



TECHNICAL ECONOMIC OFFER

Quotation QC10253

Company certified according to
ISO 9001, ISO 45001 & ISO 14001





Anaergia UK

ICI Caldaie Ltd
30 Colliery Road
Clyde Gateway Business Park,
London Road
Glasgow
G32 8SL

Attn: Dean Moody

Date: 12-01-2022

Dear Sir,

Please find herewith enclosed our quotation QC10253 with reference to your recent enquiry.

ICI Caldaie are one of the largest manufacturers of boilers in Europe, we have been producing boilers in Verona northern Italy for over half a century and pride ourselves on our research and development programs that ensure that our products are manufactured to the highest levels of quality and efficiency possible.

Our comprehensive range of commercial boiler products covers low temperature condensing boilers and low temperature high efficiency hot water boilers and are available with Low and Ultra low Nox emission combustion systems. The large range of Industrial products for medium temperature hot water, steam and thermal fluid boilers enable us to meet the most demanding of process applications and all our products are supported by a full range of mechanical and electrical control system accessories.

We trust we have interpreted your requirements correctly and hope that you find our offer competitive and comprehensive. Please do not hesitate to contact us for any further information you may require.

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Best Regards

David Costigan
Key Account Manager

TECHNICAL PROPOSAL

PRODUCT LIST

GREENOx.e 260



Main features

The GREENOx boiler is three pass, wet back, low thermal load boiler, with single pass flame combustion chamber, connected to pressure jet burners for gas, oil and dual fuel operation. The boiler is designed to be used in systems with water temperature between 60 and 100 °C (safety thermostat set at 110 °C).

Some of the product's main features are related below:

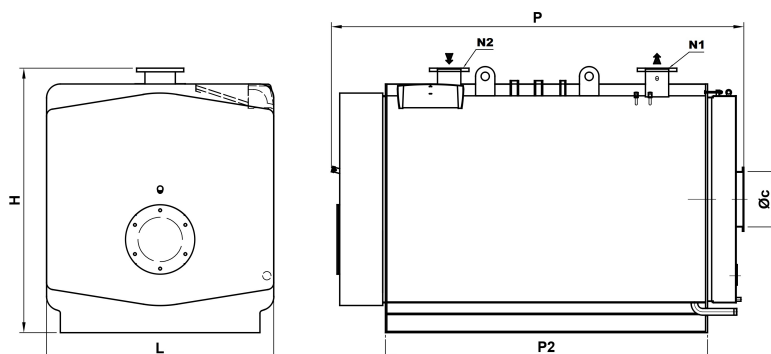
- carbon steel **boiler body**.
- large volume **combustion chamber** for low heat release, three pass wet back horizontal boiler with two gas passes and a completely submerged rear chamber.
- laser cut **tube plates**
- EN10217-2 P235GH **smoke tubes** welded to tube plates, fitted with special helical turbolators.
- **boiler shell** with flow and return flanged connections, with pockets for thermostats and gauges, inspection doors, all manufactured with approved welding procedures.
- **circular casing** in anodized aluminum with high density glass wool, thick mattress insulation.
- **flat front door** with reversible opening, inner high-insulating ceramic lining, pivoting on hinges, easily opened with equipped lever by drilled ferrules. as to guarantee a perfect combustion gas seal and allow all maintenance operations.
- **flat rear door**, manufactured in high quality steel as to guarantee high heat resistance, constructed in one piece that can be easily opened and that allows tube inspections, fastened with bolts, equipped with chimney connection and cleaning door.

Product CE marked according to the European Directives in force: - 92/42/CE (applicable up to 400 kW) - 2009/142/CE - 2004/108/CE - 2006/95/CE

Standard equipment:

- Complete insulating casing
- Turbolators
- Cleaning brush

OVERALL DIMENSIONS



PRODUCT TECHNICAL DATA TABLE

Feature	U.M.	Value
Maximum heat output	kW	2600
Maximum heat output	kCal/h	2236000
Maximum heat input	kW	2731
Maximum heat input	kCal/h	2348660
Design pressure	bar	5
Hydraulic test pressure	bar	7,5
Efficiency at 100% load (ref.C.O.P)	%	95,20
Flue gas resistance	mbar	8,0
Fluid side pressure drop ($\Delta T=12K$)	mbar	42
Max design temperature	°C	110
Total water volume	l	3300
Heating surface	mq	81,16
Electrical power supply	V	230
Nominal frequency	Hz	50
Insulation class		IP40
Total weight (empty)	kg	5950
DIMENSIONS :		
H - Height	mm	2065
L - Total Width	mm	1800
P - Length	mm	3935
P2	mm	3324
N1	DN	200
N2	DN	200
Øc - Flue connection diameter	mm	500
Inside diameter combustion chamber	mm	880
Length combustion chamber – reversing chamber	mm	3210
Furnace volume	m ³	1,880

NOTE = The weights indicated in this offer may vary depending on the accessories chosen upon ordering and any required customisations. Request the equipment weight to the sales office after the order.

Thermostatic control panel REX_GREENOX



Control panel complete with:

- Luminous signal
- 2 boiler regulating thermostats
- manual reset safety thermostat
- circulatory system consent thermostat
- burner switch
- system circulation switch
- boiler thermometer

Boiler regulation T 60° - 100° C
Security T 110° C

(ALTERNATIVE) Boiler control panel with eterm® electronic board

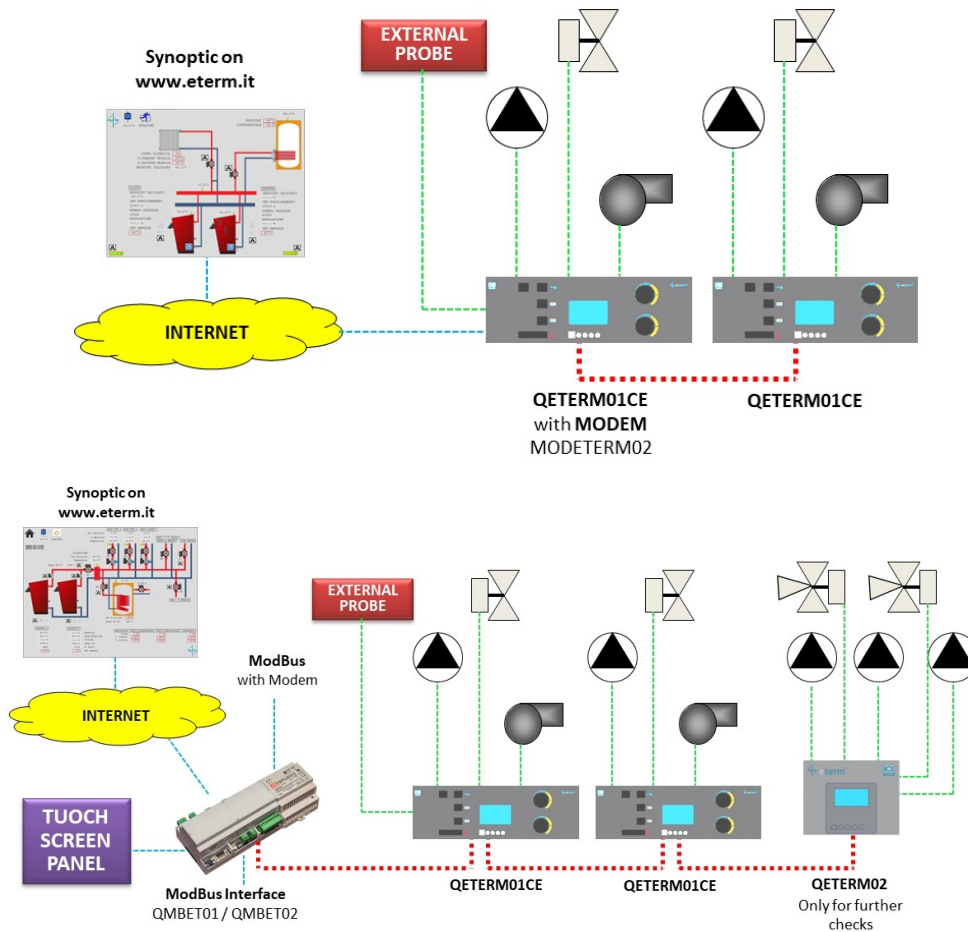


Description :

The panel is able to manage a stage or modulating burner and can control, within the limits of the available outputs, pumps and plant room valves. It is complete with regulation and safety thermostats that also allow “manual” operation through the activation of proper electro-mechanical switches. Thanks to the updatable software, eterm® controller features a number of functions that ICI Caldaie may implement for continuous product improvement.

Main functions:

- Possibility of remote control (with optional modem or connection to other master devices with modem);
- Possibility of cascade operation with other panels of the same series;
- Possibility of managing QETERM02 expansions for control of other pumps or valves;
- Possibility of ModBus connection with optional interface;
- Delivery temperature climate control (with optional external probe);
- Management of 2 configurable outputs for pumps and valves
- Mixing valve management





Power source

230 Vac

Dimensions

- 170 x 170 x 500 mm.

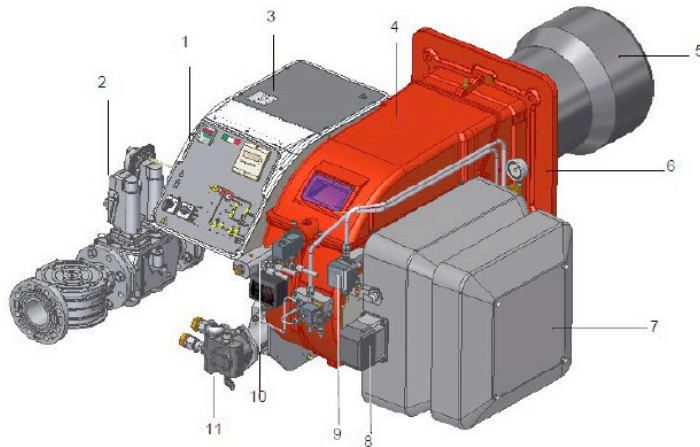
Standard equipment:

- Main switch
- Burner operation switch (Manual / Off / Automatic)
- Operation switch of the 2 programmable outputs (Manual / Off / Automatic)
- 2 Regulation thermostats
- Safety thermostat
- Thermometer
- Microprocessor electronic board
- Boiler probe



FINANCIAL OFFER

Products Detail	Qty	Unit Net Price (£)
<p>GREENOx.e 260 (83072600) Three pass, low NOx emission boiler Efficiency ★★★</p> <p>Maximum heat output: 2600 kW Design pressure: 5 bar Efficiency at 100% load (ref.C.O.P): 95,20 % Standard burner plate supply: NOT DRILLED (unless burner included in the supply): Standard fuel: NATURAL GAS-LPG-FUEL OIL (unless otherwise specified):</p>	1	22,600.00
<p>Thermostatic control panel REX_GREENOX (QACC10ELMCE) Boiler regulation T 60° - 100° C Security T 110° C For REX, REX F and GREENOx.e models</p>	1	70.00
<p>(ALTERNATIVE) Boiler control panel with eterm ® electronic board (QETERM01CE) Our ETERM01 control panel allows a high/low burner to operate as a modulating burner. The ETERM01 control panel can enable remote access with any internet device, modbus connection, cascade of multiple boilers, modulation, BMS control, shunt pump & vessel control etc.</p>	1	490.00
<p>GP Unigas dual fuel Biogas/Light oil burner, modulating control on both fuels. Minimum required gas pressure 100 mbar.</p>	1	18,070.00
<p>(OPTIONAL) VSD fan motor control</p>	1	1,845.00



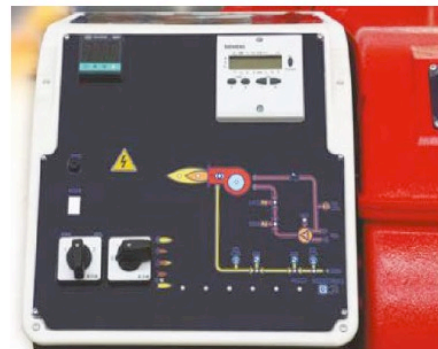
Burner body, including:

1. Control Panel interface
2. Gas train
3. Control panel
4. Fan wheel coupled to 400V, 7.5kW motor
5. Blast Tube + Combustion Head (Length: 495mm*)
6. Mounting flange
7. Air inlet silencer
8. Actuators for air/fuel regulation
9. Air pressure switch
10. Oil manifold
11. Oil pump coupled to motor

Flame surveillance: QRA-2 UV detector

Burner mounted Control Panel features:

- Siemens LMV26 Controller, performing:
 - Flame supervision
 - Sequence control
 - Fuel / Air ratio control
 - Gas valve proving
 - Fault diagnostics
- AZL user/programming interface
- Modulating load controller
- Starter and overload protection for motors
- Ignition transformer and HT leads
- Terminal rail
- Visual alarms and sequence display
- Fuel selection switch





Gas Train (DN100) features:

- Minimum gas pressure switch
- Gas valve proving pressure switch
- Stainless Steel butterfly valve with Actuator
- Siemens twin safety gas valve with stainless steel strainer
- Siemens SKP25 actuator with constant pressure governor
- Siemens SKP15 on/off actuator
- Gas filter (optional extra)

Required Biogas inlet pressure:

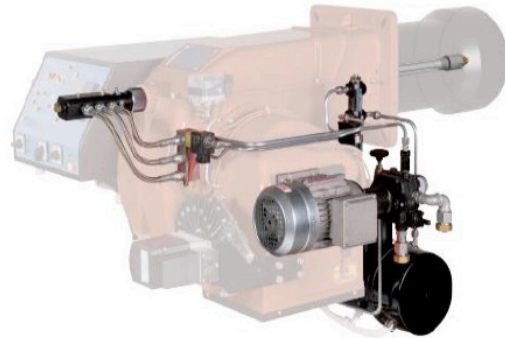
Min: **100 mbar**

Max: **500 mbar**

Oil train features:

- Oil gun with oil nozzle
- Oil pressure governor on return line
- Max oil pressure switch
- Oil pump coupled to 1.1kW motor
- Oil filter (supplied loose)
- 2No. Flexible connection hoses (supplied loose)

Oil pressure required at inlet: **0.5-2 Barg (stable)**





Exclusions:

- Equipment installation
- Field wiring
- Fuel supply pipework, other than fuel trains stated
- Equipment commissioning
- Training
- Anything not specifically listed in the offer

Notes:

- The Burner selection has been based upon the details of the application given by the customer. Please carefully check the requirements of the installation and inform us of any inaccuracy/omission in the matching detail. GP Burners (CIB) Ltd is not responsible for the product selection unless an authorised representative has visited the site to perform an assessment of the requirements.
- GP Burners (CIB) Ltd. Terms and conditions apply (copy available on request).
- The customer must inform GP Burners of the location of the plant(s) and if any particular certifications or disposals are requested by the local authorities.
- Pictures in this quotation are for illustrative purposes. Product drawings will be issued after receipt of an order.

Important:

- The gas valves offered are suitable for a maximum content of 1000ppm of H₂S (dry) in the biogas. Condensate is not permitted in the gas valve.
- Products may have a shorter service life if the gas quality during operation differs from the gas analysis that was carried out in the first instance.
- Standard biogas components and special gas components must be subjected to regular tests and, if required, maintenance, in order to maintain the entire installation in perfect condition. We recommend to visually inspect the gas valves at 6 month intervals.

***Installation Note:**

- For the correct function of the Burner, the Blast tube must penetrate the furnace by 10-100mm (past the refractory edge) If this requirement cannot be met, please contact us for an extended Blast tube or mounting spacer (additional cost applies).



TERMS OF SALE

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Delivery conditions	Delivery is included but not offloading and positioning
Quote Validity	30 days
Delivery	Currently 5-6 working weeks from order.
Payment	To be arranged with our sales manager

EXCLUSIONS

- unloading and positioning
- system commissioning
- flue gas collectors / chimney
- water treatment system
- electrical and hydraulic connections to your plants
- anything not specifically listed in the offer
- assembly of components disassembled for transport
- procedures for authorities
- building and civil works
- pipework insulation

INCLUSIONS

- burner plate drilling according to the selected model
- material loading on your vehicle

DOCUMENTATION

- EC declaration of conformity
- Use and maintenance manual
- Electrical diagram
- Overall accessories diagram
- Manual and testing certificate for safety valves (if any)
- Manual and curve pumps for supply or circulation (if any)

1 hard copy of the aforementioned documents will be provided on delivery.
Different or additional documentation must be agreed upon in the offer.



WARRANTY

COMMERCIAL RANGE - BOILER WARRANTY

The boiler body is guaranteed for a period of **36 (thirty-six)** months from the shipment.

Accessories are guaranteed under the same conditions of sale by our suppliers and in any case not more than **12 (twelve)** months from the shipment.

The warranty includes free replacement of parts manufactured by ICI that complaint for defects after our technician's examination.

Travel, labor and daily allowance expenses are excluded and shall be charged by the purchaser.

The warranty is void if repairs or changes are made without our written permission, in case of default or failure caused by error or negligence by the purchaser.

The warranty, furthermore, becomes void if the conditions of water supply do not conform to what we stated in the tables accompanying the appliance.

IMPORTANT NOTE

The information contained in this document should be considered strictly confidential. Their use is allowed only to the addressee of the document. It is not allowed to make any changes and its reproduction, and its dissemination are prohibited. The images indicated into the current quotation are purely indicative and cannot be understood in any manner as a contractual obligation.