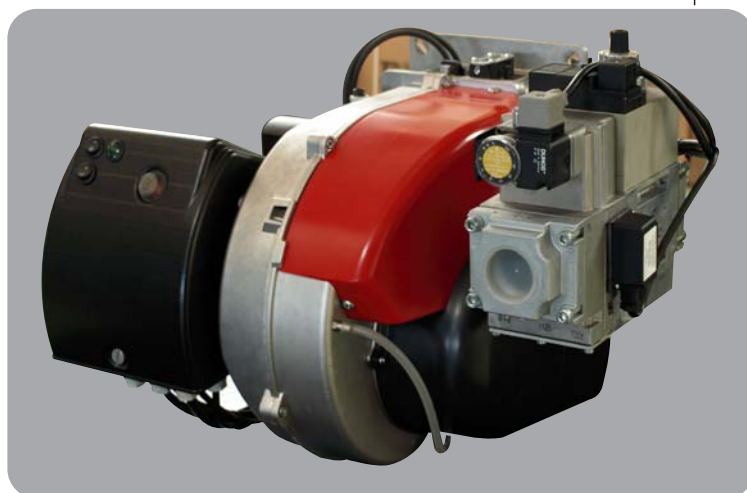


- IT *BRUCIATORI DI GAS AD ARIA SOFFIATA*
- EN *BLOWN AIR GAS BURNERS*
- FR *BRULEURS GAZ A AIR SOUFFLE*
- ES *QUEMADORES DE GAS DE AIRE SOPLADO*
- RU *ДУТЬЕВЫЕ ГАЗОВЫЕ ГОРЕЛКИ*

Ecoflam

CE-0085



MAX GAS 350 P

MAX GAS 350 P AB

MAX GAS 500 P

MAX GAS 500 P AB

Low Nox



420010318203

420010318203

02.08.2011

1 - Technical data

- Technical datap.15
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2 - Installation

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- Electrical connectionsp.16
- Gas connectionp.16
- Combustion chamberp.16

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- Ionization currentp.23
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- Control panelp.25

4 - Maintenance

- Troubleshootingp.25

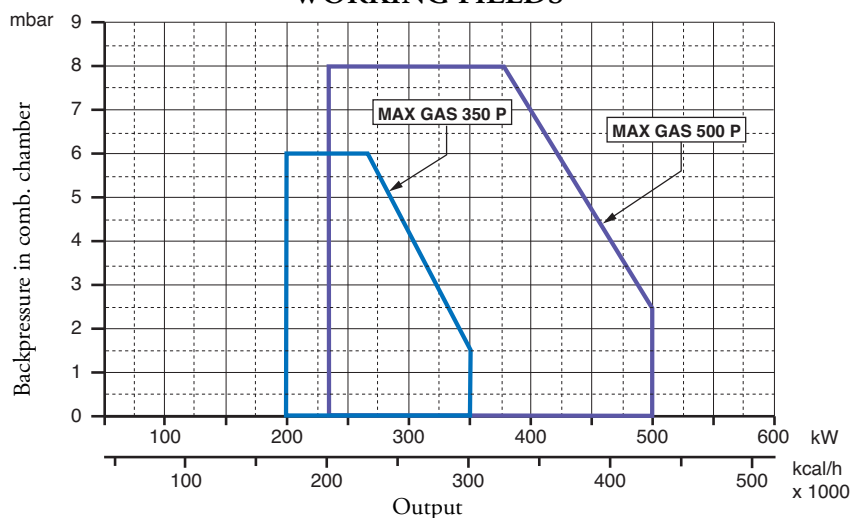
| Model : Max Gas 350 - 500 | | Gas family | | |
|--------------------------------|----------------------|------------|-------|--------|
| | | G20 | G25 | G31 |
| Max. gas pressure* | mbar | 500 | 500 | 500 |
| Min. gas pressure* | mbar | 17 | 17 | 29 |
| Min. gas pressure* Max Gas 500 | mbar | 20 | 20 | 37 |
| Fuel L.C.V. | kcal/Nm ³ | 8.570 | 7.370 | 22.260 |
| Max Gas 350 P | | | | |
| Gas flow rate max. | Nm ³ /h | 35,12 | 40,84 | 13,52 |
| Gas flow rate min. | Nm ³ /h | 20,07 | 23,34 | 7,73 |
| Max Gas 350 P AB | | | | |
| Gas flow rate max. | Nm ³ /h | 35,12 | 40,84 | 13,52 |
| Gas flow rate min. | Nm ³ /h | 10,03 | 11,67 | 3,86 |
| Max Gas 500 P | | | | |
| Gas flow rate max. | Nm ³ /h | 50,17 | 58,34 | 19,32 |
| Gas flow rate min. | Nm ³ /h | 23,28 | 27,07 | 8,96 |
| Max Gas 500 P AB | | | | |
| Gas flow rate max. | Nm ³ /h | 50,17 | 58,34 | 19,32 |
| Gas flow rate min. | Nm ³ /h | 12,04 | 14 | 4,64 |

* : Minimum/maximum gas inlet pressures depend by the gas train matched to the burner. The values are written on the gas trains manual.

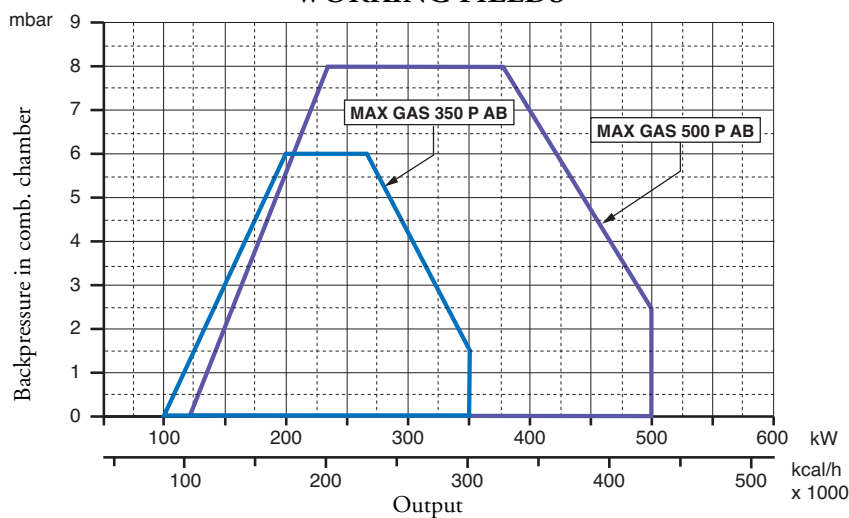
TECHNICAL DATA

| | | Max Gas 350 P | Max Gas 350 PAB | Max Gas 500 P | Max Gas 500 P AB |
|--------------------|--------|---------------|-----------------|---------------|------------------|
| Thermal power max. | kW | 350 | 350 | 500 | 500 |
| | kcal/h | 301.000 | 301.000 | 430.000 | 430.000 |
| Thermal power min. | kW | 200 | 100 | 232 | 120 |
| | kcal/h | 172.000 | 86.000 | 199.520 | 103.200 |
| Sound level | d(B)A | 73 | 73 | 73 | 73 |

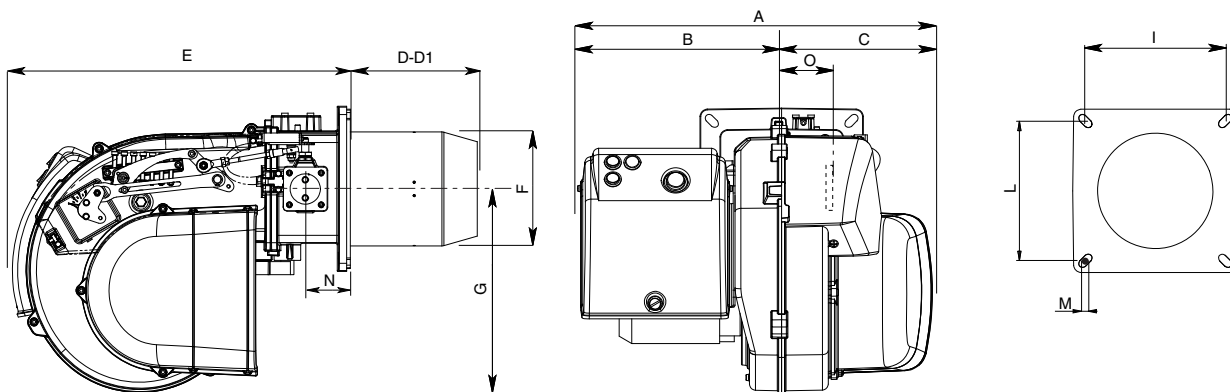
WORKING FIELDS



WORKING FIELDS



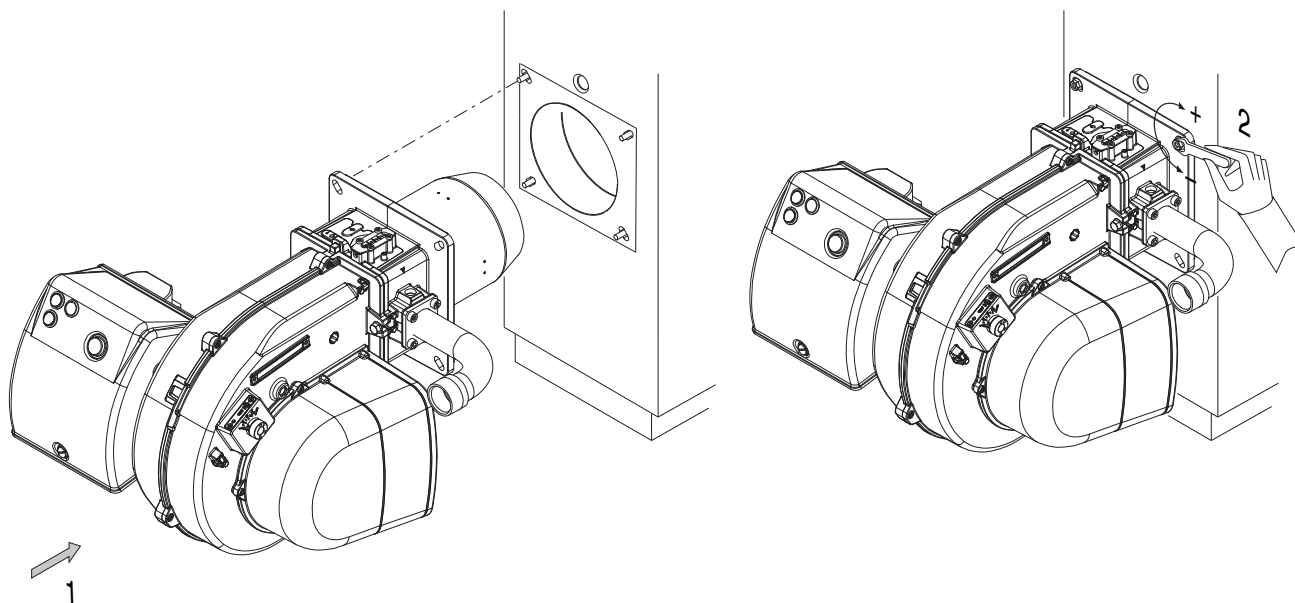
OVERALL DIMENSIONS



| MODEL | A | B | C | D | D1 | E | F | G | I | L | M | N | O |
|-------------|-----|-----|-----|-----|-----|-----|-----|-----|---------|---------|----|----|-----|
| MAX GAS 350 | 485 | 277 | 208 | 175 | 335 | 466 | 157 | 280 | 185/200 | 185/200 | M8 | 62 | 101 |
| MAX GAS 500 | 485 | 277 | 208 | 175 | 335 | 466 | 157 | 280 | 185/200 | 185/200 | M8 | 62 | 101 |

D = SHORT HEAD D1= LONG HEAD

MOUNTING TO THE BOILER



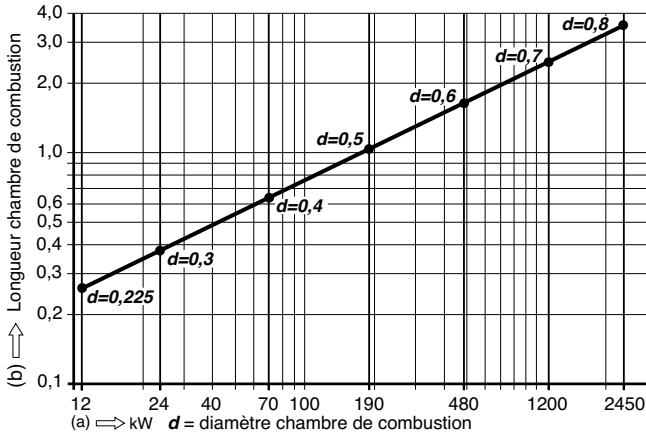
ELECTRICAL CONNECTIONS

All burners factory tested at 230V 50 Hz monophase (Max Gas 350) or 400 V 50 Hz three-phase (Max Gas 500) for motors and 230V 50 Hz monophase for auxiliary equipment. If mains supply is 230 V 50 Hz threephase without neutral, change position of connectors on burner as in fig. Protect burner supply line with safety fuses and any other devices required by safety standards obtaining in the country in question.

CONNECTION TO THE GAS PIPELINE

Once connected the burner to the gas pipeline, it is necessary to control that this last is perfectly sealed. Also verify that the chimney is not obstructed. Open the gas cock and carefully bleed the piping through the pressure gauge connector, then check the pressure value trough a suitable gauge. Power on the system and adjust the thermostats to the desired temperature. When thermostats close, the sealing control device runs a seal test of valves; at the end of the test the burner will be enabled to run the start-up sequence.

COMBUSTION CHAMBER



The burners have been certified in combustion chambers according to EN 676 standards. Consult the burner manufacturer if the combustion chamber of the boiler in which the burner is to be installed has smaller dimensions.

Installation must be carried out in compliance with the local provisions

STARTING-UP THE BURNER

PRELIMINARY CHECKS

Before starting up the boiler check the following: - gas type and feed pressure; - gas valves closed; - the seals in the pipe fittings; - gas pipe breather and input pressure; - that the cable complies with the diagram and the phase and neutral wires correspond; - that the burner shuts down when the boiler thermostat opens; - the seal of the boiler furnace which prevents air from entering; - the seal on the flue-boiler pipe fitting; - the condition of the flue (sealed, free from blockage, etc). If all these conditions are present, start the burner. The control device starts the motor to carry out prewashing of the combustion chamber. During this prewash period (about 30 seconds) the device checks that air pressure is correct via the air pressure switch. At the end, it supplies power to the transformer and opens the gas valves. The flame must be lit and stabilize within 3 seconds, which is the device's safety time limit. Check to ensure the flame is lit before placing any control instrument in the flue. Adjust and check the gas flow necessary for the boiler at the meter. Adjust the air flow according to the gas flow to obtain correct combustion.

IMPORTANT ADVICE

All adjustable parts must be fixed by the installer after making adjustments. Check flue combustion after each adjustment. The CO₂ values must be approx. 9.7 (G20), 9.6 (G25), 11.7 (G31) and the CO must be less than 75 ppm.

Adjusting the gas flow rate at the ignition for burners MAX GAS 350-500

The thermal power at the ignition, for such a burners, must be smaller than 120 kW or else than the ratio between the rated thermal power and control box's safety time (ignition time is assumed equal to safety time, i.e. 3 seconds). The adjustment of thermal power at the ignition is made by the manufacturer, anyhow, should it be necessary to intervene on such an adjustment, proceed as follows: - check that the thermal power of the burner at full running is the correct one. - With the burner switched off, disconnect the flame detection cable from relevant electrode, so as to make the valve to automatically shut off at the ignition, after the safety time. - Make a reading on the gas meter. - Start the burner and wait for the burner's lock out, after the repetition of the ignition sequence. - Make a second reading on the meter, and note the number of delivered litres. - The delivered thermal power, at the ignition, will then be equal to the ratio, between the delivered litres and the safety time, multiplied by the f factor (as function of the type of gas used you see table). If the value thus obtained is higher than 120 kW it shall be necessary to reduce the gas valve's initial flow rate. At the end, reconnect the flame detection cable to its relevant electrode.

NOTE: should it be difficult to measure the quantity of delivered litres of gas, due to the particular meter's dial, it is possible to repeat, sequentially, the above steps many times, so as to reach a significant amount of gas volume. In such a case, the thermal power at the ignition shall be obtained by multiplying the ratio, between the amount of delivered litres and the number of cumulated safety times (i.e. the value of the safety time multiplied by the number of ignitions) by the f factor.

CALCULATION OF WORKING OUTPUT OF THE BURNER

To calculate the burner's working output, in kW, proceed as follows:

- Check at the meter the quantity of supplied litres and the duration, in seconds, of the reading, then calculate the burner's output through the following formula:

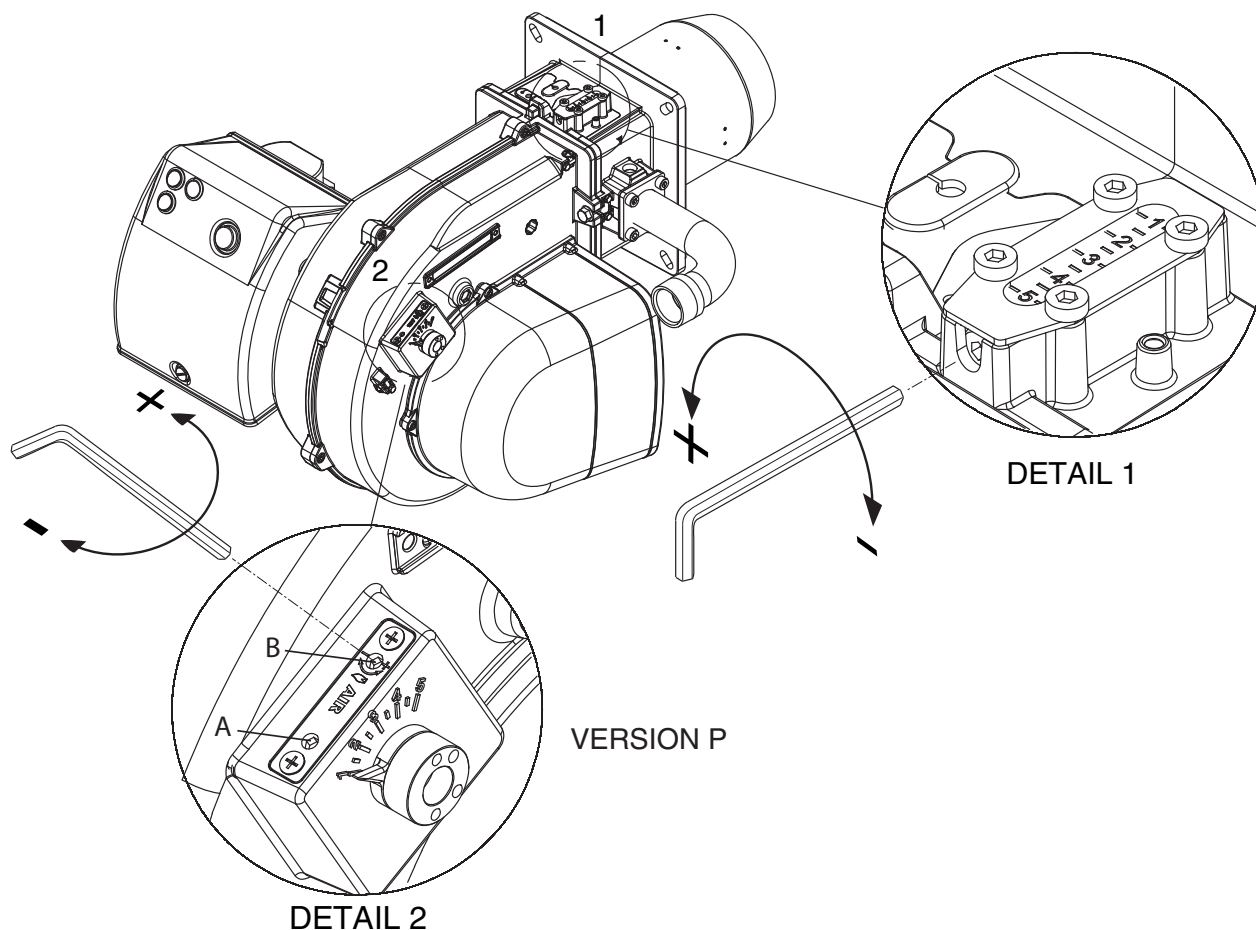
$$\frac{e}{s} \times f = kW$$

e = Litres of gas
s = Time in seconds

| | |
|---|----------------------------------|
| f | G20 = 34,02 MJ/St m ³ |
| | G25 = 29,25 MJ/St m ³ |
| | G31 = 88 MJ/St m ³ |

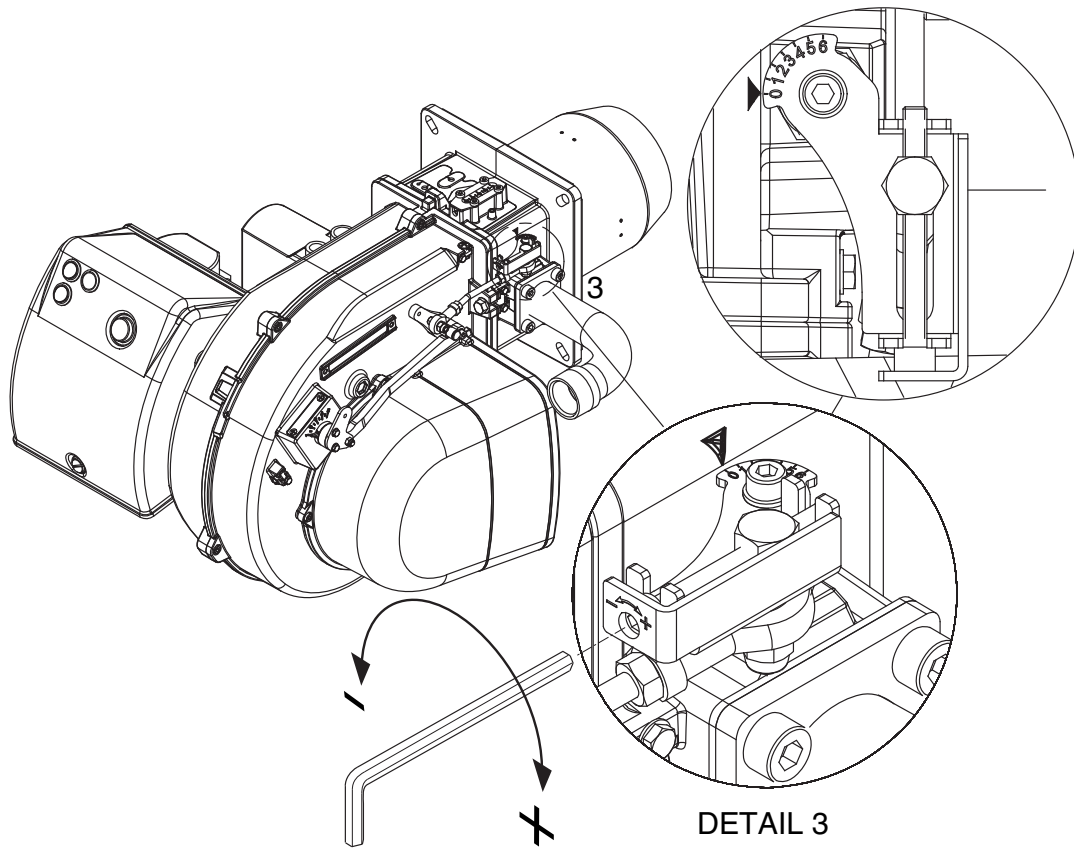
| Error code table | | |
|-------------------------------------|------------------|---|
| Red blink code of signal lamp (LED) | «AL» at term. 10 | Possible cause |
| 2 blinks | on | No establishment of flame at the end of «TSA» - Faulty or soiled fuel valves - Faulty or soiled flame detector - Poor adjustment of burner, no fuel - Faulty ignition equipment |
| 3 blinks | on | «LP» faulty - Loss of air pressure signal after «t10», - «LP» welded in normal position |
| 4 blinks | on | Extraneous light when burner is started up |
| 5 blinks | on | Time out «LP» - «LP» welded in working position |
| 6 blinks | on | Free |
| 7 blinks | on | Too many losses of flame during operation (limitation of the number of repetitions)- Faulty or soiled fuel valves. - Faulty or soiled flame detector - Poor adjustment of burner. |
| 8 blinks | on | Free |
| 9 blinks | on | Free |
| 10 blinks | off | Wiring error or internal error, output contacts, other faults. |
| 14 blinks | on | CPI contact not closed |

FIRING HEAD AND AIR SETTING



To adjust air flow, turn the screw A as required. To reduce output, turn screw clockwise, to increase it turn screw counterclockwise. **Note:** screw B not used.

PAB MINIMAL GAS ADJUSTMENT

**AIR SERVOMOTOR (SIEMENS SQN 75) MAX GAS 350-500 PAB**

Remove cover to enter the adjusting cams. Adjust cams through the suitable key (on issue) and a screwdriver.

- I** - Adjusting cam (BLUE) for air damper position on burner's shutdown (total close 0°).
- II** - Adjusting cam (ORANGE) for opening position in ignition and Low Flame (by the screwdriver).
- III**- Adjusting cam (RED) for opening position in High Flame (max. output).
- IV**- Adjusting cam (BLACK) to allow the opening of High flame solenoid valve.

”PAB” VERSION GAS BURNERS GAS TRAIN INSTALLATION AND SETTING INSTRUCTIONS

Fix the gas train to burner body by means of the 4 screws of the flange, pay attention to set correctly the gasket (O-ring). Connect electrically the gas train with the 2 connectors of the valve (black) and gas pressure switch(gray). Switch on the burner (it has already been tested in the factory, so it is pre set on average values) and verify the tightness of gas train connections made during installation.

Act as follows to adapt the burner output to the boiler.

REGULATING THE COMBUSTION OF THE TWO-STAGE BURNER (PAB version)

Follow the sequence of operations:

Maximum power regulation:

- 1) position the air valve in the fully open setting (pos. 4).
(for particularly low power only, if the reduction of air is not sufficient with the head in position 1, reduce the opening of the air valve).
- 2) dose the air by moving the combustion head (figure) to suit the power required (as shown in figure).
- 3) dose the gas by regulating the gas ramp (see figure in the ramp manual).

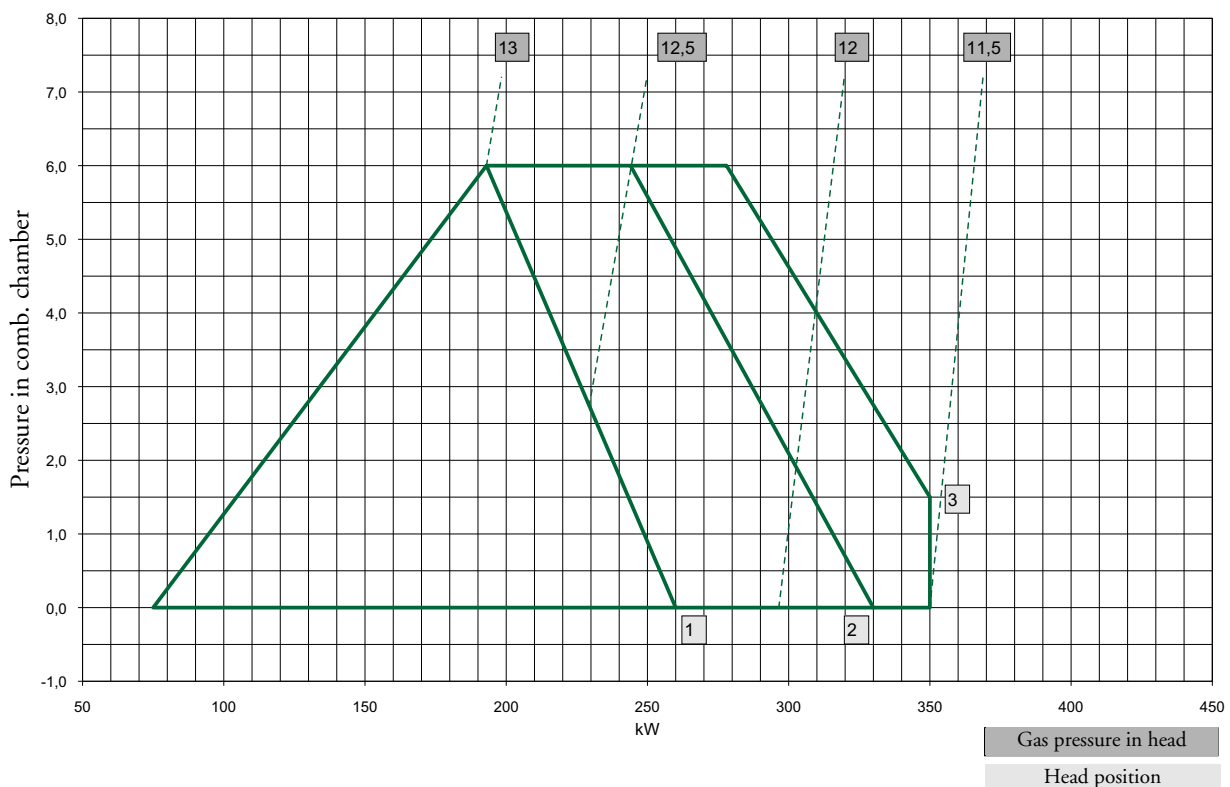
Low flame setting:

- 1) after regulating the maximum power and determining the working pressure of the gas in the head, position the valve on the low flame setting, 1.5, and dose the gas using the regulation screw on the butterfly valve of the gas. (figure).
- 2) if the minimum charge obtained in this way is too low for the heat generator, increase the opening of the air valve, adjusting the flow of gas using the butterfly valve of the gas to obtain the minimum appropriate power.

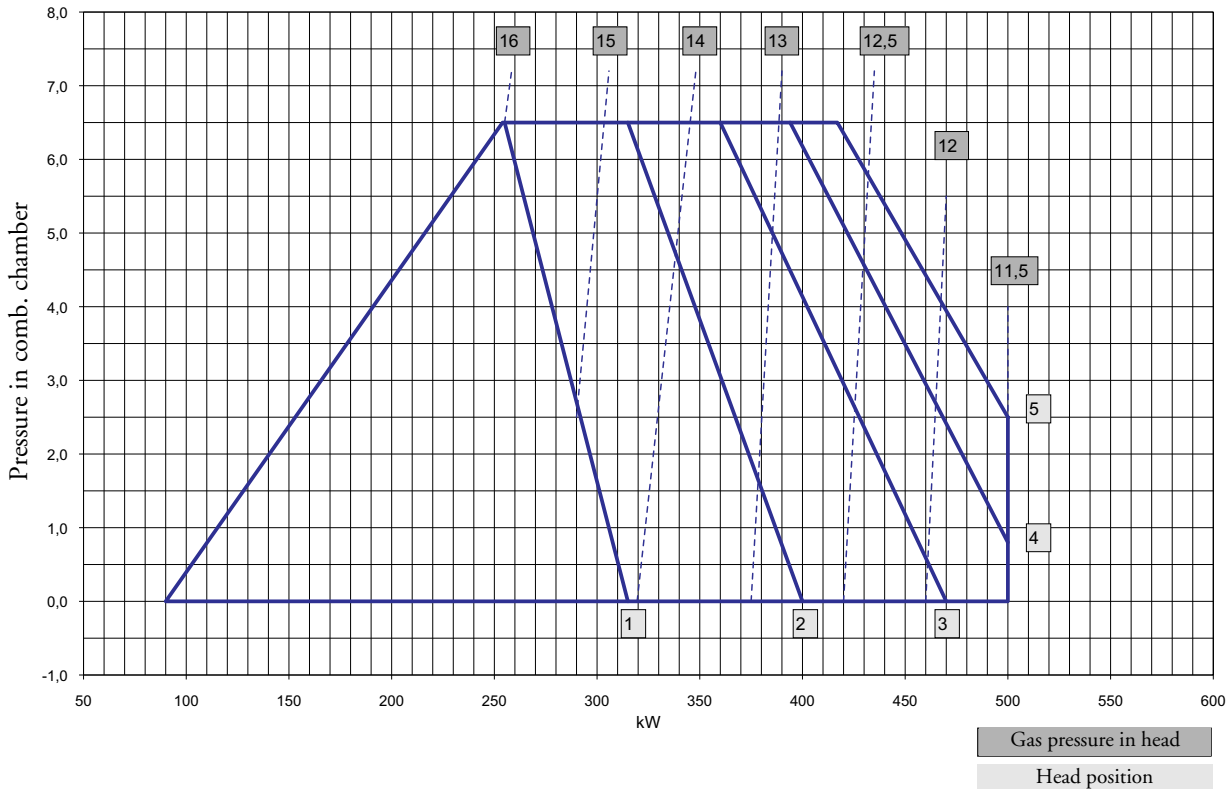
REGULATING THE COMBUSTION OF THE ONE-STAGE BURNER (P version)

Follow the instructions for maximum power regulation of the PAB version.

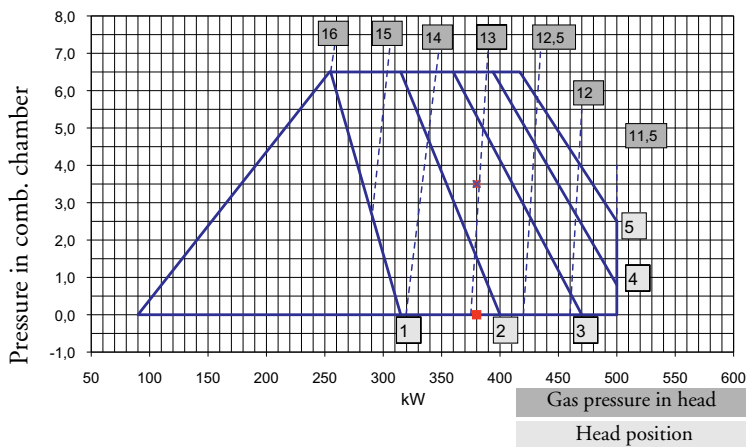
PRE-CALIBRATED DIAGRAM MAX GAS 350



PRE-CALIBRATION MAX GAS 500



EXAMPLE OF PRE-CALIBRATION MAX GAS 500



Warning: the pre-calibration values have been determined on EN676 test combustion chambers in ideal conditions, and are useful for the first switch-on but must be checked and corrected with calibration for the individual system.

Example in figure:

Power required by the generator: 380 kW.
 Pressure envisaged in combustion chamber: 3.5 mbar. Combustion head chamber: 2.5 (between 2 and 3). Gas pressure in head: 13 mbar.

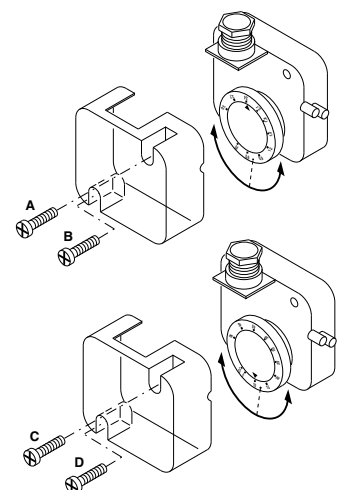
ADJUSTING THE AIR PRESSURE SWITCH

The air pressure switch must be adjusted so that an insufficient air flow does not allow the CO value to exceed 1% in volume. After having adjusted the gas flow and obtained optimum combustion ($CO_2 = 9.5$ to 9.8% and a CO value of less than 75 ppm), the air pressure switch must be adjusted. Remove the cover with the burner operating, cover the air intake progressively with a piece of cardboard to obtain a value of $CO_2 = 10.8$ (G20-G25) > 13 (G31) and a CO value of less than 5,000 ppm. Adjust the air pressure switch until the burner shuts down. Remove the cardboard from the air intake and start up the burner again. Replace the cover.

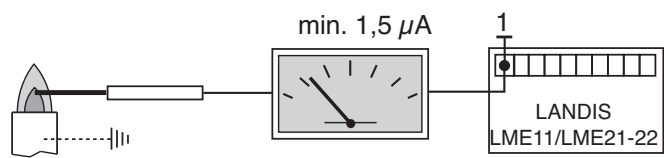
ADJUSTING THE GAS PRESSURE SWITCH

Adjust the pressure switch to 50% of the rated pressure of the gas used.

RARED PRESSURE: G 20 = 20 mbar G 25 = 25 mbar
 G 31 = 37 mbar

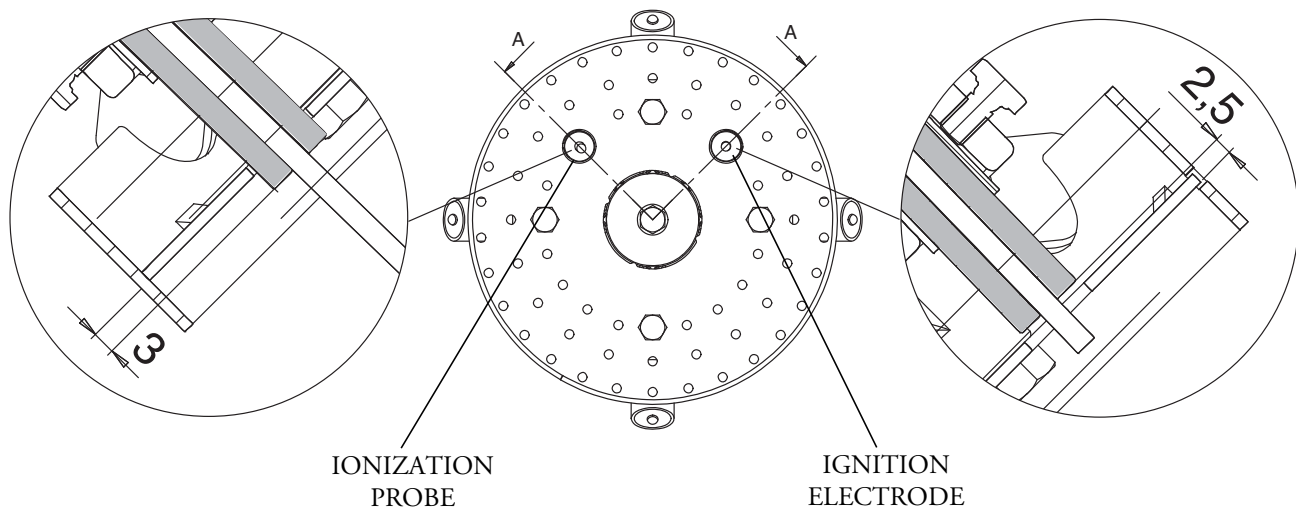


FLAME DETECTION SYSTEM CHECK

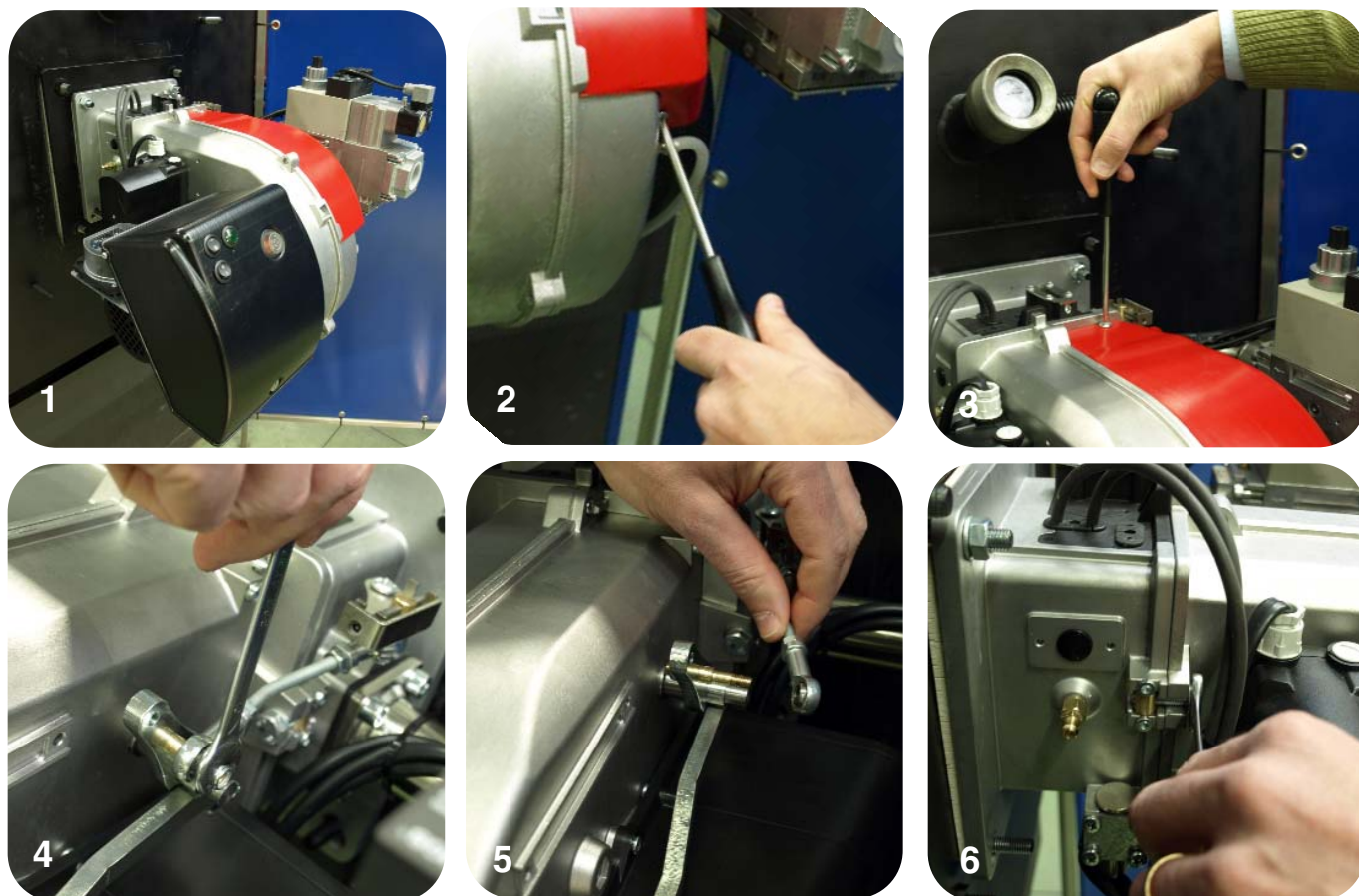


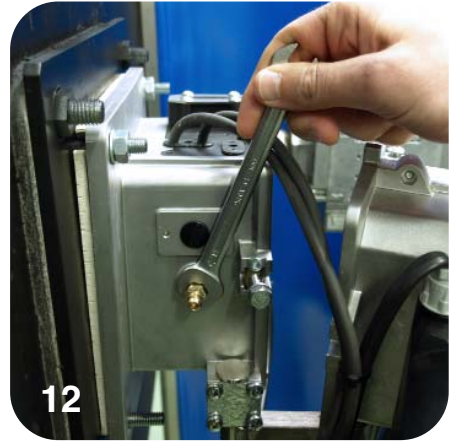
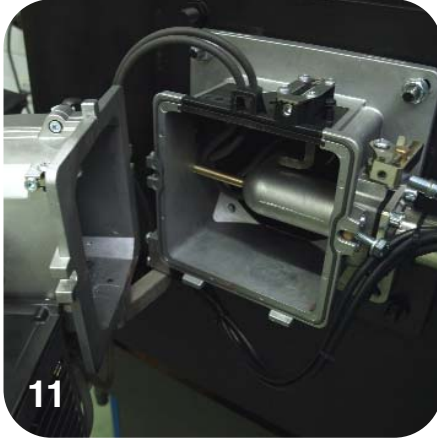
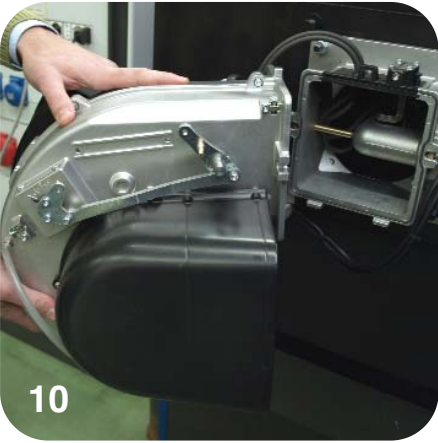
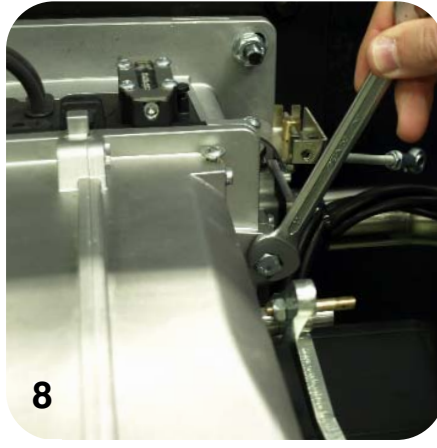
With the burner switched off, connect a DC microammeter with a 0÷50 or 0÷100 µA dial. When the burner is running, and is properly adjusted, the value read must be steady and never be smaller than 1,5 µA (LME 11/21/22) .

POSITION OF ELECTRODES

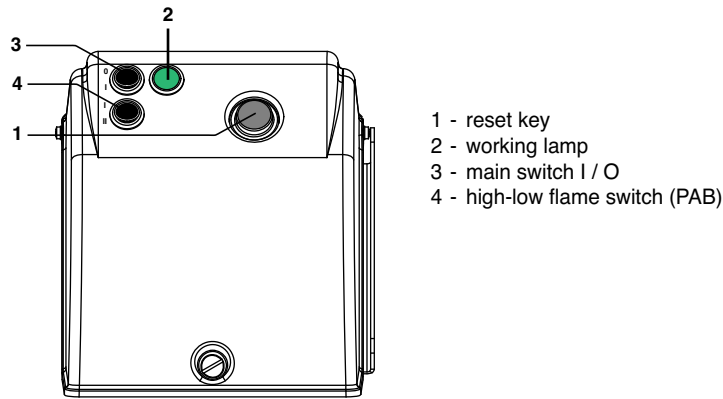


REMOVING FIRING HEAD





DESCRIPTION OF THE CONTROL PANEL OF THE BURNER



- 1 - reset key
- 2 - working lamp
- 3 - main switch I / O
- 4 - high-low flame switch (PAB)

MAINTENANCE

YEARLY INSPECTION

Periodic inspection of the burner (combustion head, electrodes, etc.) must be carried out by authorised personnel once or twice a year, depending of use. Before carrying out maintenance inspection on the burner, it is advisable to check its general condition and carry out the following operations:

- Disconnect the burner from the power supply (remove the plug).
- Close the gas cock.
- Remove the burner cover, clean the fan and air intake.
- Clean the combustion head and check the position of the electrodes.
- Re-assemble the parts.
- Check the seal on the gas pipe fittings.
- Check the flue.
- Restart the burner.
- Check the combustion parameters ($CO_2 = 9.5$ to 9.8), ($CO =$ less than 75 ppm)

BEFORE EACH INTERVENTION CHECK;

- That the system is supplied with power and the burner connected.
- That the gas pressure is correct and the gas cock open.
- That the control systems are correctly connected.

If all these conditions are present, start the burner by pressing the release button. Check the burner cycle.

THE BURNER WILL NOT START;

- Check the switch, thermostats, motor, gas pressure.

THE BURNER PREVENTILATES AND LOCKS AT THE END OF THE CYCLE:

- Check the air pressure and fan.
- Check the air pressure switch.

THE BURNER PREVENTILATES AND WILL NOT IGNITE:

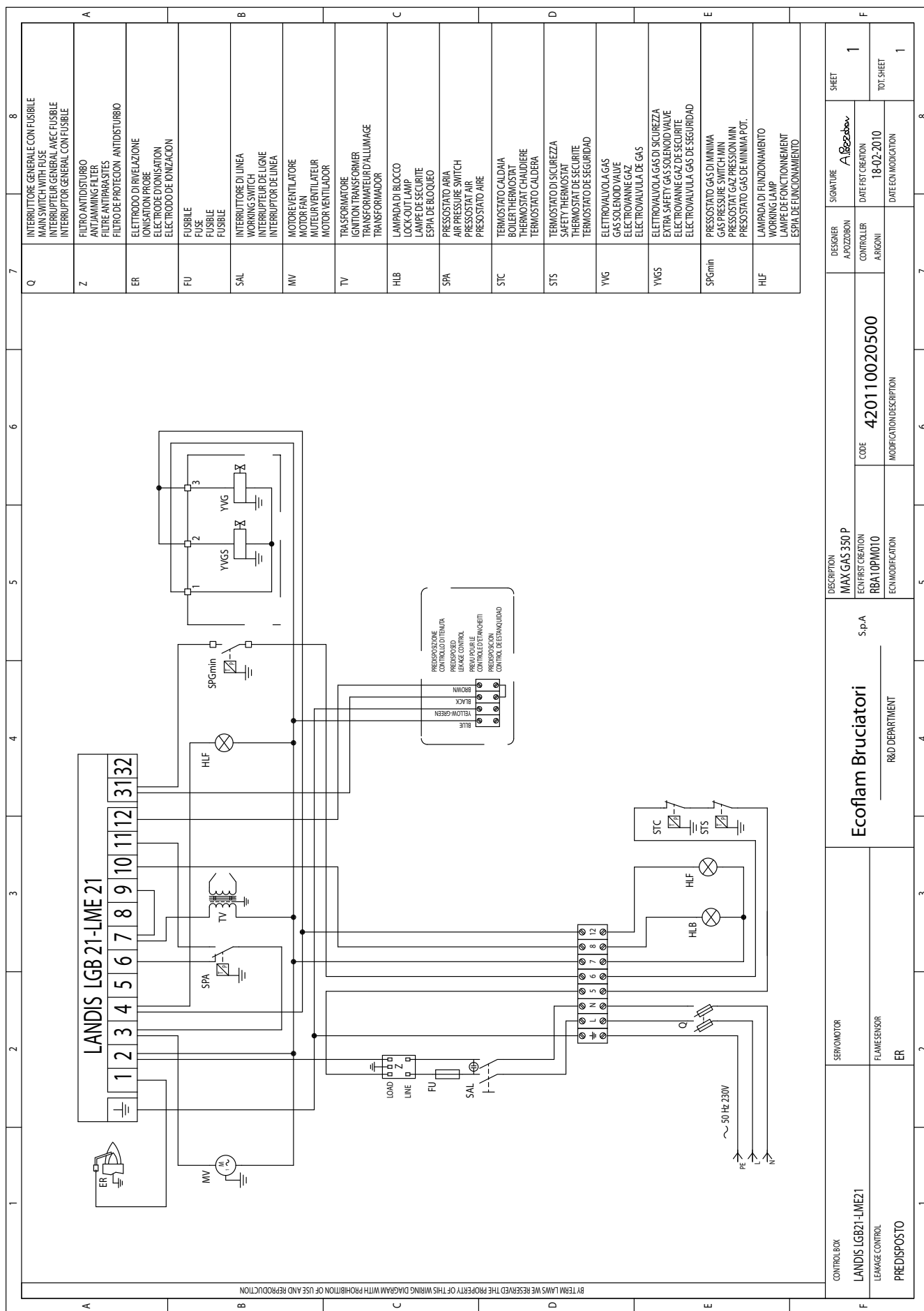
- Check the assembly and position of electrodes.
- Check the ignition cable.
- Check the ignition transformer.
- Check the safety devices.

THE BURNER STARTS UP AND LOCKS AFTER THE SAFETY TIME LIMIT:

- Check that the phase and neutral wires are correctly connected.
- Check the gas electrovalves.
- Check the position of the detection electrode and its connection.
- Check the detection electrode.
- Check the safety devices.

THE BURNER STARTS UP AND LOCKS AFTER RUNNING FOR A FEW MINUTES.

- Check the pressure regulator and the gas filter.
- Check the gas pressure with an ammeter.
- Check the detection value (min $1,5 \mu A$ Landis).



CONTROL BOX

LANDIS LGB21-LME21

LEAKAGE CONTROL

PREDISPOSTO

SERVOMOTOR

FLAME SENSOR

ER

DESCRIPTION

MAX GAS 350 P

ECN FIRST CREATION

RBA10PM010

ECO MODIFICATION

420110020500

CODE

420110020500

MODIFICATION DESCRIPTION

Ecoflam Bruciatori

S.p.A

R&D DEPARTMENT

DESIGNER

A. Rezzobov

CONTROLLER

18-02-2010

DATE ECO MODIFICATION

APPROBATOR

1

SHEET

1

TOT. SHEET

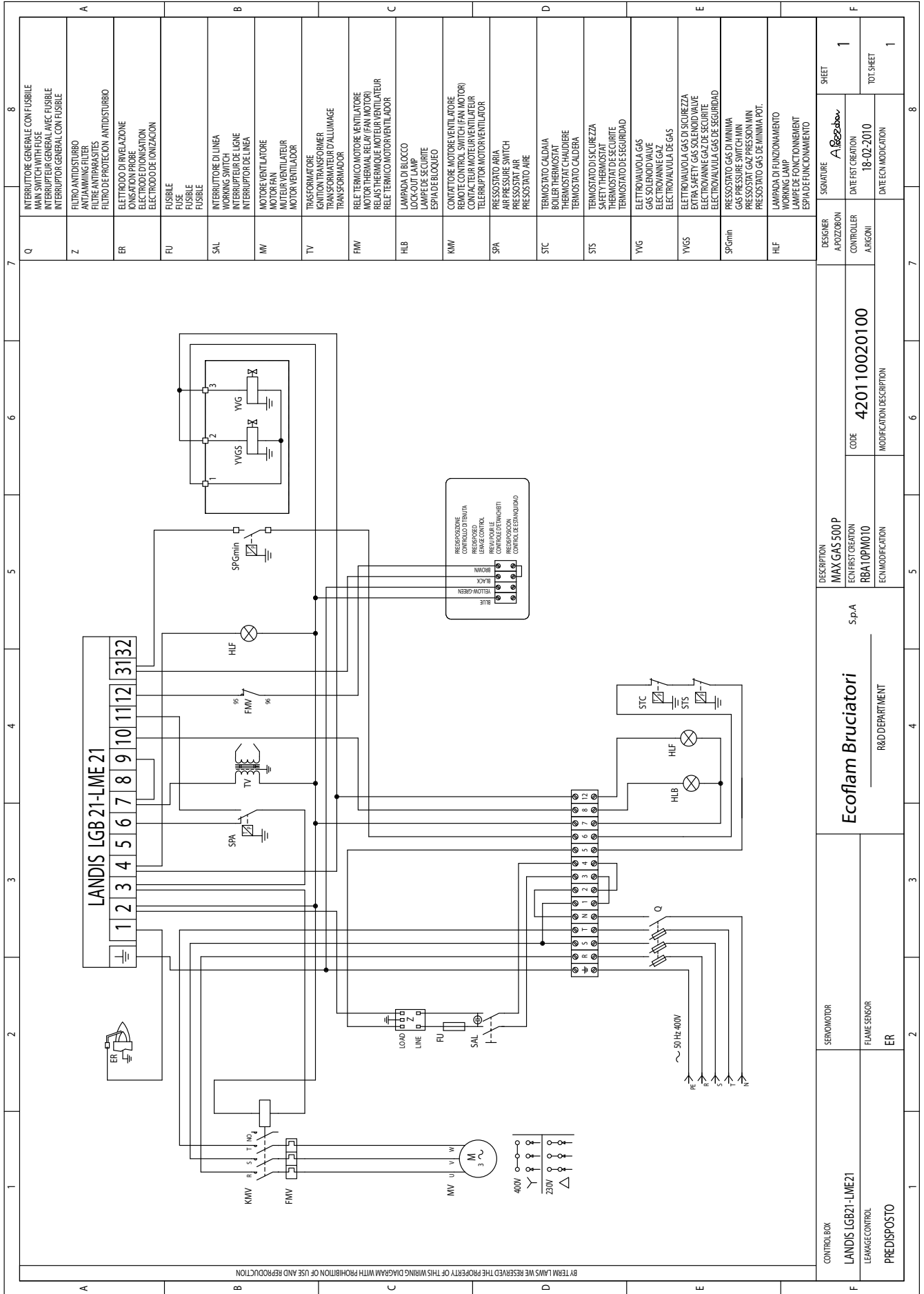
DESIGNER

1

SHEET

1

TOT. SHEET



| | | |
|--------|--|---|
| Q | INTERUTTORE GENERALE CON FUSIBILE MAIN SWITCH WITH FUSE INTERRUPTEUR GENERAL AVEC FUSIBLE INTERRUPTOR GENERAL CON FUSIBLE | 8 |
| Z | FILTRO ANTISTURBO ANTI-KNOCK FILTER FILTRE ANTIPARASTES FILTRO DE PROTECCION ANTIDISTURBO | 7 |
| ER | ELETTRODO DI RIVELAZIONE IONISATION PROBE ELECTRODE D'IONISATION ELECTRODO DE IONIZACION | 6 |
| FU | FUSIBILE FUSE FUSIBLE FUSIBLE | 5 |
| SAL | INTERRUTTORE DI LINEA WORKING SWITCH INTERRUPTEUR DE LIGNE INTERRUPTOR DE LINEA | 4 |
| MV | MOTORE VENTILATORE MOTOR FAN MOTEUR VENTILATEUR MOTOR VENTILADOR | 3 |
| TV | TRASFORMATORE IGNITION TRANSFORMER TRANSFORMATEUR D'ALLUMAGE TRANSFORMADOR | 2 |
| FWM | RELE TERMICO MOTORE VENTILATORE MOTOR THERMAL RELAY (FAN MOTOR) RELAIS THERMIQUE MOTEUR VENTILATEUR RELE TERMICO MOTOR VENTILADOR | 1 |
| HLB | LAMPADA DI BLOCCO LOCK OUT LAMP LAMPE DE SECURITE ESPIA DE BLOQUEO | |
| KMW | CONTATTORE MOTORE VENTILATORE REMOTE CONTROL SWITCH (FAN MOTOR) CONTACTEUR MOTEUR VENTILATEUR TELEINTERRUPTOR MOTOR VENTILADOR | |
| SPA | PRESSOSTATO ARIA AIR PRESSURE SWITCH PRESOSTAT AIR PRESOSTATO AIRE | |
| STC | TERMOSTATO CALDAIA BOILER THERMOSTAT THERMOSTAT CHAUDIERE TERMOSTATO CALDERA | |
| STS | TERMOSTATO DI SICUREZZA SAFETY THERMOSTAT THERMOSTAT DE SECURITE TERMOSTATO DE SEGURIDAD | |
| YVG | ELETTROVALVOLA GAS GAS SOLENOID VALVE ELECTROVANNE GAZ ELECTROVALVULA DE GAS | |
| YVGS | ELETTROVALVOLA GAS DI SICUREZZA EXTRA SAFETY GAS SOLENOID VALVE ELECTROVANNE GAZ DE SECURITE ELECTROVALVULA GAS DE SEGURIDAD | |
| SPGmin | PRESSOSTATO GAS DI MINIMA GAS PRESSURE SWITCH MIN PRESOSTAT GAZ PRESSION MIN PRESOSTATO GAS DE MINIMA POT. | |
| HLF | LAMPADA DI FUNZIONAMENTO WORKING LAMP LAMPE DE FONCTIONNEMENT ESPIA DE FUNCIONAMIENTO | |

| | | | |
|--------------------|--------------|--------------------------|--------------|
| DESIGNER | A. Pozzobon | SHEET | 1 |
| CONTROLLER | A. Ronchi | DATE/FST CREATION | 18-02-2010 |
| DESCRIPTION | MAX GAS 500P | CODE | 420110020100 |
| ECN FIRST CREATION | RBA10PM010 | MODIFICATION DESCRIPTION | |
| ECN MODIFICATION | | | |

| | | | |
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| ECN FIRST CREATION | RBA10PM010 | MODIFICATION DESCRIPTION | |
| ECN MODIFICATION | | | |

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|--------------------|--------------|--------------------------|--------------|
| DESCRIPTION | MAX GAS 500P | CODE | 420110020100 |
| ECN FIRST CREATION | RBA10PM010 | MODIFICATION DESCRIPTION | |
| ECN MODIFICATION | | | |

| | | | |
|--------------------|--------------|--------------------------|--------------|
| DESCRIPTION | MAX GAS 500P | CODE | 420110020100 |
| ECN FIRST CREATION | RBA10PM010 | MODIFICATION DESCRIPTION | |
| ECN MODIFICATION | | | |

| | | | |
|--------------------|--------------|--------------------------|--------------|
| DESCRIPTION | MAX GAS 500P | CODE | 420110020100 |
| ECN FIRST CREATION | RBA10PM010 | MODIFICATION DESCRIPTION | |
| ECN MODIFICATION | | | |

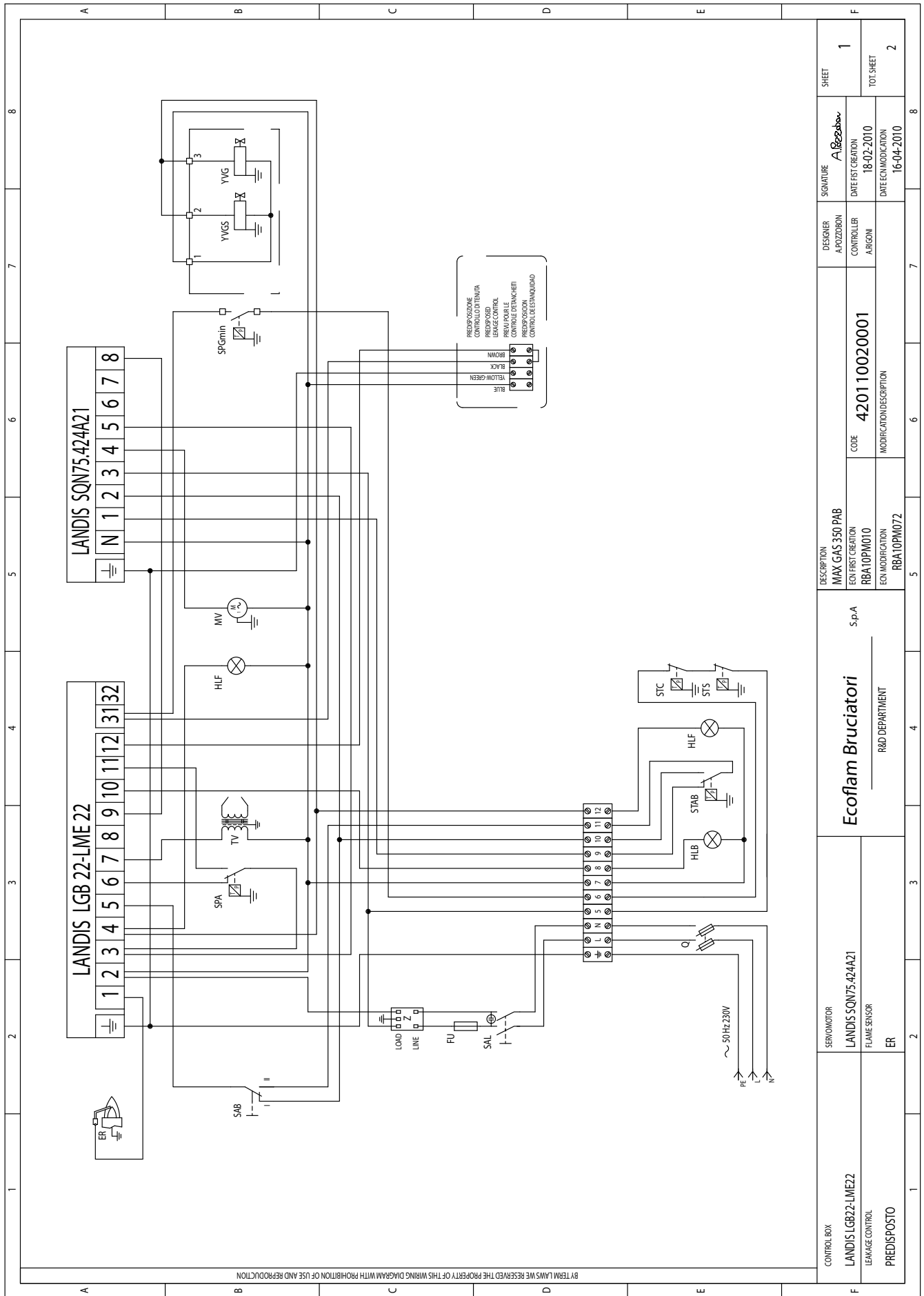
| | | | |
|--------------------|--------------|--------------------------|--------------|
| DESCRIPTION | MAX GAS 500P | CODE | 420110020100 |
| ECN FIRST CREATION | RBA10PM010 | MODIFICATION DESCRIPTION | |
| ECN MODIFICATION | | | |

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|--------------------|--------------|--------------------------|--------------|
| DESCRIPTION | MAX GAS 500P | CODE | 420110020100 |
| ECN FIRST CREATION | RBA10PM010 | MODIFICATION DESCRIPTION | |
| ECN MODIFICATION | | | |

| | | | |
|--------------------|--------------|--------------------------|--------------|
| DESCRIPTION | MAX GAS 500P | CODE | 420110020100 |
| ECN FIRST CREATION | RBA10PM010 | MODIFICATION DESCRIPTION | |
| ECN MODIFICATION | | | |

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|--------------------|--------------|--------------------------|--------------|
| DESCRIPTION | MAX GAS 500P | CODE | 420110020100 |
| ECN FIRST CREATION | RBA10PM010 | MODIFICATION DESCRIPTION | |
| ECN MODIFICATION | | | |

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|--------------------|--------------|--------------------------|--------------|
| DESCRIPTION | MAX GAS 500P | CODE | 420110020100 |
| ECN FIRST CREATION | RBA10PM010 | MODIFICATION DESCRIPTION | |
| ECN MODIFICATION | | | |



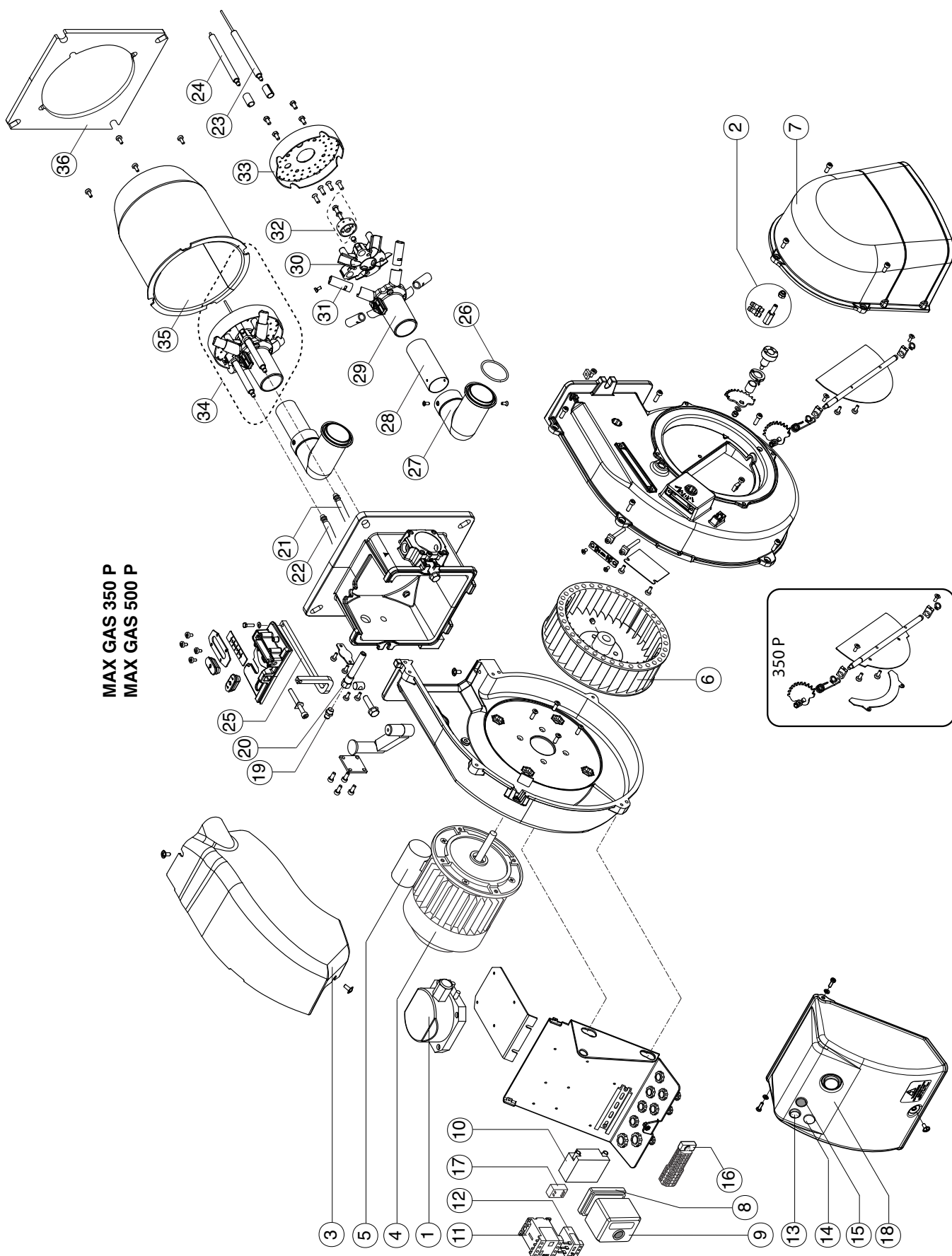
| | | | | | | | |
|---|-----------------------------------|--------------------|-------|-----------------------------------|------------------------|-------------------------------------|----------------|
| CONTROL BOX LANDIS LGB22-LME22 LEAKAGE CONTROL PREDISPOSTO | SERVOMOTOR LANDIS SQN75.424A21 | Ecoflam Bruciatori | | DESCRIPTION MAX GAS 350 PAB | DESIGNER A.PIZZORON | SIGNATURE A. PIZZORON | SHEET 1 |
| | FLAME SENSOR ER | R&D DEPARTMENT | S.p.A | EQM FIRST CREATION RBA IOPM010 | CONTROLLER A.RIGONI | DATE FIRST CREATION 18-02-2010 | TOT.SHEET 2 |
| | | | | EQM MODIFICATION RBA IOPM072 | | DATE EQM MODIFICATION 16-04-2010 | |
| | | | | CODE 420110020001 | | | |
| | | | | MODIFICATION DESCRIPTION | | | |

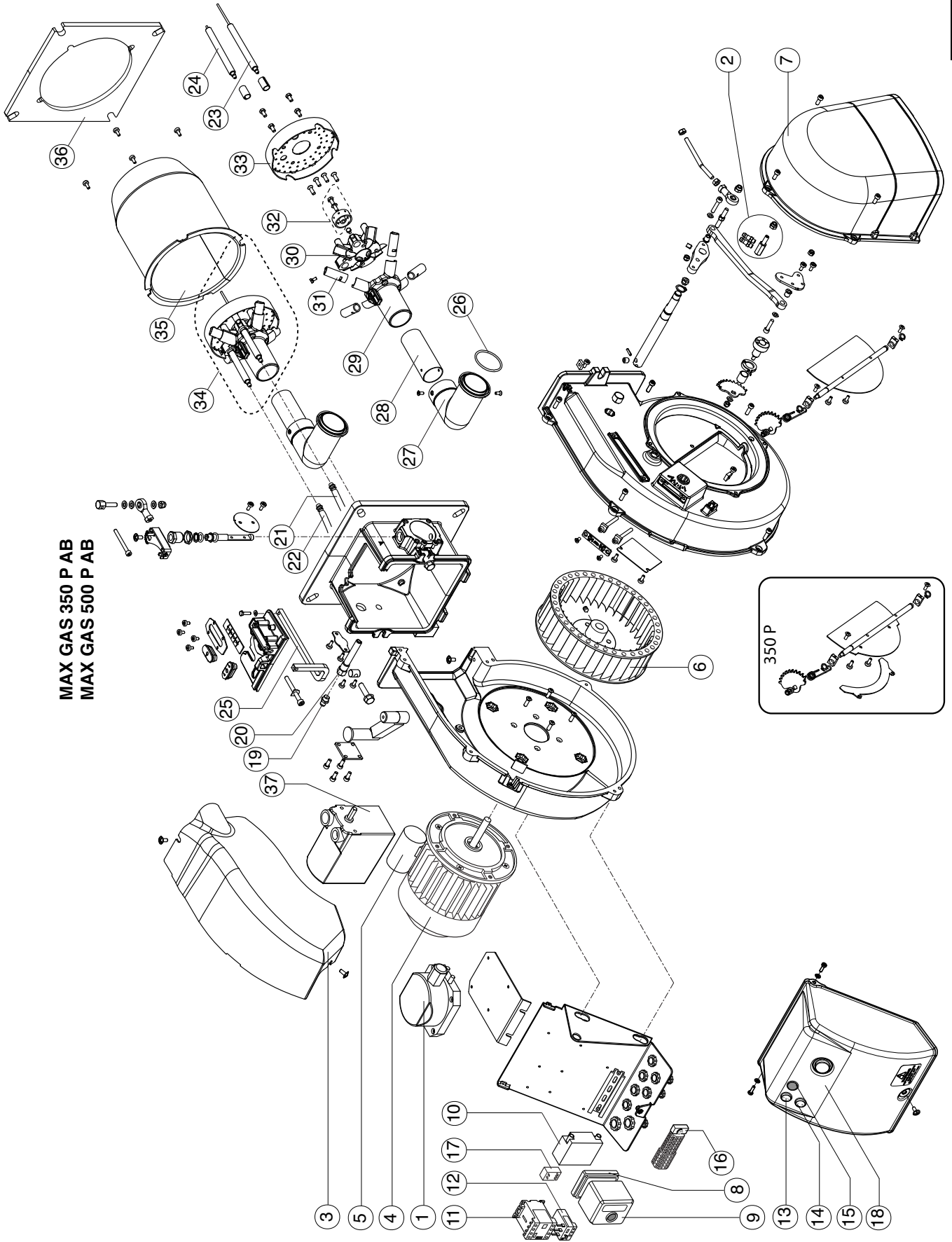
| | | | | | | | |
|---|--|---|--|---|--|--|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| A | B | C | D | E | F | | |
| Q | Z | ER | FU | SAL | MV | TV | HLB |
| INTERRUTTORE GENERALE CON FUSIBILE MAIN SWITCH WITH FUSE INTERRUPTEUR GENERAL AVEC FUSIBLE INTERRUPTOR GENERAL CON FUSIBLE | FILTRO ANTIDISTURBO ANTI-JAMMING FILTER FILTRE ANTIPARASITES FILTRO DE PROTECCION ANTIDISTURBO | ELETTRODO DI RIVELAZIONE IONISATION PROBE ELECTRODE D'IONISATION ELECTRODO DE IONIZACION | FUSIBILE FUSE FUSIBLE FUSIBLE | INTERRUTTORE DI LINEA WORKING SWITCH INTERRUPTEUR DE LIGNE INTERRUPTOR DE LINEA | MOTORE VENTILATORE MOTOR FAN MOTEUR VENTILATEUR MOTOR VENTILADOR | TRASFORMATORE IGNITION TRANSFORMER TRANSFORMATEUR D'ALLUMAGE TRANSFORMADOR | LAMPADA DI BLOCCO COCOUT LAMP LAMPE DE SECURITE ESPIA DE BLOQUEO |
| SPA | STC | STS | YNG | YNGS | SPGmin | HLF | |
| PRESOSTATO ARIA AIR PRESSURE SWITCH PRESOSTAT AIR PRESOSTATO AIRE | THERMOSTATO CALDAIA BOILER THERMOSTAT THERMOSTAT CHAUDIERE THERMOSTATO CALDERA | THERMOSTATO DI SICUREZZA SAFETY THERMOSTAT THERMOSTAT DE SECURITE THERMOSTATO DE SEGURIDAD | ELETTROVALVOLA GAS GAS SOLENOID VALVE ELECTROVANNE GAZ ELECTROVALVULA DE GAS | ELETTROVALVOLA GAS DI SICUREZZA EXTRA SAFETY GAS SOLENOID VALVE ELECTROVANNE GAZ DE SECURITE ELECTROVALVULA GAS DE SEGURIDAD | PRESOSTATO GAS DI MINIMA GAS PRESSURE SWITCH MIN PRESOSTAT GAZ PRESSION MIN PRESOSTATO GAS DE MINIMA POT. | LAMPADA DI FUNZIONAMENTO WORKING LAMP LAMPE DE FONCTIONNEMENT ESPIA DE FUNCIONAMIENTO | |
| SAB | STAB | | | | | | |
| INTERRUTTORE ALTA-BASSA FIAMMA HIGH-LOW SWITCH INTERRUPTEUR GRANDE-PETITE ALLURE INTERRUPTOR DE ALTA-BAJA LLAMA | THERMOSTATO DI ALTA-BASSA FIAMMA HIGH-LOW FLAME THERMOSTAT THERMOSTAT GRANDE-PETITE ALLURE THERMOSTATO DE ALTA-BAJA LLAMA | | | | | | |
| CONTROL BOX LANDIS LGB22-LIME22 LEAKAGE CONTROL PREDISPOSTO | SERVOMOTOR LANDIS SQN75-42-4A21 FLAME SENSOR ER | S.p.A Ecoflam Bruciatori R&D DEPARTMENT | DESCRIPTION MAX GAS 350 PAB ECON FIRST CREATION RBA10PM010 ECON MODIFICATION RBA10PM072 | DESIGNER A. BOZZON CONTROLLER A. RIGNI | SIGNATURE A. Bozzon DATE FIRST CREATION 18-02-2010 DATE ECON MODIFICATION 16-04-2010 | CODE 420110020001 MODIFICATION DESCRIPTION | SHEET 2 TOT. SHEET 2 |

BY TERM LAMS WE RESERVE THE PROPERTY OF THIS WIRING DIAGRAM WITH PROHIBITION OF USE AND REPRODUCTION

| | | | | | | | |
|--|---|---|--|--|--|--|--|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| A | B | C | D | E | F | F | F |
| Q | Z | ER | FU | SAL | MV | TV | FMV |
| INTERUTTORE GENERALE CON FUSIBILE MAIN SWITCH WITH FUSE INTERRUPTEUR GENERAL AVEC FUSIBLE INTERRUPTOR GENERAL CON FUSIBLE | FILTRO ANTIDISTURBO ANTI-JAMMING FILTER FILTRE ANTIPARASITES FILTRO DE PROTECCION ANTIDISTURBO | ELETTRODO DI RIVELAZIONE IONISATION PROBE ELECTRODE D'IONISATION ELECTRODO DE IONIZACION | FUSIBILE FUSE FUSIBLE FUSIBLE | INTERRUTTORE DI LINEA WORKING SWITCH INTERRUPTEUR DE LIGNE INTERRUPTOR DE LINEA | MOTORE VENTILATORE MOTOR FAN MOTEUR VENTILATEUR MOTOR VENTILADOR | TRASFORMATORE IGNITION TRANSFORMER TRANSFORMATEUR D'ALLUMAGE TRANSFORMADOR | RELE TERMICO MOTORE VENTILATORE MOTOR THERMAL RELAY (FAN MOTOR) RELAIS THERMIQUE MOTEUR VENTILATEUR RELE TERMICO MOTOR VENTILADOR |
| HIB | KMW | SPA | STC | STS | YVG | YVGS | SPmin |
| LAMPADA DIBLOCCO LOCK-OUT LAMP LAMP DE SECURITE ESPIA DE BLOQUEO | CONTATTORE MOTORE VENTILATORE REMOTE CONTROL SWITCH (FAN MOTOR) CONTACTEUR MOTEUR VENTILATEUR TELEINTERRUPTOR MOTOR VENTILADOR | PRESOSTATO ARIA AIR PRESSURE SWITCH PRESOSTATO AIRE PRESOSTATO AIRE | TERMOSTATO CALDAIA BOILER THERMOSTAT THERMOSTAT CHAUDIERE TERMOSTATO CALDERA | TERMOSTATO DI SICUREZZA SAFETY THERMOSTAT THERMOSTAT DE SECURITE TERMOSTATO DE SEGURIDAD | ELETTROVALVOLA GAS GAS SOLENOID VALVE ELECTROVAVLE GAZ ELECTROVALVULA DE GAS | ELETTROVALVOLA GAS DI SICUREZZA EXTRA SAFETY GAS SOLENOID VALVE ELECTROVAVLE GAZ DE SECURITEF ELECTROVALVULA GAS DE SEGURIDAD | PRESOSTATO GAS DI MINIMA GAS PRESSURE SWITCH MIN PRESOSTAT GAZ PRESSION MIN PRESOSTATO GAS DE MINIMA POT. |
| HIF | SAB | STAB | LAMPADA DI FUNZIONAMENTO WORKING LAMP LAMPE DE FONCTIONNEMENT ESPIA DE FUNCIONAMIENTO | INTERRUTTORE ALTA-BASSA FIAMMA HIGH-LOW SWITCH INTERRUPTEUR GRANDE-PETITE ALLURE INTERRUPTOR DE ALTA-BAJA LLAMA | TERMOSTATO DI ALTA-BASSA FIAMMA HIGH-LOW FLAME THERMOSTAT THERMOSTAT GRANDE-PETITE ALLURE TERMOSTATO DE ALTA-BAJA LLAMA | LAMPADA DI FUNZIONAMENTO WORKING LAMP LAMPE DE FONCTIONNEMENT ESPIA DE FUNCIONAMIENTO | LAMPADA DI FUNZIONAMENTO WORKING LAMP LAMPE DE FONCTIONNEMENT ESPIA DE FUNCIONAMIENTO |
| CONTROL BOX LANDIS LGB22-LME22 | SERVOMOTOR LANDIS SQN75.424A21 | LANDIS SQN75.424A21 FLAME SENSOR | Ecoflam Bruciatori S.p.A | IMAX GAS 500 PAB | RBA10PM070 | RBA10PM072 | 420110019901 |
| LENAIGE CONTROL PREDISPOSTO | ER | ER | R&D DEPARTMENT | R&D DEPARTMENT | R&D DEPARTMENT | R&D DEPARTMENT | R&D DEPARTMENT |
| SIGNATURE A. Pozzobon | DESIGNER A. POZZOBON | CONTROLLER ARIGNONI | DATE OF FIRST CREATION 18-02-2010 | DATE OF MODIFICATION 16-05-2010 | DATE OF MODIFICATION 16-05-2010 | DATE OF MODIFICATION 16-05-2010 | DATE OF MODIFICATION 16-05-2010 |
| SHEET 2 | SHEET 2 | SHEET 2 | SHEET 2 | SHEET 2 | SHEET 2 | SHEET 2 | SHEET 2 |

BY TERM LANS WE RESERVED THE PROPERTY OF THIS WIRING DIAGRAM WITH PROHIBITION OF USE AND REPRODUCTION





| N° | DESIGNATION | DESCRIPCION | | MAX GAS 350 P | MAX GAS 500 P |
|-------------|----------------------------------|------------------------------|------------------------------|---------------|---------------|
| | | | | code | code |
| 1 | PRESSOSTAT AIR | PRESÓSTATO AIRE | KROMSCHRODER DL11K-3 | 65324484 | 65324484 |
| 2 | SET DE PRISES D'AIR | COJUNTO TOMAS DE AIRE | | 65324718 | 65324718 |
| 3 | COUVERCLE DU BRULEUR | TAPA DE QUEMADOR | | 65324704 | 65324704 |
| 4 | MOTEUR | MOTOR | SIMEL 300 W | 65324698 | - |
| | | | SIMEL 550 W | - | 65324699 |
| 5 | CONDENSATEUR | CONDENSADOR | 10 µF | 65321855 | - |
| 6 | VENTILATEUR | VENTILADOR | 180X80 | 65324709 | - |
| | | | 200X80 | - | 65324710 |
| 7 | VOLET D'AIR | TOMA DE AIRE | | 65324703 | 65324703 |
| 8 | SOCLE | BASE DEL EQUIPO | LANDIS | 65320092 | 65320092 |
| 9 | COFFRET DE SECURITE | EQUIPO CONTROL LLAMA | SIEMENS LME21.330A2 | 65324220 | 65324220 |
| 10 | TRANSFORMATEUR D'ALLUMAGE | TRANSFORMADOR | DANFOSS EBI 052F4040 | 65323258 | 65323258 |
| 11 | TELERUPTEUR | EMPALME MOTOR VENTILADOR | BG0910 A230 | - | 65323138 |
| 12 | RELAIS THERMIQUE | TERMICO | LOVATO RF9 1,4-2 ,3A 2V3 | - | 65323098 |
| 13 | INTERRUPTEUR DE TRAVAIL | INTERRUPTOR DE LINEA | | 65324696 | 65324696 |
| 14 | JE BOUCHE | TAPA | | | |
| 15 | LAMPE | ESPIA | OMEGA KL09248X2BY | 65324695 | 65324695 |
| 16 | PORTEFUSIBLE | PORTAFUSIBLE | | 65324279 | 65324279 |
| 17 | FILTRE ANTIPARASITES | FILTRO ANTITRATORNO | | 65323170 | 65323170 |
| 18 | COUVERCLE | CAJA DE PROTECCIÓN | | 65324705 | 65324705 |
| 19 | PRISE DE PRESSION | ACCESO DE PRESIÓN | | 65323053 | 65323053 |
| 20 | SUPPORT PRISE DE PRESSION | SOPORTE ACCESO DE PRESIÓN | | 65324691 | 65324691 |
| 21 | CABLE D'IONISATION | CABLE DE IONIZACION | TC | 65320946 | 65320946 |
| | | | TL | 65320947 | 65320947 |
| 22 | CABLE D'ALLUMAGE | CABLE DE ENCENDIDO | TC | 65320944 | 65320944 |
| | | | TL | 65324194 | 65324194 |
| 23 | SONDE D'IONISATION | ELECTRODO DE IONIZACION | | 65320950 | 65320950 |
| 24 | ELECTRODE D'ALLUMAGE | ELECTRODO DE ENCENDIDO | | 65324331 | 65324331 |
| 25 | SUPPORT TETE DE COMBUSTION | SOPORTE CABEZA DE COMBUSTION | TC | 65324692 | 65324692 |
| | | | TL | 65324693 | 65324693 |
| 26 | ORING | ORING | | 65324700 | 65324700 |
| 27 | COURBE TUYATERIE TETE | CODO | | 65324702 | 65324702 |
| 28 | TUYATERIE | TUBO | TC | 65324711 | 65324711 |
| | | | TL | 65324712 | 65324712 |
| 29 | TETE DE COMBUSTION | CABEZA DE COMBUSTIÓN | | 65324694 | 65324694 |
| 30 | CALOTTE TETE | TAPA CABEZA DE COMBUSTIÓN | | 65324539 | 65324539 |
| 31 | DIFFUSEUR | DIFUSOR | G20-25 | 65324714 | 65324713 |
| | | | G31 | 65324715 | 65324715 |
| 32 | GROUPE MENTONNET | GRUPO TUBO ANTERIOR | G20-25 | 65324716 | 65324716 |
| | | | G31 | 65324717 | 65324717 |
| 33 | DISQUE | DISCO | | 65324708 | 65324708 |
| 34 | GROUPE TETE DE COMBUSTION | GRUPO CABEZA DE COMBUSTIÓN | G20-25 | 65324727 | 65324728 |
| | | | G31 | 65324729 | 65324729 |
| 35 | GUEULARD | TUBO LLAMA | TC | 65324706 | 65324706 |
| | | | TL | 65324707 | 65324707 |
| 36 | JOINT | JUNTA | | 65324701 | 65324701 |
| P AB | | | | | |
| 9 | COFFRET DE SECURITE | EQUIPO CONTROL LLAMA | SIEMENS LME22.331C2 | 65324042 | 65324042 |
| 14 | INTERRUPTEUR 1RE. ET 2ME. ALLURE | INTERRUPTOR 1°-2°LLAMA | OMEGA COD.KB11248COBB | 65324697 | 65324697 |
| 37 | SERVOMOTEUR | MOTORREDUCTOR | Landis SQN75.424A21 (12 Sec) | 65324262 | 65324262 |

TC = TETE COURTE / CABEZA CORTA TL = TETE LONGUE / CABEZA LARGA

| N° | НАИМЕНОВАНИЕ | | MAX GAS 350 P | MAX GAS 500 P |
|-------------|--|------------------------------|---------------|---------------|
| | | | code | code |
| 1 | РЕЛЕ ДАВЛЕНИЯ ВОЗДУХА | KROMSCHRODER DL11K-3 | 65324484 | 65324484 |
| 2 | ВОЗДУХОЗАБОР В СБОРЕ | | 65324718 | 65324718 |
| 3 | КОЖУХ | | 65324704 | 65324704 |
| 4 | ДВИГАТЕЛЬ | SIMEL 300 W | 65324698 | - |
| | | SIMEL 550 W | - | 65324699 |
| 5 | КОНДЕНСАТОР | 10 μ F | 65321855 | - |
| 6 | РАБОЧЕЕ КОЛЕСО ВЕНТИЛЯТОРА | 180X80 | 65324709 | - |
| | | 200X80 | - | 65324710 |
| 7 | ВОЗДУХОЗАБОР | | 65324703 | 65324703 |
| 8 | МОНТАЖНАЯ ПЛАСТИНА АППАРАТУРЫ УПРАВЛЕНИЯ | LANDIS | 65320092 | 65320092 |
| 9 | КОНТРОЛЬНАЯ АППАРАТУРА | SIEMENS LME21.330A2 | 65324220 | 65324220 |
| 10 | ТРАНСФОРМАТОР | DANFOSS EBI 052F4040 | 65323258 | 65323258 |
| 11 | ДИСТАНЦИОННЫЙ ПУСКАТЕЛЬ | BG0910 A230 | - | 65323138 |
| 12 | ТЕПЛОЕ РЕЛЕ ДВИГАТЕЛЯ | LOVATO RF9 1,4-2 ,3A 2V3 | - | 65323098 |
| 13 | ГЛАВНЫЙ ВЫКЛЮЧАТЕЛЬ | | 65324696 | 65324696 |
| 14 | ЗАТВОР | | | |
| 15 | ИНДИКАТОРНАЯ ЛАМПОЧКА | OMEGA KL09248X2BY | 65324695 | 65324695 |
| 16 | ГНЕЗДО ПЛАВКОГО ПРЕДОХРАНИТЕЛЯ | | 65324279 | 65324279 |
| 17 | ФИЛЬТР ПОДАВЛЕНИЯ ПОМЕХ | | 65323170 | 65323170 |
| 18 | КРЫШКА | | 65324705 | 65324705 |
| 19 | ПОРТ ДАВЛЕНИЯ | | 65323053 | 65323053 |
| 20 | ПОРТ ДАВЛЕНИЯ ПОДДЕРЖКИ | | 65324691 | 65324691 |
| 21 | ПРОВОД ОБНАРУЖЕНИЯ ФАКЕЛА | ТС | 65320946 | 65320946 |
| | | TL | 65320947 | 65320947 |
| 22 | ПРОВОД РОЗЖИГА | ТС | 65320944 | 65320944 |
| | | TL | 65324194 | 65324194 |
| 23 | ЭЛЕКТРОД ОБНАРУЖЕНИЯ ФАКЕЛА | | 65320950 | 65320950 |
| 24 | ЭЛЕКТРОД РОЗЖИГА | | 65324331 | 65324331 |
| 25 | РЕГУЛИРОВОЧНЫЙ ШТОК ОГНЕВОЙ ГОЛОВКИ | ТС | 65324692 | 65324692 |
| | | TL | 65324693 | 65324693 |
| 26 | УПЛОТНИТЕЛЬНОЕ КОЛЬЦО | | 65324700 | 65324700 |
| 27 | ГОЛОВНОЙ ЛОКОТЬ ТРУБЫ ПОДДЕРЖКИ | | 65324702 | 65324702 |
| 28 | КРЕПЕЖНАЯ ТРУБКА ОГНЕВОЙ ГОЛОВКИ | ТС | 65324711 | 65324711 |
| | | TL | 65324712 | 65324712 |
| 29 | ОГНЕВАЯ ГОЛОВКА | | 65324694 | 65324694 |
| 30 | ЗАГЛУШКА ОГНЕВОЙ ГОЛОВКИ | | 65324539 | 65324539 |
| 31 | РАССЕКАТЕЛЬ | G20-25 | 65324714 | 65324713 |
| | | G31 | 65324715 | 65324715 |
| 32 | ПЕРЕДНЯЯ ВСТАВКА | G20-25 | 65324716 | 65324716 |
| | | G31 | 65324717 | 65324717 |
| 33 | ПЕРЕДНИЙ ДИСК | | 65324708 | 65324708 |
| 34 | ОГНЕВАЯ ГОЛОВКА В СБОРЕ | G20-25 | 65324727 | 65324728 |
| | | G31 | 65324729 | 65324729 |
| 35 | СТАКАН | ТС | 65324706 | 65324706 |
| | | TL | 65324707 | 65324707 |
| 36 | УПЛОТНИТЕЛЬНАЯ ПРОКЛАДКА | | 65324701 | 65324701 |
| P AB | | | | |
| 9 | КОНТРОЛЬНАЯ АППАРАТУРА | SIEMENS LME22.331C2 | 65324042 | 65324042 |
| 14 | ПЕРЕКЛЮЧАТЕЛЬ БОЛЬШОГО/МАЛОГО ГОРЕНИЯ | OMEGA COD.KB11248COVB | 65324697 | 65324697 |
| 37 | СЕРВОПРИВОД | Landis SQN75.424A21 (12 Sec) | 65324262 | 65324262 |

ТС = КОРОТКАЯ ОГНЕВАЯ ГОЛОВКА TL = ДЛИННАЯ ОГНЕВАЯ ГОЛОВКА