

J|A|S|P|I[®]

HEATING

JASPI Solid Fuel Boiler





JASPI Solid Fuel Boilers

Firewood used in solid fuel heating is a cost-efficient, renewable, and environmentally friendly energy source. The length of firewood can vary from 0.3 to 0.5 m with a boiler model. The age of firewood must be more than a year i.e. moisture content must be less than 25% (note that a freshly felled tree has a moisture content of approx. 50%). Using too wet firewood requires more cleaning while decreasing efficiency and increasing fuel consumption. Apart from moisture, a heating value should be also taken into account when using firewood. Birch has the highest heating value of all. Other tree species (pine, fir, alder, and aspen) are also employed in this type of heating.

The line of Jaspi solid fuel boilers has been improved for over 30 years with the benefit from state-of-the-art manufacturing technologies.

You will definitely find the right solution for both new buildings and those under reconstruction out of the wide range (capacity 25 kW to 45 kW, firewood length 0.3 m to 0.5 m).

The line of Jaspi solid fuel boilers has been expanded from conventional top-combustion boilers to firewood-saving and environmentally friendly rotary combustion boilers (including a pyrolysis boiler). Jaspi wood/coal-fired boilers can be always connected to heat storage tanks for recharging. The storage tank size should be selected based on the installation site and boiler capacity. Reliable and advanced, the Jaspi solid fuel boiler connected to one of our heat storage tanks (Jaspi GTV, Ovali or T-EPK) is a proven system that works in an energy-efficient manner while producing heat and plenty of domestic hot water simultaneously.

Jaspi 40 YPV (20-40 kW) / Jaspi 40 Stoker (20-40 kW)

Stoker not available in UK market

Jaspi 40 YPV is a conventional top-combustion solid fuel boiler with an improved combustion technique that guarantees efficiency, cleanliness, and environmental friendliness. The improvement decreases the need to clean the boiler. Proprietary turbulator plates inside the boiler furnace make combustion even more efficient.

Large front-opened filling, cleaning, and service holes of the Jaspi 40 YPV facilitate operation and service of the boiler. All convection surfaces are easily cleanable and there is typically an ash box to remove ash. A spacious furnace has enough room for 0.5 m long firewood (coal is also suitable for combustion).

Jaspi 40 YPV is equipped with a cooling coil to prevent overheating. The coil should be connected to an anti-boil valve on the site. Jaspi 40 YPV can be always connected to a heat storage tank for recharging.

The chip-fired Jaspi 40 Stoker is higher and therefore has enough water space to install a hot water coil. Stoker openings are arranged on both the sides of the boiler. The Jaspi 40 Stoker S is typically supplied with a 6 kW tubular electric heater. The boiler can be easily changed over from chips to firewood/coal/gas/diesel with an optional changeover kit.



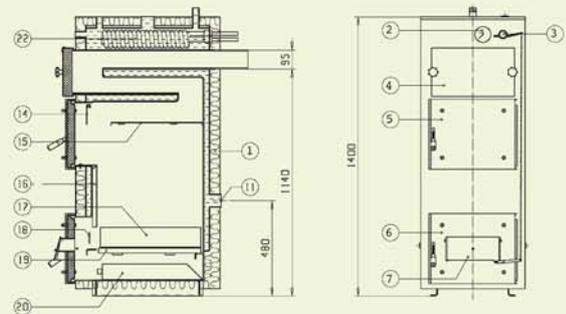
Jaspi 40 YPV

Jaspi 40 Stoker

Jaspi 40 YPV

Parts:

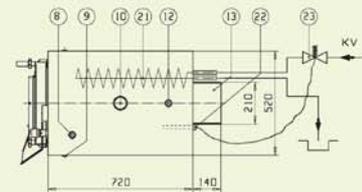
- | | |
|----------------------------------|---|
| 1. 50 mm mineral wool insulation | 13. 210 x 95 flue connection |
| 2. Mano-/thermometer | 14. Flue gas turbulator |
| 3. R3/4" draft regulator | 15. Furnace turbulator |
| 4. Convection duct cleaning hole | 16. Combustion air guide |
| 5. Filling hole | 17. Grate bar side plates (2) |
| 6. Service hole | 18. Coal grate |
| 7. Air damper | 19. Grate bar |
| 8. R3/4" thermostat connection | 20. Ash box |
| 9. R1/2" drains | 21. Cooling coil (Ø18) |
| 10. R2" outlet to storage | 22. R1/2" anti-boil valve sensor connection |
| 11. R2" return from storage | 23. Anti-boil valve (option) |
| 12. R1" boiler connection | |



Standard supply:

Mano-/thermometer, draft control, cleaning kit, grate bar, flue extension

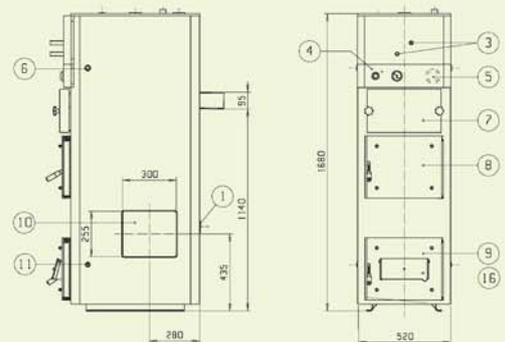
With its small water space, a high-temperature top-combustion solid fuel boiler should be always connected to an energy storage tank for recharging. Suitable tubular electric heaters should be installed inside the energy storage tank. Boiler and storage tank connection diagrams are also available from the manufacturer. Also, a Termovar charging package is ideally suitable for connection since it keeps the boiler hot and fire surfaces clean throughout the combustion process.



Jaspi 40 Stoker - NOT AVAILABLE IN UK MARKET

Parts:

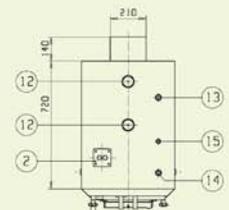
- | | |
|--|--|
| 1. R2" return from storage | 10. 255 x 300 stoker opening |
| 2. 4-way mixing valve | 11. R1/2" drains |
| 3. Ø 22 hot water coil connections | 12. R2" outlet to storage / expansion connection |
| 4. Sensor and control panel | 13. R1" boiler connection |
| 5. 6 kW tubular electric heater (for S models) | 14. R3/4" thermostat connection |
| 6. R3/4" thermostat connection | 15. R1/2" anti-boil valve sensor connection |
| 7. Cleaning hole | 16. Air damper |
| 8. Filling hole | |
| 9. Service hole | |



The coil stoker boiler should be also equipped with an anti-boil valve.

Flue recommendation:
Minimum flue height:

metal Ø 180 mm (approx. 250 cm²), brick 180 x 180 (approx. 300 cm²)
5 m



JASPI model	Capacity kW	Water volume l	Dimensions mm H x W x D	Furnace dimensions mm H x W x D	Weight kg	Design pressure bar	Design temperature °C	Min. draft Pa	LVI No.
40 YPV	20-40	80	1500 x 520 x 720	900 x 350 x 530	270	1.5	100	5	5058030
40 Stoker	20-40	155	1680 x 520 x 720	900 x 350 x 530	330	1.5	100	5	5058045

Jaspi Econature (40 kW)

Jaspi Econature is a new generation solid fuel pyrolysis boiler with a considerably higher efficiency than that of conventional wood-fired boilers. The boiler capacity is 40 kW, the length of firewood 0.5 m. The Jaspi Econature should be always connected to a heat storage tank for recharging (1500 l to 3000 l recommended).

The Jaspi Econature's ceramic grate bar and afterburner guarantee a really high combustion temperature. High-temperature combustion is a clean combustion process that produces little tar and very low noxious emissions. Moreover, the process provides efficient accumulation of energy released by wood combustion. The combustion process is controlled through the ceramic bars while an induced draft fan provides balanced and optimized draft throughout the process. Pyrolysis of firewood begins at a temperature above 100°C and as soon as the temperature exceeds 280°C the resulting reaction causes heat release. Secondary combustion (the reaction between pyrolytic gases and oxygen) begins at a temperature over 600°C. The high efficiency and combustion temperature reduce firewood consumption as well as heating and cleaning efforts. Clean combustion and the obtained environmental certificate also make it possible to use the boiler in densely populated areas. Once firewood is completely burnt down, the induced draft fan will be stopped automatically so that you will not have to go to the boiler room after the last filling of the furnace. The boiler pump thermostat will control a charging unit mounted between the boiler and the heat storage tank and ensure that water entering the boiler from the storage tank is hot enough. The Jaspi Econature has been tested as per EN 303-5 and found to meet all the requirements of the standard. The boiler does not require a thermal anti-boil valve to be connected.

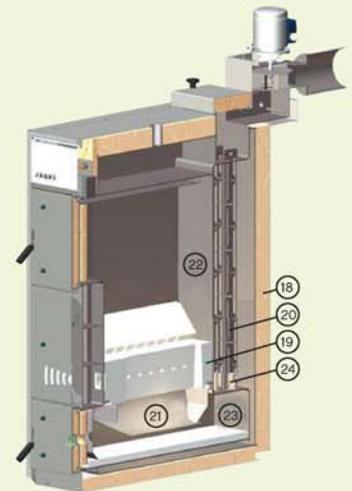
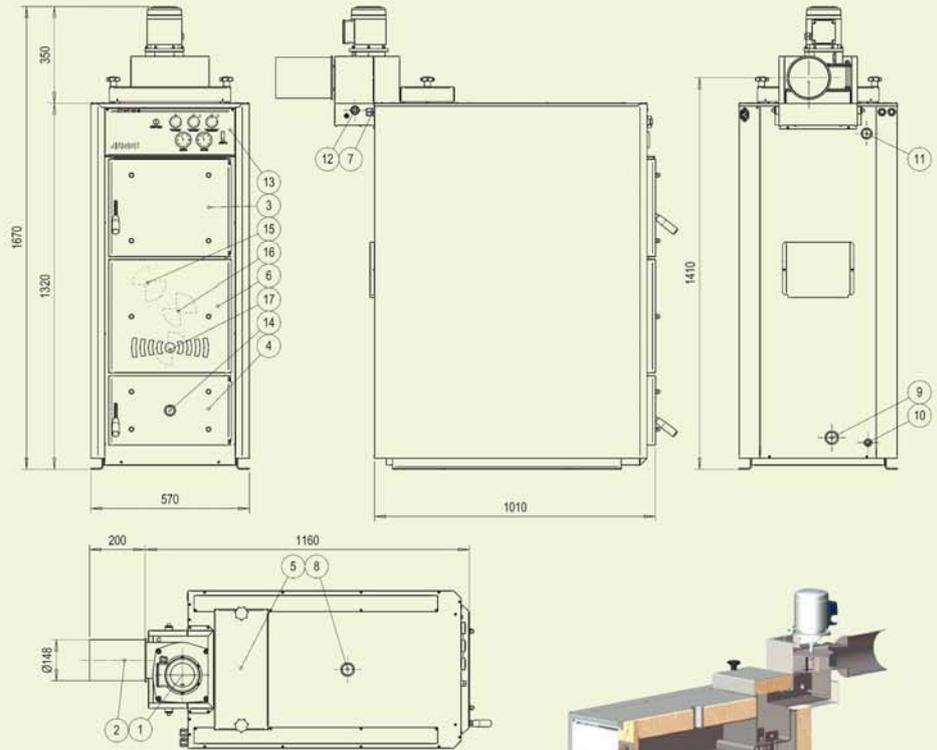
The EN 303-5 testing demonstrated an average efficiency of 91% in a five-hour combustion cycle. It is however important to keep in mind the quality and moisture content of firewood. The moisture content should be less than 25% to achieve a better efficiency. Operation and maintenance can be done at the front and on top. Sensors and controls are located at a convenient height.



**EFFICIENCY
91 %**

Parts:

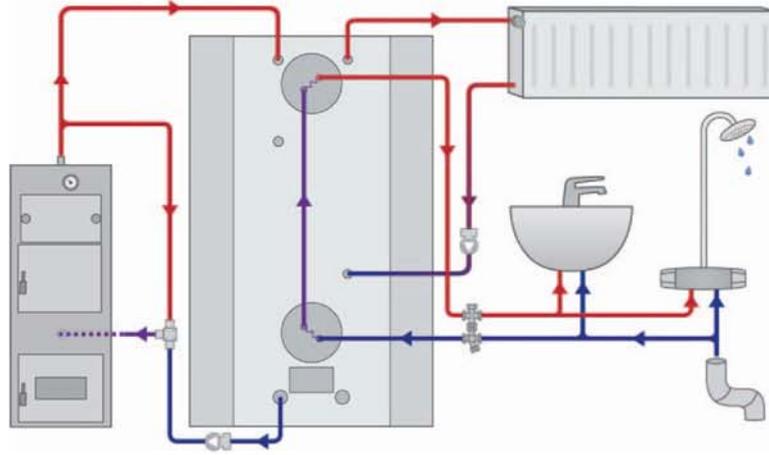
1. Induced draft fan
2. Rotary flue connection (90°C in both directions)
3. Filling hole
4. Service hole
5. Convection duct cleaning hole
6. Air chamber hatch
7. Electric leads
8. R32 F outlet to storage
9. R32 F return from storage
10. Drain R15 F
11. R25 F expansion connection
12. R15 F flue gas thermometer / analyzer connection
13. Sensor and control panel
14. Flame monitor glass
15. Upper primary air adjusting plate
16. Lower primary air adjusting plate
17. Secondary air adjusting plate
18. 75 mm mineral wool insulation
19. Ceramic grate bar
20. Turbulators
21. Firing throat
22. Storage furnace
23. Combustion furnace
24. Convection ducting



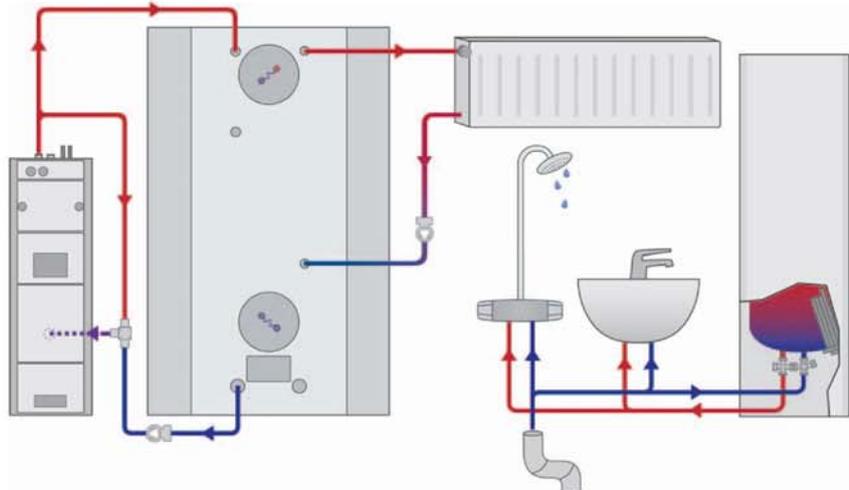
JASPI model	Capacity kW	Water volume l	Dimensions mm H x W x D	Furnace dimensions mm H x W x D	Weight kg	Design pressure bar	Design temperature °C	Min. draft Pa	LVI No.
Econature	40	120	1670 x 570 x 1160	600 x 350 x 550	450	1.5	100	5	5058050

Flue recommendation: metal, min. Ø 140 mm, brick min. 180 x 180 (approx. 300 cm² = whole brick).
 Minimum flue height: 5 m

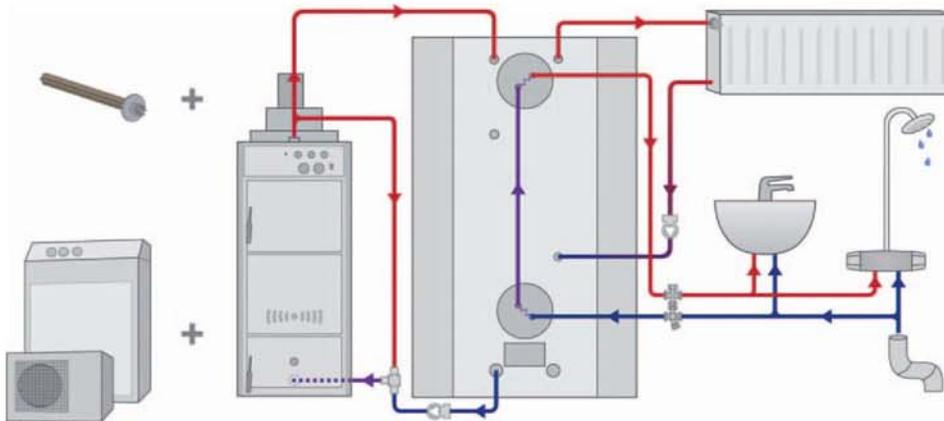
Jaspi 40 YPV with a heat storage tank



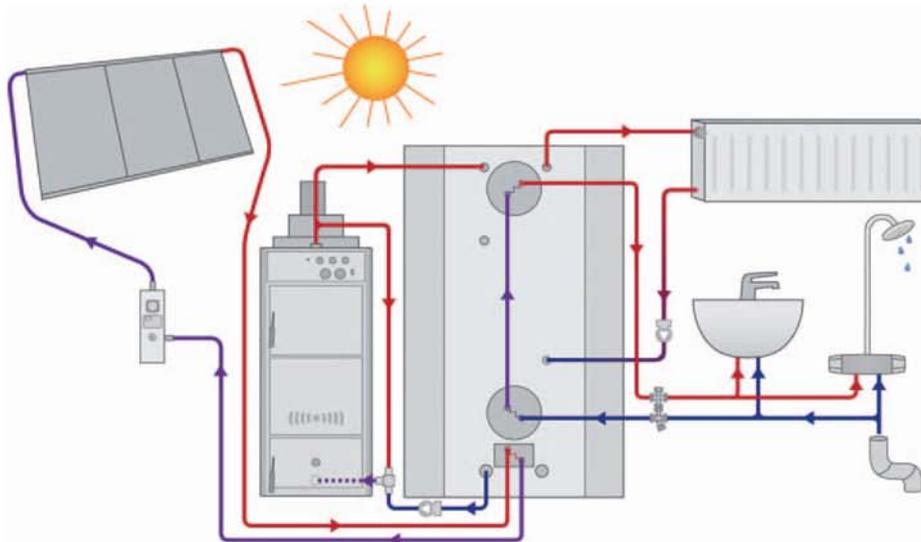
Jaspi Ecopuu 25 with a heat storage tank and a separate water heater - NOT AVAILIABLE IN UK MARKET



Jaspi Econature with a heat storage tank and tubular electric heaters or a heat pump as an additional energy source



Jaspi Econature with a heat storage tank and a solar panel system



Consult your distributor for heat storage options.



Jaspi GTV heat storage tanks:

Heat storage tanks are available in 270, 500, and 700 l sizes and are designed for both new buildings and those under reconstruction. In tight space, it is possible to connect multiple GTV heat storage tanks in parallel. Heat storage tanks can be ordered with or without hot water coils (typically 35 l/min, 80 l/min, 100 l/min). The GTV 700 includes a solar coil as an option. Design pressures available: 1.5 or 4 bar. Heat storage tanks are provided with polyurethane insulation and stylish steel lagging.

Jaspi Ovali heat storage tanks:

Heat storage tanks are available in 1000, 1200, 1500, 1800, and 2400 l sizes and are perfectly suitable for both new buildings and those under reconstruction due to their volume and dimensions. The depth of heat storage tanks is 780 mm so that they can fit through narrow openings when transported to the site. These storage tanks are typically supplied with two domestic hot water coils and with a solar coil as an option. Multilateral connections allow various energy sources to be employed. The design pressure is 1.5 bar. Heat storage tanks are provided with polyurethane insulation and stylish steel lagging. They can be also supplied without insulation or lagging upon request.

Jaspi GTV-K and T-EPK heat storage tanks (new line):

Heat storage tanks are available in 500, 700, 1500, 2000, and 3000 l sizes and are designed for both new buildings and those under reconstruction. They are typically supplied with a copper or stainless steel hot water coil. There are also options for a hot water preheat coil and a solar coil. Multilateral connections allow various energy sources to be employed. The design pressure is up to 4 bar. Heat storage tanks are provided with polyurethane insulation and stylish lagging.



ISO 14001
ISO 9001
EN 729-2

Email: jaspi@northmangroup.co.uk

Telephone: 01392 247342

www.jaspi.co.uk