KOSTRZEWA®

Experts in biomass heating

Platinum Bio 2 Burner

User Manual

H25N20S2

Platinum Bio 2 Burner User Manual

1. Foreword

A series of Platinum Bio 2 burners with 50,100,150,200 and 300 [kW] rated power and an automatic pellet feed system sets new trends in biofuel combustion.A tubular grate guarantees compatibility with the gas and oil boilers without affecting functionality.

A flame from biomass fuel (wood pellet) combustion with virtually continuous fuel feeding has a cylindrical - conical shape along the grate.

The tubular grate design allows optimal use of a heating surface of a water-tube boiler, and does not expose an exchanger section to excessive thermal loads. Our company offers reliable, durable and cost-effective solutions.

A simple and intuitive operation of a boiler control system dedicated for a specific heat source is also important for the user. A large graphic display and an ergonomic and clear interface of the boiler control system make our solutions easy to use.

CAUTION!
This installation, operation and maintenance manual is intended for Platinum Bio 2 burners.

Please read this manual carefully to ensure correct installation, operation and maintenance of the device. It is also a precondition for the manufacturer's warranty coverage.

2. General

The Operation and Maintenance Manual is an integral part of the boiler and must be provided to the User with the device.

A device installation must conform to the manual, relevant standards and good building practices.

Boiler operation conforming to the User Manual guarantees safe and failure free operation and is a precondition for the manufacturer's warranty coverage.

The specifications may change without notice. KOSTRZEWA is not liable for any damages resulting from incorrect installation of the device and failure to comply with the terms and conditions of this Operation and Maintenance Manual.

WARNING! The warranty does not cover device performance issues due to incorrect installation, operation and maintenance.

2.A Safety

- Please read the user manual carefully before use.
- Do not use the burner outside the combustion chamber (boiler).
- It is recommended to install the draught regulator as a protection against pressure fluctuation in the flue.
- A partial vacuum is required in the combustion chamber.
- The correct burner operation requires use of proper fuel.
- Use the fuel with properties specified in the further section of this User Manual as a Platinum Bio 2 burner fuel.
- Use face masks, gloves etc. and take basic precautions to avoid burns during maintenance.
- Follow local regulations, laws and the guidelines of this User Manual.
- Follow fire safety regulations and local building law regulations for boiler rooms.
- The device has to be installed and connected by qualified personnel, otherwise it may invalidate the warranty.
- A liability of the Platinum Bio 2 burner manufacturer is limited to maintaining any preliminary conditions specified in this User Manual - failure to comply with the guidelines and restrictions will result in product damage and may affect product durability and efficiency, as well as result in serious accidents.
- Use genuine spare parts only.
- The manufacturer is not liable for any damage resulting from the use of non-genuine spare parts.
- **Do not use the device (Platinum Bio 2 burner) in fire hazard areas (e.g. near flammable materials).**
    - Disconnect the power supply before maintenance.
    - Clean the burner surfaces with non-flammable products only.
- Do not open the boiler doors during operation.

2.B Scope of delivery

The burner is available in two versions with various control systems:
- Platinum Bio 2 burner with a heavy-duty Platinum Bio 2 control system
- Platinum Bio 2 burner with a LITE control system

A scope of the Platinum Bio 2 burner delivery with the control system (heavy-duty control system or LITE control system):
- main burner section with M8 mounting nuts (4 pcs)
- burner casing with 5x12 washer head screws (4 pcs)
- fuel feeder set (flexible duct with clips, gear motor, rigid feeder duct, feed screw)
- weather compensator module
- broadband oxygen sensor (not available in LITE version):
    - oxygen sensor module
    - oxygen sensor probe

Optional accessories:
- broadband oxygen sensor (only available in LITE version):
    - oxygen sensor module
    - oxygen sensor probe
- storage hopper and fuel chute
- room temperature sensor
- outside temperature sensor (weather compensator)
- domestic hot water temperature sensor
- CAN modules:
    - expansion of supported heating circuits (up to 16 heating circuits with mixing valve control)
    - buffer tank support
    - solar domestic hot water system support
- safety temperature limiter STB sensor

Platinum Bio 2 burner is shipped in a package or with a storage hopper on a pallet.

CAUTION!
The pallet must be secured against shifting and protected against crushing by other items in transit.

The burner components and equipment must be stored in dry place not affected by weather conditions (rain, sunshine, frost etc.)

CAUTION!
Check the content and all parts of the delivery

A boiler control with fuel feed system (storage hopper and fuel feeder) are required for correct operation of the burner.

2.C Boiler room ventilation

Make sure a volume of fresh air available at the boiler room inlet corresponds to the volume of flue gas. Wood pellet burning has a higher air demand than oil burning.

2.D Ash

An ash removed from the burner and the boiler must be stored in a suitable solid metal container with a cover. The ash may smoulder for several days. Do not store flammable materials near the burner and keep the boiler room clean to reduce the risk of fire.

2.E Boiler

Platinum Bio 2 burners are compatible with boilers with a horizontal combustion chamber. The combustion chamber size must guarantee undisturbed flame development. The flame contact with any part of the combustion chamber is not recommended due to an additional thermal stress generated and in some cases may require use of a special burner adapter.

The following diagram (see 'Platinum Bio 2 burner installation') shows a correct burner positioning

Fig.: Burner installation

3. Platinum Bio 2 burner specification

The operation of Platinum Bio 2 burner consists in an efficient wood pellet combustion process. Platinum Bio burners are characterised by a low emission of hazardous substances, a cost-efficient and silent operation as well as high durability and reliability.

A flame from biomass fuel (wood pellet) combustion with virtually continuous fuel feeding has a cylindrical - conical shape along the grate. The tubular grate design allows optimal use of a heating surface of a water-tube boiler, and does not expose an exchanger section to excessive thermal loads. Our company offers reliable, durable and cost-effective solutions.

The three fuel combustion phases guarantee smooth and explosion-free ignition and efficient air distribution into primary and secondary air. Platinum Bio 2 burner operates in modulation mode and is compatible with the following fuels:

- biofuel (wood pellet) PN-EN 303-5

Polish Standard PN-EN 303-5:2012 Heating boilers - Part 5: Heating boilers for solid fuels, manually and automatically stoked, nominal heat output of up to 300 kW. Terminology, requirements, testing and marking.

The following diagram (see 'Platinum Bio 2 burner dimension diagram' and 'Platinum Bio 2 burner dimension data' table shows standard dimensions of Platinum Bio 2 burner.

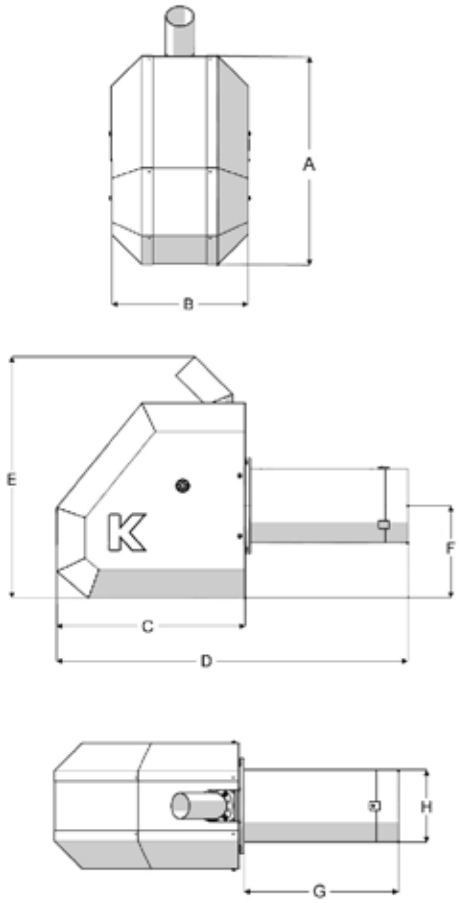

Fig.: Platinum Bio 2 burner dimension diagram

Platinum Bio 2 burner						
Dimension	Unit	PB 50	PB 100	PB 150	PB 200	PB 300
A	mm	510	550	333	333	382
B	mm	362	362	512	512	556
C	mm	461	531	415	415	412
D	mm	819	989	960	1032	1032
E	mm	643	681	404	404	455
F	mm	222	260	165	165	190
G	mm	343	443	545	618	618
H	mm	208	208	250	250	300

Table: Platinum Bio 2 burner dimension data

Burner features

- automatic burner start
- automatic burner modulation - 2nd generation Fuzzy Logic
- photocell flame detector
- low thermal inertia during start and stop
- low electric energy consumption
- three-stage fuel ignition eliminates gas explosion
- primary and secondary air reduce CO_2 emission to the gas and oil boiler level
- high burner efficiency

Oxygen sensor features:

- reduced fuel consumption (up to 20%)
- automatic combustion air volume adjustment in the entire operating range
- constant combustion process optimisation to ensure high motor burner efficiency - oxygen sensor is required for biomass combustion
- burner protection against heating surface fouling

The burner components in contact with the flame are made of heat resistant steel.

A selected burner power depends on a target boiler power.

4. Platinum Bio 2 burner design

Burner component materials:
- grate tube – heat resistant steel
- external pipe – heat resistant steel
- grate end - heat resistant steel
- grate baffle - heat resistant steel
- feed screw – general purpose common steel - welded structures, dynamic load bearing structures
- burner casing – 0.8 mm powder coated steel sheet

The following diagram (see 'Platinum Bio 2 burner dimension diagram' and 'Platinum Bio 2 burner dimension data' table shows standard dimensions of Platinum Bio 2 burner.

The following diagrams (see 'Main burner components' and 'Detailed Platinum Bio 2 burner diagram' show a detailed view of Platinum Bio 2 burner components.

4.A Safety devices

A burner is fitted with four safety devices protecting against flame flashback into a fuel storage hopper:

1. A sensor (thermal switch) mounted on a feeder chute - sensor activation causes an immediate burner stop (activation temperature 80°C). The device can be restarted following the user inspection. Please contact an authorized manufacturer's service centre in case of an incorrect device operation. Do not start the device due to possible property damage and/or a health and life hazard. If no performance issues are observed, the burner may be restarted after starting the boiler/burner via the control system.
2. A fuel feed duct (flexible duct) between the fuel feeder and the Platinum Bio 2 burner feeder chute is designed as the weakest point in a fuel feed system. The duct is burned through in emergency. It is a reliable and safe solution provided that all procedures and guidelines in this user manual are followed.
3. A down inclined feeder chute in the burner is a protection against flame contact with fuel in a storage hopper.
4. A photocell monitors flame presence in the burner.

A four-stage protection ensures that the boiler operation is safe through the safe operation of Platinum Bio 2 burner giving you a peace of mind and the heat from biomass combustion.

4. Platinum Bio 2 burner design

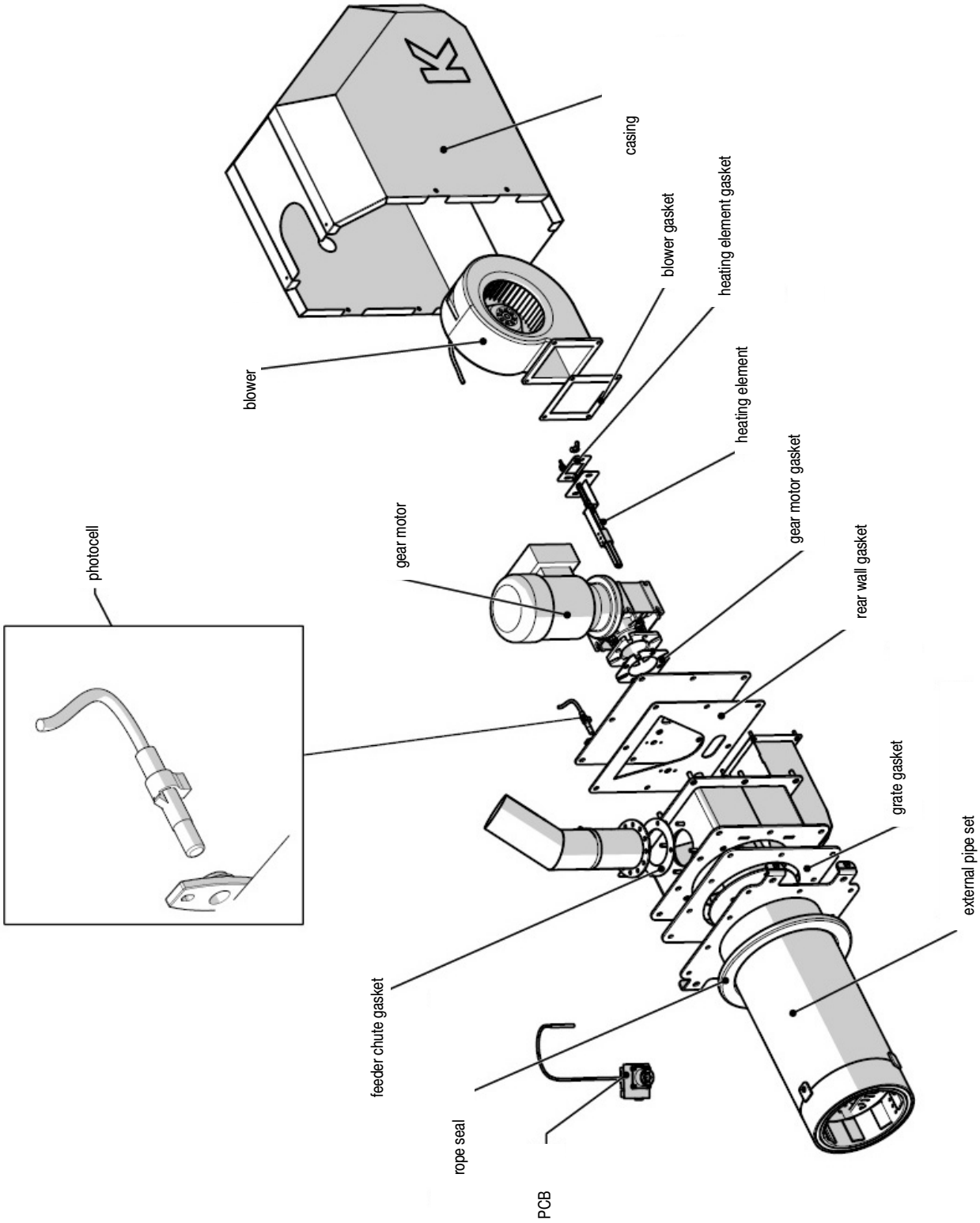

Fig.: Detailed Platinum Bio 2 (50-100 kW) burner diagram

4. Platinum Bio 2 burner design

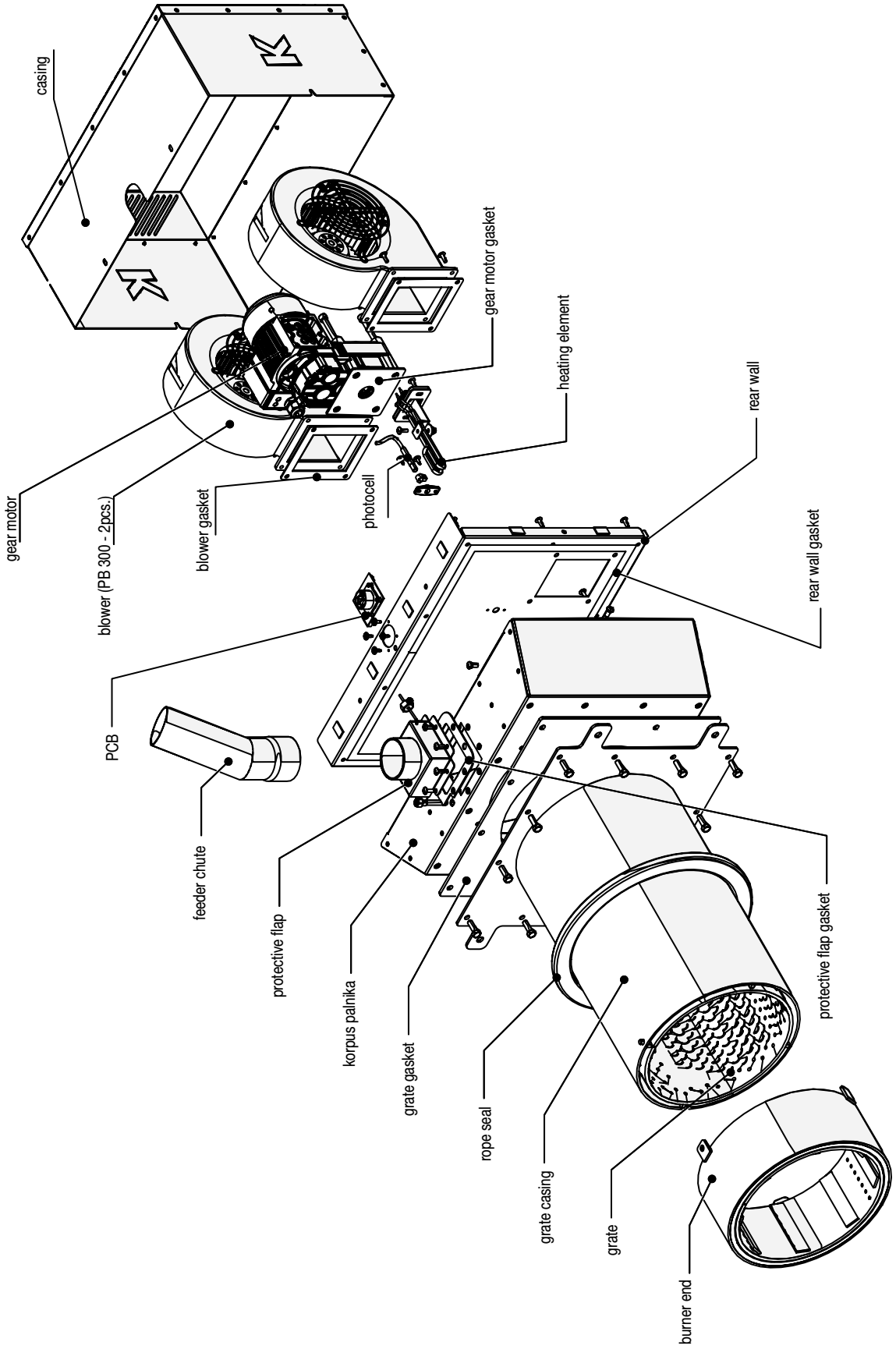

Fig.: Detailed Platinum Bio 2 (150-300 kW) burner diagram

4. Platinum Bio 2 burner design

Platinum Bio 2 burner data sheet

BOILER TYPE	SI	PB 50	PB 100	PB 150	PB 200	PB 300
Heating power range	kW	15 - 50	30 - 100	45 - 150	60 - 200	90 - 300
CO emission	ppm	<200	<200	<200	<200	<200
Fuel		Pellet	Pellet	Pellet	Pellet	Pellet
Fuel feed port outer/inner diameter	Ø	76/71	76/71	76/71	76/71	76/71
Blower • power input • speed	 W obr/min	 <176 2050	 <240 2100	 <400 1950	 <400 1950	 2x400 1950
Protection rating	IP	IP40	IP40	IP40	IP40	IP 40
Max. power input • ignition • lighting • nominal power - range (min/max)	 W W W	 <370 <450 ~380-680	 <370 <500 ~460-760	 <370 <500 ~600-900	 <370 <500 ~600-900	 <370 <500 ~600-900
Power supply	V/Hz	230/50	230/50	230/50	230/50	230/50
Weight	kg	40	46	55	64	80
Fuel consumption • nominal power • minimum power	 kg/h kg/h	 ~12,5 ~4	 ~25 ~8	 ~37,5 ~12,5	 ~50 ~17	 60
Power adjustment (modulated)		+	+	+	+	+
Feeder chute angle adjustment scale	degrees	30°	30°	30°	30°	30°
Required burner mounting hole dimensions	Ø mm	225	225	265	265	315
Required minimum combustion chamber dimensions • diameter • length	 Ø mm mm	 450 900	 450 1650	 700 1800	 700 1900	 1000 2300
Required minimum combustion chamber pressure	Pa	5 - 6	5 - 6	5 - 6	5 - 6	5-6

Table: Platinum Bio 2 burner data sheet

Platinum Bio 2 storage hopper data sheet

TYPE		Platinum Bio 2
Capacity	dm^3 (litres)	305
Dimensions • total height • width • depth	 mm mm mm	 1551,5 616 616
Weight	kg	45
Chute	Swivel	

Table: Platinum Bio 2 storage hopper data sheet

CAUTION!
Follow all safety guidelines and respond accordingly to the device operation warnings. The device user is its main operator and is responsible for its correct operation.

5. Platinum Bio 2 burner accessories

5.A Fuel feeder unit

A locally manufactured Platinum Bio fuel feeder is a dedicated system conveying fuel from the storage hopper to the burner.

Main components:
- Platinum Bio 2 fuel duct
- gear motor
- Platinum Bio 2 feed screw
- flexible fuel duct

Fuel feeder features:

- low gear motor noise
- reliable design guaranteeing a reliable and flexible fuel conveying
- gas tightness
- reliability

All electrical connections have to be carried out in conformity with general guidelines on electrical connections, see section 5 'Electrical connections'.

5.B Fuel storage hopper (optional)

KOSTRZEWA offers a Platinum Bio 2 storage hopper compatible with Platinum Bio 2 burners. The storage hopper is also used as a compact buffer bin to ensure efficient fuel feeding from the storage area.

The storage hopper is shipped disassembled (installed directly in the boiler room). A swivel chute is mounted on the storage hopper base for easy positioning by the boiler.

CAUTION!
The fuel storage hopper (during burner operation) must be used with a lid on only.

A diagram included with the storage hopper shows a detailed set of components and an installation method.

5.C Wiring system

General guidelines on the wiring system of a boiler control, a boiler and all accessories:
1. A 230 V/50 Hz power system conforming to local regulations is required in the boiler room.
2. The wiring system must be terminated with a plug-in socket and a protective conductor contact.

UCAUTION!
Using the socket without a protective conductor contact may result in electric shock!

3. The wiring system must be carried out in accordance with the electrical diagram and local regulations on electrical safety.
4. The device (boiler control system) must be connected to an individual electrical system fitted with an overcurrent protection and a residual current device.
   NO OTHER EQUIPMENT MUST BE CONNECTED TO THE BOILER ELECTRICAL SYSTEM.
5. A person responsible for installation and repairs of the electrical system must be authorized and experienced.
6. **Disconnect the power supply before servicing.**
7. A boiler temperature sensor must be installed and fixed in a submersible sleeve in the water section. The remaining cable must be wound up and placed on an outer casing.
8. The cables may not be bent or broken and the insulation may not be damaged at the entire length.
9. Do not allow water, moisture, dust and dirt inside the device, otherwise it may result in short-circuit, electric shock, fire or damage.

5. Platinum Bio 2 burner accessories

10. Ensure proper ventilation of the device (control) and free air flow to the vents and around the device.
11. The electrical equipment (control system, burner and sensors) are intended for installation indoors.

For detailed information on wiring system and diagrams see:
Boiler control User Manual.

All electrical components are shown in the following diagrams (see 'Wiring system' and 'Heating element wiring diagram'.

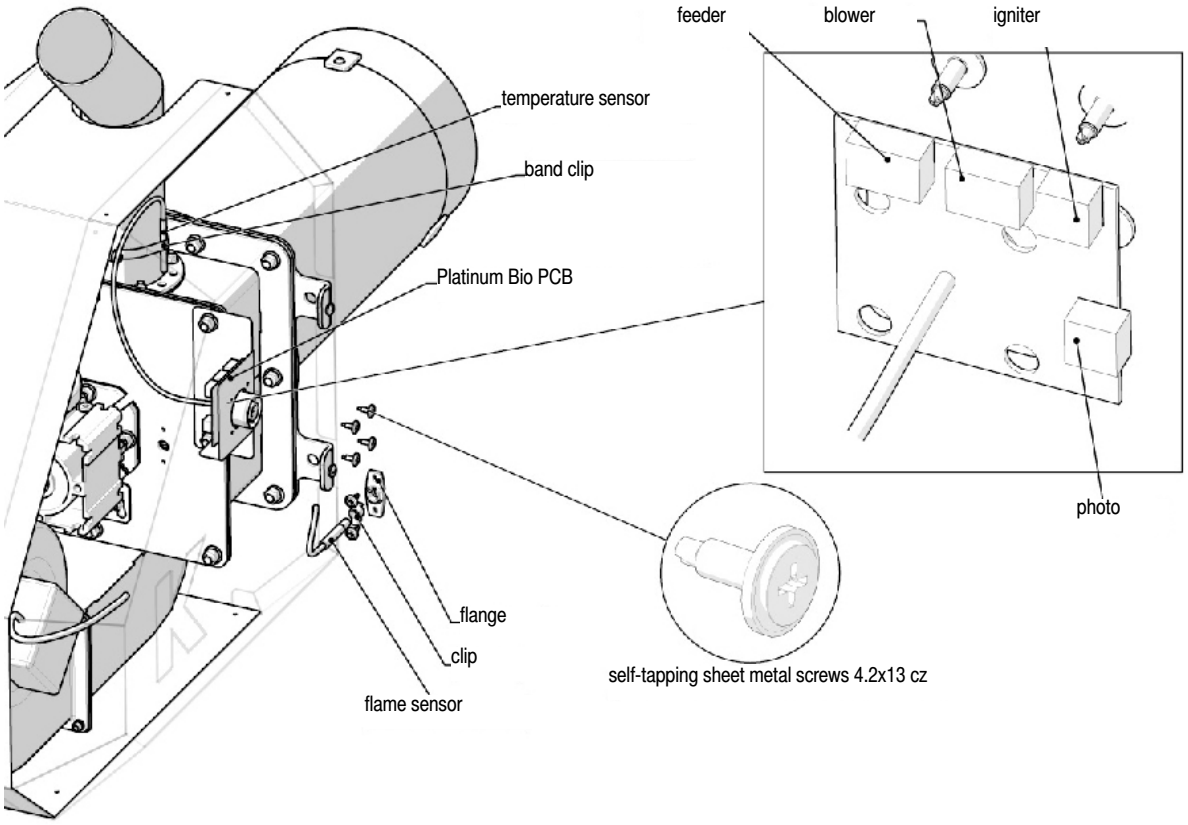

Fig.: Wiring system

5. Platinum Bio 2 burner accessories

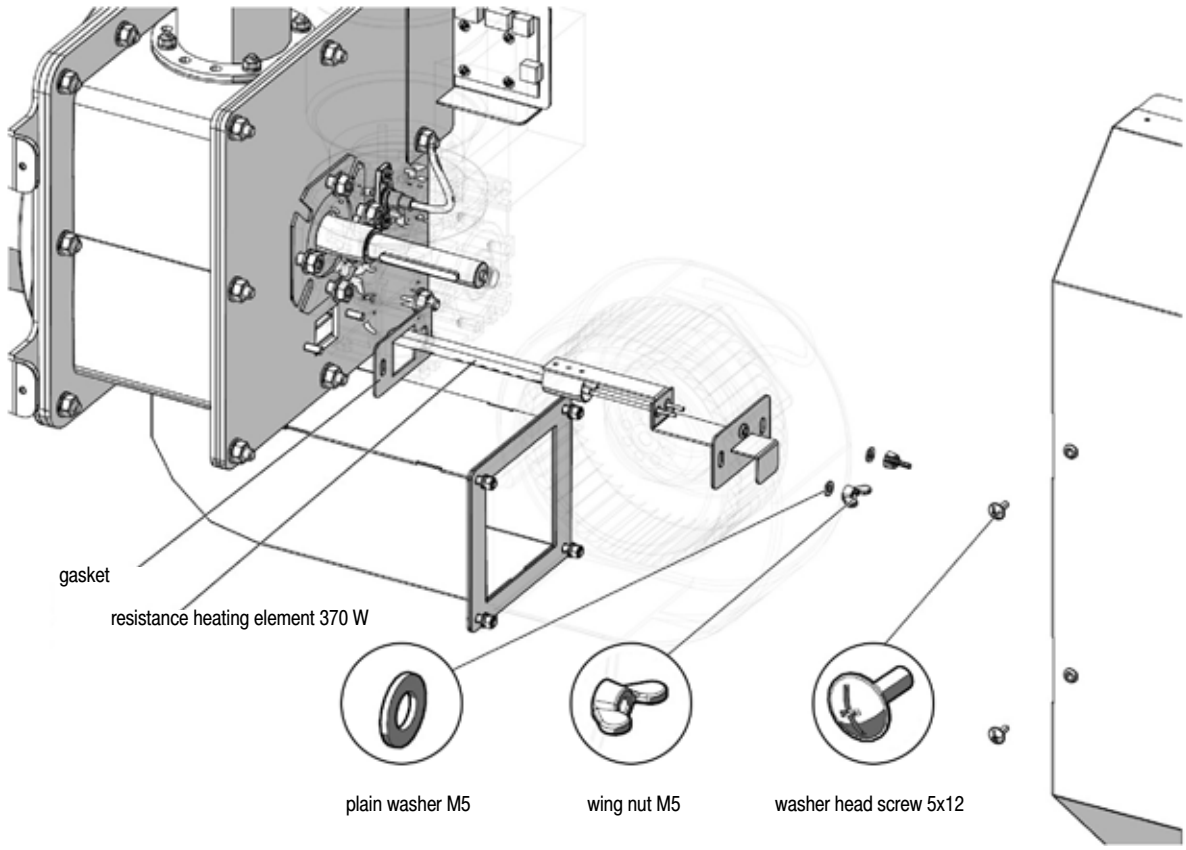

Fig.: Heating element wiring diagram

5.D Boiler control system

A pellet burner operation is controlled by a heavy-duty Platinum Bio 2 control system or a LITE control system. Platinum Bio 2 boiler control system is the main control device that guarantee the operation comfort and the system reliability.

To use all the Platinum Bio 2 burner capabilities to ensure an efficient and reliable operation, the device is controlled by a broadband oxygen sensor (heavy-duty version only) to monitor the oxygen content in a flue gas and control the burner power with Fuzzy Logic II algorithm.

A CAN expansion module supports additional heating circuits, buffer tank or solar domestic hot water systems. The control system is made of steel sheet with IP66 protection rating.

The control system power supply is indicated with a yellow lamp. The cabinet features an emergency switch with a red lamp. Prior to connecting the control system power supply, remedy the cause of the failure and unlock the emergency switch.

Basic control system functions:

- 1 heating circuit (also with a mixer)
- 1 domestic hot water circuit
- weather compensation with external temperature sensor

A heavy-duty CAN bus with an additional I/O expansion module allows installation of the following:

- 16 heating circuits with mixing valve control
- 2 domestic hot water circuits
- buffer tank
- thermal solar energy system

Platinum Bio 2 control specification:

- easy to use large graphic display
- two types of menu – simple and advanced
- info button displaying helpful tips on a specific parameter
- modular CAN controller design – with a professional heavy-duty CAN bus, the control system can be expanded to up to 16 heating circuits with mixing valve control
- advanced state of the art 32-bit ARM processor for advanced control of a Fuzzy Logic II algorithm
- factory settings restore
- sound alarms - built-in piezoelectric speaker indicates boiler alarm for improved operation safety
- statistics – the controller stores device data to monitor operation and reduce fuel consumption, e.g. boiler temperature and burner power
- clock with calendar – the clock allows programming weekly cycles of a required room temperature and a hot domestic water temperature to reduce fuel consumption and costs
- alarm and error log – the controller stores a history of 20 errors and alarms with description, occurrence date and acknowledgement date

Control:

- fuel feeder
- pressure fan
- exhaust blower
- igniter blower
- igniter
- boiler temperature
- feeder temperature
- central heating temperature
- domestic hot water temperature
- external temperature
- programmable room temperature
- oxygen sensor
- central heating pump
- domestic hot water pump
- mixing valve

For detailed information on wiring system and diagrams see: 'Heavy-duty Platinum Bio 2 control system' User Manual.

The following diagram shows an example installation of the boiler control system (see 'Heavy-duty Platinum Bio 2 control system installation').

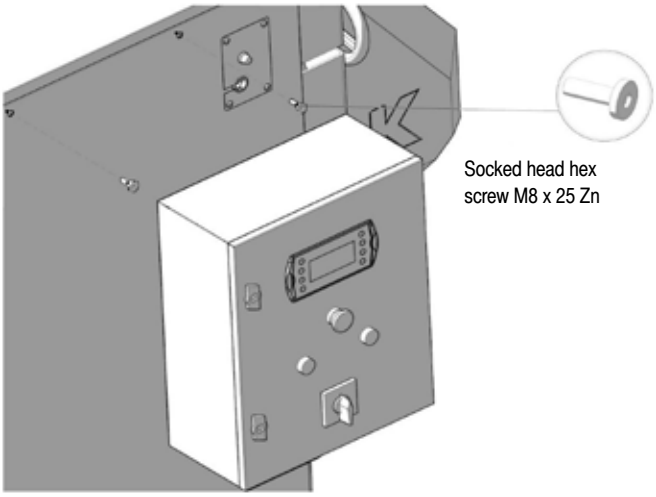

Fig.: Heavy-duty Platinum Bio 2 control system installation

6. Design guidelines

6. A Burner location

The burner location must allow for easy operation and maintenance and required dimensions are showed in the following table with reference to the diagram.

The burner location diagram is shown in the following diagram (see 'Dimension diagram - required burner installation space') and the table (see Table 'Platinum Bio 2 burner location').

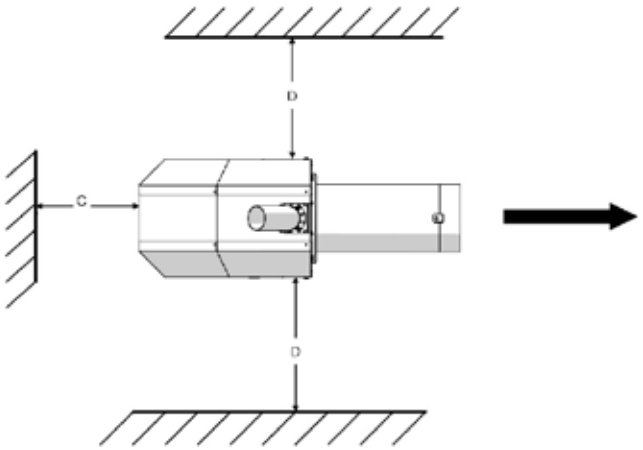

Fig.: Dimension diagram - required burner installation space

Table: Platinum Bio 2 burner location

Marking	Unit	PB 50	PB 100	PB 150	PB 200	PB 300
C	mm	⩾ 1000*				
D	mm	⩾ 1000*				

* specified dimensions will allow easy inspections, repairs, and maintenance (easy and safe dismantling)

6. B Burner installation guidelines

The burner is attached to the boiler with a set of four M10 bolts.

The burner opening must be adapted and conform to the requirements of this User Manual (see Table 'Platinum Bio burner dimensions').

The diagram (see 'Platinum Bio 2 burner installation') shows a correct installation method.

6. C Flue system installation guidelines

A partial vacuum in a combustion chamber created by a flue system is a precondition for a correct burner operation. The required values are specified in the Platinum Bio 2 burner data sheet.

The flue system removes a flue gas from a boiler room to the atmosphere. The flue system creates draught depending on:

- temperature gradient between the flue gas temperature and the ambient temperature (difference in density and pressure)
- flue length
- flue shape (bends, inclination, draught breaker etc.)
- flue cross section
- flue diameter (flue diameter must correspond to the boiler's flue connector diameter)
- flue internal surface roughness
- flue flow capacity
- flue gas tightness (seals, grouts etc.)
- flue thermal insulation
- changes in ambient conditions (temperature, pressure fluctuations due to the air flow, roof shape, flue location in relation to building envelope components etc.)

The materials and method of flue installation are specified in relevant Polish standards and regulations. The flue dimensions are specified in the regulation of the Minister of Infrastructure of 12 April 2002 on technical conditions for buildings and location of buildings (Journal of Laws No. 75, item 690). A diameter of a duct connecting the boiler with the flue must correspond to the diameter of the boiler's flue connector. Do not use any reducing couplings of the boiler's flue connector or the flue. A transition between the flue and the duct may include a tee with a correct combination of diameters. The flue design must guarantee that the flue gas temperature at the entire flue length to the outlet is higher than a dew point of the flue gas from a specific boiler (dry operation). The flue and the smoke ducts must be fitted with drains or inspection holes with sealed doors and in case of wet flue gas also with a condensate drain valve.

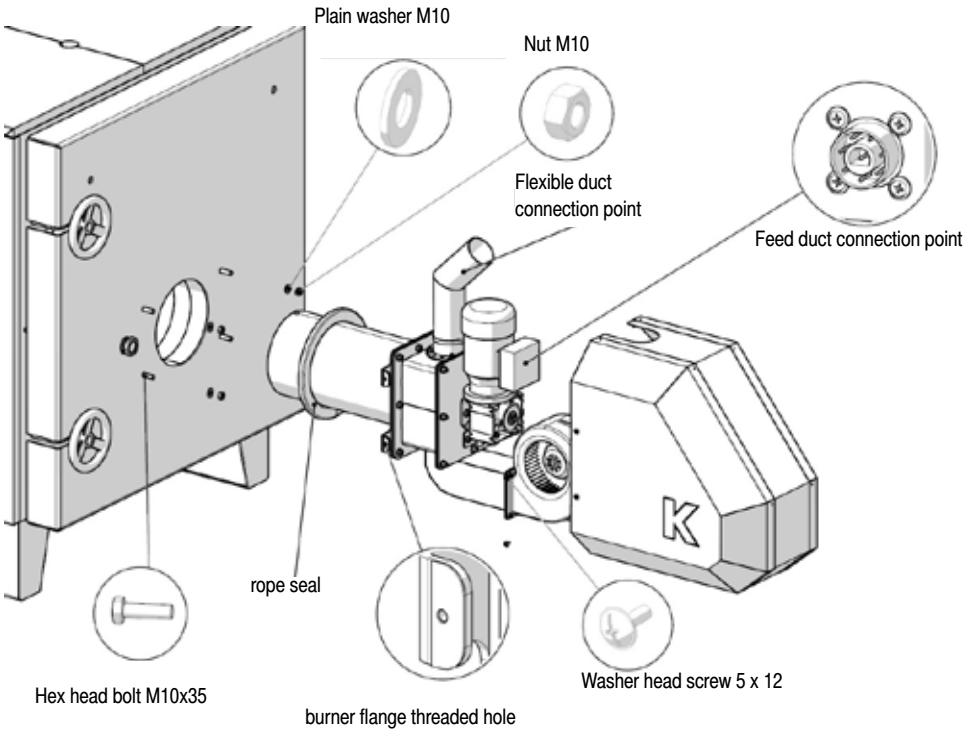

Fig.: Platinum Bio 2 burner installation

6. Design guidelines

Example requirements for the flue system installers are specified in the regulation of the Minister of Infrastructure of 12 April 2002 on technical conditions for buildings and location of buildings (Journal of Laws No. 75, item 690) for solid fuel boilers:

- the smallest diameter or cross section of a natural draught flue and a smoke duct must be at least 0.14 m, and with steel liners, the smallest diameter must be at least 0.12 m;
- horizontal flue duct length must not exceed the effective flue height or 7 metres

Guidelines:

- in the lower range of Platinum Bio pellet burner power, flue gas temperature below 100oC may be observed and therefore the boiler must be connected to the moisture resistant flues (acid proof liners - steel sheet, vitrified clay recommended); if the boiler is not connected to the moisture resistant flue, perform required calculations or use existing flue data;
- the connection between the boiler's flue connector and the flue must be insulated and as short as possible, slightly upwards without sharp bends and a minimum number of bends.

Tip:
Connect the flue ducts without any loads and stresses

- seal the flue duct
- the flue must be opened upwards and lead horizontally at least 1 metre over the roof surface (with a rain cap)
- flue diameter must be selected in accordance with the flue liner manufacturer's requirements
- estimate cross sectional area of a circular flue is calculated using a Redtenbacher's equation:

  A = 2,6 * Q / (n * H^0,5)

  where:
  - A – flue gas diameter (m^2)
  - Q – boiler heat output (kW)
  - n – coefficient within the following range
  - 900 -1880 (n = 900 for wood)
  - H – flue height (m)

CAUTION!
The installed flue system requires commissioning and inspection of the following:

- flow capacity
- gas tightness
- draught
- connection and conformity with the design
- standard height above the roof
- environmental protection standard requirements
- installation conformity with the design and as-built documentation
- valid certificates for structural, insulation and mounting materials used for installation.

The device has to be commissioned by authorized personnel with a report.

6.D Fuel quality requirements

Platinum Bio pellet burner uses the wood pellets as a fuel. The wood pellet is a dry compressed biomass in shape of a cylinder with 6 mm to 8 mm diameter and 25 mm to 30 mm length.
High pressure compression results in a smooth, glossy external surface with high resistance to moisture. The technology of fuel production from wood material (sawdust or other wastes from saw milling and other wood products) allows the increase in fuel density affecting loading system (batching, conveying) and storage solutions.

Sawdust granulate (pellets) made to EN 14961-2 : 2011 – Class A1

- diameter: 6 ± 1 mm; 8 ± 1mm
- length 3.15 ⩽ L ⩽ 40
- moisture content ⩽10%
- ash content ⩽0.7%
- calorific value 16.5 – 19 MJ / kg
- density ⩾600 kg/m^3

CAUTION!
Use the fuels from reliable sources only. The fuels must have a suitable moisture content and low proportion of fines. The wood pellets should not contain mechanical impurities (stones etc.) which may affect the combustion process and damage the device.

CAUTION!
Kostrzewa is not liable for any damage or incorrect combustion process as a result of using unsuitable fuel.

Failure to comply with the fuel quality requirements may result in damage to the heating system components (e.g. boiler, feeder) and is not covered by the manufacturer's liability. It may invalidate the warranty and result in additional charges in case an authorised service centre is involved.

Wood pellets properties
The wood pellets production process utilises 100% natural untreated wood residues. The material is generated in large quantities as sawdust or wood shavings as a wood residue in the wood processing industry. Fine wood residues are compacted at high pressure, i.e. pressed into a cylindrical mould. The material is stored and transported dry. The wood pellets must be stored in dry conditions. It will guarantee reliable and efficient combustion.

The wood pellets are available in 15 to 30 kg bags, large containers up to 1,000 kg, on pallets or in bulk. The wood pellets in bulk are transported with tank cars and conveyed to the storage area using a pneumatic conveyor. The wood pellets can be stored in a fuel oil storage area, e.g. if an oil heating system is replaced with a wood pellet heating system.

6.E Selecting the nominal heat output of a burner

Wood pellet boiler
Please read the boiler specification prior to selecting a correct Pellet Bio 2 burner heat output. The calculations for the boiler are based on the following algorithm: a quotient of a boiler heat output and its efficiency will allow to estimate the burner model and heat output range. The burner power may be up to 10% higher than the nominal boiler heat output.

Oil/gas boiler
In order to achieve an optimum efficiency of the wood pellet burner, its heat output must be lower than the oil boiler heat output by 20%. At maximum heat output of the wood pellet burner installed in the oil boiler, the flue gas temperature in the flue may not exceed 160 °C. Each case is dealt with individually and must be consulted with the manufacturer prior to purchase.

CAUTION!
The nominal boiler heat output must correspond to a heat demand.

The heat demand for domestic hot water and central heating systems is determined as per the relevant standards.

The process heat demand is calculated as per the relevant requirements of the production processes of individual plants.

The nominal heat output of the boiler must be selected by an authorised person based on thorough calculations.
Do not oversize the boiler.

7. Boiler start-up, operation and stop including emergency stop

7.A Burner (boiler) inspection

Before filling the boiler with water inspect the entire system:
- check boiler internals – clean and check internal insulation (fire bricks), if installed
- check movable parts (doors, hatches, connectors), especially pressurised
- check valves (especially safety valve)
- check controls, gauges, regulators (e.g. boiler control system)
- check burner and its auxiliary components
- check boiler exterior – external insulation, boiler casing etc.
- check connected systems

Remove any defects and faults in the boiler, burner or other device operation.

Perform a water test after major repairs, pressurised part replacement and long standstill.

7.B Start-up preparation

Check the following before boiler start-up:
- check if all the safety and fire regulations and guidelines in the quick guide to safety and fire regulations for fuel systems and all components including ducts, valves, controls, pumps etc. regarding gas tightness are followed
- check system pressure – if the system pressure is too low, increase the pressure (with a low flow rate to reduce the volume of air introduced to the system)
- check fuel level in the storage hopper (refill if necessary to allow installation of the storage hopper cover)
- check fuel condition – check if the storage hopper is free from foreign material (stones, steel parts etc.) which may affect fuel conveying, burner operation or cause damage to feeder components
- check flue system – check if all fire regulations are followed
- check wiring system
- check auxiliary equipment (e.g. swirl vanes, if installed)
- check boiler room ventilation system
- check boiler condition on the closed door side, cleanouts, pipe stoppers etc. (gas tightness)

7.C Burner start-up

The burner (boiler, system) has to be started by an authorized installer (valid authorized service technician certificate issued by Kostrzewa is required - source: www.kostrzewa.com.pl

'Service' tab).

Installation and trial run must be recorded in the Warranty Card. The user must notify the relevant authorities of a new boiler installation. The relevant authorities will inform the user on any further procedures required (e.g. scheduled inspections, cleaning).

Boiler (burner) start-up procedure:
- fill the boiler and the system with water
- check system pressure
- open flue gas valve or throttle (if installed)
- check fuel level in the storage hopper (refill as required)
- check fuel condition and quality (fuel must not contain foreign material to avoid damage to the boiler and its accessories)
- connect power supply, set boiler/burner control system in service mode
- feed fuel from the storage hopper until it flows through the flexible duct
- press the main switch to activate the boiler control system - Platinum Bio 2 control system operates in automatic mode
- when starting from cold (also restarting after maintenance and cleaning) close the heat transfer to the heating equipment to reach the dew point faster
- at operating temperature connect the heating equipment in sequence
- visually check the system after a few days of operation (door and access door, flue gas tightness).

Check the functions of all control and safety devices, monitor pressure and temperature gauges, check gas tightness of all connectors and tighten if necessary (tighten at maximum allowable operating pressure).

Installation restrictions
Do not start the boiler/burner if one of the following applies:
- no commissioning of the boiler/burner by the relevant authorities is planned (if required)
- incorrect boiler, burner or fuel feed system operation
- flue ducts not vented
- no water in boiler and system
- incorrect safety valve operation
- flue ducts blockage
- boiler insulation damage
- safety devices and gauges performance issues
- auxiliary equipment performance issues
- fire hazard near the boiler

7.D Long burner (boiler) standstill and emergency stop

Long standstill:
1. Press the main switch, disconnect the boiler pump, the circulating pump and the burner.
2. Disconnect the power supply.

CAUTION!
A freeze protection function is not working with a disconnected power supply.

- close all valves
- to avoid freezing drain the boiler and the heating system via a drain valve; open all cut-off, control and vent valves

Emergency stop is performed when the boiler or auxiliary device condition may cause boiler damage or hazard to personnel.

CAUTION!
Rapid boiler cooling may increase the extent of damage.

Emergency stop may be caused by:
- no safety valve reaction to exceeded allowable pressure,
- pressure section leakage,
- pressure section deformation, boiler room or auxiliary equipment explosion or fire,
- drain valve leakage,
- safety or control device failure,
- pressure gauge failure,
- circulating pump failure,
- flue gas explosion,
- pressure section fitting or welded joint leakage,
- drain pipe blockage,
- auxiliary equipment failure,
- other faults that cannot be removed during boiler operation due to safety or technical reasons.

Emergency procedure:
- stop the boiler immediately (use main power switch outside the boiler room, if necessary)
- use suitable fire-fighting measures (extinguishers) in case of fire

8. Installation

8.A Platinum Bio 2 burner installation

Platinum Bio 2 burner installation may be carried out:
- with the burner power supply disconnected
- with the fuel feed system duct disconnected

The burner is shipped as a complete unit including all mechanical burner components, a burner casing and the mounting components (M5x12 nuts and washers). Use M10 bolts to attach the burner on the boiler door to ensure safe and reliable operation.
The set includes M10 nuts (4 pcs) and washers (4 pcs).

1. Remove M10 nuts (4 pcs) and washers (4 pcs) from the mounting bolts on the boiler doors.
2. Check condition of the grate baffle and the burner end pipe (see drawing); install and remove the grate baffle and the burner end pipe in accordance with the drawings (see 'Grate baffle removal' and ‚Burner end pipe removal').
3. Align the burner holes with M10 bolts (4 pcs).
4. Attach the burner casing with M5x12 bolts (4 pcs) in the threaded holes of a burner mounting flange.
5. Slide the flexible duct on the feeder chute and fasten with a clamp.
6. Connect Platinum Bio 2 burner power cable.

CAUTION!
Remove the burner in reverse order.

See the diagram above for details:
‚Platinum Bio 2 burner installation', p. 14.

8.B Platinum Bio 2 burner feeder chute adjustment

1. Remove M6 flange nuts used in standard configuration of the feeder chute.
2. Check the feeder chute gasket.
3. Check the feeder chute setting by installing the feeder chute flange with 8 mm holes on M6 bolts.
4. Tighten all bolts.

CAUTION!
The feeder chute flange may be rotated with 12 holes around the perimeter in 30o steps.

See the diagram above for details.
‚Platinum Bio 2 burner feeder chute installation'.

8. Installation

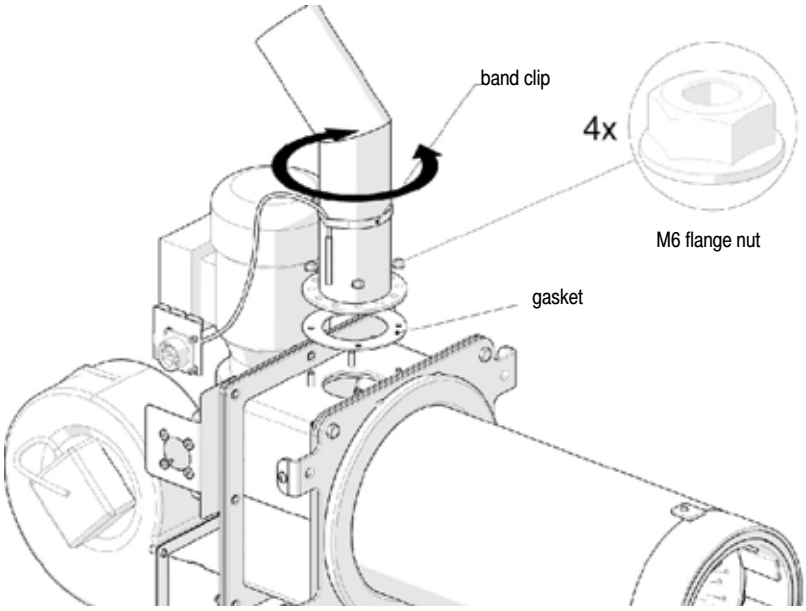

Fig.: Platinum Bio 2 burner feeder chute installation

8. C Platinum Bio storage hopper installation

1. Attach the storage hopper legs in criss-cross pattern with 32 bolts.
2. Attach the storage hopper sides with 16 bolts.
3. Attach the storage hopper leg extensions with 4 bolts.
4. Attach the storage hopper supports with 4 bolts;

   Bolted joint components:
   • hex head bolt M5x10 (56 pcs)
   • nut M5 (56 pcs)

5. Attach the feeder chute to the storage hopper with 12 mounting sets including:
   • hex head bolt M8x16 (12 pcs)
   • nut M8 (12 pcs)
   • plain washer M8 (12 pcs)
6. Install storage hopper cover

CAUTION!
Remove the storage hopper in reverse order.

The procedure is shown in the diagram included with the storage hopper.

8. D Fuel feed system installation

The fuel feed system is shipped as a complete unit including the following components:

- feed screw
- gear motor
- feed duct
- spiral duct
- power cable

1. Insert the fuel feed system duct end to the swivel chute of the fuel storage hopper.
2. Slide the flexible duct on the feed system duct and fasten with a clamp.
3. Slide the flexible duct on the feeder chute and fasten with a clamp.
4. Connect the power cable.

8. E Control system installation

1. Open the control system (control system doors) with a special key.
2. Remove the plugs in the mounting holes.
3. Fasten the control system with M8x25 socket head cap screw (2 pcs) and M8x24 nuts (2 pcs) built-in the boiler frame.
4. Connect the control system cables including the burner power cable, gear motor power cable, safety temperature limiter STB and boiler temperature sensor.

CAUTION!
The control system installation on the boiler side wall allows leading the power cables through the boiler via special penetrations (Maxi Bio boiler only).

The procedure is shown in the diagram (see 'Heavy-duty Platinum Bio 2 control system installation').

9. Platinum Bio 2 burner operation and maintenance

Use the main switch to deactivate the boiler/burner and wait until the boiler/burner cools down - min. 1 hour. before device maintenance (boiler/burner cleaning).

9. A Burner operation guidelines

Normal daily boiler operation:
- check correct operation of all system components,
- heating: burner, control system,
- check water level on a pressure gauge,
- check fuel level and quality and fuel feed system operation,
- check hydraulic joints leak tightness,
- keep the boiler room clean and tidy.

In case of any performance issues, remove the faulty devices or contact an Authorised Service Centre to arrange a repair or an adjustment.

Burner operation check list:
- check the power cable connections
- check the fuel (pellet) supply duct connections
- check the grate baffle and the burner end pipe installation
- check the boiler door with Platinum Bio 2 burner
- monitor the device operation, indications on the control panel and any irregularities (noise, irregular operation etc.) after start-up.

9. B Inspection scope and schedule

A burner inspection schedule is bound up with a boiler room inspection schedule (boiler and equipment operation).

a) Monthly
- check system water pressure
- check safety valve operation
- check control and safety device operation
- check tightness of all connectors and joints
- check balanced ventilation system

b) Minor inspection (every 6 months)
- check rope seal and gaskets,
- check boiler door thermal insulation,
- check safety devices (safety valve, safety temperature limiter STB etc.),
- check flue gas (in case of a significant increase in flue gas temperature, clean the combustion section of a boiler).

c) Major inspection (every 12 months)
Performed by Kostrzewa AUTHORISED SERVISE CENTRE only
- check rope seal and gaskets,
- check boiler door and cleanout cover thermal insulation,
- check safety devices (safety valve, safety temperature limiter STB etc.),
- check flue gas,
- clean combustion section of the boiler,
- check thermal insulation of the boiler,
- check and adjust burner, adjust control system settings.

After a long boiler/burner standstill, the residual oxygen in boiler water and the oxygen from air mixed with a carbonic acid have highly corrosive properties. Take any precautions necessary after a boiler standstill for over a week.

Periodically remove the soot, sludge and ash from the combustion chamber, flue tubes and the grate. Clean the boiler/burner as required, at least every 2 weeks (clean burner weekly). Remove ash as required.

9. C Maintenance

Disconnect the power supply before inspections and maintenance!

Platinum Bio 2 burner maintenance schedule:
weekly:
- clean burner grate
- clean grate baffle and burner end pipe

monthly
- clean motor and fan exterior (especially fan blades)

every three months
- clean spaces between burner tubes, grate and external pipe set

9. Platinum Bio 2 burner operation and maintenance

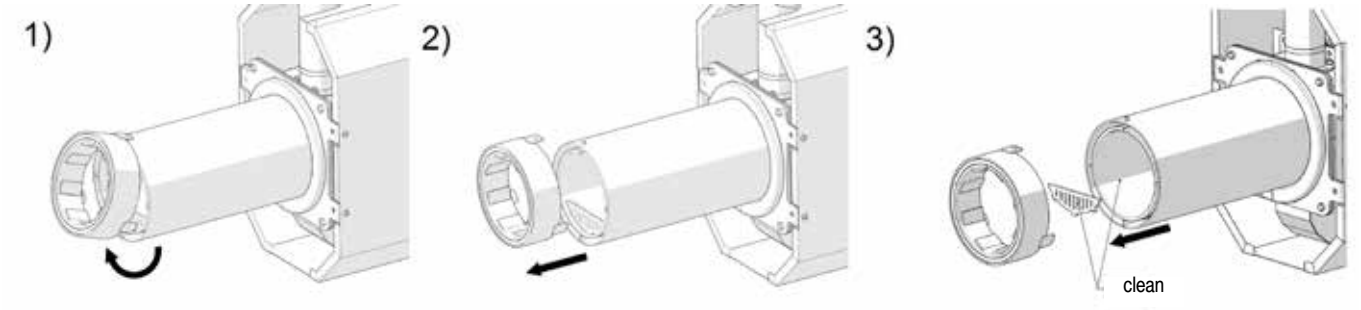

Fig. Burner end pipe removal

The efficiency of burner operation depends on combustion air supply efficiency. The burner fouling may reduce its operation quality, efficiency and affect the quality of heating system operation.

Regular and correct maintenance of the boiler, burner and accessories is a precondition of a correct and reliable operation of the entire system and low fuel consumption. Contact an Authorised Service Centre at least once a year and after every boiler standstill to arrange an inspection.

a) Heating system maintenance procedure:

- deactivate the boiler (system) (stop mode)
- wait for a complete stop and cooling down
- use the main switch of the control system to prevent accidental boiler start-up
- reduce the boiler temperature to the level allowing safe maintenance
- open boiler door
- remove the boiler flue gas swirl vanes, if installed
- carry out the maintenance of the heating system components:
  - clean each flue (combustion chamber, fire tubes etc.)
  - clean flue gas swirl vanes, if installed
  - check seals and clean as per the schedule or clean Platinum Bio 2 burner components if necessary - disassemble the burner if necessary
  - check boiler door seals
  - remove and check cover and cleanout seals, clean as required
  - clean the combustion products from the rear section of the boiler
  - check smoke duct condition and gas tightness*
- install flue gas swirl vanes, if required
- close boiler door
- check the condition and installation of boiler system sensors
- check fuel feed system installation and operation
  - feeder motor
  - feeder gear motor
  - feed screw
  - fuel feed ducts leak tightness and flow capacity

*** Caution!**
The flue and ventilation ducts require periodical inspection and cleaning (at least once a year) by an authorised company. An efficient ventilation and flue system is required for a correct and safe boiler (heating system) operation. The maintenance and the operation of the flue ducts are covered by the following regulations:

- he regulation of 24 August 1991 on fire safety (Journal of Laws No. 81 as amended)
- the regulation of 11 June 2006 on fire safety of buildings, other facilities and land (Journal of Laws No. 80/06).

b) Boiler/burner and equipment wiring system maintenance procedure:

- check wiring system in accordance with the good engineering practice
- check cables, plugs and connections
- check boiler control system connections and functions
- check boiler pump and mixing valve operation
- check operation of other devices in the boiler room (circulation pumps, filters, sludge filters, valve etc.)

c) Storage hopper maintenance procedure: Empty the storage hopper before maintenance and inspections.

- check swivel chute condition and functions Platinum Bio 2 with fuel storage hopper
- check storage hopper for rigidity and leak tightness
- check storage hopper top cover tightness
- check storage hopper outlet for blockage

d) Final boiler room inspection

- fill the storage hopper with fuel
- start the boiler
- check correct operation of the entire heating system
- check (flue gas analysis) and adjust the heating system (control system settings, burner settings etc.) following the procedure

10. Notes, guidelines and tips

Before burner and boiler start-up check water level in the heating system.

Fuel storage hopper must be filled with fuel to a required level to ensure a reliable boiler operation.

CAUTION!
Using the fuel with different specifications may affect device operation and cause damage. The fuel with foreign material (e.g. stones) is treated as unsuitable for pellet burners.

The manufacturer is not liable for any damage of using fuel with different specifications.

Use safety gloves as a protection against burns and follow safe operation guidelines to ensures safe maintenance.

In continuous boiler operation, depending on the fouling, clean the fire tubes (flue tube, fire tube, return chambers) at least every two weeks and the burner grate at least once a week.

The heat exchanging surfaces are fouled during operation resulting in an increase in temperature at the flue gas outlet and reduced efficiency which may also affect burner operation quality (blower operation efficiency).

CAUTION!
The device has to be installed and commissioned by a company authorized by the manufacturer, otherwise it may invalidate the warranty.

Do not open the doors and covers with boiler/burner in operation (burn hazard). Do not open the doors during fuel ignition in the burner (explosion hazard). A sight glass at the boiler doors allows monitoring of the boiler and burner operation. Put out the fire and stop the boiler before opening the front door.

Platinum Bio 2 burner starts the boiler automatically. Do not use starters and flammable materials to light a fire. Do not store flammable materials near the boiler or the burner.

Some condensate may occur during start-up (heating) which does not indicate incorrect burner operation.

After the heating season, thoroughly clean the heating devices (burner, boiler), the conveying and storage equipment (fuel feed system, fuel storage hopper) and the smoke duct.

Do not modify the wiring system or boiler design.

Keep the boiler room clean and dry.

11. Burner decommissioning

Most of the burner components are made of steel and can be disposed of by returning to an authorised scrap yard.

12. Quick reference guide - Fire and safety

1. Please read the Operation and Maintenance Manual before boiler/burner start-up.
2. Do not use solvents, petrol etc. to light the fire.
3. Do not open electrical devices during live working to avoid electric shock.
4. Place the required fire fighting equipment in the fuel store and the boiler room.
5. Prevent unauthorised access.
6. The heating system equipment may be operated by authorised and trained personnel only.
7. Check the wiring system and the flue system periodically.
8. Do not block the vents.
9. Check the burner operation and the flue gas quality, adjust the burner or analyse flue gas as required.
10. Disconnect the power supply (main switch) before maintenance.
11. Notify your supervisor of any faults.
12. Keep the boiler room clean and tidy.
13. The device has to be repaired by a trained and authorised personnel or an authorised service centre only.
14. Use carbon dioxide or dry powder extinguisher only.

13. Troubleshooting

Failure	Cause	Remedy
No indications on the display	• no power supply • incorrect connections of control system plugs and cables	• Check power supply connections • Check control plugs and connectors
Control system button(s) not working	• control system failure	• control system repair
Automatic fuel ignition not working	• incorrect connections of heating element or photocell • hot air outlet blocked • high fuel moisture content • heating element failure • photocell failure	• check heating element and photocell plugs and cables (with connectors) • remove igniter opening blockage or dry the fuel • replace heating element • replace photocell
Smoke coming out of boiler door	• no draught • blocked flue • heat exchanger channels blocked • rope gasket damage	• clean flue ducts • replace rope gasket • remove flue blockage
Water in the boiler	• no draught • high fuel moisture content • boiler heat exchanger leakage • low cooling medium temperature at the system return	• incorrect flue gas system • change or dry the fuel • to check the heat exchanger: stop the boiler for 8 hours and wipe the water dry; if the water level rises after 8 hours contact an authorised service centre
Set temperature is not reached	• wrong boiler size (building gross area/heated volume too high) • incorrect location of the return water temperature sensor • sensor failure	• check boiler sizing • check return sensor location (water circulation required) • check sensors • check feed times and blower power

Initial Platinum Bio 2 start-up procedure*

No.	To do	V **	Notes ***
1	Check boiler room ventilation.		
2	Check boiler room lighting (suitable for boiler operation and repair).		
3	Check access to places which require periodical maintenance (cleanout, control, storage hopper, gear motor and blowers).		
4	Check leak tightness of hydraulic connection between the boiler and the central heating system.		
5	Check gas tightness between the boiler and the flue.		
6	Check fuel level in the storage hopper (it must be sufficient for boiler/burner start-up).		
7	Check if the electrical cables of the blowers, gear motor, igniter and sensors are not damaged in transit and check wiring system.		
8	Check connections of all electrical cables in the control system (pull each cable with 2 - 5 N force).		

(*) - burner with fuel feeder

(**) - mark if the burner installation, assembly and settings are correct

(***) - record any irregularities in installation, assembly and settings

Burner location:

Address: ..... Flat no.: .....

Postal code __ __ - __ __ __

Town: .....

Burner operator's stamp and signature:

.....

Burner commissioning date: .....

Information for the Manufacturer Please send this form to the following address:
KOSTRZEWA SERVICE CENTRE, 11-500 Giżycko, ul. Przemysłowa 1

Initial Platinum Bio 2 start-up procedure*

No.	To do	V **	Notes ***
1	Check boiler room ventilation.		
2	Check boiler room lighting (suitable for boiler operation and repair).		
3	Check access to places which require periodical maintenance (cleanout, control, storage hopper, gear motor and blowers).		
4	Check leak tightness of hydraulic connection between the boiler and the central heating system.		
5	Check gas tightness between the boiler and the flue.		
6	Check fuel level in the storage hopper (it must be sufficient for boiler/burner start-up).		
7	Check if the electrical cables of the blowers, gear motor, igniter and sensors are not damaged in transit and check wiring system.		
8	Check connections of all electrical cables in the control system (pull each cable with 2 - 5 N force).		

(*) - burner with fuel feeder

(**) - mark if the burner installation, assembly and settings are correct

(***) - record any irregularities in installation, assembly and settings

Burner location:

Address: ..... Flat no.: .....

Postal code __ __ - __ __ __

Town: .....

Burner operator's stamp and signature:

.....

Burner commissioning date: .....

Information for the Manufacturer Please send this form to the following address:
KOSTRZEWA SERVICE CENTRE, 11-500 Giżycko, ul. Przemysłowa 1

Platinum Bio 2 burner installation form

Burner factory number ..... (*) Burner power ..... (*)

User (First and last name) ..... (**)

Address (street, town, postcode) ..... (**)

Burner installation date (dd/mm/yyyy) .....(***)

Installation company name .....(***)

Installation company address (street, town, postcode) .....(***)

.....(***)

.....(***)

WARNING!
Please send the 'Platinum Bio 2 burner installation form' back to the manufacturer to validate the warranty.

.....
Installer's stamp and signature

.....
User's signature

(*) - to be filled in by the manufacturer (**) - to be filled in by the user (***) - to be filled in by the installer

Warranty card - Year 1 – Platinum Bio 2 burner commissioning

Burner factory number ..... (*) Burner power ..... (*)

Software version ..... (*)

User (First and last name) ..... (**)

Address (street, town, postcode) ..... (**)

Phone / Fax .....(**)

Empty warranty card is invalid.

The user hereby declares:

- The burner did not show any faults during a commissioning by an authorized installation company.
- A User Manual with a completed Warranty Card and a Certificate of burner quality and completeness was submitted.
- I am familiar with the operation and maintenance of the boiler.

Installation company
(stamp and signature)

.....

Distribution company
(stamp and signature)

.....

Installation date:

.....

Purchase date:

.....

User's signature:

.....

Manufacturer invoice no. ..... (*) Distributor invoice no. ..... (***)

Boiler commissioning company
(stamp and signature)

.....

Commissioning date

.....

(*) - to be filled in by the manufacturer (**) - to be filled in by the user (***) - to be filled in by the distributor

Information for the Manufacturer Please send this form to the following address:
KOSTRZEWA SERVICE CENTRE, 11-500 Giżycko, ul. Przemysłowa 1

Warranty card - Year 1 – Platinum Bio 2 burner commissioning

Burner factory number ..... (*) Burner power ..... (*)

Software version ..... (*)

User (First and last name) ..... (**)

Address (street, town, postcode) ..... (**)

Phone / Fax .....(**)

Empty warranty card is invalid.

The user hereby declares:
- The burner did not show any faults during a commissioning by an authorized installation company.
- A User Manual with a completed Warranty Card and a Certificate of burner quality and completeness was submitted.
- I am familiar with the operation and maintenance of the boiler.

Installation company
(stamp and signature)

.....

Distribution company
(stamp and signature)

.....

Installation date:

.....

Purchase date:

.....

User's signature:

.....

Manufacturer invoice no. ..... (*)

Distributor invoice no. ..... (***)

Boiler commissioning company
(stamp and signature)

.....

Commissioning date

.....

(*) - to be filled in by the manufacturer (**) - to be filled in by the user (***) - to be filled in by the distributor

Platinum Bio 2 control settings table

MANDATORY !!! The data are completed by an Authorised Service Technician during the initial burner start-up.

Burner / Service (software ver. 1.1)

SETPOINT	VALUE
Air MIN	
Air MAX	
Feed MAX	
Power MIN	
Power MAX	
Modulation type	
Photocell threshold	

Boiler / Service (software ver. 1.1))

SETPOINT	VALUE
Temp. MIN pump	
Mode	
Hysteresis	

Heating / Service (software ver. 1.1)

SETPOINT	VALUE
Comfort pump MIN external temp.	
Economy pump MIN external temp.	
Central heating pump MIN temp.	
Source	
Mixer time	
DHW priority	
Circuit name	
Temp. CO at -20°C	
Temp. CO at 0°C	
Temp. CO at 10°C	
Correction factor	
Mode	
Manual source, CH temp.	
Room temperature sensor	
CO sensor	
Continuous pump	

Domestic hot water / Service (software ver. 1.1)

SETPOINT	VALUE
Source delta	
Source	
Maximum temperature	
Delta MIN temp.	
Circuit name	

Service / Module configuration (software ver. 1.1)

SETPOINT	VALUE
Module 0	
Module 1	
Module 2	
Module 3	
Module 4	
Module 5	
Module 6	
Module 7	

Service / System configuration (software ver. 1.1)

SETPOINT	VALUE
No. of central heating circuits	
No. of domestic hot water circuits	
No. of buffer tanks	
External temperature sensor	

Information for the Manufacturer Please send this form to the following address:
KOSTRZEWA SERVICE CENTRE, 11-500 Giżycko, ul. Przemysłowa 1

Platinum Bio 2 boiler start-up and operation

Burner factory number. .....

No.	Check list	V **
1	Are you familiar with the general boiler design?	
2	Are you familiar with the method a 4-way mixing valve operation?	
3	Are you familiar with the process of water condensation in the boiler?	
4	Are you familiar with the boiler operating conditions which may result in condensation?	
5	Are you familiar with a long term boiler operating conditions which may result in condensation?	
6	Are you familiar with the methods of lighting all types of fuels?	
7	Are you familiar with the method of changing the fuel type via the control system?	
8	Are you familiar with the boiler operating modes and method of operation?	
9	Are you familiar with the boiler temperature setting?	
10	Are you familiar with the domestic hot water temperature setting?	
11	Are you familiar with the alarm types displayed on the control system and method of boiler protection against various hazards?	
12	Are you familiar with the methods of cleaning the burner and unblocking the hot air duct from the automatic igniter?	

(*) - mark if the boiler installation, assembly and settings are correct
(**) - record any irregularities in installation, assembly and settings

....

Burner operator's stamp and signature: Authorized signature

Warranty card - Year 2 – Platinum Bio 2 burner annual review

Burner factory number ..... (*) Burner power ..... (*)

Software version ..... (*)

User (First and last name) ..... (**)

Address (street, town, postcode) ..... (**)

Phone / Fax .....(**)

Empty warranty card is invalid.

The user hereby declares:

- The burner did not show any faults during a commissioning by an authorized installation company.

Installation company
(stamp and signature)

.....

Distribution company
(stamp and signature)

.....

Installation date:

.....

Purchase date:

.....

User's signature:

.....

Manufacturer invoice no. ..... (*) Distributor invoice no. ..... (***)

Boiler commissioning company
(stamp and signature)

.....

Commissioning date

.....

(*) - to be filled in by the manufacturer (**) - to be filled in by the user (***) - to be filled in by the distributor

Information for the Manufacturer Please send this form to the following address:
KOSTRZEWA SERVICE CENTRE, 11-500 Giżycko, ul. Przemysłowa 1

Warranty card - Year 2 – Platinum Bio 2 burner annual review

Burner factory number ..... (*) Burner power ..... (*)

Software version ..... (*)

User (First and last name) ..... (**)

Address (street, town, postcode) ..... (**)

Phone / Fax .....(**)

Empty warranty card is invalid.

The user hereby declares:
- The burner did not show any faults during a commissioning by an authorized installation company.

Installation company
(stamp and signature)

.....

Distribution company
(stamp and signature)

.....

Installation date:

.....

Purchase date:

.....

User's signature:

.....

Manufacturer invoice no. ..... (*) Distributor invoice no. ..... (***)

Boiler commissioning company
(stamp and signature)

.....

Commissioning date

.....

(*) - to be filled in by the manufacturer (**) - to be filled in by the user (***) - to be filled in by the distributor

Platinum Bio 2 control settings table

MANDATORY !!! The data are completed by an Authorised Service Technician during the second burner annual review.

Burner / Service (software ver. 1.1)

SETPOINT	VALUE
Air MIN	
Air MAX	
Feed MAX	
Power MIN	
Power MAX	
Modulation type	
Photocell threshold	

Boiler / Service (software ver. 1.1))

SETPOINT	VALUE
Temp. MIN pump	
Mode	
Hysteresis	

Heating / Service (software ver. 1.1)

SETPOINT	VALUE
Comfort pump MIN external temp.	
Economy pump MIN external temp.	
Central heating pump MIN temp.	
Source	
Mixer time	
DHW priority	
Circuit name	
Temp. CO at -20°C	
Temp. CO at 0°C	
Temp. CO at 10°C	
Correction factor	
Mode	
Manual source, CH temp.	
Room temperature sensor	
CO sensor	
Continuous pump	

Domestic hot water / Service (software ver. 1.1)

SETPOINT	VALUE
Source delta	
Source	
Maximum temperature	
Delta MIN temp.	
Circuit name	

Service / Module configuration (software ver. 1.1)

SETPOINT	VALUE
Module 0	
Module 1	
Module 2	
Module 3	
Module 4	
Module 5	
Module 6	
Module 7	

Service / System configuration (software ver. 1.1)

SETPOINT	VALUE
No. of central heating circuits	
No. of domestic hot water circuits	
No. of buffer tanks	
External temperature sensor	

Warranty card - Year 3 – Platinum Bio 2 burner annual review

Burner factory number ..... (*)

Burner power ..... (*)

Software version ..... (*)

User (First and last name) ..... (**)

Address (street, town, postcode) ..... (**)

Phone / Fax .....(**)

Empty warranty card is invalid.

The user hereby declares:

- The burner did not show any faults during a commissioning by an authorized installation company.

Installation company
(stamp and signature)

.....

Distribution company
(stamp and signature)

.....

Installation date:

.....

Purchase date:

.....

User's signature:

.....

Manufacturer invoice no. ..... (*)

Distributor invoice no. ..... (***)

Boiler commissioning company
(stamp and signature)

.....

Commissioning date

.....

(*) - to be filled in by the manufacturer (**) - to be filled in by the user (***) - to be filled in by the distributor

Information for the Manufacturer Please send this form to the following address:
KOSTRZEWA SERVICE CENTRE, 11-500 Giżycko, ul. Przemysłowa 1

Warranty card - Year 3 – Platinum Bio 2 burner annual review

Burner factory number ..... (*) Burner power ..... (*)

Software version ..... (*)

User (First and last name) ..... (**)

Address (street, town, postcode) ..... (**)

Phone / Fax .....(**)

Empty warranty card is invalid.

The user hereby declares:
- The burner did not show any faults during a commissioning by an authorized installation company.

Installation company
(stamp and signature)

.....

Distribution company
(stamp and signature)

.....

Installation date:

.....

Purchase date:

.....

User's signature:

.....

Manufacturer invoice no. ..... (*) Distributor invoice no. ..... (***)

Boiler commissioning company
(stamp and signature)

.....

Commissioning date

.....

(*) - to be filled in by the manufacturer (**) - to be filled in by the user (***) - to be filled in by the distributor

Platinum Bio 2 control settings table

MANDATORY !!! The data are completed by an Authorised Service Technician during the third burner annual review.

Burner / Service (software ver. 1.1)

SETPOINT	VALUE
Air MIN	
Air MAX	
Feed MAX	
Power MIN	
Power MAX	
Modulation type	
Photocell threshold	

Boiler / Service (software ver. 1.1))

SETPOINT	VALUE
Temp. MIN pump	
Mode	
Hysteresis	

Heating / Service (software ver. 1.1)

SETPOINT	VALUE
Comfort pump MIN external temp.	
Economy pump MIN external temp.	
Central heating pump MIN temp.	
Source	
Mixer time	
DHW priority	
Circuit name	
Temp. CO at -20°C	
Temp. CO at 0°C	
Temp. CO at 10°C	
Correction factor	
Mode	
Manual source, CH temp.	
Room temperature sensor	
CO sensor	
Continuous pump	

Domestic hot water / Service (software ver. 1.1)

SETPOINT	VALUE
Source delta	
Source	
Maximum temperature	
Delta MIN temp.	
Circuit name	

Service / Module configuration (software ver. 1.1)

SETPOINT	VALUE
Module 0	
Module 1	
Module 2	
Module 3	
Module 4	
Module 5	
Module 6	
Module 7	

Service / System configuration (software ver. 1.1)

SETPOINT	VALUE
No. of central heating circuits	
No. of domestic hot water circuits	
No. of buffer tanks	
External temperature sensor	

Information on inspections, warranty and post warranty repairs of the Platinum Bio 2 burner

Record date	Steps taken	Authorised Service Centre's stamp and signature	Client's signature

Information on inspections, warranty and post warranty repairs of the Platinum Bio 2 burner

Record date	Steps taken	Authorised Service Centre's stamp and signature	Client's signature

Claim form

Product:

Burner name: Platinum Bio 2
Burner power: .....
Burner S/N: .....
Burner purchase date: .....

Name and address of the distributor: .....
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Burner installation date: .....

Name and address of the installation company: .....
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Claimant:

First and last name: .....
Address: .....
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Phone: .....

Detailed fault description:

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I hereby consent to pay all charges due to the Kostrzewa Authorised Service Centre resulting from the unreasonable demand for service (in accordance with the manufacturer's price list).

.....
legible Claimant's signature

Please send a duly filled claim protocol to the following address:
PPH Kostrzewa Sp.j., 11-500 Giżycko, ul. Przemysłowa 1, fax 87 428 31 75 or the distributor.

Claim form

Product:

Burner name: Platinum Bio 2
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Burner S/N: .....
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Burner installation date: .....

Name and address of the installation company: .....
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Claimant:

First and last name: .....
Address: .....
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Phone: .....

Detailed fault description:

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Address: .....
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Phone: .....

Detailed fault description:

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Notes

Notes

KOSTRZEWA®

Experts in biomass heating

Kraina Wielkich Jezior Mazurskich

Kontakt

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