ENERGY robus

Black Star Pellet System

EN TESTED EN303-5 2012 Class 5

OPOP

NBE POWERED BY NATURE

Contents

Dear Customer.

Thank you for choosing Robus Black Star pellet boiler system. This product is designed and manufactured to the highest standards in the EU. In order for you to get the most out of your product, we strongly recommend that you carefully read this manual prior to installation and operation. In the event that you encounter any difficulties during installation or operation, we recommend that you first refer to this manual or contact Robus Energy Ltd for further assistance.

Note: Help text on all menu items is displayed in the controller and is therefore not described here in this manual. It is recommended to study the menus prior to initial start.
Save this manual, so you always have it available when needed.

Comments on the manual

Never handle the auger, blower, nor crawl in the hopper when the system is powered. There will be no warning prior to the activation of these components. The boiler must not be operated without the shield on the burner.

The system is provided with an electrical current of 230V/50Hz. An improper installation or improper repair can cause life-threatening electrical shock. Electrical connections must be performed by the person who has the right skills and training. Performance of electrical installation must be carried out in COMPLIANCE with the relevant rules. Always disconnect the system from the electrical supply prior to starting maintenance work or servicing. The system must be connected to a separate electrical circuit, which is equipped with the proper circuit breaker and earth leakage breaker.

The boiler must be mounted to a functioning chimney. In the event that you smell smoke or see any other indication of improper draft of the chimney, all operation of your system must cease immediately and must remain so until a solution to the draft problem has been resolved. Continuing operation may result in death or injury.

Always read the manual before system installation or repair. If in doubt, seek professional help.

Open top covers etc. with extreme caution. When the boiler is in operation, there is a risk of high temperature surrounding the top covers, which can result in injury. Avoid handling the boiler while it is in operation. Never open the ash tray while the boiler is in operation. The system may be operated by skilled people. If you are in doubt as to the safe operational use of the boiler, contact your dealer.

The menu structure etc. for the controller is supported by the help texts found in the control box itself. Due to constant updates and new features, the menu structure of the controller will not be described here in this manual. Instead, it is recommended to browse the controller thoroughly prior to use and to receive an overview of all functions, etc. by your installer.

This manual must be kept with the boiler!

The Clean Air Act 1993 and Smoke Control Areas

The Robus Black Star Comfort range of boilers listed below has been recommended as suitable for use in smoke control areas. The recommended fuel for the boiler is 6mm or 8mm diameter wood pellets to EN 14961 Part 2 class A1 wood pellets only.

Robus Black Star 10 Comfort
Robus Black Star 14 Comfort
Robus Black Star 24 Comfort
Robus Black Star 45 Comfort

Under the Clean Air Act local authorities may declare the whole or part of the district of the authority to be a smoke control area. It is an offence to emit smoke from a chimney of a building, from a furnace or from any fixed boiler if located in a designated smoke control area. It is also an offence to acquire an "unauthorised fuel" for use within a smoke control area unless it is used in an "exempt" appliance ("exempted" from the controls which generally apply in the smoke control area).

The Secretary of State for Environment, Food and Rural Affairs has powers under the Act to authorise smokeless fuels or exempt appliances for use in smoke control areas in England. In Scotland and Wales this power rests with Ministers in the devolved administrations for those countries. Separate legislation, the Clean Air (Northern Ireland) Order 1981, applies in Northern Ireland. Therefore it is a requirement that fuels burnt or obtained for use in smoke control areas have been "authorised" in Regulations and that appliances used to burn solid fuel in those areas (other than "authorised" fuels) have been exempted by an Order made and signed by the Secretary of State or Minister in the devolved administrations.

Further information on the requirements of the Clean Air Act can be found here http://smokecontrol.defra.gov.uk/

Your local authority is responsible for implementing the Clean Air Act 1993 including designation and supervision of smoke control areas and you can contact them for details of Clean Air Act requirements"

Fuel and warranty

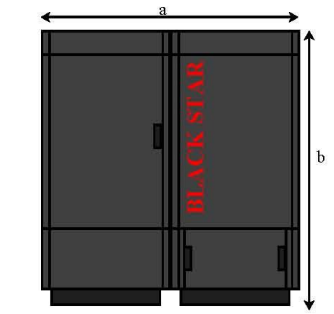
The Robus Black Star and Robus Black Star Comfort pellet boilers are designed for use with EN-plus A grade wood pellets only. The use of substandard fuels will compromise the efficiency, reduce the life span and invalidate the warranty of the appliance.

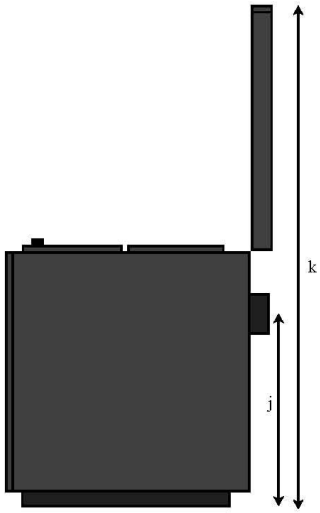
What is EN-Plus?

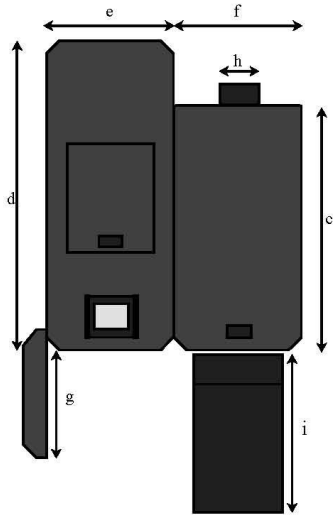
EN-Plus is the European Quality Standard for the manufacture and supply of wood pellets. Manufacturers and Distributors who have the EN-Plus standard have been certified as meeting the required quality standards and they are entitled to display the EN-Plus logo and their own unique License Number.

Boiler Specifications

Boiler dimensions





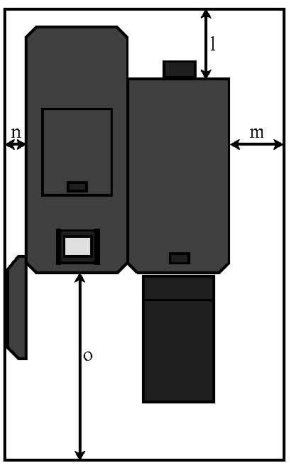


	BS10C	BS14C	BS24C	BS45C
a.	920	920	1120	1320
b.	1040	1040	1040	1140
c.	730	730	820	885
d.	1020	1020	1080	1180
e.	455	455	555	655
f.	465	465	565	665
g.	400	400	500	600
h.	130	130	150	150
i.	450	450	550	600
j.	660	660	680	765
k.	1770	1770	1860	2025

Recommended clearances

	BS10C	BS14C	BS24C	BS45C
l.	Distance form rear wall will be determined by chimney specification			
m.	Access required to chimney for sweeping recommended minimum of 400mm.			
n.	100mm clearance required to open hopper door.			
o.	Access required for ash removal and servicing recommended minimum of 800mm.			

Boiler room clearances

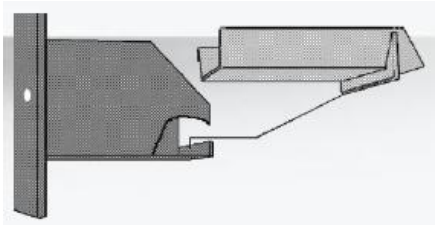


General installation guidelines

1. The boiler must only be installed by qualified engineers.
2. All local building regulations must be observed (downloads available from the Robus Energy website).
3. The boiler must **not** be installed on combustible surfaces.
4. The chimney and ventilation system must be fit for purpose and installed in accordance with Approved Document J (Combustion appliances and fuel storage systems).
5. Chimney draft should be between a **minimum** of 5 PA and a **maximum** of 23PA and be stable. Overpressure must **not** occur as this will cause inefficient boiler operation and a lack of control of the boiler temperature. It may be necessary to install a draft stabilizer.

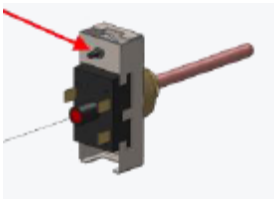
Installation of the burner

Installing the burner on the boiler:



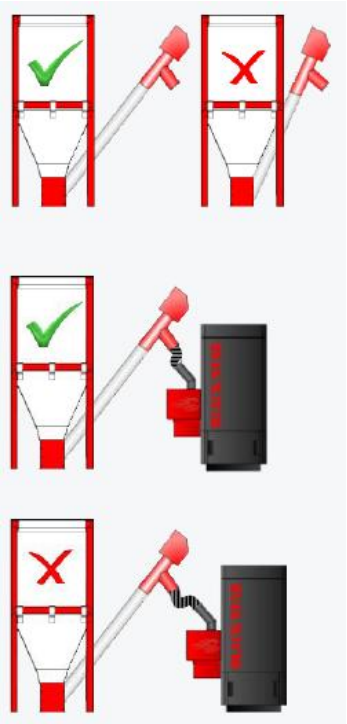
1. Check that the burner is not damaged during transport.
2. Check that the burning grate is inserted correctly in the burner (see image left).
3. Mount the burner and tighten the burner with the two wing nuts supplied. Never use locknuts, as the seal between the boiler and the burner can leak over time.
4. Make sure that the burner is horizontal and that all connections are tight.
5. Mount the shield and the connector on the burner.
6. Install electricity for safety cut-off thermostat according to the wiring diagram. **SAFETY THERMOSAT MUST ALWAYS BE FUNCTION TESTED!**

   The thermostat can be tested by using an electric kettle. The thermostat must switch off when the temperature probe is dipped into boiling water. If necessary, adjust the switch-off temperature lower by turning the screw inward. Reset the thermostat by pressing hard on the red button!



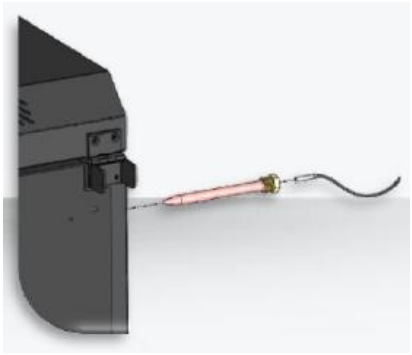
External auger:

1. Install the auger output over the burner.
2. Auger should be at an angle between 40 and 50 degrees.
3. The flexible hose should be angled enough as to allow for the free passage of the wood pellets to the burner without getting stuck in the PVC hose.



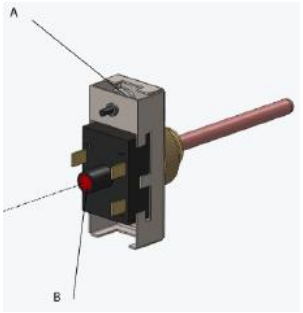
Temperature sensor on the boiler:

Mount the sensor within a sufficiently long thermostat pocket. Secure sensor to prevent accidental slippage.



Safety thermostat:

Mount on either the left or right side of the boiler as displayed in image. **Note**: Functional testing of the high limit safety thermostat is required before starting up the boiler. To test, press moderately on the disc (shown in A) in the direction towards the temperature feeler. A small "click“ will occur, signalling that the connection between C and C2 is interrupted and that the high limit safety thermostat is triggered, to reset the thermostat press hard on the red button marked (B) in the drawing. You will also hear a "click", signalling that the connection between C and C2 is restored and that the high limit safety thermostat is activated and ready for use.



Self cleaning:

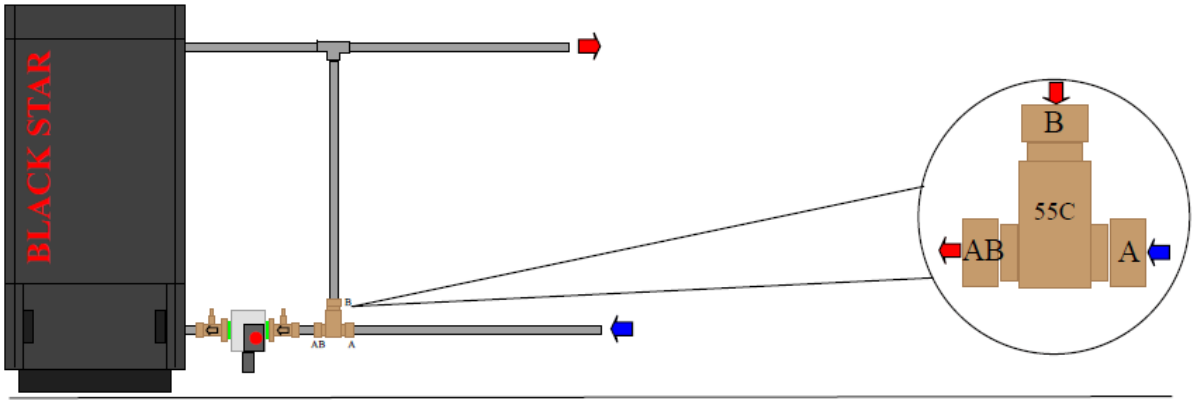
The boiler cleaning system must be connected with 230V AC through the socket located on the back of the boiler. In the control box, make a connection to output (L5-L10). The cleaning system will run every time the burner conducts a blower cleaning sequence typically 5 seconds every 10 min. These settings can be configured under the Cleaning menu in the controller.

Hydraulic installation of the boiler

A correctly executed installation ensures that the system functions properly. Both national/local guidelines and requirements must always be observed. The boiler can be installed on a pressurized system up to max 2.5 bar.

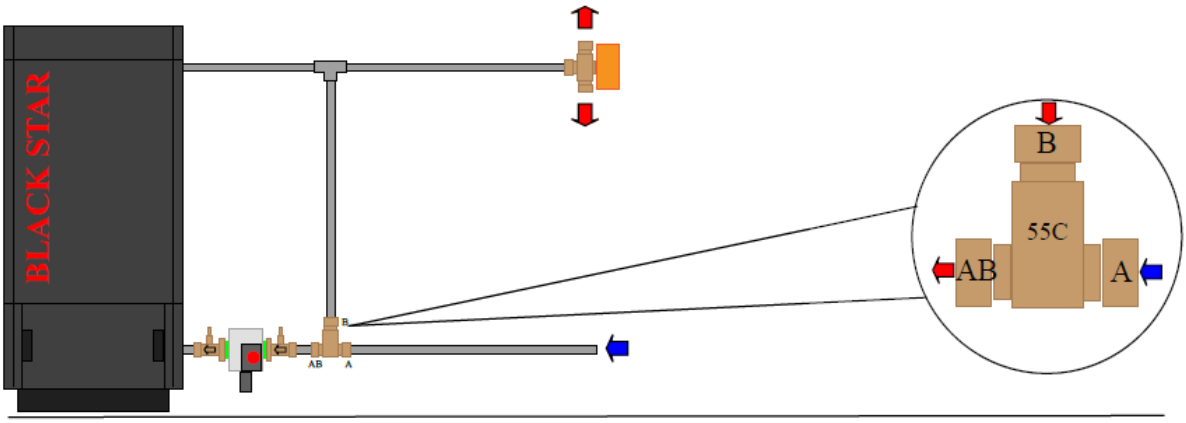
Standard load valve installation

Failure to correctly install the load valve will void any future warranty. The load valve, supplied with the boiler, must be installed in the boiler return pipe work as shown in the diagram. This maintains a minimum 55°C return temperature to prevent condensation forming within the boiler.

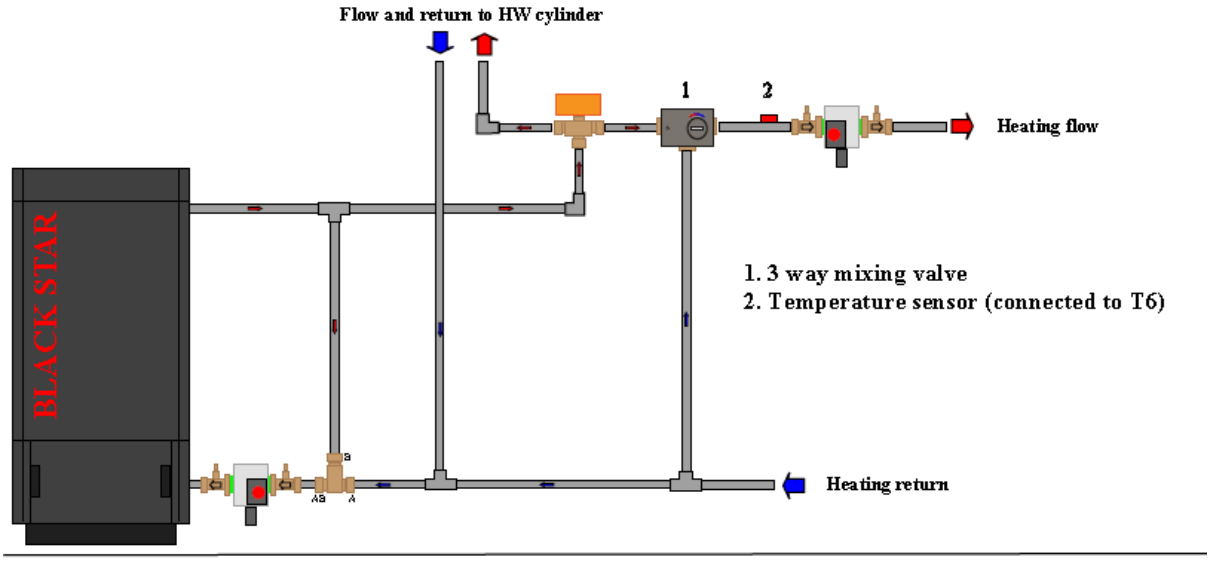


Basic Y-plan installation

The 3 port valve must “spring return” to a heating position. 230V is only applied to the valve during hot water mode.



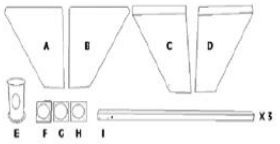
Weather Compensation installation



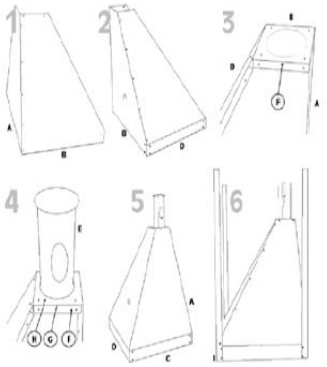
Weather compensation allows a motorised 3 way mixing valve to give a variable flow temperature depending on the outdoor temperature. The mixing valve mixes high temperature water from the 3 port valve with cooler return water from the heating system. The 3 way valve is controlled by the Version 10 controller. The outdoor temperature can either be measured by a temperature sensor connected to T5 or the weather data can be automatically taken from Stokercloud if the controller has been linked to the internet.

Wood Pellet Hopper

There are several hopper solutions, Examples include a steel hopper, fabric hopper and mini hopper; which is built together with the boiler. All hoppers can be extended for bulk storage/feeding via the vacuum transport.



Steel Hopper:



Available in 4 different models

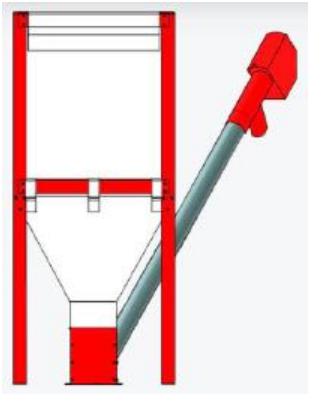
60x60cm = 200L = 140 kg

80x80cm = 320L = 220kg

80x140cm ext. = 500L = 350kg

100x100cm = 500L = 350kg

Fabric Hopper:



Available in three different models. With gate over the auger inlet.

60x60cm = 300L = 210 kg

80x80cm = 400L = 280kg

100x100cm = 500L = 350kg

Mini hopper, built together with boiler:

Available in 3 different models: Can be mounted either side of the boiler.

BS10 & 14 mini, 150 kg

BS24 mini, 200kg

BS45 mini, 250kg

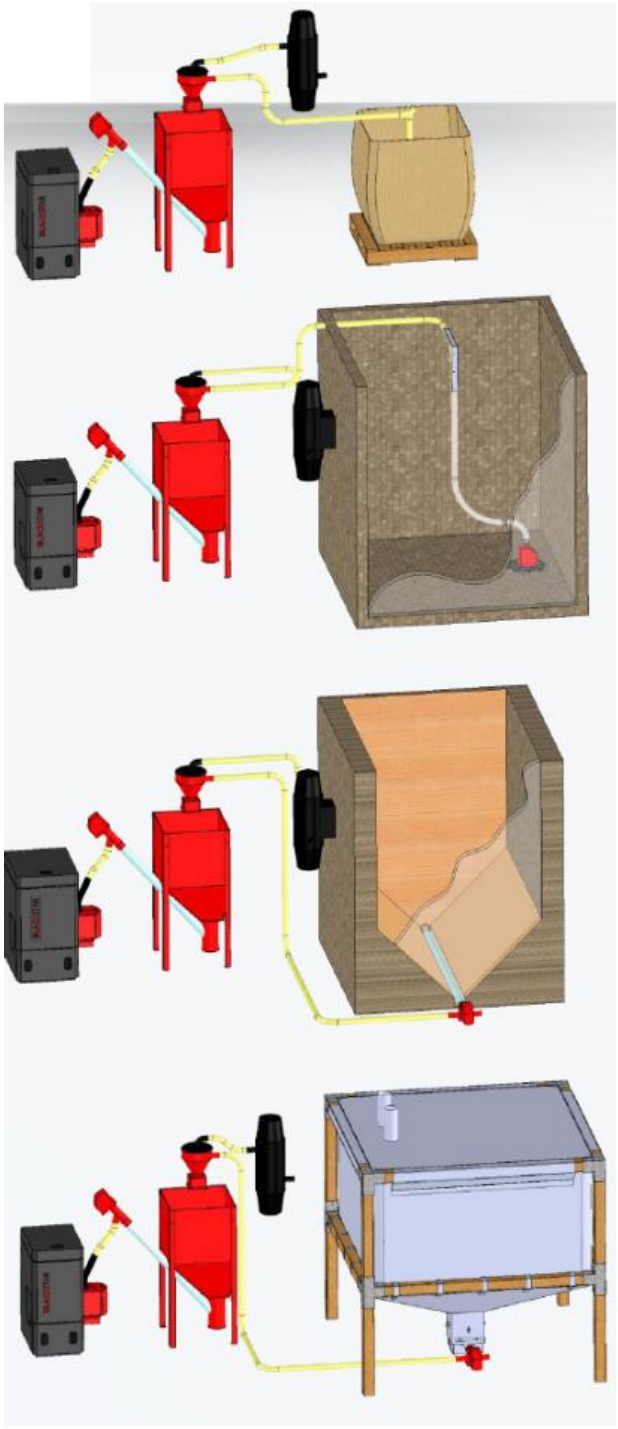
Vacuum Transport

The Vacuum System for wood pellets makes it easy to customize various delivery forms for your system. Here are a few examples of ways to configure your vacuum transport.

Big bag.

Throw the mole in the bag.

Easy way to transport 1 ton.



Flat bottom hopper:

Is a top-fed option that maximizes space by minimizing ceiling height requirements.

V bottom hopper:

Transports pellets via a bottom auger. Is a stable and secure way to transport pellets, but requires more headroom.

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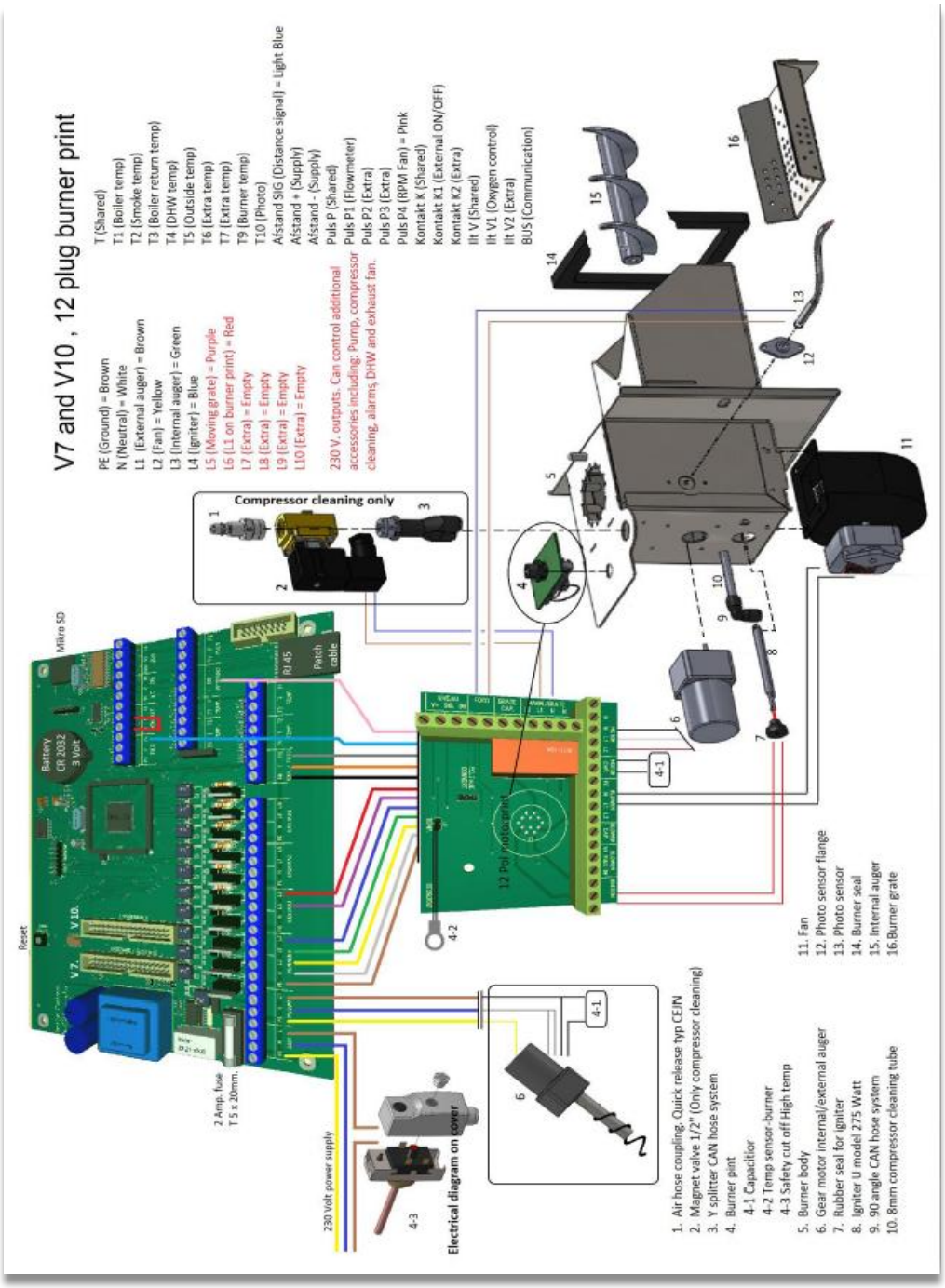
Fabric hopper:

An inexpensive bulk hopper solution.

Wiring Diagram.

There may be factory installed wiring on the outputs L5-L10. L5 may be factory fitted for the moving grate. L6 may be factory fitted for the compressor cleaning. Remove these if there is a need for other equipment on the outputs.



Electrical Connections

	IN	OUT	
230	PE-N-L		230Volt AC
SAFETY THERMOSTAT	L-L		Safety thermostat cutoff
MOTOR		PE-N-L1	External auger
BRÆNDER		PE-N-L2	Fan
BRÆNDER		PE-N-L3	Internal auger
BRÆNDER		PE-N-L4	Ignition
EKSTRA 1		PE-N-L5	Circulation pump, can be set to other equipment.
EKSTRA 1		PE-N-L6	Compressor cleaning, can be set to other equipment.
EKSTRA 2		PE-N-L7	Optional output for equipment.
EKSTRA 2		PE-N-L8	Optional output for equipment.
EKSTRA 3		PE-N-L9	Optional output for equipment.
EKSTRA 3		PE-N-L10	Optional output for equipment.
BUS	GRD, TX, RX,		Expansion module
ILT	V1, V, V2		O2 controller
KONTAKT	K-K1		External ON/OFF
KONTAKT	K-K2		Free
PULS	P-P1		Flow meter system
PULS	P-P2		Flow meter solar heating
PULS	P-P3		Free
PULS	P-P4		Fan RPM
AFSTAND	-, SIG, +		Distance sensor for hopper
LAN	RJ45		Internet connection
TEMP.	T- T1		Boiler temperature
TEMP.	T – T2		Smoke temperature
TEMP.	T – T3		Boiler return temperature
TEMP.	T – T4		DHW temperature
TEMP.	T – T5		External temperature
TEMP.	T – T6		Free
TEMP.	T – T7		Free
EKS / FOTO	T – T9		Temperature sensor burner
EKS / FOTO	T-T10		Photo sensor burner

Optional Equipment

The controller supports the following equipment to aid in making adjustments, cleaning and trouble shooting.

Smoke Temp. Sensor:
Reads the current smoke temperature in the display.

External Temp. Sensor:
Stops burner through an external temperature sensor.

O_2 Control Kit:
Regulates the amount of oxygen in the flue gas. Regulates the quantity of wood pellet and air according to the desired O_2%.

Flow Sensor Kit:
Reads the system flow in the display and calculates the current power consumption for the house.

Hot Water Priority Kit:
Produces hot water only when it is needed. Closes hot water tank, when the house is heated. Kits available with either 2 or 3 way motorized valve.

Distance Sensor for Hopper:
Monitors the pellet level in a hopper and reports it in the controller.

Comp. Cleaning Small:
Cleans the burner head efficiently with high pressure. With this kit you need to use your own compressor.

Exhaust Fan:
Need greater chimney draft? The fan's RPM can be synched with the burner's power output. Can be connected to the burner controller.

Comp. Cleaning Big:
Cleans the burner head efficiently with high pressure. "Low noise" compressor included.

Weather Compensation:
Maintains a high boiler temperature while adjusting the house inlet temperature in relation to the outdoor temperature.

Solar Heating
Use the pellet burner controller to run your solar system.

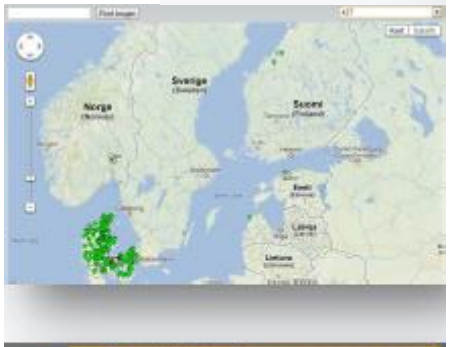
Wireless thermostat:
Stops the pellet burner with thermostat.
Gives a smooth transition to summer time.

Internet Connection.

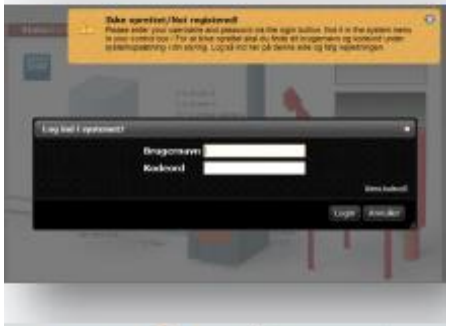
The web-based controller can be updated automatically from the Internet. Operating data can also be uploaded to www.stokercloud.dk

How to get the controller on the web:

1. Connect the controller to your router through an RJ45 cable. Since this is a direct cable connection no passwords etc are required. Once connected, a small icon will appear on the screen indicating that the controller is online.
If you do not have the possibility of a direct cable connection, these adapters picture on right, can be used. They can establish a connection to your router through your household power cables. This provides an easy PLUG and PLAY solution.

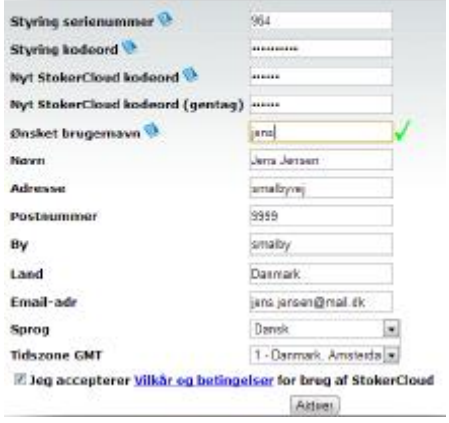


2. Find your control number and password under the "system" in the controller.



3. Go to www.stokercloud.dk and find your controller in the drop-down at the top of the page. Or type your control number in the search box.

4. LOG IN, and follow the instructions.



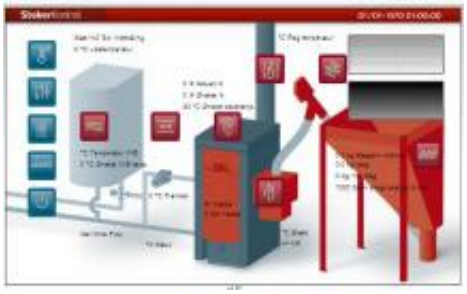
5. Enter your personal information, new user name and new password.

Internet Connection.

6. Specify where you live, displayed on www.stokercloud.dk . Click on your property to give your location.

Once your settings are saved you will have your own page and burner dashboard.

After a short period of time you should see data streaming from the burner.

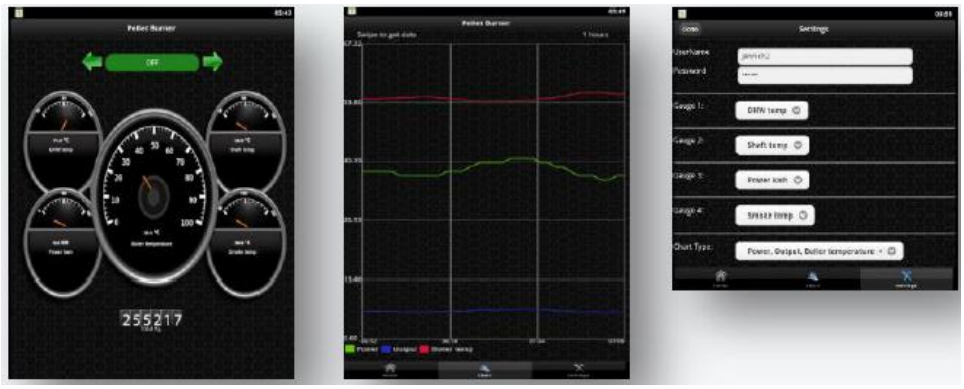


If you would like to view your system from your smart phone then download our App for the following devices:

Android Play for android mobile phone.
Search "StokerKontrol“

ITunes for iPhone mobile phone.
Search "StokerKontrol“

WindowsPhone for Windows Mobile phone.
Search "StokerKontrol"



Cloud Services.

If your burner is online via our website www.stokercloud.dk we can help you keep an eye on your system. If something unexpected happens such as too many ignitions, unstable operation, improper PI regulation etc. then we have the opportunity to help you ONLINE.

How it works: -

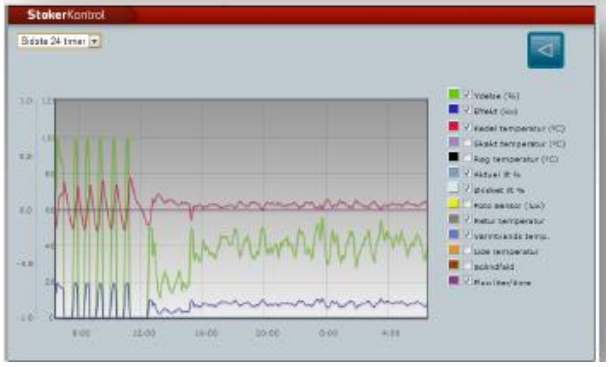
-NBE observes abnormalities on your graphs.

-You will be contacted by E-mail, where we ask your permission to make changes.

-NBE will assess your graphs and the burner reaction pattern, and make adjustments based on the observations.

-You can always see the changes in your LOG.

- After adjusting, it should look like this ...



NBE's Cloud Service ensures:

-Fewest possible number of electrical ignitions.

-Best possible PI regulation.

-An optimized system for your house.

-Lower wood pellet consumption.

-Peace of mind.

-The latest updates to the controller.

First time start up.

Once the system is assembled, filled with water, and power is connected to the system a few basic adjustments to the burner is required.

1. Fill the auger with pellets by force starting the auger either through the controller or directly via a 230V connection.

2. When the augur appears full, run for an additional 15 min. to ensure correct weighing later.

3. Activate the 6 min. test run in the controller and collect the dispensed pellets with a plastic bag.

4. Using a kitchen scale, weigh the pellets from the test run and enter the amount into the controller under **"Auto calculation" Repeat again after 7 days!**

5. Adjust minimum output as low as possible, typically 10% of the burner's rated output (i.e. if 20kW, set to 2.00kW). If the chimney draft is high, adjust the minimum output up until you have a stable flame at 10% power.

6. Once the burner is activated an ignition will be made. After approx. 20 minutes the burner will reach a nominal output (100%). If necessary lock the burner output at 100%. Now you can perform an evaluation as to whether the fan is providing suitable supply of air to the flame. If necessary, adjust in the fan menu.

The flame at 100% should fill the entire width of the grate, have redish spikes, and reach the opposite wall.

7. Lock the burner to 50% power. Wait 5 minutes for the flame to stabilize. Again, assess fan performance in relation to the flame.

The flame at 50% should be approx. 10 cm out of the burner and is yellowish in colour.

8. Lock the burner to 10% power. Wait 5 minutes for the flame to stabilize. Assess fan performance in relationship to the flame.

The flame at 10% should be small and short.

The photo sensor reading may fluctuate, however, it should not have a 0 LUX reading for a period >10 sec. If the chimney draft is too high, increase the minimum effect of the burner to increase flame size.

Cleaning of the burner / boiler.

Cleaning should be carried out regularly and as needed. There is a big difference in the frequency of maintenance required from system to system. The setup, adjustment, and wood pellet quality play an important role on how frequent maintenance should be performed.

The table is only a suggestion and applies only to the BS1016, BS2030 and BS4050 boilers!

When needed	7 Days	14 days	30 days	1/2 annually	1 annually	
x	x	x	x			Cleaning cinders out of burner head.
			x			Cleaning under the combustion grate for dust and cinders.
				x		Cleaning photo sensor from soot and dust.
				x	x	Cleaning burner fan from dust.
x				x		Cleaning boilers, flues, and take semi cleaning out.
				x	x	Emptying the last smoke channel for ashes.
x			x	x		Empty the ash pan, typically after 1,000-2,000 kg pellets.
x					x	Check gaskets / replace worn gaskets.
x						Adjusting the burner. (weighing the pellets)
x	x	x				Filling the hopper.
				x	x	Emptying the hopper, dust and fines removed.
					x	Chimney sweeper.

Always use personal protective equipment. Dust, ash and soot are hazardous to health!

Turn off the controller and allow the boiler to cool for approx. 5 min. Once the burner is completely turned off, it is ready for cleaning. Unplug the burner, remove the shield, drop shaft, and detach the burner from the boiler so work can be easily performed.

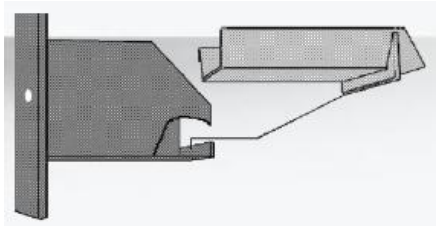
Boiler.

All surfaces inside the boiler must be brushed clean from any deposits with the tools provided. When empting the ash, pay special attention to any build-up of ash in the rear smoke chamber and flue, since the Chimney Sweeper may not always be removing the ash from the chimney flue.

Never dispose of hot ashes in the trash, but let it cool in a metal bucket. Hot ashes can re-ignite.

Burner head.

Remove any ash or cinders from the grate. Remove any pellet remnants from under the burner grate. Ensure the grate is reinstated correctly (grate should not “slide” in and out when installed correctly)



Hopper.

Since pellets naturally contain dust, you should periodically empty the hopper completely and vacuum out the last pellets and dust. The more dust there is present in the hopper the less the auger will dispense, and the more unstable the dosing. The boiler will go out of adjustment with greater risk of downtime. How often one should empty the hopper depends greatly on the quality of the pellets you use.

Start-up after cleaning.

Once the pellet boiler is reassembled, turn on the controller and the burner will start itself up.

Trouble shooting

Problem.	Possible cause.	Possible solution.
Alarm RPM	RPM sensor defective.	Change the fan.
		Change to % regulation at the fan.
No power to the controller.	Defective fuse in the controller.	Replace the fuse to a new one.
	Safety thermostat deactive.	Reconnect by firmly pressing the red button.
	The controller has been over-voltage.	Send controller to NBE for repair.
The burner deactivate residual current protection.	Electric ignition is faulty.	Change the electric ignition to a new.
	Current leak in a component.	Note when RCD deactivate, replace the component.
	Cables exposed.	Check cables, insolate them if possible.
Too high pellet consumption.	Lean burning.	Make a new adjustment of the burner.
	Too high chimney draft.	Install a draft stabilizer in the chimney.
	Uninsulated pipes in the instalationen.	Insulate with pipe insulation.
Too many electric ignitions.	Flow in the system is fluctuating.	Set the pressure controlled circulation pump to fixed pressure.
	External thermostat unstable.	Set "External wait" up in the controller.
Unburnt pellets in the ash.	Lean burn.	Make a new adjustment of the burner.
	The grate is placed incorrectly.	Mount it correctly.
	Too many pellets on the grate.	Make a new adjustment of the burner.
	The fan is adjusted too high.	Make a new adjustment of the burner.
	Too high chimney draft.	Install a draft stabilizer in the chimney.
Cinders on the grate.	Blower cleaning is not sufficient.	Adjust the fan% up to clean, and the time between the down.
		Clean the grate mechanical more frequently.
	Poor quality pellets.	Change supplier.
		Mount compressor cleaning.
		Change the grate, to a model that is more open.
	Fat combustion.	Adjust the fan up at 10, 50 and 100 % power.
		Adjust the burner power down in "auto calculation"
The boiler condensates.	Too low chimney temperature.	See page 27 about flue gas condensation.

Flue Gas Condensation

Preventing condensation in the boiler and chimney.

When a boiler has an extremely high efficiency (for example > 93%), the flue gas temperatures exiting the boiler are very low. As a consequence of this high efficiency and low chimney temperature relationship, proper precautions must be observed to avoid condensation from developing in the chimney. Leaving condensation untreated will risk the development of soot in the chimney, corrosion in your boiler, as well as possible loss of warranty.

Note: that even if there is water in the boiler it may be due to condensation in the chimney.

1. High chimney> 5m.

Provides a good chimney draft in all conditions.

2. Small clearing in the chimney 125mm-150mm.

Provides better flow and can remove more moisture.

3. Short un-insulated smoke pipe <0.3 m

Do not cool down the smoke unnecessarily before it reaches the chimney.

4. Draft stabilizer.

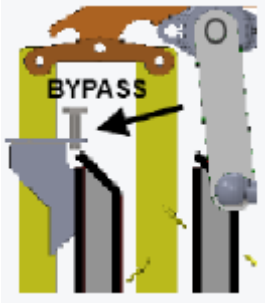
Stabilizes the draft, and provides the chimney with dry air.

5. High boiler temperature> 70C degrees.

10 degrees up in the boiler temperature gives 10 degrees more smoke temperature.

6. Suitable return temperature> 55C degrees.

Internal surface temperatures below 47°C will cause condensation to form.



7. Open bypass in the boiler.

Release the smoke before the last smoke cooler, 15C degrees increase in temperature of the smoke, only costs approx. 1% in efficiency.

8. Heated boiler room.

Lowers cooling of the boiler and smoke pipe and provides draft stabilizer more hot air to work with.

9. More oxygen in combustion.

Increases air flow in the boiler, and carries more moisture, 1% more oxygen costs approx. 0.5% in efficiency.

10. Remove the retarder. (Turbolator)

Decreases resistance of the boiler and can get a bad chimney to work better. The gas temperature typically increases to approximately 100 degrees. The burner settings should be readjusted after retarder is removed.

11. Keep the heat on the boiler continuously.

When using DHW priority on controller, and the boiler starts from cold each time. The boiler is not too dried out between each start.

12. Mount electric exhaust fan to chimney.

This helps the exhaust flow right away. CHIP 6.82 allows the exhaust fan be connected directly to the controller.

Warranty

All products purchased from ***Robus Energy*** are covered by the standard 1 year warranty. This includes 12 months warranty on the products valid from the date of receipt. A 2 year warranty is granted with the completion of the **Warranty Registration**.

Black Star Comfort range.
A five year manufacturer's warranty is available on the boiler vessel only if installation is done to manufacturer installation instructions.

Note: Electrical Igniters are not covered under the warranty as they are a wearable part.

The warranty only covers manufacturing and material defects. In case of product failure of the system when under warranty, ***Robus Energy*** will replace the spare part at no charge to the buyer within the first year. Buyer will be responsible for the installation or replacement of the part thereafter. If ***Robus Energy*** offers replacement of the defective part the purchaser shall send the part to ***Robus Energy*** for replacement. Guarantee shall be invalid if product failure is due to circumstances caused by the buyer; either by accident and/or abuse of the product, poor installation, inadequate cleaning, chimney conditions, as well as circumstances where ***Robus Energy*** has no influence. In addition, the warranty is invalid due to misuse of the burner for example using fuel that is not approved by ***Robus Energy.*** The warranty does not cover parts such as the electrical igniter. The buyer is obligated to check the goods immediately upon receipt. If the buyer declares that the delivery was inadequate or defective, the customer must immediately and without delay make a written claim with ***Robus Energy***. Returns are only made by agreement with ***Robus Energy***. To the extent that ***Robus Energy*** is liable to the purchaser, ***Robus Energy's*** liability is limited only to direct loss and not to damages incurred by connected equipment and/or indirect damage, loss of earnings, operating losses, connection costs, etc.

Responsibilities: ***Robus Energy*** assumes no responsibility as a result of the purchaser's legal relations with third parties. All orders are accepted subject to force majeure, including war, civil unrest, natural disasters, strikes and lockouts, failing supplies of raw materials, fire, damage to ***Robus Energy*** or its supplier network, lack of transport opportunities, import / export prohibitions or any other event which prevents or restricts ***Robus Energy's*** ability to deliver. ***Robus Energy*** has in cases of force majeure, the right to cancel the transaction or any part thereof, or to deliver the agreed product as soon as the obstacle to normal delivery has lapsed. In cases of force majeure, ***Robus Energy*** will not be held responsible for any losses incurred by the purchaser due to non-delivery. ***Robus Energy*** will not be held responsible for any changes and/or faults related to price changes, sold out items or changes to specifications in the product manual. It is the buyer's responsibility to register the equipment to the appropriate authorities. If any disputes arise between the authorities and the purchaser, ***Robus Energy*** will be held harmless from any claims or disputes.

EC declaration of conformity

EC DECLARATION OF CONFORMITY

No. : 0104-2013

The undersigned, representing the following manufacturer

manufacturer : NBE production A/S
address : Brinken 6-10, DK9750 Oester Vraa, Denmark

or representing the manufacturer's authorized representative established within the Community (or the EEA) indicated hereafter

authorized representative :
address :

herewith declares that the product

Product identification : Pellets burner: NBE; BioPel; BMHT; Woody; Scotte; Scotte Plus; Boink; Bio Comfort; Kedel,

is in conformity with the provisions of the following EC directive(s)
(including all applicable amendments)

Reference n °	Title
EN 303-5 2012	*Europe Norm*
2006/95-EC	*Low Voltage Directive*
2004/08-EC	*EMC directive (EMCD)*
97/23/EEC	*Pressure Equipment Directive*
2006/42-EC	*Machinery directive*
Arbejdstilsynets bekendtgørelse	*Nr. 612*

and that the standards and/or technical specifications referenced overleaf have been applied.

Last two digits of the year in which the CE marking was affixed: ...13

Jannich Hansen **Oester Vraa** **01/04/2013**

Jannich Hansen

(signature)