AIRFLOW 50 KW AIR HANDLING UNIT

Abbey Solar Renewables Ltd

Why Biomass?

If you have commercial premises running on heating oil, LPG, or natural gas, then switching to biomass heating can make huge savings. This allows you to minimise future increases in energy costs and provides energy security AND also allows you to claim the Renewable Heat Incentive (RHI). One of the best solutions for space heating is the Airflow 50kW air handling system:

AIRFLOW 50KW AIR HANDLING SYSTEM

The AIRFLOW is a self-contained, compact air handling system that produces hot air for space heating. The AIRFLOW system is fuelled by wood pellets and is specifically designed for use in Warehouses and Industrial Units for the provision of heating and frost protection. The modular unit is mounted on a steel pallet for easy siting and has an optimum coverage area of 240-270m².
The AIRFLOW air handling unit is equipped with an ambient air temperature thermostat that will modulate the boiler output to obtain the desired room temperature range of 5-25°C.

PONAST KP 52S FEATURES SUMMARY

- Compact unit for easy siting - 1900 x 1130 x 2630 mm (wdh)
- PONAST KP 52S wood pellet biomass boiler
- 2000mm flue
- 250kg fuel store
- Swivel mounted fan unit with 0-270 degree movement range
- Heat meter
- Circulation pump
- Drain valve
- Pressure control
- Expansion tank
- Pressure release valve
- Automatic control vent

Fully accredited through the Microgeneration Certification Scheme

- DEFRA approved for smokeless zones
- Eligible technology for the Renewable Heat Incentive• High efficiency – over 90%
- Steel construction with heavy duty coaxmite coating for longlife
- Control unit for automatic operation
- Ash bin with automatic de-ashing• Automatic electrical ignition
- New burner construction with cast iron exchangeable burner surface
- Safety thermostat with automatic cut-off
- Self cleaning, vertical turbulator Heat Exchangers
- Integral flue fan (optional extra)
- Monitoring via internet or GSM connection
- Modulating control with output variation from 30-100% depending on actual heat demand
- Guarantee – boiler body 60 months (from first operation), boiler24 months. Ceramic parts are excluded from the warranty

SITE REQUIREMENTS FOR INSTALLATION

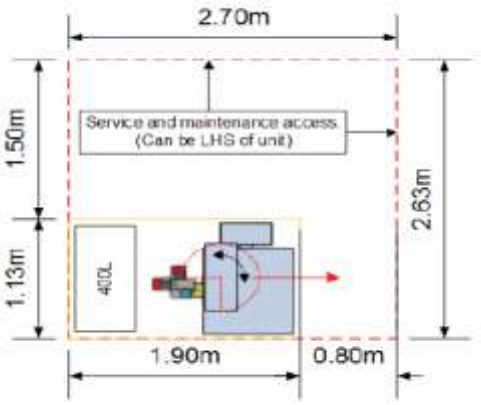
The AIRFLOW is a 'plug and play' solution and has minimal site requirements for installation. It is mounted on a steel pallet to enable siting of the unit by a pallet truck or a forklift truck.

The following is required on site prior to installation:

- Suitable electrical supply - single phase, 230V
- Availability of water for filling
- Level floor suitable for the weight of the unit
- Suitable length and route for flue penetration to comply with building regulations

The AIRFLOW system must be sited with access to two sides of the unit. Woodpecker Energy recommend the following minimum space requirements:

- 2700mm width
- 2630mm depth



Maintenance

The AIRFLOW is a fully automatic system that requires minimal maintenance.

Operators are required to make the following checks:

DAILY MAINTENANCE

- Ensure the boiler has fuel in the fuel store
- Visual inspection of the combustion chamber (may require ash to be removed using the provided scraper)
- Visual inspection of flue and pipework for leaks
- Inspection of the fan unit - consistant noise level of fan

REGULAR MAINTENANCE

The fuel used must meet the specified standards. A minimum fuel level of 10cm of pellet is required above the F1 feeder inlet.

Ash removal is required every 2-6 months or when the ash level reaches 2cm below the side edges of the external ash container. The boiler must be switched off before the external ash container is removed. Please ensure the ash container lid is securely replaced after ash removal.

- Checking that there is no ash build up on the ceramic grate is required every 4 months. Ash is removed by gently shaking the grate.

SERVICING

Every boiler in the KP series, including the AIRFLOW, should undergo an annual service by a trained technician after the end of the main heating season.

Thermal and technical parameters	Unit	AIRFLOW 50kW
Rated output	kW	49.5
Output range	kW	14.6 - 49.5
Fuel consumption	kg x hrs-1	~3.44 - 11.63
Efficiency (rated output)	%	90.4
Flue Gas temperature rated output	°C	110-153
Class of the boiler		5
Burning time min/rated output (based on fuel storage of 250kg)	hours	80-24
Technical parameters of products		
Weight	kg	920
Water content	litres	190
Flue duct diameter	mm	160
Dimensions (width x depth) excluding ash box	mm	1130 x 1900
Maximum water pressure	bar	up to 3
Required flue draught	mbar	0.1 - 0.3
Recommended operating temperature of heating water	°C	60 - 80
Lowest temperature of incoming water	°C	55
Sound power level	dB	57
Output power 70/50°C, 10°C	kW	53.91
Air circulation	m3*h-1	4500
Air circulation range in open space	m	17.5
Middle level of sound pressure	dB	67.2
Electrical parameters of products		
Connecting voltage		230 VAC ± 10%, 50 Hz ± 2 Hz
Maximum electrical input - ignition	W	1200
Electrical protection of the control unit		IP 54
Electrical protection of the boilers wiring		IP 20
Fuel and its parameters		
Wood pellets diameter		6.0 - 8.5mm
Calorific value		approximately 16-18 MJ/kg
Water content		Up to 10%
Ash content		Up to 1% (0.8 - 1.0%)

What to do Next:

1. Call 01642 983123 for one of our representatives to come and conduct a free feasibility study and discuss your options.
2. Upon acceptance final documentation is completed
3. Installation will then commence after completion of the works the system will be commissioned and HEATAS certified
4. Annual maintenance visits will ensure optimal working of the system

Power By Biomass

a touch of warmth!

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Speak to one of our team now on

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