

# Ferrol

## GN N UNIT - GNTK N UNIT

Cast-iron oil-fired  
heating units



**GN N UNIT** is a series of three models of cast iron heating units for central heating only, complete with oil burner. They are manufactured in advanced establishments, with UNI EN ISO 9002:94 certification since 1993.

**GNTK N UNIT** is a cast-iron heating unit for central heating and the production of domestic hot water, complete with oil burner. It is manufactured in advanced establishments, with UNI EN ISO 9002:94 certification since 1993.

### **BOILER BODY**

The boiler body is made up of cast-iron elements assembled using steel cone inserts and boiler studs. The combustion chamber is cooled and features partial flame reversal. The elements have been designed with an optimum distribution of the fins so as to achieve high efficiency and very low consumption.

### **INSULATION**

The boiler body is insulated by a thick layer of glass wool, lined with reinforced flame-retardant kraft aluminium foil. Effective sound-proofing is also featured.

### **BURNER**

The **GN N UNIT** and **GNTK N UNIT** heating unit is fitted with a Ferroli SUN G 6R burner, featuring the following main technical characteristics:

- Low CO and NOx emissions and a very silent flame.
- Fine adjustment of the position of the combustion head in relation to the draught tube, using a micrometric screw.
- Precise adjustment of the intake air.
- Air damper with gravity closing upon shut-down: this allows significant reductions in the dispersion of heat from the boiler during pauses.
- Pre-heater on the nozzle line, to improve combustion and ensure ready start-up after extended periods of inactivity, in colder periods and when using paraffin oil.
- Simple inspection and maintenance operations.

### **INSTANT DOMESTIC HOT WATER PRODUCTION**

Domestic hot water production, which has priority over the central heating function, is activated by a flow switch, using a plate heat exchanger supplied, on the primary side, by the water from the boiler through a motorised three-way valve.

### **PRESSURE DROP**

The pressure drop in the water circuit, for each model, can be seen in the diagram and refer to water flow-rates corresponding to dt between 10° and 20°C.

### **SUPPLY**

The heating unit is delivered already assembled, packaged in wooden crates.

## Control panel

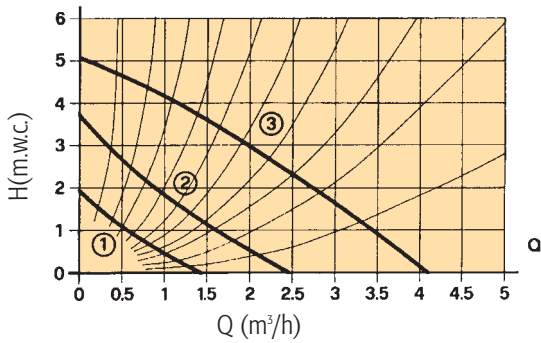
### **Key**

- 1 Summer-Stop-Winter switch
- 2 Central heating thermostat
- 3 Burner reset button with signal light
- 4 Safety thermostat with manual reset
- 5 Thermohydrometer
- 6 Fitting for electronic control unit



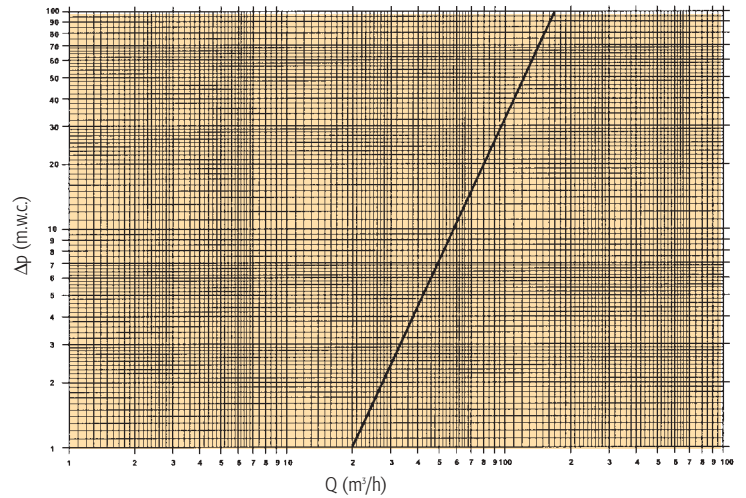
# GN N UNIT - GNTK N UNIT

## CHARACTERISTIC PUMP CURVES



1 2 3 = PUMP SWITCH POSITION

## PRESSURE DROP DIAGRAM



GN N UNIT



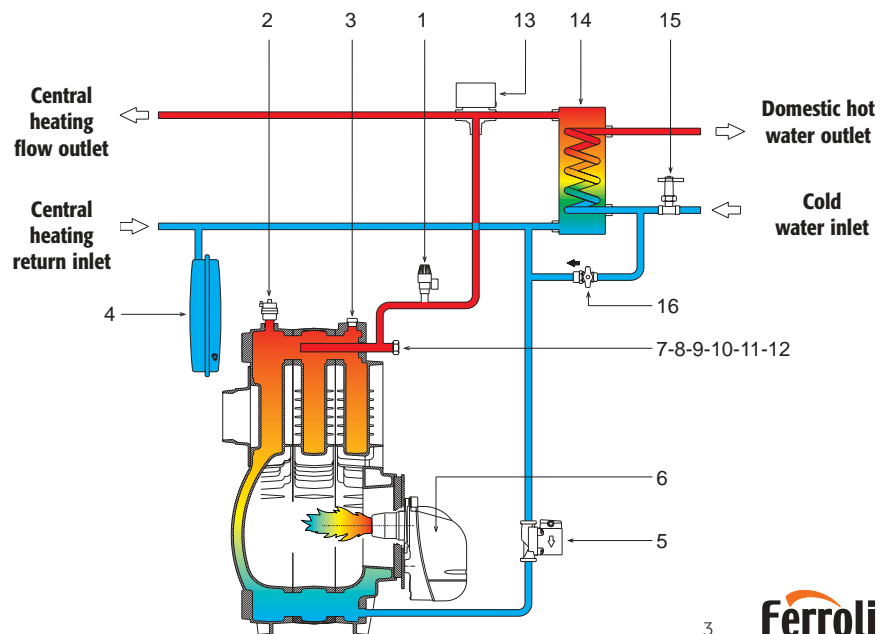
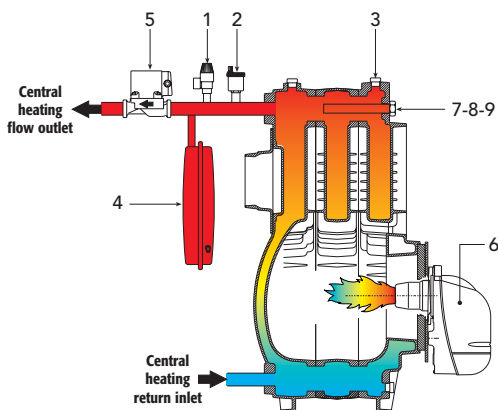
GNTK N UNIT

### Key

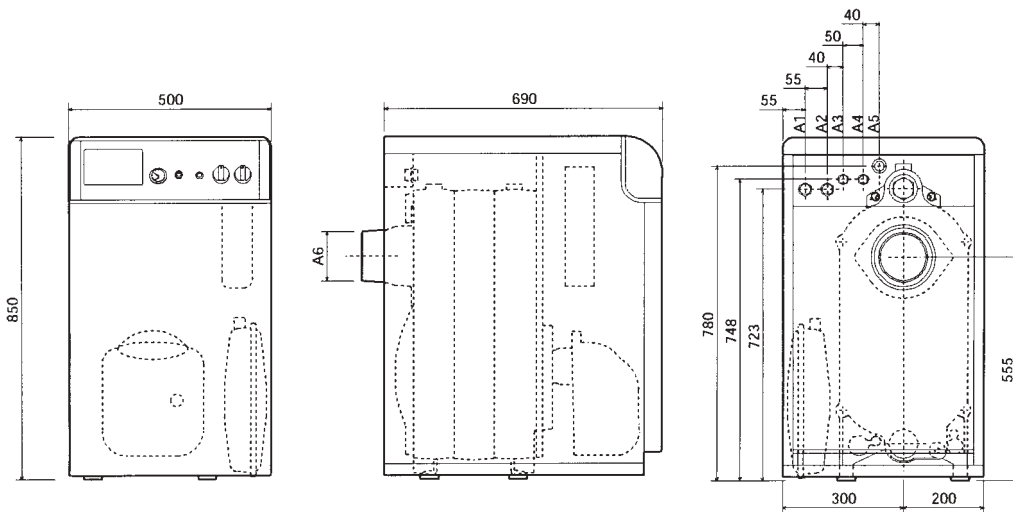
- 7 DHW heat exchanger
- 8 System fill cock
- 9 Central heating pump
- 10 Expansion vessel
- 11 System drain cock

## WATER FLOW - OPERATING DIAGRAM

**Key** - 1 Safety valve 2 Vent valve 3 Hydrometer (fitting) 4 Expansion vessel 5 Central heating pump 6 Oil burner 7 Minimum thermostat (bulb) 8 Safety thermostat (bulb) 9 Pump thermostat (bulb) 10 DHW limit thermostat (bulb) 11 Boiler thermostat (bulb) 12 Thermometer 13 Three-way valve 14 DHW heat exchanger 15 Flow switch 16 System fill cock



## DIMENSIONS



### Key

- A1 central heating return inlet 3/4"
- A2 central heating flow outlet 3/4"
- A3 domestic hot water outlet 1/2"
- A4 cold water inlet 1/2"
- A5 safety valve discharge

MODEL			GN N UNIT 02-20	GN N UNIT 03-30	GN N UNIT 04-40	GNTK N UNIT
Heat output	max	kW / kcal/h	23,3 / 20000	31,4 / 27000	46,5 / 40000	29 / 25000
	min	kW / kcal/h	15 / 12900	15 / 12900	32,5 / 28000	23,3 / 20000
Heat input	max	kW / kcal/h	25,8 / 22000	34,8 / 29900	51,6 / 44400	32 / 27500
	min	kW / kcal/h	16,4 / 14100	16,4 / 14100	35,4 / 30400	25,8 / 22200
Elements		no.	2	3	4	3
Water content		litres	11	14	17	16
Max operating pressure		bar	4	4	4	4
Empty weight		kg	75	100	125	166
Maximum total power consumption		Watt	295	295	295	295
Power supply		V / Hz	230 / 50	230 / 50	230 / 50	230 / 50