Ferroli

3 PASS FLUES

LOW TEMPERATURE

GN4 N

Low-temperature cast iron boiler
for gas/oil jet burners

GN4 N

SUN BURNER
ASSEMBLED ON GN4 N

GN4 N is a cast iron floor standing boiler, suitable for use with forced gas, pressure jet oil or dual fuel, with the option of a jet burner. The output ranges from 200 to 650 kW, in the standard only heating execution. **GN4 N** is electrically ready for connection to an electronic controller, available upon demand as an optional. Pressure test point on combustion chamber.
Efficiency class ★★ according to EN 92/42. IP protection class X0D.

GN4 N is supplied in 4 different packages:

- one pallet with boiler body in loose sections
- one crate with all assembling accessories for boiler body
- one carton for jacket
- one carton for control board

This delivery execution grants the possibility to effect installation in every site, also in case boiler room is situated in a place particularly difficult to reach. Each part can be carried separately to the boiler room, then generator is assembled and hydraulically tested.

GN4 N is thus the ideal solution for renovation.

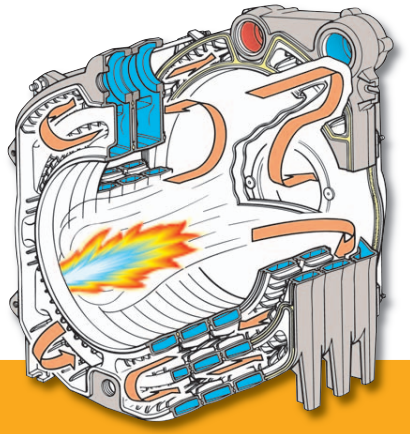
FERROLI offers a complete range of 2 stages burners for oil and kerosene and 2 stages progressive (with modulating option) for gas. Accurate studies and engineering as well as thorough tests have been carried out, in order to grant a perfect matching with **GN4 N** boilers.

SUN M BURNER
with gas train
(SUN M 30 - 50 - 70)

SUN G
OIL BURNER
(SUN G 30 - 50 - 70)

Three pass flues

GN4 N is a heat generator with flues evacuations through a 3 pass flues cast iron section, with cooled combustion chamber.
Flues proceed straight towards the back side of the combustion chamber, where they move through finned passages inside the cast iron section.
Thanks to this technology, temperatures in the combustion chamber are noticeably reduced, along with the boiler's thermal load.
This consequently permits a higher efficiency than traditional reverse flame boilers.
The inner design of the boiler body is particular studied to be fit to burners featuring systems for monitoring and reduction of Nox emissions.

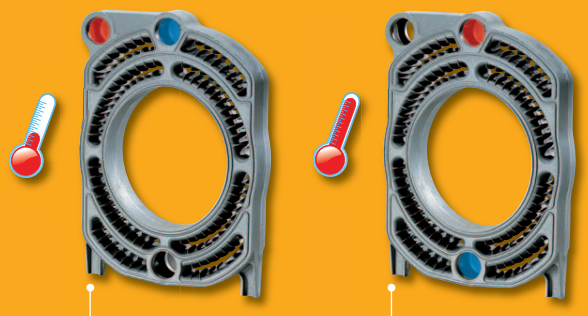


Low temperature operation

GN4 N is equipped with a double CH flow connection, thus offering the possibility of connection to circuits with different operating temperatures.

CH FLOW CONNECTION

CH RETURN CONNECTION



LOW TEMPERATURE CIRCUIT with minimum CH return temperature 35°C

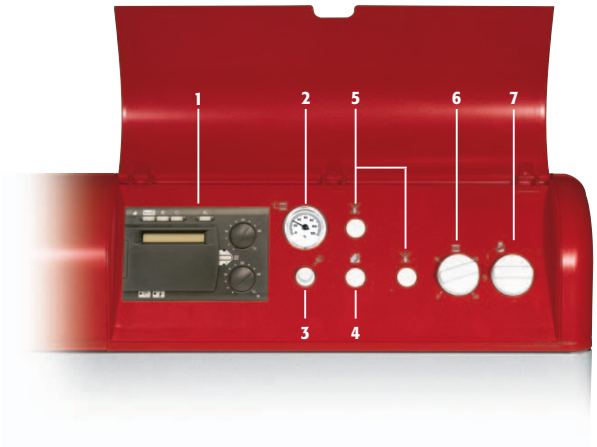
HIGH TEMPERATURE CIRCUIT flow from upper connection and return to the lower one

Varmvattenpanna

200 kW - 650 kW

AT 8642

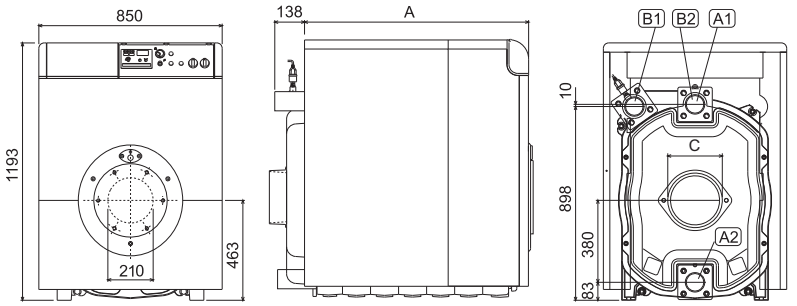
CONTROL BOARD



KEY

1 Seat for electronic controller (optional)
2 Thermometer
3 Safety thermostat with manual reset (max temp. 110°C)
4 Pre-setting for flues thermostat
5 Pre-setting for LED indicating first or second stage burner operation
6 2 stages CH temperature thermostat (max 90°C)
7 Boiler switch (off-on-test)

DIMENSIONS (mm)



KEY

A1 Central heating flow outlet DN80 - 3"
A2 Central heating return inlet DN80 - 3"
B1 Central heating flow outlet DN80 - 3" (Low temperature)
B2 Central heating return inlet DN80 - 3" (Low temperature)

MODELS			GN4 N 07	GN4 N 08	GN4 N 09	GN4 N 10	GN4 N 11	GN4 N 12	GN4 N 13	GN4 N 14
Heat output	max.	kW	200	250	300	360	420	480	560	650
	min.	kW	120	150	180	215	250	290	330	390
Heat input	max.	kW	217	270	324	388	452	516	600	695
	min.	kW	128	160	192	229	266	309	352	416
Efficiency	Pmax	%	92,2	92,6	92,6	92,8	92,9	93,0	93,3	93,5
	30% load	%	95,4	96,0	96,5	97,1	97,1	97,2	97,3	97,3
Sections		n.	7	8	9	10	11	12	13	14
Water content		dm^3	143	163	183	203	223	243	263	283
Combustion chamber	length	mm	880	1010	1140	1270	1400	1530	1660	1790
	diameter	mm	500	500	500	500	500	500	500	500
	volume	dm^3	161,3	185,1	208,9	232,8	256,6	280,4	304,3	328,1
Operating pressure		bar	6	6	6	6	6	6	6	6
A		mm	1040	1170	1300	1430	1560	1690	1820	1950
C		ø	180	180	250	250	250	250	250	250
Pressure drop										
Combustion chamber		Δp mbar	0,5	0,8	0,7	1,0	1,4	1,7	2,6	3,5
Hydraulic		Δt 20° - Δp mbar	20	30	42	54	65	77	88	100
Boiler body weight		kg	940	1050	1170	1270	1400	1510	1630	1740