

GAS/LIGHT-OIL DUAL BURNERS

Ecoflam

CE



Multicalor TS 100 AB/AB
Multicalor TS 140 AB/AB



420010602300

420010602300

21.11.2014

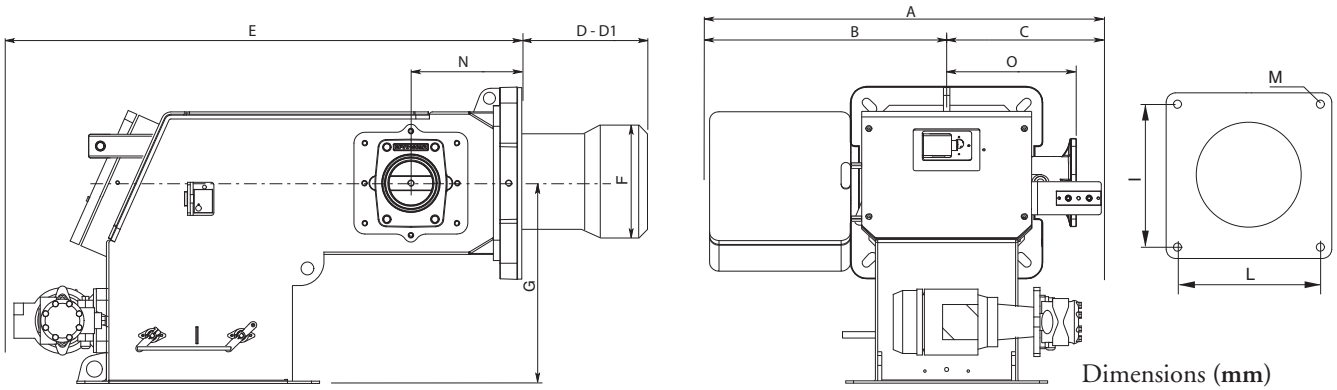
FUEL CHARACTERISTICS

Model : Multicalor TS 100-140 AB/AB		Gas family			
		G20	G25	G31	G30
Max. pressure	mbar	25	-	45	-
Min. pressure	mbar	17	-	25	-
Gas Low Heat Value:	kcal/Nm ³	8.570	-	22.260	-
Light-oil Low Heat Value	10.200 kcal/Kg max 1,5° E a 20° C				

TECHNICAL FEATURES

Multicalor		100	140
Max. Thermal Output	kW	1000	1300
	kcal/h	860.000	1.118.000
Min. Thermal Output	kW	300	400
	kcal/h	258.000	344.000

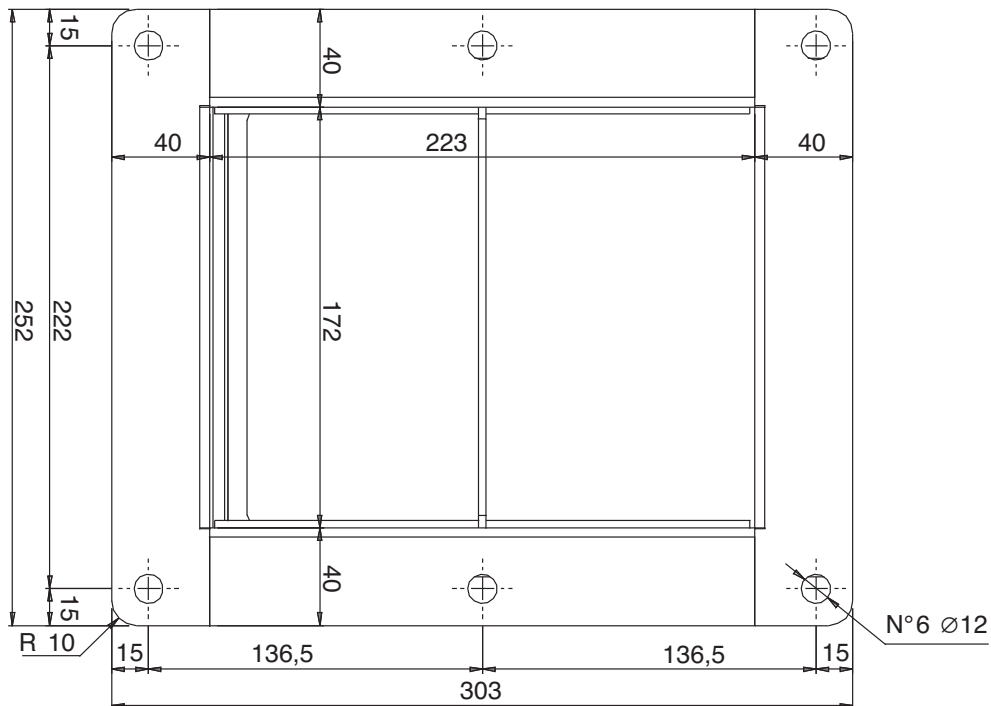
OVERALL DIMENSIONS



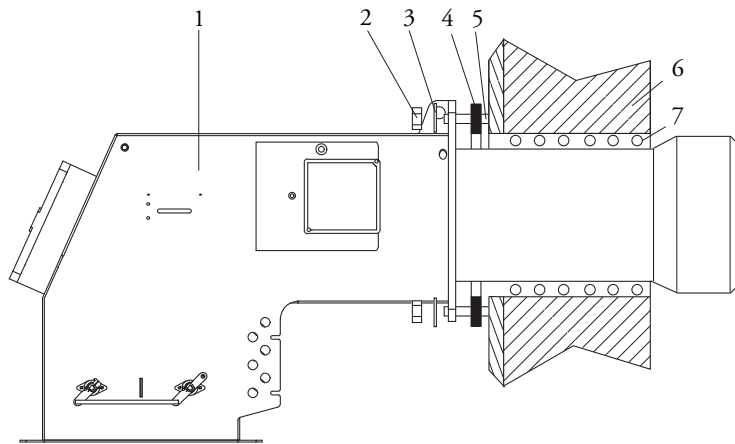
MODEL	A	B	C	D	D1	E	F	G	I	L	M	N	O
Multicalor TS 100 AB/AB	619	454	165	175	395	750	190	250	190	190	M10	140	165
Multicalor TS 140 AB/AB	619	454	165	307	457	750	215	250	190	190	M10	140	165

D = short head D1 = long head

AIR FLANGE



BURNER INSTALLATION



- 1 - BURNER
- 2 - NUT
- 3 - WASHER
- 4 - GASKET
- 5 - BOLT
- 6 - BOILER
- 7 - GASKET

ELECTRICAL CONNECTIONS

All burners are factory tested and set at 400 V 50 Hz three-phase for motors and 230 V 50 Hz monophase with neutral for auxiliaries. If it is necessary to supply the burner at 230 V 50 Hz without neutral, make the necessary alterations referring to the wiring diagram of the burner and check that the thermal relay is within the absorption range of the motor. Also check that the fan motor rotates in the correct direction.

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 through 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.

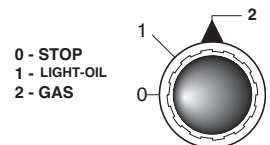
OPERATION OF BURNER WITH GAS

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 (G30) 11.7 (G31) and the CO must be less than 75 ppm.

ADJUSTING THE COMBUSTION PROCESS

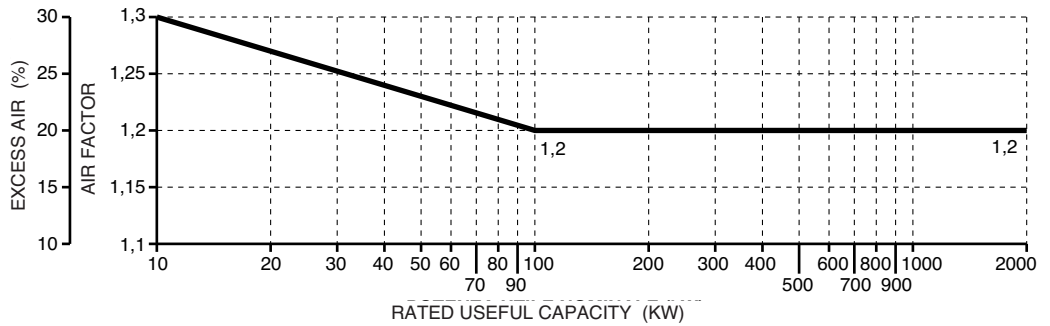
IMPORTANT: to obtain the right adjustment of the combustion and thermal capacity it is important to analyze the reducts of combustion with the aid of suitable instruments. The combustion and thermal capacity adjustment is done simultaneously, together with the analysis of the products of combustion, making sure that the measured values are suitable and that they comply with current safety standards. On this matter, please refer to the table and figure below.

THESE OPERATIONS MUST BE DONE BY PROFESSIONALLY-QUALIFIED TECHNICIANS.

NOTE: ALL SAFETY DEVICES (AIR PRESSURE SWITCH, MINIMUM GAS PRESSURE SWITCH, GAS SOLENOID VALVES AND GAS GOVERNOR) SHALL BE DULY SEALED AFTER CALIBRATION AND BURNER START UP BY EACOON TECHNICIANS.

SUGGESTED REFERENCE VALUES

	Natural Gas
CO ₂	9,6%
CO	<100 ppm

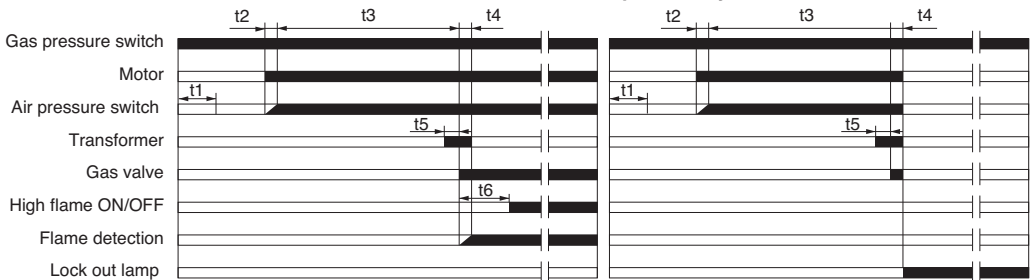


LANDIS LGB 22 UP-CYCLE

The control box starts the burner fan, to carry out the prepurging of the combustion chamber, and checks the vent air pressure through the air pressure switch. At the end of prepurging, the ignition transformer cuts-in and generates a spark between the electrodes. At the same time the two gas valves open (V's safety valve and V1 Low flame working valve). The total safety, in case of missed ignition or casual burner's flame-out, is granted by a ionisation probe which cuts-in and sets the burner shutdown within the safety time. In case of gas lack or a major pressure drop, the minimum air pressure switch shuts down the burner.

Normal operative cycle ignition

Operative cycle with flameless



Description	⌚
t1 pressure switch control time-out	9"
t2 time-out for air pressure confirmation	3"
t3 prewashing time	30"
t4 safety time	3"
t5 preignition time	3"
t6 time-out to enable fuel 2nd valve	8"

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:

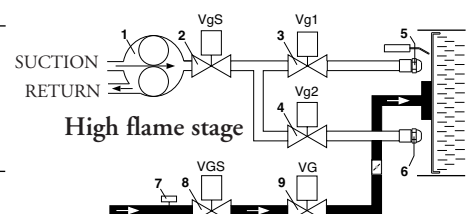
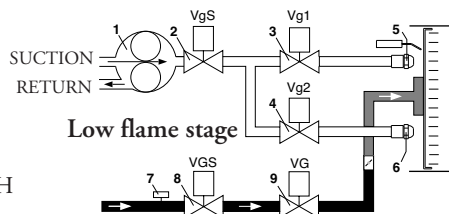
$$\frac{e}{s} \times f = kW$$

e = Litres of gas
s = Time in seconds

f	G20 = 34,02
	G25 = 29,25
	G30 = 116
	G31 = 88

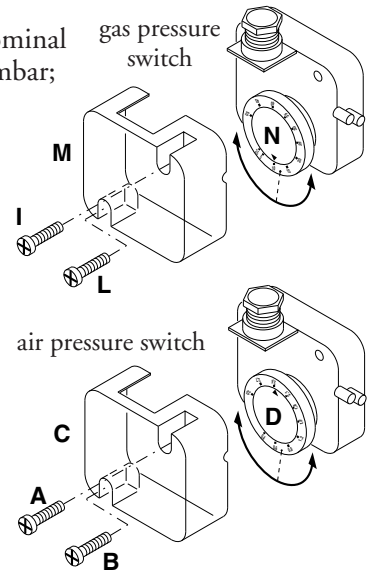
GAS CIRCUIT

- 1 - PUMP
- 2 - SAFETY LIGHT-OIL VALVE
- 3 - LOW FLAME LIGHT-OIL VALVE
- 4 - HIGH FLAME LIGHT-OIL VALVE
- 5 - LOW FLAME NOZZLE
- 6 - HIGH FLAME NOZZLE
- 7 - MINIMUM GAS PRESSURE SWITCH
- 8 - SAFETY GAS VALVE
- 9 - GAS VALVE



ADJUSTMENT OF GAS MINIMUM PRESSURE SWITCH

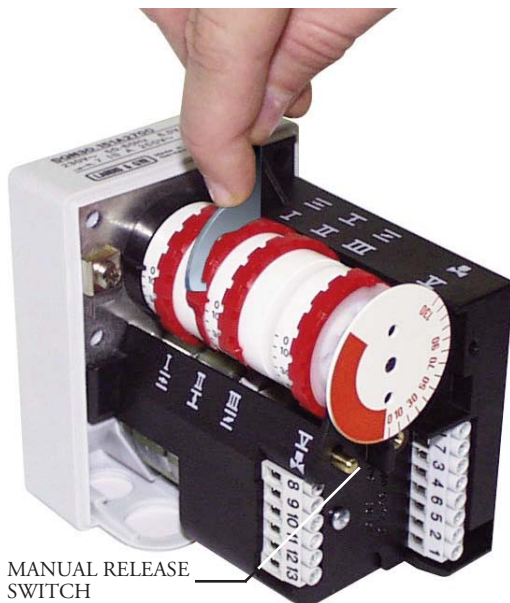
Unscrew off and remove cover M. - Set regulator N to a value equal to 60% of gas nominal feed pressure (i.e. for nat. gas nom. pressure = 20 mbar, set regulator to a value of 12 mbar; for L.P.G. nom. pressure of G30/G31- 30/37 mbar, set regulator to a value of 18 mbar). Screw up cover M.



ADJUSTMENT OF THE AIR PRESSURE SWITCH

Unscrew screws A and B and remove cover C.- Set the pressure switch to the minimum by turning regulator D to position 1. - Start the burner and keep in low flame running, while checking that combustion is correct. Through a small cardboard, progressively obstruct the air intake until to obtain a CO₂ increase of 0,5±0,8% or else, if a pressure gauge is available, connected to pressure port E, until reaching a pressure drop of 1 mbar (10 mm of W.G.). - Slowly increase the adjustment value of the air pressure switch until to have the burner lockout. Remove the obstruction from the air intake, screw on the cover C and start the burner by pressing the control box rearm button. **Note:** The pressure measured at pressure port E must be within the limits of the pressure switch working range. If not, loose the locking nut of screw F and gradually turn the same: clockwise to reduce the pressure; counterclockwise to increase. At the end tighten the locking nut.

ADJUSTEMENT OF THE COMBUSTION AIR SIEMENS SQN 30 151A2700 AIR DAMPER MOTOR



Remove cover to gain access to the adjusting cams. The cams are to be adjusted through the suitable key provided for. Description:

- I - Limit switch for air damper "High Flame" position adjustment (Max. power)
- II - Limit switch for the air damper position at burner's shut down
- III - Limit switch for air damper "Low Flame" position adjustment (Min. power)
- V - Limit switch for 2nd stage's solenoid valve opening release

NOTE : Cam V (to allow the 2nd stage's solenoid valve opening) must be adjusted to an intermediate position between the Low and High Flame ones (to an angle approximately 5° greater than the low flame position).

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 6 pole plug. 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.

HIGH FLAME

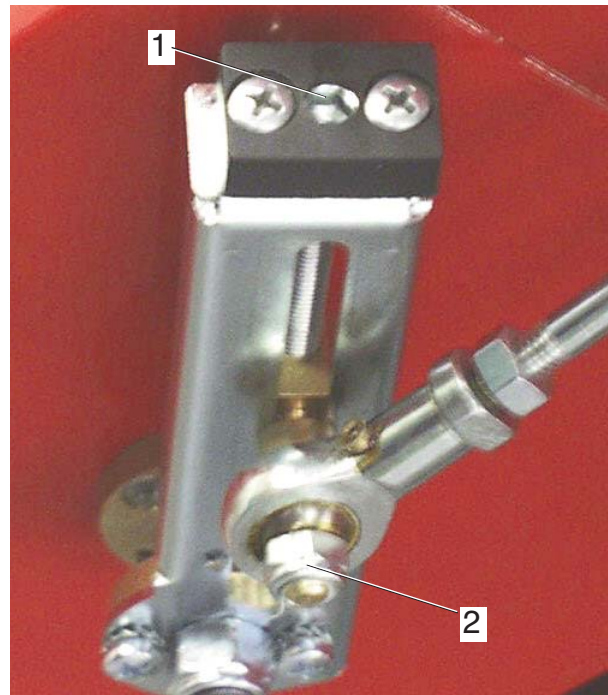
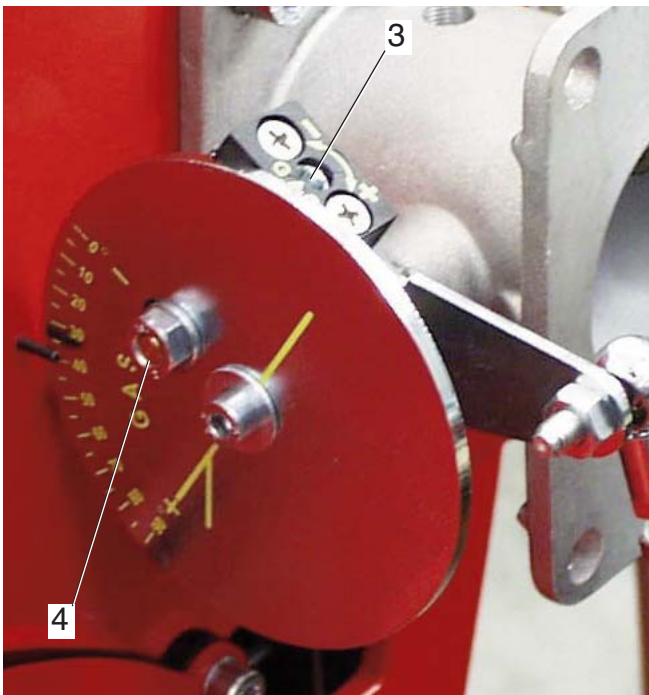
1. Bring the burner in high flame , air inlet must be set at 75 ° (maximum opening position). To adjust air capacity operate on the combustion head position. Just in peculiar case it is necessary to reduce the air flow in high flame closing air intake damper.
2. The position of gas butterfly valve must be lower then 90° (typically 85°. It is important not get over 90° to obtain a perfect combustion during passage from high to low flame). Eventually adjust this position acting on the screw " 1 " , after loosening nut " 2 " .
3. Regulate gas capacity in high flame through the gas governor, or operate on the adjustable gas valve.

LOW FLAME

4. Choose the first stage position on the servocontrol (normally between 10° - 30°) on the basis of the reduced charge output required and switch the burner to low flame.
5. Regulate gas capacity, to obtain optimal combustion, changing the position of the gas valve disc, act on screw “ 3 “, after loosen nut “ 4 “.

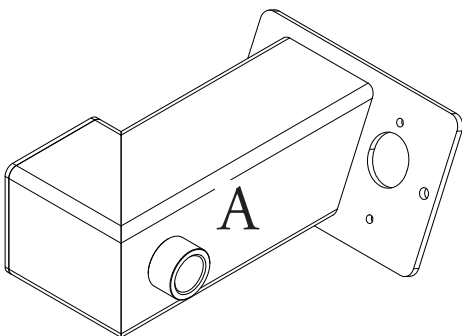
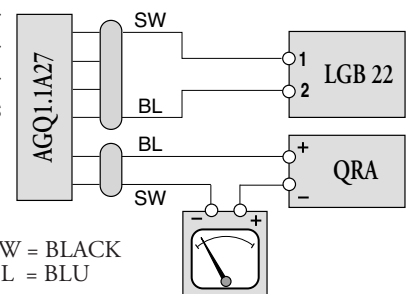
Final operations

6. Bring the burner in high flame again, if necessary adjust again gas flow (as shown in point n.2).
7. If necessary repeat operations described on point n. 5 and n. 6 until You obtain the exact position of the gas flow both in high and low flame.
8. Fix the nuts.



FLAME DETECTOR SYSTEM CHECK

The control of the detector current shall be carried out by plugging a microampere-meter with full scale at 1000 μ A (D.C.) in series with the UV-cell. If the detector current is too low verify the connection between phase and neutral of the burner and the grounding of the burner itself. Minimum required detector current is 200 μ A.



Attention :

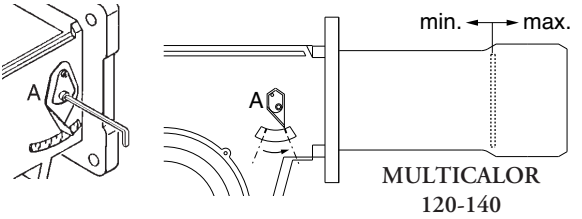
The support of UV-cell A must be connected with the pipe to the fan ventilator before heat exchanger (this pipe is very important in order to put the fresh air into the UV-cell). If you not connected this pipe the UV-cell can damage.

ADJUSTING THE FIRING HEAD

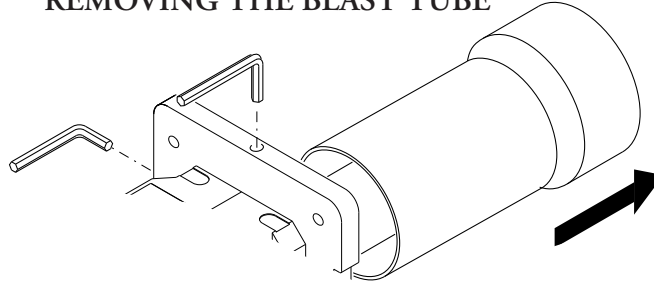
The adjustment of the combustion head position is carried out in order to obtain the best combustion efficiency. When installed for small output operations, the head shall be adjusted back.

For maximum operation the position is fully forward.

Steps: loosen the locking screw of A lever. Move the lever to the needed position. Tighten back the locking screw.

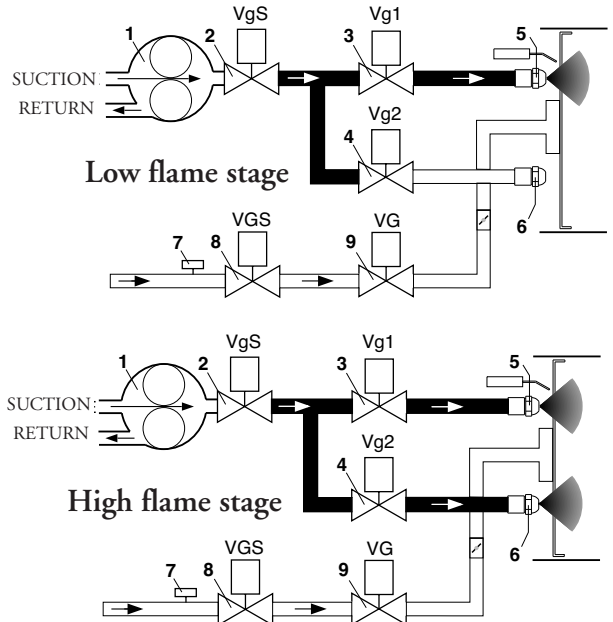
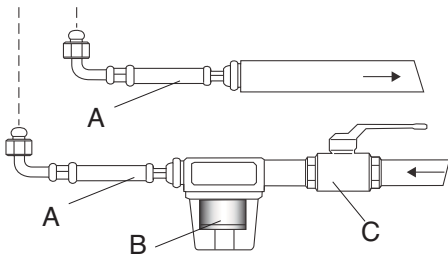


REMOVING THE BLAST TUBE

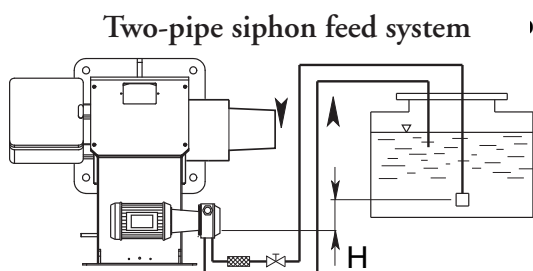


LIGHT-OIL CIRCUIT

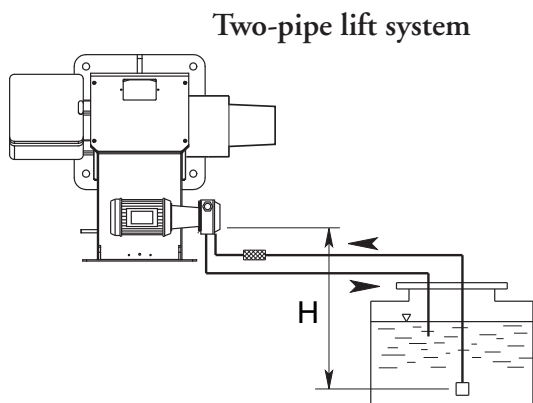
- A - HOSE
- B - OIL FILTER
- C - OIL COCK
- 1 - PUMP
- 2 - SAFETY LIGHT-OIL VALVE
- 3 - LOW FLAME LIGHT-OIL VALVE
- 4 - HIGH FLAME LIGHT-OIL FLAME
- 5 - LOW FLAME NOZZLE
- 6 - HIGH FLAME NOZZLE
- 7 - MINIMUM GAS PRESSURE SWITCH
- 8 - SAFETY GAS VALVE
- 9 - GAS VALVE



MAXIMUM LENGTH OF SUCTION LINES FOR TWO-PIPE SYSTEM



H (m)	PIPE LENGTH								
	AS 67 AN 77 (m)		AJ 6 (m)		RSA 60 (m)		RSA 125 (m)		
	ø 10 mm	ø 12 mm	ø 12 mm	ø 14 mm	ø 10 mm	ø 12 mm	ø 10 mm	ø 12 mm	ø 15 mm
0	32	90	66	90	-	-	-	-	-
0,5	36	90	65	90	48	99	22	46	100
1	40	90	58	80	53	100	25	51	100
2	48	90	45	80	63	100	29	61	100
3	56	90	32	65	73	100	34	71	100
3,5	60	90	25	52	78	100	36	76	100

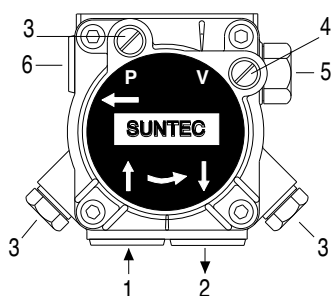


H (m)	PIPE LENGTH								
	AS 67 AN 77 (m)		AJ 6 (m)		RSA 60 (m)		RSA 125 (m)		
	ø 10 mm	ø 12 mm	ø 12 mm	ø 14 mm	ø 10 mm	ø 12 mm	ø 10 mm	ø 12 mm	ø 15 mm
0	25	70	66	90	43	88	20	41	100
0,5	21	62	60	90	37	78	18	36	89
1	18	54	52	90	32	67	15	31	77
2	10	38	40	80	22	46	10	22	53
3	5	20	25	58	12	25	6	12	29
3,5	-	10	19	45	7	15	3	7	17

The correct length of pipes is calculated by summing up the length of all vertical and horizontal right sections and bends. The static suction head will be the distance between the non-return valve and the burner's pump axle. The depression must not be greater than 0.45 bar; should it be higher, some damage could occur to the pump, with consequent increase in mechanical noises and ,eventually, a failure.

PRIMING AND ADJUSTMENT OF OIL PUMP

SUNTEC AN 77



- 1 - INLET
- 2 - RETURN
- 3 - BLEED AND PRESSURE GAUGE PORT
- 4 - VACUUM GAUGE PORT
- 5 - PRESSURE ADJUSTMENT
- 6 - TO NOZZLE

The pump is adjusted during testing and inspection to 12 bar. VERIFY: - That piping system is perfectly sealed; - That the use of hoses is avoided whenever is possible (use copper pipes preferably); - That depression is not greater than 0,45 bar, to avoid pump's cavitation; - That check valve is suitably designed for the duty; The pump pressure is set at a value of 12 bar during the testing of burners. Before starting the burner, bleed the air in the pump through the gauge port. Fill the piping with light-oil to facilitate the pump priming. Start the burner and check the pump feeding pressure. In case the pump priming does not take place during the first prepurging, with a consequent, subsequent lock-out of the burner, rearm the burner's lock-out to restart, by pushing the button on the control box. If, after a successful pump priming, the burner locks-out after the prepurging, due to a fuel pressure drop in the pump, rearm the burner's lock-out to restart the burner. Do not allow the pump to work without oil for more than three minutes.

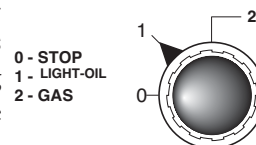
NOTE: Before starting the burner, check that the return pipe is open. An eventual obstruction could damage the pump sealing device.

NOZZLE FLOW RATE (DELAVAN B - MONARCH PLP)

NOZZLE GPH	PUMP PRESSURE (bar)						
	10	11	12	13	14	15	16
2,50	9,50	9,97	10,41	10,83	11,24	11,64	12,02
3,00	11,40	11,96	12,49	13,00	13,49	13,96	14,42
3,50	13,30	13,95	14,57	15,17	15,74	16,29	16,83
4,00	15,20	15,94	16,65	17,33	17,99	18,62	19,23
4,50	17,10	17,94	18,73	19,50	20,24	20,95	21,63
5,00	19,00	19,93	20,82	21,67	22,48	23,27	24,04
5,50	20,90	21,92	22,90	23,83	24,73	25,60	26,44
6,00	22,80	23,92	24,98	26,00	26,98	27,93	28,84
6,50	23,70	25,91	27,06	28,17	29,23	30,26	31,25
7,00	26,60	27,90	29,14	30,33	31,48	32,58	33,65
7,50	28,50	29,90	31,22	32,50	33,73	34,91	36,05
8,30	31,54	33,08	34,55	35,97	37,32	38,63	39,90
9,50	36,10	37,87	39,55	41,17	42,72	44,22	45,67
10,50	40,06	41,73	43,74	45,41	47,20	48,90	50,50
12,00	45,60	47,80	50,00	52,00	54,00	55,90	57,70
13,80	52,40	55,00	57,50	59,80	62,10	64,20	66,30
15,30	58,10	61,00	63,70	66,30	68,80	71,10	73,60
17,50	66,50	69,80	72,90	75,80	78,70	81,50	84,10
19,50	74,10	77,70	81,20	84,50	87,70	90,80	93,70
21,50	81,70	85,70	89,50	93,20	96,70	100,10	103,40
24,00	91,20	95,70	99,90	104,00	107,90	111,70	115,40
GPH	OUTPUT kg/h						

OPERATION OF BURNER WITH LIGHT-OIL FUEL

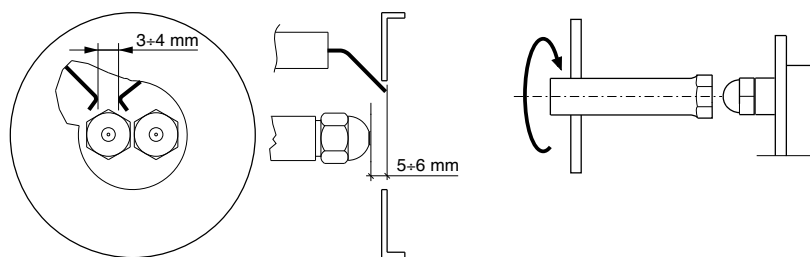
Gas/Light-oil dual burners must always be adjusted for a first light-oil ignition. After having installed the burner, check the following points: Feeding voltage and protection fuses - Motor connections – The correctness of pipe system length and its sealing – The type of fuel, which must be suitable for the burner - The connections of boiler’s thermostats and the safety devices – The direction of motors rotation – The correct calibration of motors protections – The nozzles flow rate must be suitable for the boiler’s output – At the end, fit a manometer on the pump itself. When all the above conditions are met, it will, then, be possible to proceed with the burner start-up. Switch the burner ON. The control box will power up the fuel pump and the fan’s motor, thus allowing a prepurging of the combustion chamber at the maximum air flow rate. At the end of prepurging, the servomotor will set up to the light-oil Low flame position, whilst the control box powers up the ignition transformer and the “Safety” and “Low flame” solenoid valves. If the burner ignites normally, after a safety time of 3 sec. the control box will power off the ignition transformer and after 10 secs. operates the air damper’s servomotor, bringing the burners to High flame operation. In case of faulty ignition, the control box will shut down the burner to lockout position within 3 sec. In this case, the burner must be reset manually, by pressing the lockout enable pushbutton on the control box itself. In order to obtain a correct combustion, it will be necessary to adjust the Low and High flame by following the instructions showed at pages 8÷9 (Air servomotor and firing head adjustment). During the adjusting phase, it will be possible to manually switch, back and forth, from Low flame to High flame through the High-Low flame manual switch. When all the adjusting operations are achieved, leave the switch in High flame position. For a correct reading and calibration, carry out the combustion analysis in the chimney.



NOZZLE CLEANING AND REPLACEMENT

Use only the suitable box wrench provided for this operation to remove the nozzle, taking care to not damage the electrodes. Fit the new nozzle with the same care.

Note: Always check the position of electrodes after having replaced the nozzle (see illustration). A wrong position could cause ignition troubles.



The burners are produced with connections suitable for power supply 400 V three-phase.

The burners with electric motors of an output lower or equal to 7,5 kW can be adapted to 220-230 V (please follow the instructions on the backside); motors with higher output can only work 380-400 V three-phase.

In case of request of burners different from the above mentioned standard, it is recommended to make specific mention in the order.

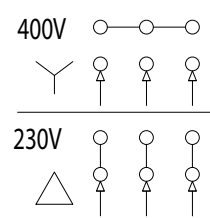
Instructions: how to adapt electric motors of an output lower or equal to 7,5 kW to 220-230 V power supply

It is possible to change the voltage of the burner by operating as follows:

1. change the connection inside the electric box of the motor, from star to delta (see picture);
2. change the setting of the thermal relay, referring to the absorption values indicated in the motor nameplate. If necessary, replace the thermal relay with another one of suitable scale.

This operation is not possible on motors above 7.5 kW.

For more information, please contact the Eacocon staff.



MAINTENANCE

YEARLY CHECKS

The burner's periodical check (firing head, electrodes etc.) must be carried out by authorised personnel one or two times per year, depending on the utilisation. Before going on with the maintenance controls of the burner, it should be advisable to check its general conditions, according to the following steps:

Unplug the burner; close the fuel cock; shut down the gas supply; remove burner's cover and clean the fan and air intake; clean the firing head and check the electrode's position; reassemble all the parts; check the connection's sealing; check the chimney; start the burner and check the combustion flue ($CO_2 = 9.5 \div 9.8$; $O =$ lower than 75 ppm).

BEFORE EVERY INTERVENTION CHECK:

The electric system is duly powered and the burner is plugged in.

The gas pressure must be the suitable one and the gas cock open.

The control devices must be properly connected.

When all the above conditions are met, start the burner by pressing the lockout enable pushbutton.

Check the burner's cycle.

THE BURNER DOES NOT START:

Check the ON/OFF switch, the thermostats, the motor and the gas pressure.

The master switch is in position "0". Fuses are blown out.

The control box is faulty.

THE BURNER RUNS THE PREPURGING AND SWITCHES TO LOCKOUT AT THE END OF CYCLE:

Check the fan and the air pressure.

Check the air pressure switch.

Control box faulty. Ignition transformer faulty.

Check the ignition cable. Electrodes are dirty or in wrong position.

Nozzles are clogged or worn. Filters are clogged. Light-oil pressure is too low.

Combustion air's flow rate too high related to nozzle output.

THE BURNER RUNS THE PREPURGING BUT DOES NOT IGNITE:

Check the position of the electrodes; check the ignition cable;

Check the ignition transformer;

Check the control box.

THE BURNERS IGNITES BUT SWITCHES TO LOCKOUT AFTER THE SAFETY TIME:

Check phase and neutral for a correct connection.

Check gas solenoid valve.

Check the position of ionisation probe and its connection.

Check the control box.

Check nozzles (clogged or worn).

The photoresistor does not detect the flame.

The filters are clogged. Light-oil pressure too low.

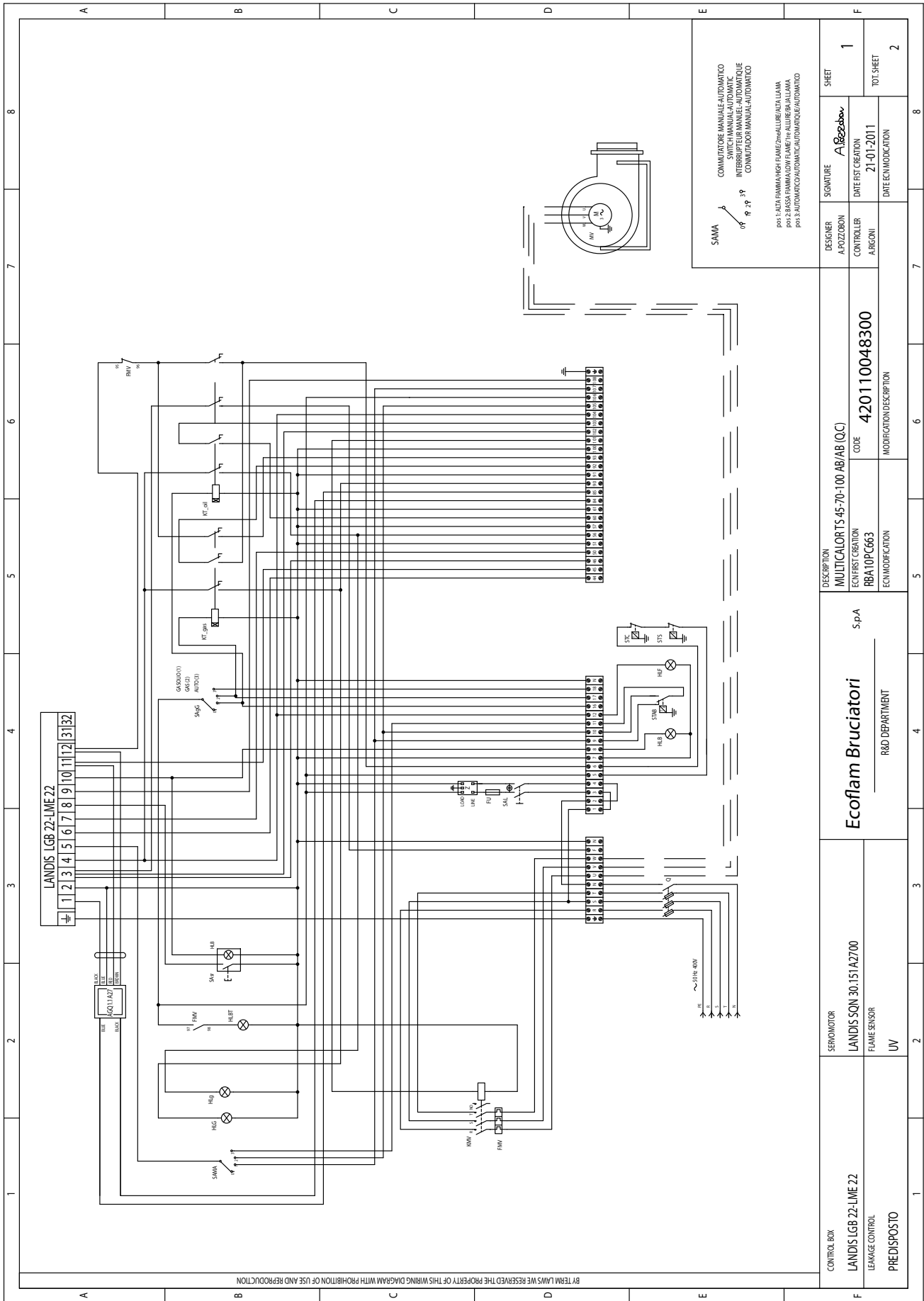
Combustion air's flow rate too high related to nozzle output.

THE BURNERS IGNITES BUT SWITCHES TO LOCKOUT AFTER FEW MOMENTS:

Check gas governor and gas filter.

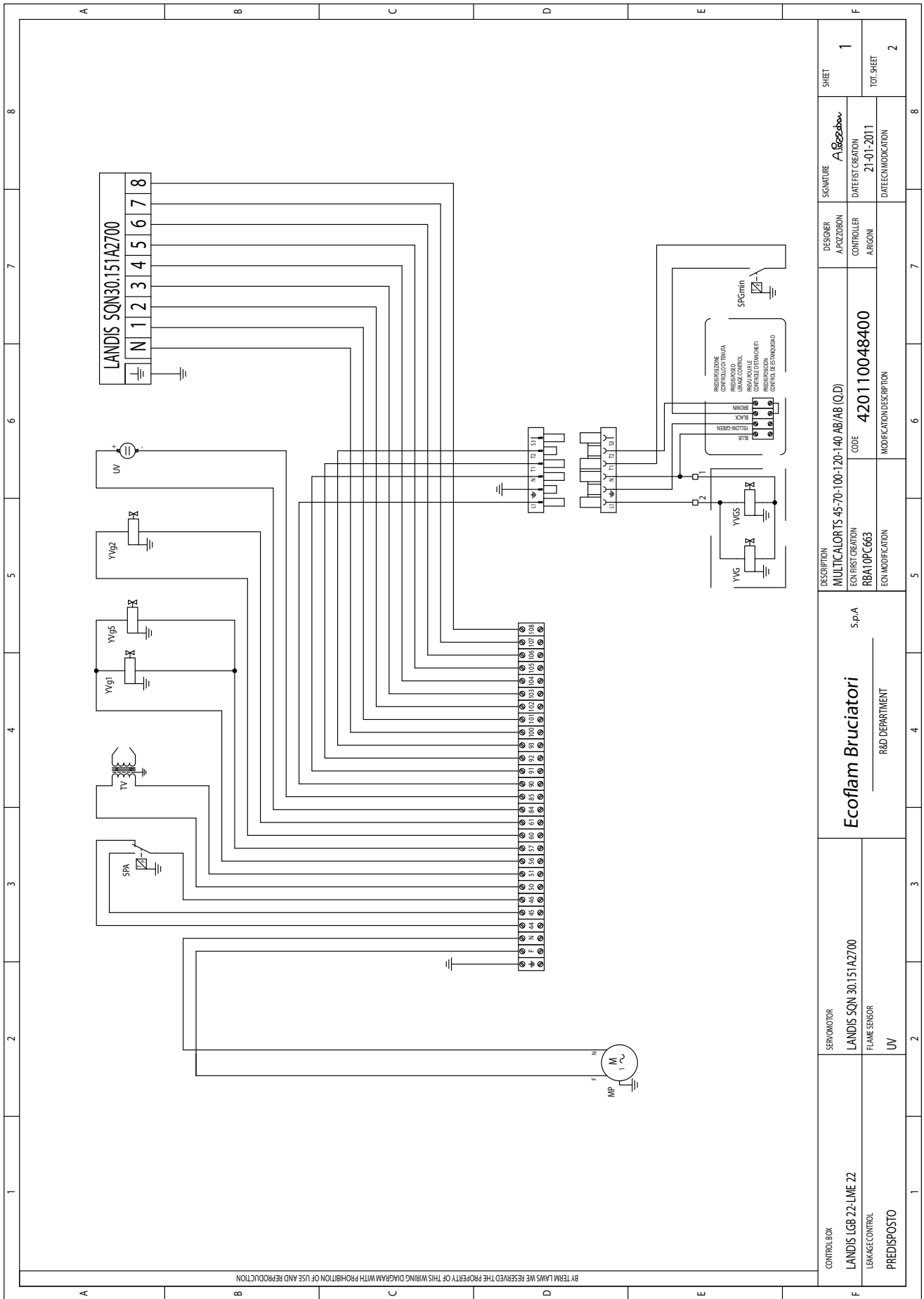
Check gas pressure through a manometer.

Check ionization value (min. 200 μA).

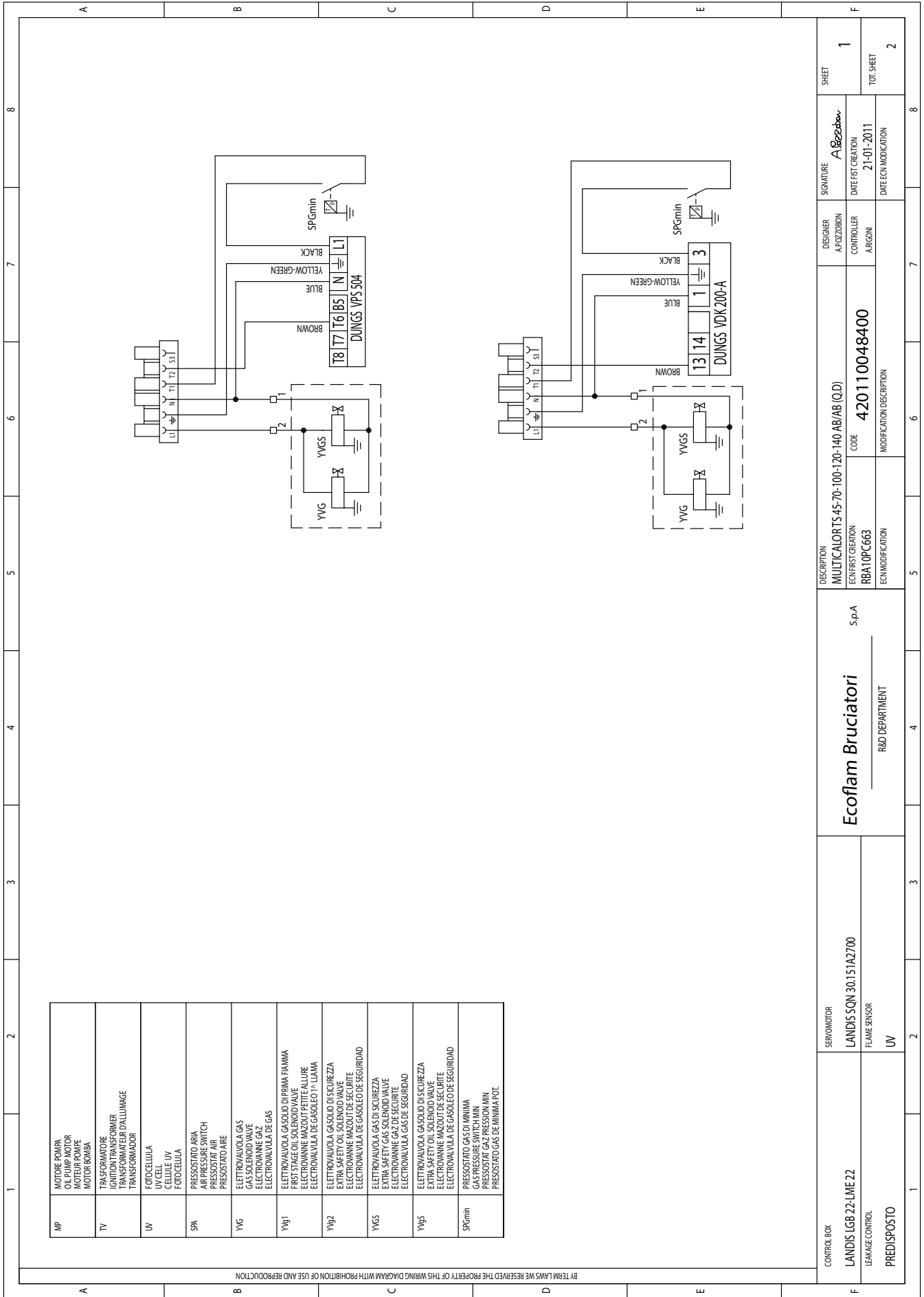


1	2	3	4	5	6	7	8					
A	B	C	D	E	F	F	F					
Q	Z	FU	MV	FMV	H1B	H1G	H1g					
S4WA	S4WV	S4L	S1C	S1S	S4gg	S1AB	H1BT					
INTERRUPTORE GENERALE CON FUSIBILE MAIN SWITCH WITH FUSE INTERRUPTEUR GENERAL AVEC FUSIBLE INTERRUPTOR GENERAL CON FUSIBLE	INTERRUPTORE GENERALE CON FUSIBILE MAIN SWITCH WITH FUSE INTERRUPTEUR GENERAL AVEC FUSIBLE INTERRUPTOR GENERAL CON FUSIBLE	KIT_305 TEMPORIZZATORE TIMER TEMPORISATEUR TEMPORIZADOR	KIT_041 TEMPORIZZATORE TIMER TEMPORISATEUR TEMPORIZADOR	S451 PULSANTE DI SBLOCCO APPARECCHIATURA RESET LOCK OUT BUTTON BOUTON DE DEBLOCAGE DU COFFRE DE SECURITE REARME DE LA CENTRALITA	INTERRITTORE GENERALE CON FUSIBILE MAIN SWITCH WITH FUSE INTERRUPTEUR GENERAL AVEC FUSIBLE INTERRUPTOR GENERAL CON FUSIBLE	FILTRO ANTISTURBO ANTI KAMMING FILTER FILTRE ANTI PARASITES FILTRO DE PROTECCION ANTI TURBIDIO	FU FUSIBILE FUSE FUSIBLE					
MOTORE VENTILATORE MOTOR FAN MOTEUR VENTILATEUR MOTOR VENTILADOR	RELE TERMICO MOTORE VENTILATORE MOTOR THERMAL RELAY (FAN MOTOR) RELAS THERMIQUE MOTEUR VENTILATEUR RELE TERMICO MOTOR VENTILADOR	LAMPADA DI BLOCCO LOCK-OUT LAMP LAMPE DE SECURITE ESPIA DE BLOQUEO	LAMPADA GAS GAS LAMPE LAMPE DE GAZ ESPIA GAS	LAMPADA GASOLIO OIL OR LAMP TEMCOIN MAZOUT ESPIA GASOLEO	COMUTATORE MANUALE-AUTOMATICO SWITCH MANUAL-AUTOMATIC INTERRUPTEUR MANUEL-AUTOMATIQUE COMUTADOR MANUAL-AUTOMATICO	CONTATTI MOTORE VENTILATORE RELAYE CONTROL SWITCH (FAN MOTOR) CONTACTEUR MOTEUR VENTILATEUR TELEINTERRUPTOR MOTOR VENTILADOR	INTERRUPTORE DI LINEA WORKING SWITCH INTERRUPTEUR DE LIGNE INTERRUPTOR DE LINEA					
TERMOSTATO CALDAIA BOILER THERMOSTAT THERMOSTAT CHAUDIERE TERMOSTATO CALDERA	TERMOSTATO DI SICUREZZA SAFETY THERMOSTAT THERMOSTAT DE SECURITE TERMOSTATO DE SEGURIDAD	INTERRUPTORE GASOLIO-GAS-AUTO SWITCH OIL-GAS-AUTO INTERRUPTEUR MAZOUT-GAZ-AUTO COMUTADOR GASOLEO-GAS-AUTO	TERMOSTATO DI ALTA/BASSA Fiamma HIGH-LOW FLAME THERMOSTAT THERMOSTAT GRANDE-PETITE ALLURE TERMOSTATO DE ALTA-BAJA LLAMA	LAMPADA DI BLOCCO TERMICO THERMAL LOCK-OUT LAMP LAMPE DE THERMAL DE SECURITE ESPIA DE BLOQUEO RELE TERMICO	SERVO MOTOR LANDIS SON 30.15 JA2700	FLAME SENSOR	UV					
CONTROL BOX LANDIS LGB 22-LME 22	LEAKAGE CONTROL PREDISPOSTO	Ecoflam Bruciatori S.p.A R&D DEPARTMENT	MULTICALORTS 45-70-100 AB/AB (Q.C) EQI FIRST CREATION RBA10P.C663	CODE 420110048300	MODIFICATION DESCRIPTION	DESIGNER A.PAOZZON	CONTROLLER AIRCONI	SIGNATURE A. Pozzon	DATE EFFECT CREATION 21-01-2011	DATE ECON MODIFICATION	SHEET 2	TOT. SHEET 2

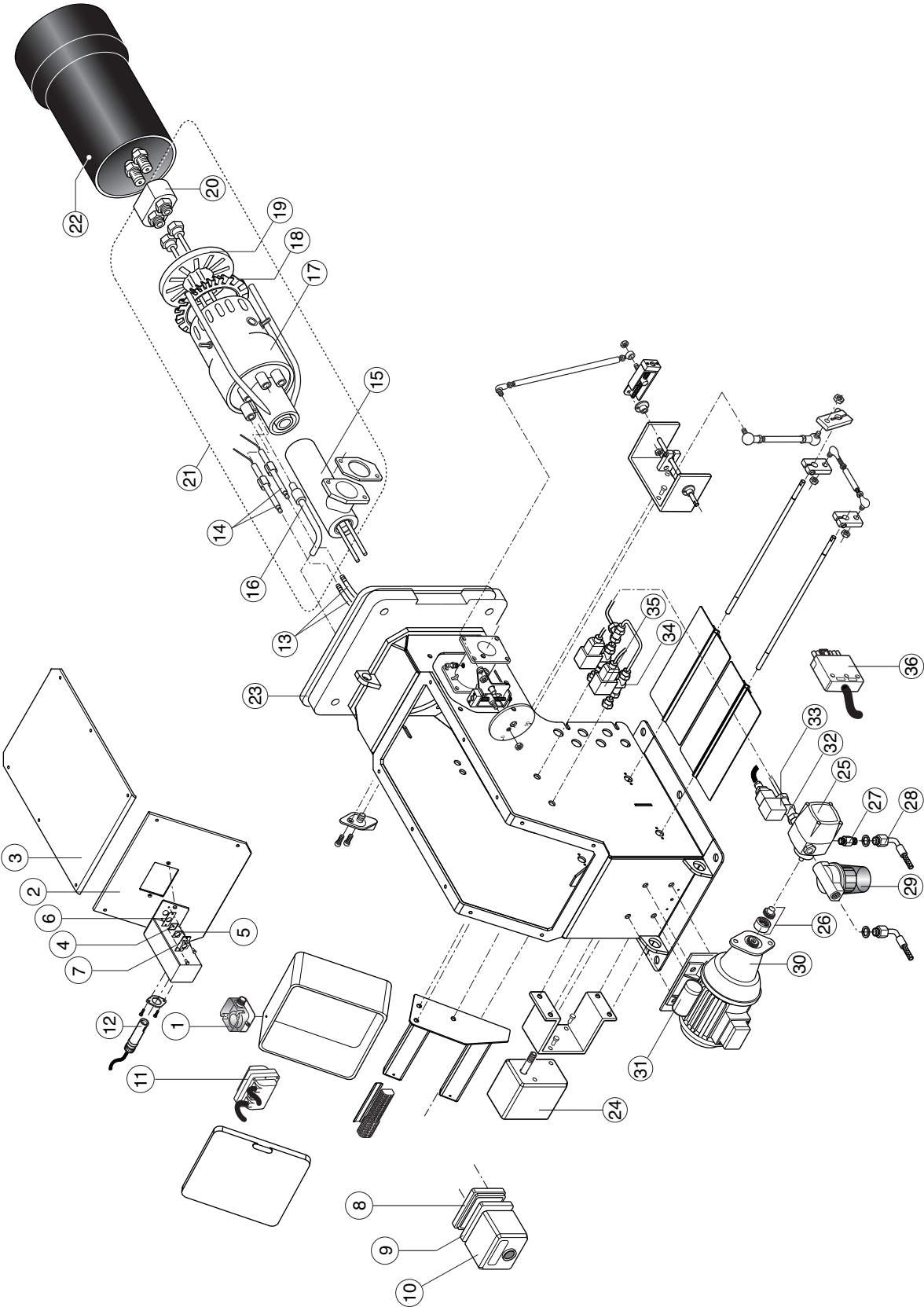
BY THESE LINES WE RESERVE THE PROPERTY OF THIS WIRING DIAGRAM WITH PROHIBITION OF USE AND REPRODUCTION



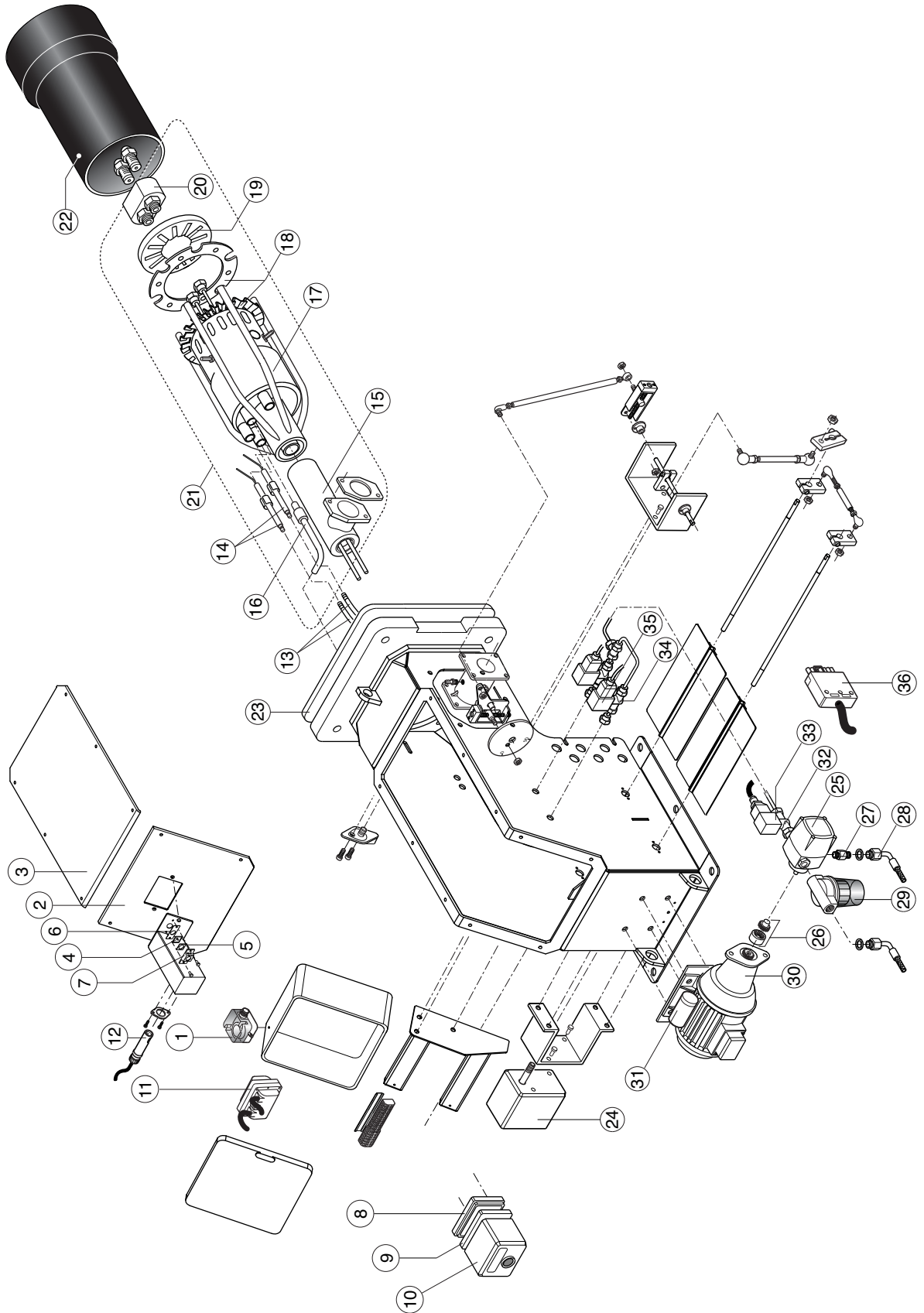
CONTROL BOX LANDIS LGB 22-LME 22 LEAKAGE CONTROL PREDISPOSTO	SERVMOTOR LANDIS SQN 30.151A2700 FLAME SENSOR UV	Ecoflam Bruciatori S.p.A. R&D DEPARTMENT		DESCRIPTION MULTICOLOR TS 45-70-100-120-140 AB/AB (Q.D) ECON FIRST CREATION RBA10PC663	DESIGNER A. ARZOBON CONTROLLER A. BERGONI	DATE FIRST CREATION 21-01-2011	DATE MODIFICATION	SHEET 1	TOT. SHEET 2
	CODE 420110048400	MODIFICATION DESCRIPTION							



Multicalor TS 100 AB/AB



Multicalor TS 140 AB/AB



			Multicalor TS 100 AB/AB
N°	DESCRIPTION		code
1	AIR PRESSURE SWITCH	DUNGS LGW10 A2P	65323047
2	DOWN COVER		65324164
3	UP COVER		65324163
4	GLASS		65321883
5	GASKET	28x28	65321948
6	GLASS	30x50	65321949
7	GLASS COVER		65321884
8	CONTROL BOX BASE	SIEMENS AGQ1.1A27	65322038
9	ADAPTER	SIEMENS	65320092
10	CONTROL BOX	SIEMENS LGB 22.330 A27	65320034
11	IGNITION TRANSFORMER	COFI TRS 1020/21	65323223
12	UV CELL	SIEMENS QRA2	65320075
13	IGNITION CABLE	TC	65322003
		TL	
14	IGNITION ELECTRODES SET		65322322
15	PIPE		65321638
16	ROD		65325452
17	FIRING HEAD	TC	65321639
		TL	65321640
18	REAR DISC		65320733
19	FRONT DISC		65320808
20	NOZZLE HOLDER		65320711
21	INNER ASSEMBLY	TC	
		TL	
22	BLAST TUBE	TC	65320402
		TL	65320403
23	GASKET		65321117
24	AIR DAMPER MOTOR	SIEMENS SQN 30.151A2700	65322897
25	OIL PUMP	SUNTEC AN 77A 72552P	65322953
26	COUPLING		65322918
27	NIPPLE	TN 10X1200	65323188
28	HOSES	TN 14X1200	65323184
29	OIL FILTER	art. 70301-01P	65324051
30	PUMP MOTOR	200 W	65322789
31	CONDENSATOR	6,3 µF	65321852
32	OIL VALVE	1/8 F-F 230- 50-60	65325784
33	COIL	DELTA	65323765
		SUNTEC	65323767
34	OIL VALVE	PARKER SCEM VE131	65323624
35	COIL	PARKER	65323782
36	PLUG WIELAND	6 pin	65322072

TC = SHORT HEAD TL = LONG HEAD

			Multicalor TS 140 AB/AB
N°	DESCRIPTION		code
1	AIR PRESSURE SWITCH	DUNGS LGW10 A2P	65323047
2	DOWN COVER		65324164
3	UP COVER		65324163
4	GLASS		65321883
5	GASKET	28x28	65321948
6	GLASS GASKET	30x50	65321949
7	GLASS COVER		65321884
8	CONTROL BOX BASE	SIEMENS AGQ1.1A27	65322038
9	ADAPTER	SIEMENS	65320092
10	CONTROL BOX	SIEMENS LGB 22.330 A27	65320034
11	IGNITION TRANSFORMER	COFI TRS 1020/21	65323223
12	UV CELL	SIEMENS QRA2	65320075
13	IGNITION CABLE	TC	65322002
		TL	
14	IGNITION ELECTRODES SET		65322322
15	PIPE		65321638
16	ROD		65320230
17	FIRING HEAD	TC	65321641
		TL	65321642
18	DISC ASSEMBLY		65322310
19	FRONT DISC		65320808
20	NOZZLE HOLDER		65320711
21	INNER ASSEMBLY	TC	65325175
		TL	
22	BLAST TUBE	TC	65320419
		TL	65320420
23	GASKET		65321119
24	AIR DAMPER MOTOR	SIEMENS SQN 30.151A2700	65322897
25	OIL PUMP	SUNTEC AJ6CC10002P	65322950
26	COUPLING		65325387
27	NIPPLE	TN 10X1200	65323188
28	HOSES	TN 14X1200	65323184
29	OIL FILTER	art. 70301-01P	65324051
30	PUMP MOTOR	370 W	65322775
31	CONDENSATOR	14 µF	65321854
32	OIL VALVE	1/8 F-F 230- 50-60	65325784
33	COIL	DELTA	65323765
		SUNTEC	65323767
34	OIL VALVE	PARKER SCEM VE131	65323624
35	COIL	PARKER	65323782
36	PLUG WIELAND	6 pin	65322072

TC = SHORT HEAD TL = LONG HEAD

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Ecoflam

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"società soggetta alla direzione e al coordinamento della Ariston Thermo S.p.A., via A. Merloni, 45 - 60044 Fabriano (An) CF 01026940427"