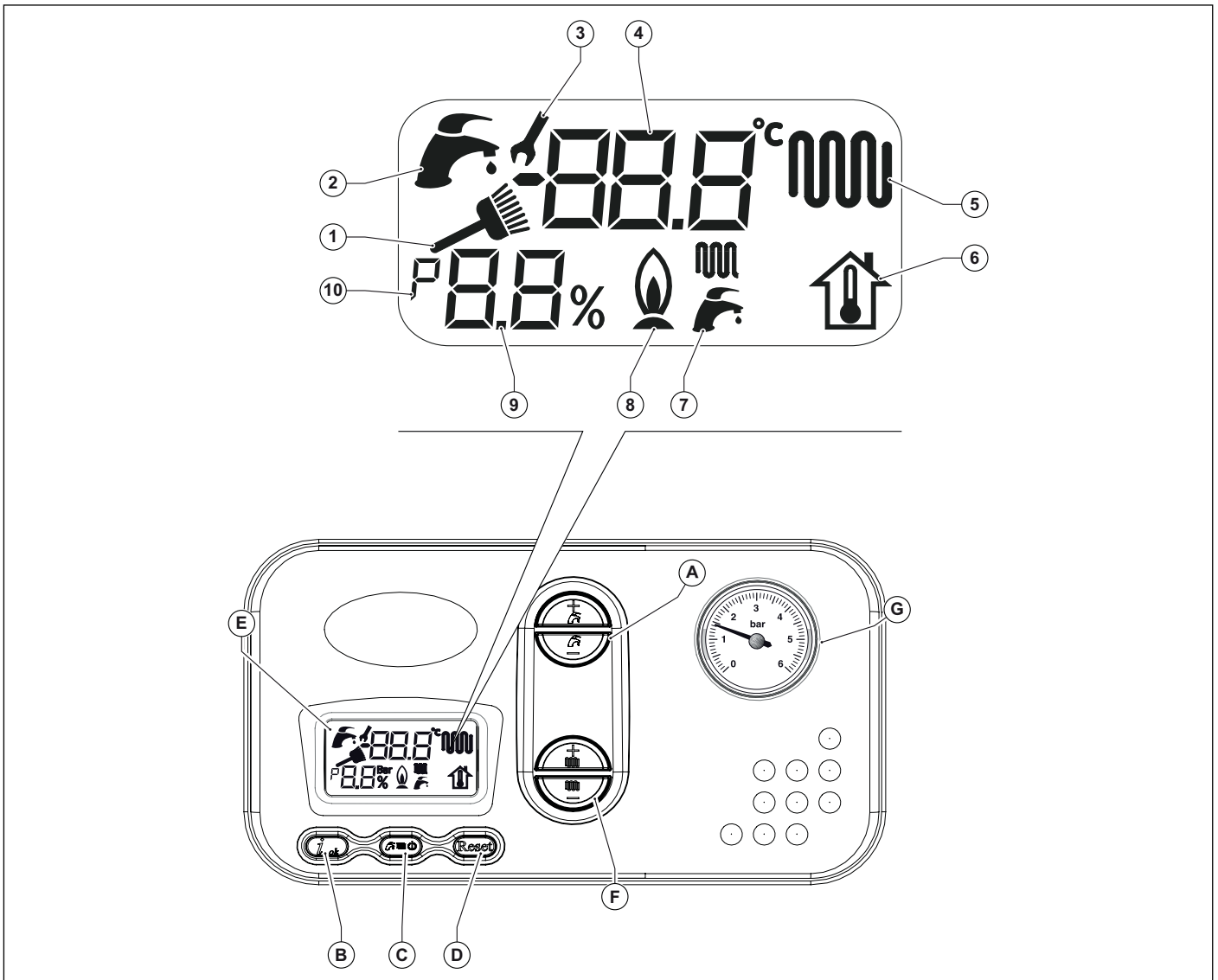


Fig. 1 Control panel

- A. DHW setting (+/- **DHW**).
- B. Parameter confirmation and information request.
- C. Operating status selection.
- D. Alarm reset and back to the starting page during parameter selection.
- E. LCD display.
- F. CH water temperature (+/- **CH**) and parameter settings.
- G. Heating system water pressure gauge.

2.2 Dimensions

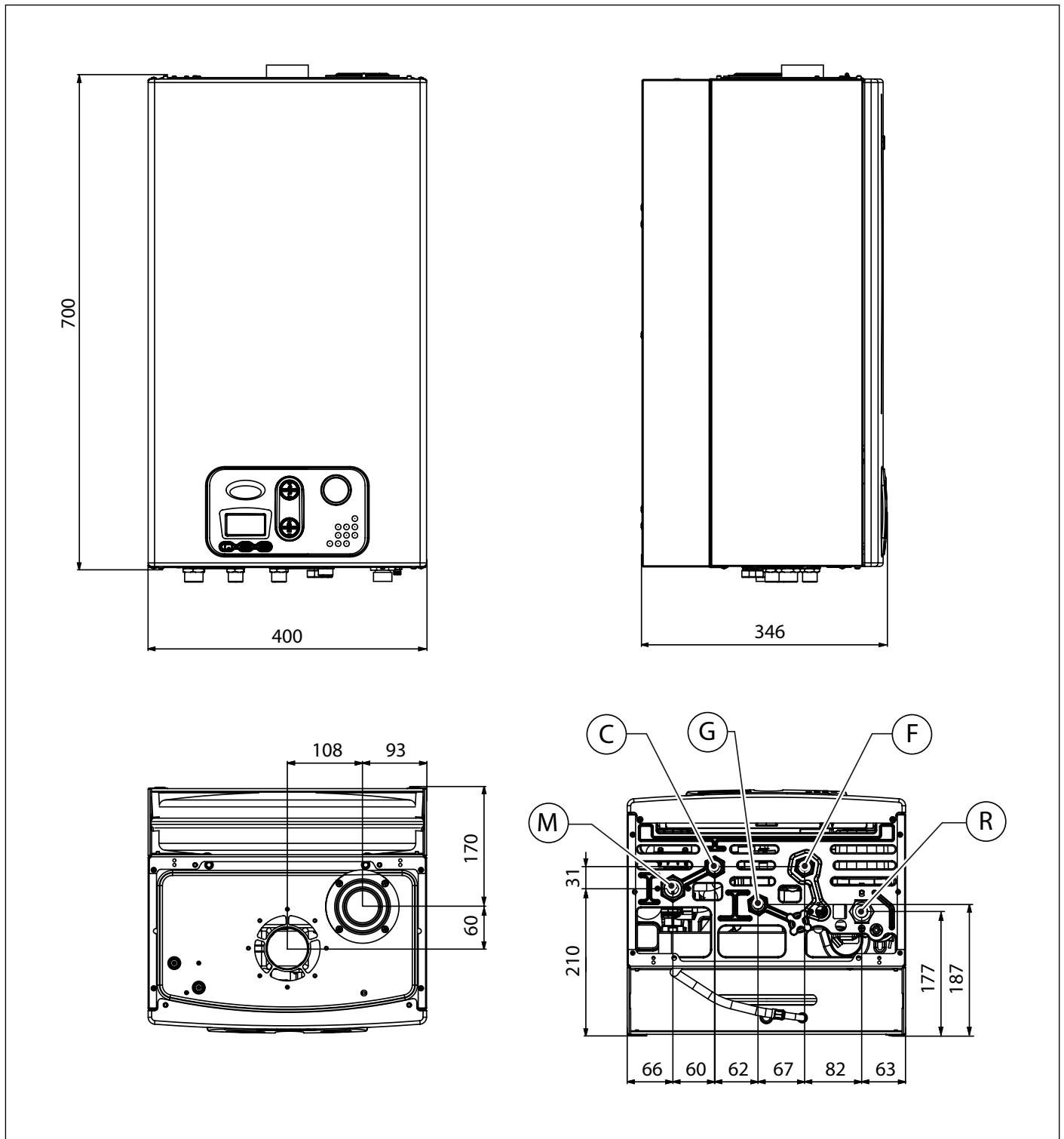


Fig. 3 Dimensions

- M** CH system flow (3/4")
- C** DHW outlet (1/2")
- G** Gas inlet (1/2")
- F** Cold water inlet (1/2")
- R** CH system return (3/4")

2.3 Hydraulic diagram

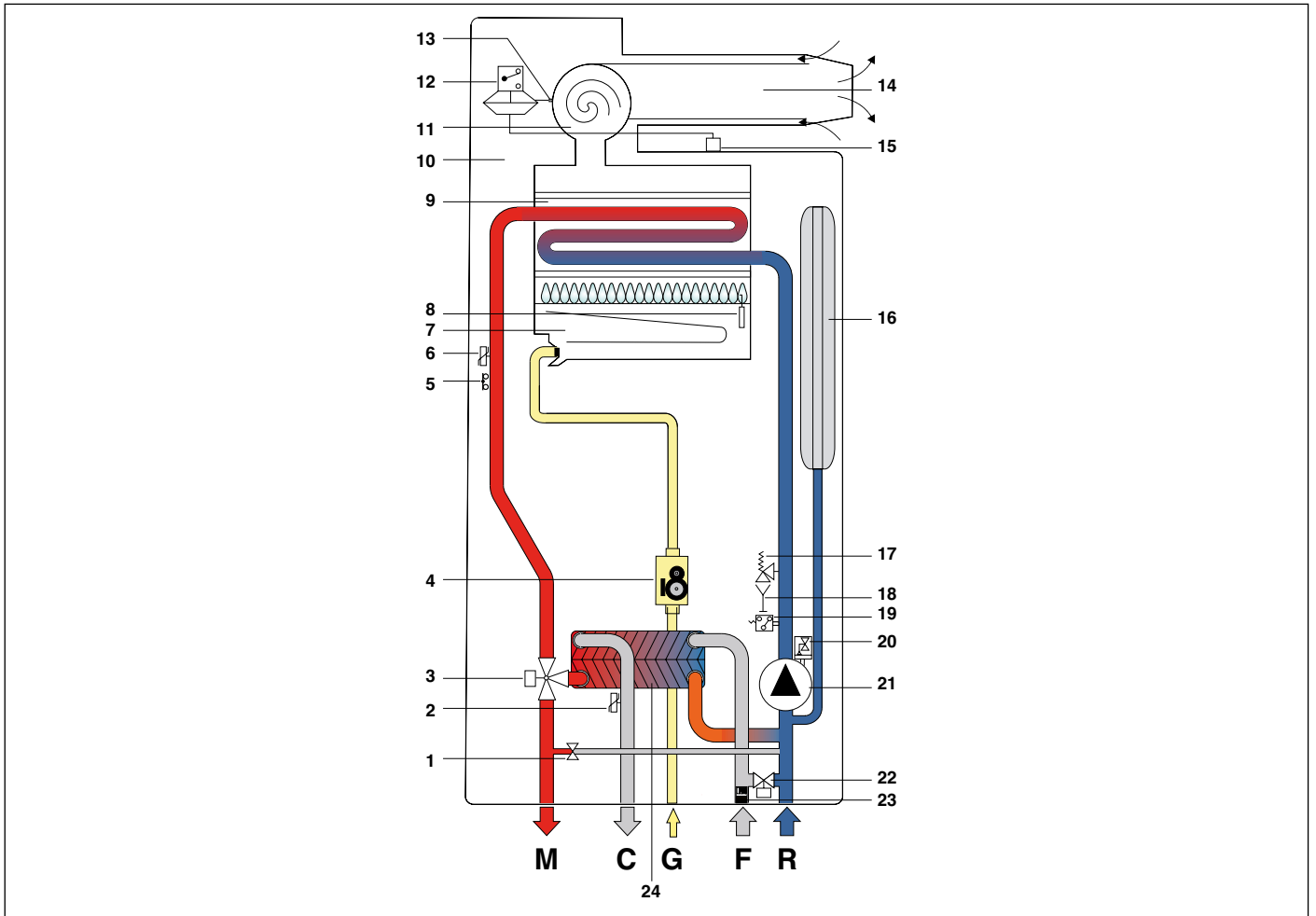


Fig. 4 Hydraulic diagram

- | | |
|---|---------------------------|
| 1. Automatic by-pass | M CH system flow |
| 2. DHW temperature probe | C DHW outlet |
| 3. Motorised 3-way valve | G Gas inlet |
| 4. Modulating gas valve | F Cold water inlet |
| 5. Safety thermostat on CH flow | R CH system return |
| 6. CH temperature probe | |
| 7. Burner | |
| 8. Ignition/detection electrode | |
| 9. Mono-thermal heat exchanger | |
| 10. Sealed combustion chamber | |
| 11. Flue gas extraction fan | |
| 12. Flue gas circuit safety pressure switch | |
| 13. Pressure testing point on flue gas duct | |
| 14. Air intake and flue gas venting duct | |
| 15. Pressure testing point on flue gas duct | |
| 16. Expansion vessel | |
| 17. 3-bar safety valve | |
| 18. System unloading cock. | |
| 19. Air-purging device | |
| 20. Minimum pressure switch | |
| 21. Circulation pump | |
| 22. Filler cock | |
| 23. Cold water flow switch with filter | |
| 24. Secondary plate exchanger | |

2.4 Operating data

Burner pressures reported in the following page must be verified after the boiler has been operating for 3 minutes.

Gas category: II2H3+

Fuel	Gas mains pressure [mbar]	Nozzle [mm]	Min pressure at the burner [mbar]	Max pressure at the burner [mbar]
Natural gas G20	20	1,35	2,0	12,7
Butane gas G30	29	0,80	4,0	28,7
Propane Gas G31	37	0,80	5,4	36,3

Tab. 1 Adjustment specifications

2.5 General characteristics

Description	um	CTFS 40
Burner nozzles	no.	17
Nominal heat input	kW	41,0
Minimum heat input	kW	15,0
Max heat output	kW	38,0
Minimum heat output	kW	12,9
Minimum CH system pressure	bar	0,5
Maximum CH system pressure	bar	3,0
DHW circuit min. pressure	bar	0,5
DHW circuit max. pressure	bar	6,0
DHW specific flow rate ($\Delta T=25K$)	l/min	22,2
DHW specific flow rate ($\Delta t=30K$)	l/min	18,5
Electric power supply – voltage / frequency	V - Hz	230 - 50
Power mains supply fuse	A	3,15
Maximum power consumption	W	157
Pump absorption	W	73
Electric protection rating	IP	X4D
Net weight	kg	33,0
Natural gas consumption at maximum CH output (Value referred to 15 °C - 1013 mbar)	cu. m/h	4,34
Butane gas consumption at maximum CH output	kg/h	3,23
Propane gas consumption at maximum CH output	kg/h	3,19
Maximum CH working temperature	°C	83
Maximum DHW working temperature	°C	62
Total capacity of expansion vessel	l	10
Maximum recommended system capacity (Maximum water temperature 83°C, expansion vessel pressure 1 bar)	l	200

Tab. 2 General specifications

Description	um	Max. output	Min. output	30% load
Heat loss from the boiler casing	%	1,82	1,49	-
Flue system heat loss with burner on	%	5,48	12,31	-
Flue system mass capacity	g/s	26,7	28,0	-
Flue temp. – air temp.	°C	96,5	83,7	-
Absolute flue gas temperature upon safety thermostat triggering	°C	140		
CO2 value (methane/butane/propane)	%	6.6 / 7.8 / 7.8	2.2 / 2.6 / 2.6	-
Maximum heat output efficiency rating	%	92,7	86,2	89,4
Efficiency rating (according to 92/42/EC)	-	**		
NOx emission class	-	3		

Tab. 3 Combustion specifications

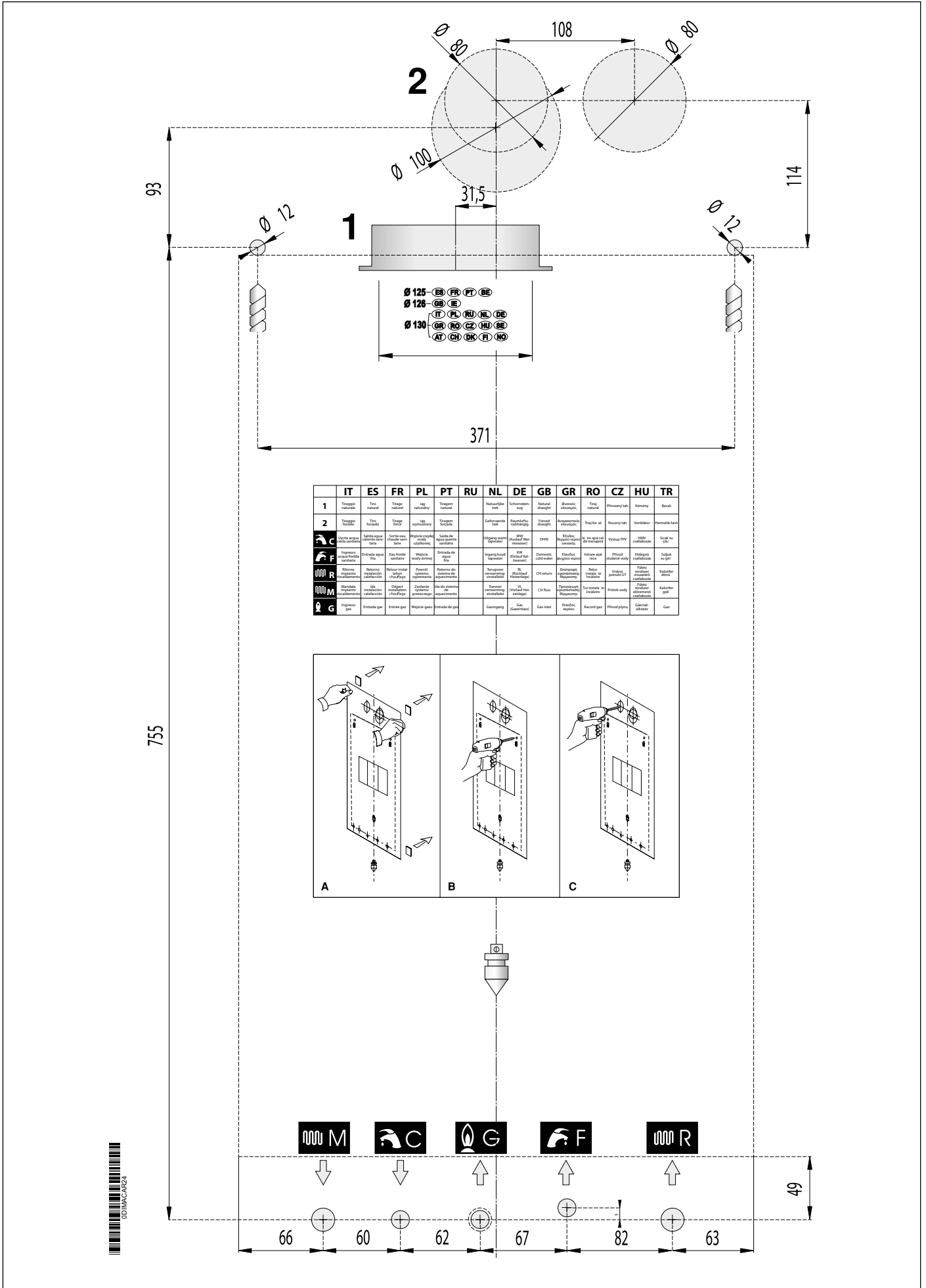


Fig. 5 Paper template