



Sun P N

Pellet jet burner


ferrol



THE FLEXIBLE ALTERNATIVE

If the humanity is in balance with the resources of nature, the respect for the environment will be possible.

That is possible only with use of technologies cutting edge in efficiency and with sustainable energy sources. Recent studies on the sustainability and convenience of various fuels available on the market show that pellet is the most convenient choice to date. In addition to ensuring significant savings compared of more traditional fossil fuels as GPL, Methane and Gas, it has a zero impact in terms of CO₂ emissions.

Pellet is made up of the remains of wood processing and therefore does not require the killing of forests for its production. The residues of its combustion are completely harmless to the environment as they have no binders, additives, paints and other chemicals.

Ferrol, always sensitive to the ecological themes, has identified the best synthesis between the nature and the comfort efficiency!

Our proposal consists in a perfect match between the burner “Sun P N” and the cast iron boiler, model “Sfi”.

This system provides top performances and very low smoke emissions.





SUN P N

Technical data

ERP



- Ultra-compact automatically PELLET JET BURNER
- Supplied complete of feeding motor, worm feeder assembly, connection pipes.
- Pellet holding tank as an optional, in two capacities, 195 lts and 350 lts.
- Solid cast aluminium frame and high-temperatures resistant stainless steel head.
- Safety thermostat for flue gas back-flow, set to 85°C.
- Practical pre-cabled wiring on the right of the casing, for connection to burner and system ancillaries.
- Certified according to DIN EN 15270.
- Complete panel control (display and keys) is over the coverage for an easier access for the customers and the service technician.
- New electronic control panel is more complete for the connection with the heating system. It can control the heating pump and the DHW system (instantaneous or with an external storage).
- The flange and the nozzle are the same of the old versions for a perfect interchangeability.

HEAT REQUEST OCCURS THROUGH:

- Room Thermostat (optional)
- Room Unit/Remot control (optional) OpenTherm entry
- Domestic hot water temperatur probe (not supplied)
- Remote reset and restart input (230V - 50 Hz) (not supplied)

OPERATION:

It's possible to set up the burner running operation in ON/OFF mode or in two different MODULATING modes (every two in 5 step of flame power)

FUNCTION:

- WARM-UP to maintain the exchanger of the boiler in temperature
- AUTO-CONFIGURATION BOILER automatically changes its configuration from "only Heating" to "combi boiler"
- Hi TEMPERATURE PROTECTION
- Anti-LEGIONELLA
- COMFORT to maintain the exchanger of the boiler in high temperature
- Anti-FREEZE

SUPPLY COMPONENTS

SUN P N is supplied as a complete set, in 2 cartons.

One carton with:

- A** feeding motor
- B** screw feed assembly
- C** PVC flexible feeding pipe

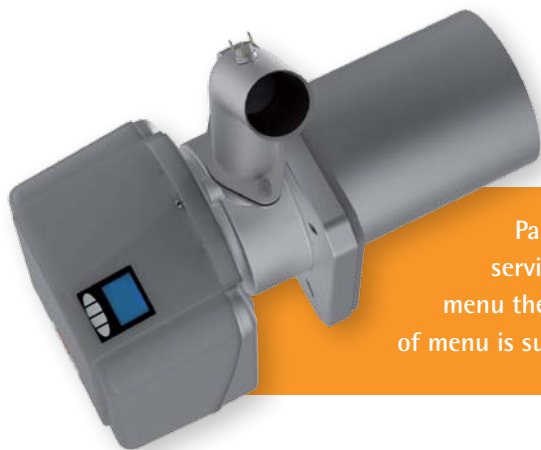
One carton with:

- D** burner unit

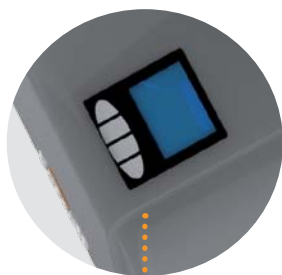


SUN P N

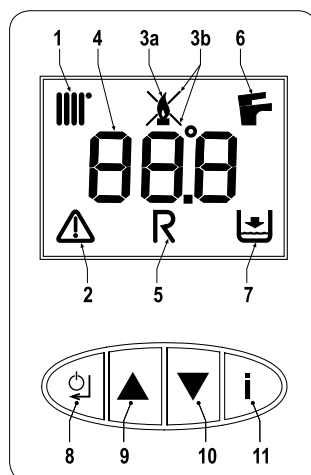
Components and control



Panel control is over the coverage for an easier access for customers and service technician. The first level of menu is for the normal user. In this menu there are six parameters to customize burner operations. The second level of menu is suitable for service technician.

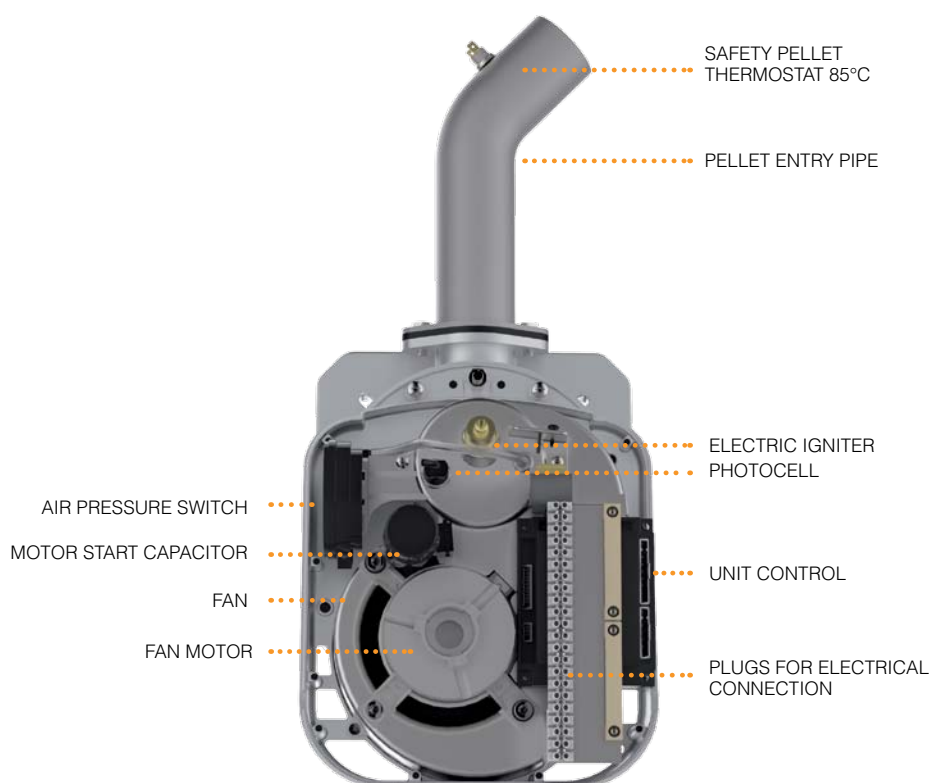


INTERFACE DISPLAY &
PANEL CONTROL



KEY

- 1 Heating mode
- 2 Fault
- 3a Burner lit
- 3b Shutdown Fault
- 4 Multifunction
- 5 Pellet Loading Request in progress
- 6 DHW mode
- 7 System Filling Request
- 8 Reset - Enter - On/Off button
- 9 Parameter selection button
- 10 Pellet Loading Function - Parameter selection button
- 11 Menu Access - Information button

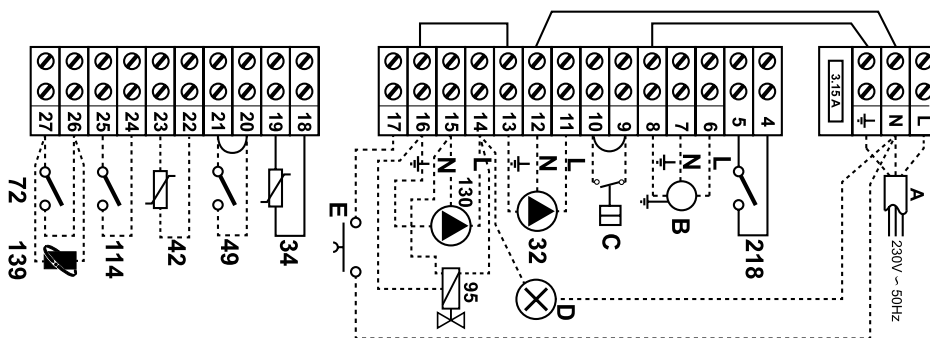




SUN P N

Components and control

New electronic control panel on board is complete for the connection with the domestic heating system. It can control one heating pump and the DHW system. It's possible to control two different domestic hot water system: with a dedicated circulating pump or with a three ways valve.



KEY

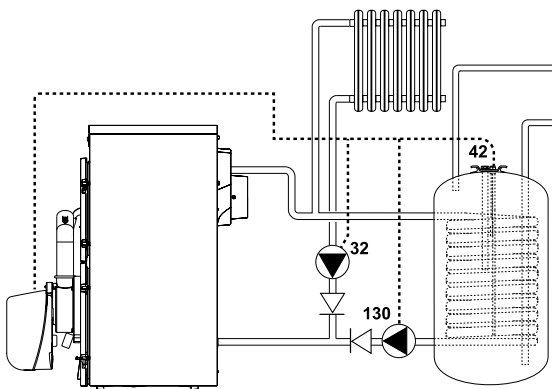
- A Electrical power supply
- B Motor auger
- C Request contact
- D Shutdown signal
- E Burner reset

- 32 Heating circulating pump (not supplied)
- 34 Heating temperature sensor
- 42 DHW temperature sensor (optional)
- 49 Boiler safety thermostat
- 72 Room thermostat (optional)
- 95 Diverter valve (optional)

- Powered (230 Vac) = Heating position
- Not powered = DHW position
- 114 Water pressure switch (not supplied)
- 130 Hot water tank circulating pump (not supplied)
- 139 Remote timer control (optional)
- 218 Pellet safety thermostat

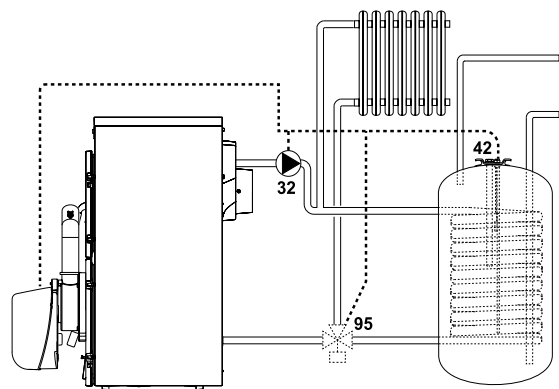
The unit's electronic board is arranged for managing an external storage tank for domestic hot water production.

The boiler control system detects the hot water tank probe and automatically configures the DHW function, activating display and relevant controls. Below, two examples of domestic heating system.



C.H. + DHW WITH CIRCULATING PUMP

- 42 HDW temperature probe
- 130 Circulating pump for DHW tank
- 32 Heating circulating pump



C.H. + DHW WITH THREE WAYS VALVE

- 42 HDW temperature probe
- 95 Three ways valve for DHW tank
- 32 Heating circulating pump



SUN P N

Special functions

WARM-UP

With this function it is possible to maintain the exchanger of the boiler in a range of temperatures from 0°C to 5°C for the normal configuration and from 50°C to 55°C for the instantaneous DHW configuration boiler.

AUTO-CONFIGURATION BOILER

The electronic control on board of the boiler can feel the connection of a DHW sensor and automatically changes its configuration from "only heating" to "combi boiler" (with double pump or with three ways valve).

HIGH TEMPERATURE PROTECTION

After switch off phase, if the thermal exchanger goes over 92°C, it starts in automatically:

- the heating pump in case of only heating configuration
- the DHW pump (and 3 ways valve) in case of combi configuration

ANTI-LEGIONELLA

For the protection from Legionella bacteria it is possible to bring the temperature of DHW tank to over 65°C for 15 minutes.

COMFORT

With this function it is possible to maintain the exchanger of the boiler in a range of temperatures from 55°C to 75°C. This function is normally used in instantaneous DHW configuration.

ANTI-FREEZE

If the heating sensor (of the boiler) goes below 5°C the burner starts. The switch off phase starts when temperature exceeds 15°C.



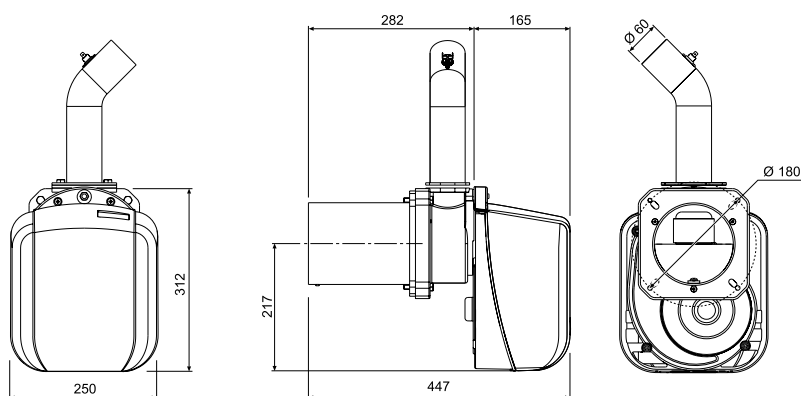
SUN P N

Optional pellet holding tank / Technical data

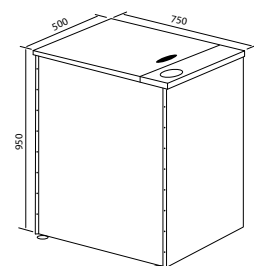
FERROLI offers as an option a pellet holding tank, featuring same aesthetic of the boiler. It can be positioned on the right or left side of the boiler and features reversible top cover for pellet worm feeder insertion. The pellet holder is in orange color, coated with epoxy powder anaphoresis process. It is available either in the 195 or 350 lts capacity. 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. Adopting a complete FERROLI system (pellet stockage, feeder, burner, boiler) means complete operation synchronisation and functionality.



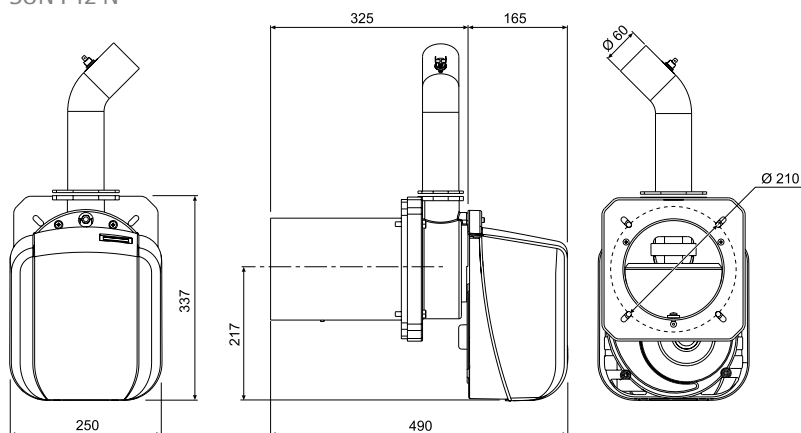
SUN P7 N



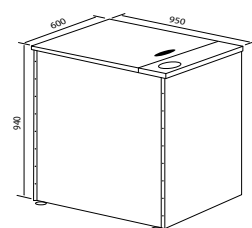
Pellet holding tank 195 lts



SUN P12 N



Pellet holding tank 350 lts



MODEL			SUN P7 N	SUN P12 N
Thermal 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
Electrical protection rating		IP	X0D	X0D
Power voltage/frequency		V / Hz	230 / 50	230 / 50
Electrical power input		W	100	100
Igniter electrical power		W	300	300
Empty weight		Kg	11	13,5
Pellet dimensions	Ø/length	mm	6/35	6/35



NOTICE FOR DEALERS:

As part of its efforts to constantly improve its range of products, with the aim of increasing the level of customer satisfaction, the company stresses that the appearance, dimensions, technical data and accessories may be subject to variation.

Consequently, ensure that the customer is provided with up-to-date technical and/or sales documents.

Ferroli spa

37047 San Bonifacio (VR) Italy - Via Ritonda 78/A

tel. +39.045.6139411

fax +39.045.6100233

www.ferroli.com

export@ferroli.com