

# **SOLID FUEL BOILERS**



FERROLI, world player in HVAC market since over 50 years, provides complete solutions for heating, and production of domestic hot water. Gas, oil and solid fuel cast iron boiler have been carefully designed by our engineers and produced in modern foundry and production premises in San Bonifacio, in the north-east of Italy.

## > WOOD AND PELLET FUEL

Wood is the only sustainable fuel that is easily available with small transformation process. It is also local and sustainable and can be exploited without long transport. Recently solid fuel enjoyed a fair success in Europe.

More users are looking for independence from the sometimes uncertain and onerous supply of hydrocarbon fuels, for protection from power cuts, and for simplicity and low running costs. User who chooses solid fuel boiler also supports a virtuous and neutral environment balance. Wood, which is wisely harvested from forests, releases into the atmosphere, either burnt or naturally decayed, the same quantity of CO<sub>2</sub> it previously removed from the atmosphere as a tree.

Ferroli offers complete solutions - from pellet, coke, wood boilers for providing heating in detached houses up to complex systems using biomass for district-heating or industrial purposes.

Thanks to its experience and refined technology, Ferroli adds to solid fuel peculiarities also top performances in terms of quality of combustion, emissions and efficiency.

## > FERROLI'S SOLID FUEL RANGE

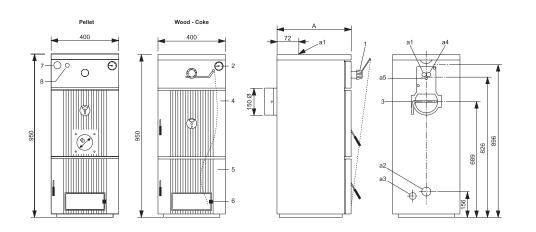
**SFL / GF N** range of residential solid fuel boilers, is Ferroli's proposal of CO<sub>2</sub> neutral heating systems for houses and small commercial applications.

Ferroli's solutions are characterised by high efficiency, reliability, easy operation and cheap maintenance. Adding Ferroli Sun P pellet burner means a comfort that can be programmed in a customised way for the whole week, demanding the user only to fill the capacious pellet holding tank.





- > Cast Iron Boiler, for wood and coke, heating only.
- > All models can be fuelled with pellet after installation of SUN P7 pellet burner.
- > Heating body made of nippled cast iron sections, insulated with a rockwool layer.
- > Specially shaped sections, good fin distribution and low water capacity ensure excellent heat exchange and low thermal inertia.
- > Stainless steel ash tray with easy front access.
- > Adjustable smokes deflector on back flues outlet.
- > Thermostatic regulator and overheating safety kit available as an optional.

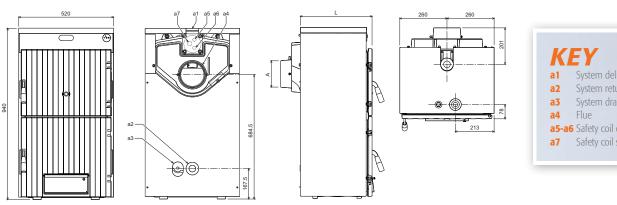




MODEL			4	5	6	7	8
Heat output	Coke	kW	14,4	19,4	23,4	29,4	34,4
	Wood	kW	12,3	16,1	19,9	23,7	27,5
	Pellet	kW	16,0	20,0	24,0	27,0	30,0
Burner matching			SUN P7				
Sections quantity		no.	4	5	6	7	8
Boiler water capacity		$dm^3$	20	24	28	32	36
Boiler depth (A)		mm	447	547	647	747	847
Maximum operating pressure		bar	3	3	3	3	3
Weight		kg	160	190	220	250	280



- > High yield GG 20 (EN-GJL-200) cast iron solid fuel boiler, fit for wood or coke combustion.
- > Pellet operation after assembling of the burner plate and the pellet burner SUN P.
- > Class 3 efficiency according to EN 303-5.
- > Efficiency until 81% burning wood, thanks to large exchange surface of cast iron sections.
- > Generous combustion chamber, until 128 dm³, which allows burning of large logs and less wood refuelling.
- > Adjustable smokes deflector on back flues outlet.
- > Stainless steel ash tray with easy front access.
- > Thermostatic regulator supplied as a standard.
- > Safety overheating device available as an optional.



a1	System delivery
a2	System return
a3	,
a4	Flue
a5-a	6 Safety coil connections
a7	Safety coil sheath connection

MODEL			3	4	5	6	7
Thermal output	Coke	kW	22,5	32,5	42,5	52,5	62,5
	Wood	kW	19,0	27,0	36,0	43,0	50,0
	Pellet	kW	22,0	30,0	41,0	47,9	54,7
Burner matching			SUN P7	SUN P7	SUN P12	SUN P12	SUN P12
Water content		1	26	30	34	38	42
Chamber content		dm³	48	68	88	108	128
Depth (L)		mm	423	533	643	753	863
Chimney diameter		mm	150	150	150	180	180
Minimum draught at stack	Coke	Pascal	8	10	15	20	25
	Wood	Pascal	12	14	16	18	20
	Pellet	Pascal	23	25	25	25	25
Dimension door		mm	384x210	384x210	384x210	384x210	384x210
Operating pressure		bar	4	4	4	4	4
Weight		kg	193	241	289	337	385

The following accessories are available as an option specifically for GF N and SFL.

## > OVERHEATING SAFETY VALVE AND COIL



The installation of this device is compulsory according to EN 303-5 directive. It consists in a safety valve and a coil. The latter is an exchanger, adequately sized for each model size, to be immersed in boiler's heating water, through a proper niche. The relief valve detects the boiler's temperature through a probe with double sensor. In case boiler's temperature reaches 95°C, the valve releases the excess heat, exchanged in the safety coil.

## > THERMOSTATIC REGULATOR



Thermostatic regulator is suitable for operation with wood and coke. Central heating water temperature is kept at setpoint by automatical adjustment of comburent air inlet through a simple but effective mechanical system. Thermostat will decrease air inlet when temperature rises and will open the air deflector when temperature drops down, thus refuelling the flame. This system optimises the quality of combustion and thermal exchange.

### > PELLET CONVERSION KIT



GF N's optional pellet burner door

#### GF N - SFL: SINGLE DOOR SOLUTION

It is possible to adapt all GF N or SFL for the installation of the pellet burner. For this purpose a drilled burner door with insulation is available as an option. It is a specific and different one for GF N or SFL. For GF N it replaces the original top wood door whereas for SFL it replaces the lower door.



GF N modified for pellet operation

#### SFL: DOUBLE DOOR SOLUTION

For SFL it is possible to adopt a **REVERSIBLE PELLET CONVERSION**. A specific pellet door is hinged on the left side of the boiler, without removing the original wood one, which remains hinged at the right side of SFL. Thanks to this **DOUBLE DOOR SYSTEM** it is possible to switch fuel type with very few, quick operations.







PELLET FUEL CONVERSION WOOD

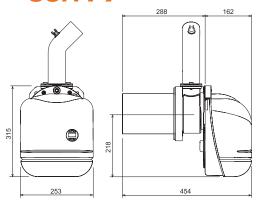
## **SUN P**

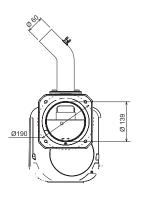


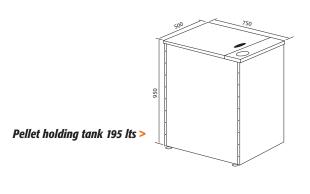
- > Pellet jet burner with one stage operation or modulating on 5 output steps.
- > Supplied with feeding motor, screw feed assembly, connection pipes.
- > Pellet holding tank as an optional, in the same colour of the boiler (grey for GF N, orange for SFL).
- > Burner first ignition through electric heater.
- > Heat request occurs through built-in timer and/or room thermostat or through room programmable thermostat.
- > Electronic interface for operation adjustment by the installer (fan's head, screw activation, pellet loading) and weekly programming by the user.

## > DIMENSIONS AND TECHNICAL DATA

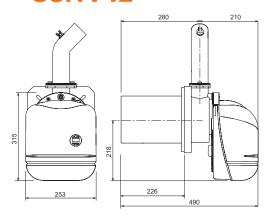
## **SUN P7**

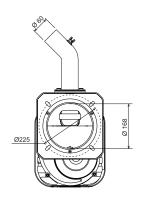


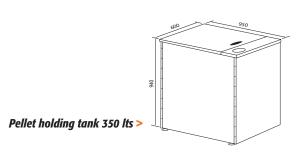




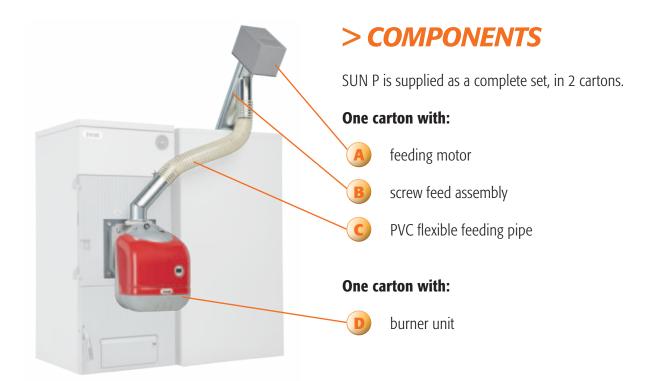
## SUN P12







MODEL			SUN P7	SUN P12
Output	max	kW	34,1	55,0
	min	kW	13,7	30,0
Flow rate	max	kg/h	7,2	11,6
	min	kg/h	2,9	6,3
Empty weight		kg	11	13,5
Pellet dimensions	Ø/length	mm	6/35	6/35



## > OPTIONAL PELLET HOLDING TANK



Ferroli offers as an option a range of pellet holding tank, featuring same aesthetic of the boiler.

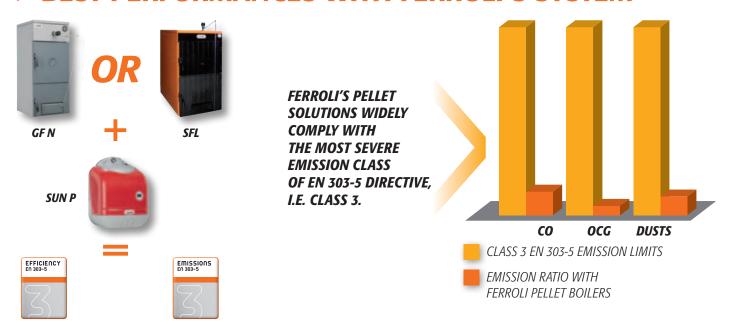
The container has been studied to permit regular and fluid supply of pellet into the motor screw and as a consequence a constant fuel feed to the burner.

For GFN a 195 lts capacity tank is available in grey colour, already assembled, fixed through rivets.

For SFL pellet holder is in orange colour and can be chosen in mounted execution or in the version to be assembled on site through screws. The assembled or knock down orange tanks are available either in the 195 lts capacity (for feeding of SUN P7) or in the 350 lts capacity.



## > BEST PERFORMANCES WITH FERROLI'S SYSTEM







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