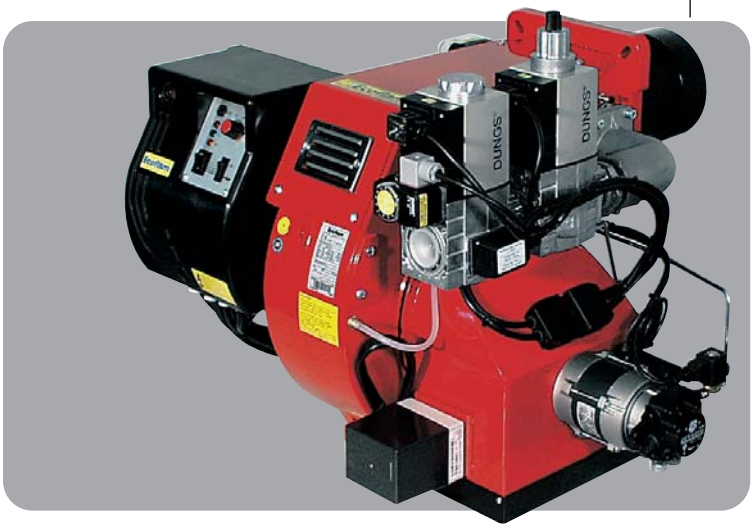
IT *BRUCIATORI MISTI GAS + GASOLIO*
EN *GAS/LIGHT-OIL DUAL BURNERS*
FR *BRULEURS MIXTE GAZ + MAZOUT*
ES *QUEMADORES MIXTOS GAS + GASOLEO*
RU *КОМБИНИРОВАННЫЕ ГОРЕЛКИ ГАЗ/ДИЗТОПЛИВО*

Ecoflam

CE



Multicalor 45
Multicalor 70
Multicalor 100
Multicalor 140

P AB / P AB

420010331102

420010331102
25.05.2011

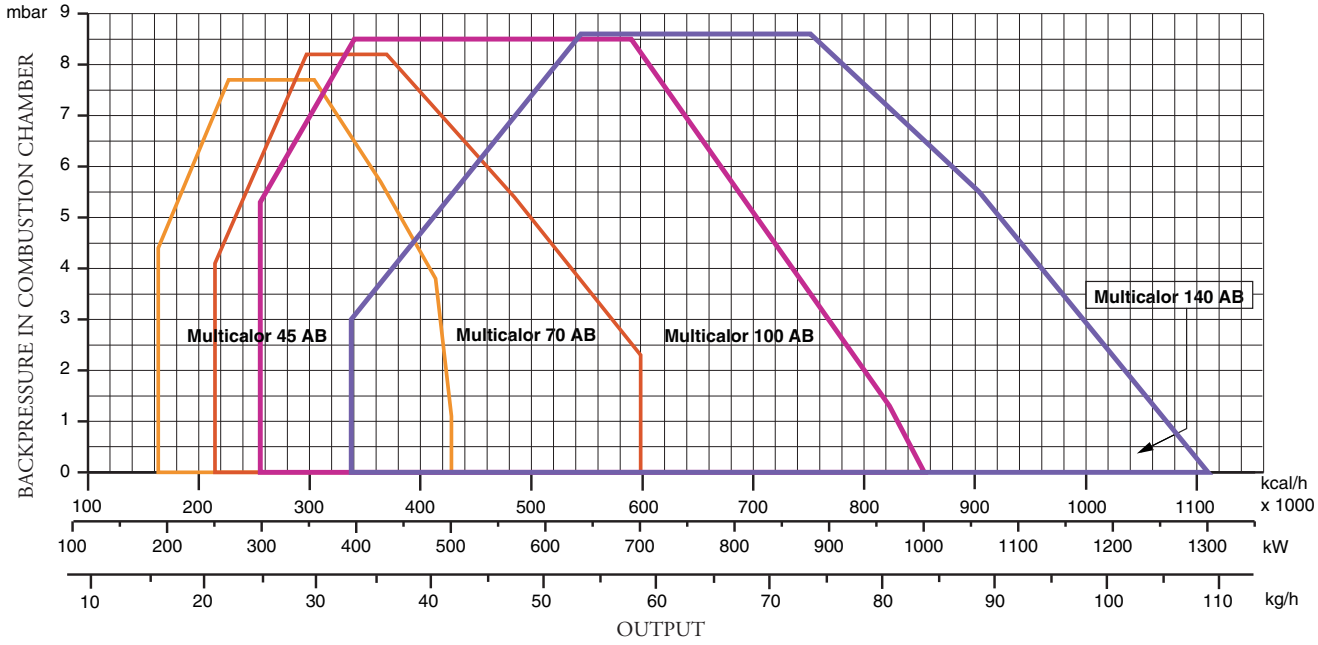
FUEL CHARACTERISTICS

Model : Multicalor 45-70-100-140		Gas family - II 2H 3P			
		G20	**G25**	**G31**	**G30**
Max. pressure	mbar	25	-	45	-
Min. pressure	mbar	17	-	25	-
Gas Low Heat Value:	kcal/Nm³	8.570	-	22.260	-
Light-oil Low Heat Value		= 10.200 kcal/Kg max 1,5° E a 20° C			

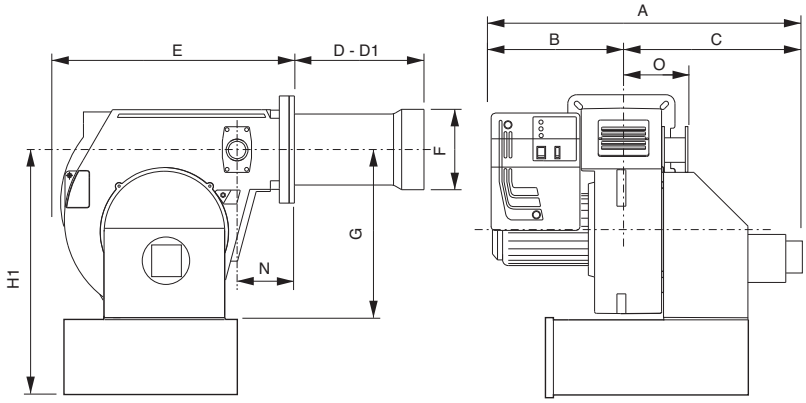
TECHNICAL FEATURES

Multicalor		**45**	**70**	**100**	**140**
Max. Thermal Output	kW	500	700	1000	1300
	kcal/h	430.000	602.000	860.000	1.118.00
Min. Thermal Output	kW	190	250	300	400
	kcal/h	163.400	215.000	258.000	344.000
Power.3phase + neutral	50 HzV	230 / 400	230 / 400	230 / 400	230 / 400
Motor	kW	0,55	0,74	1,1	2,2
Motor RPM	N°	2800	2800	2800	2800

WORKING FIELDS



OVERALL DIMENSIONS



D = short head **D1** = long head
• = (Optional)
Dimensions (**mm**)

MODELS	A	B	C	D	D1	E	F	G	H1	I	L	M	N	O
Multicalor 45 PAB	1045	510	535	175	335	555	160	390	600•	190	190	M10	140	165
Multicalor 70 PAB	1045	510	535	175	395	555	180	390	600•	190	190	M10	140	165
Multicalor 100 PAB	1045	510	535	175	395	555	190	390	600•	190	190	M10	140	165
Multicalor 140 PAB	1070	510	560	307	457	555	215	390	600•	190	190	M10	140	165

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 termal 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 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.

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 CO_2 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.

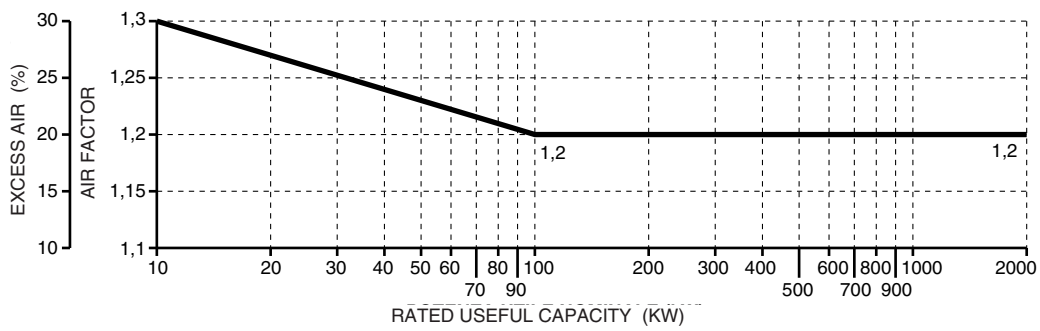
ADJUSTING THE COMBUSTION PROCESS

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 ECOFLAM'S TECHNICIANS.

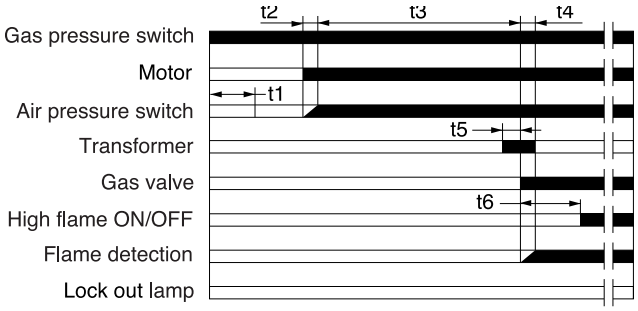
SUGGESTED REFERENCE VALUES

	Natural Gas
CO_2	9,6%
CO	<100 ppm



CONTROL BOXES LANDIS & STAEFA LGB21/LGB22

The Landis control box starts the fan and begins the pre-purging of the combustion chamber. The air pressure switch controls the correct operation. At the end of the pre-purging phase, the ignition transformer cuts-in followed by the opening of the gas valves. In case of missed ignition or accidental shutdown, the ionisation probe cuts-in and set the burner in lockout mode within the safety time.



	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:

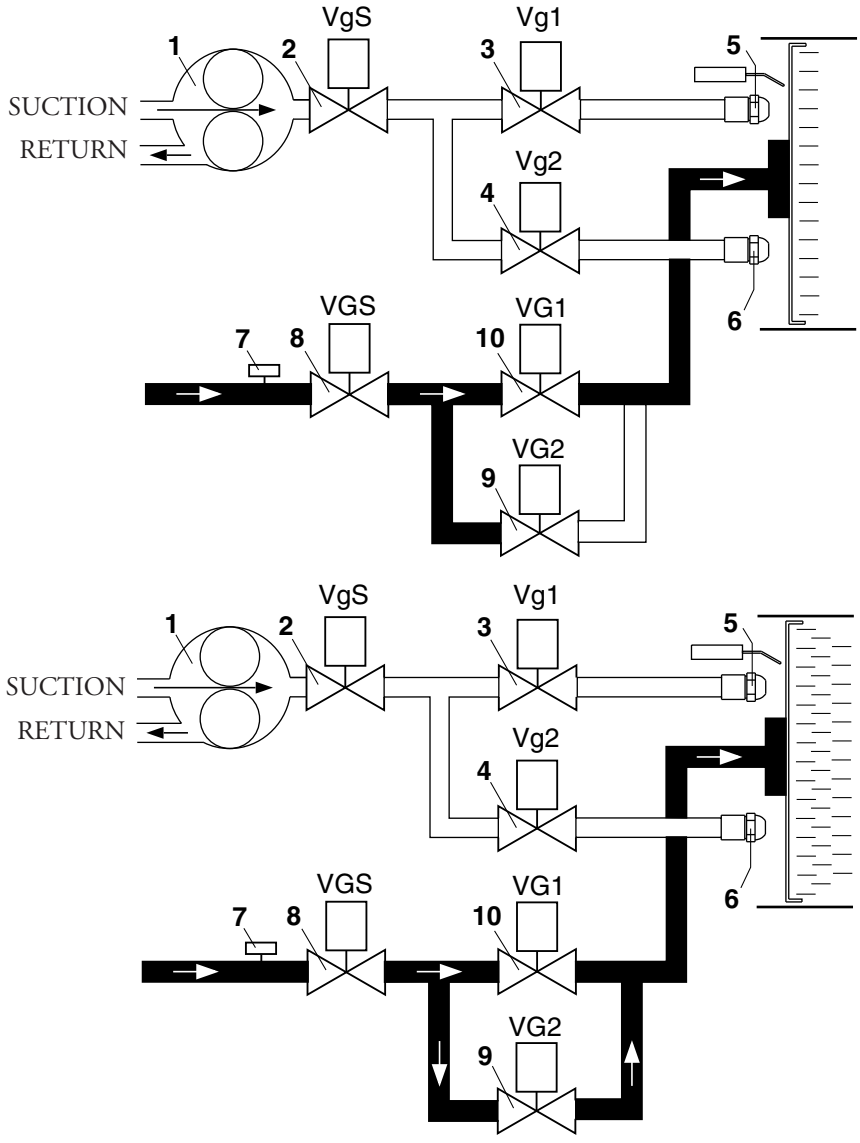
- Check at the meter the quantity of supplied litres and the duration, in seconds, of the reading, then calculate the burner's output through the following formula:

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

e = Litres of gas
s = Time in seconds

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

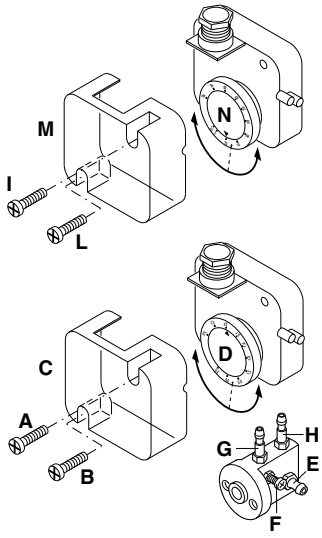
GAS CIRCUIT



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

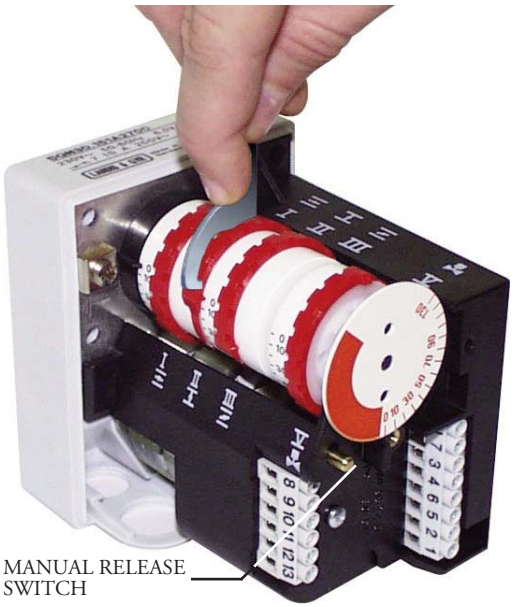


ADJUSTMENT OF THE AIR PRESSURE SWITCH

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 1mbar (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

LANDIS & STAEFA 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.

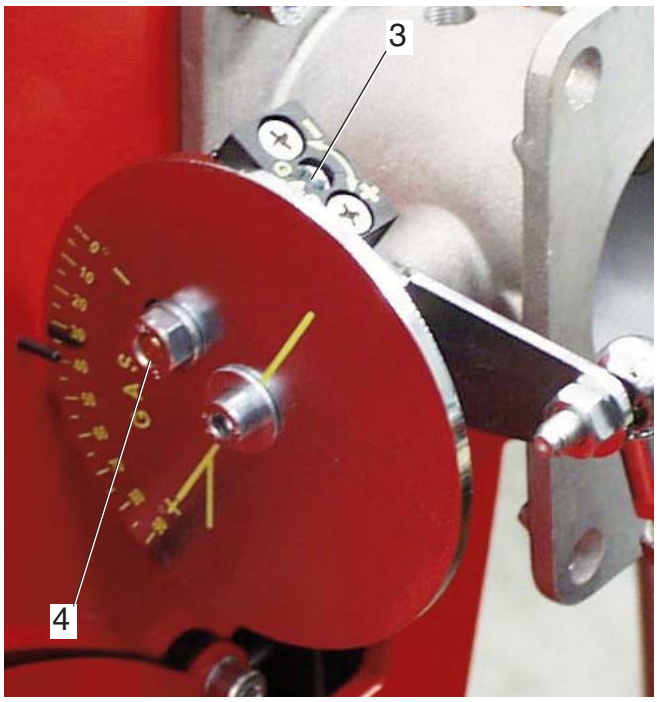
HIGH FLAME

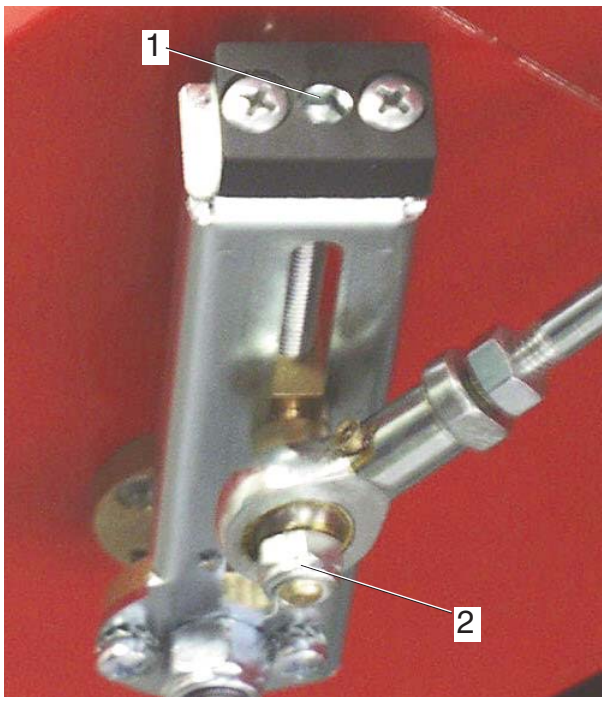
1. Bring the burner in high flame , air inlet must be set at 75 ° (maximum opening position).
To adjust air capacity operate on the combustion head position.
Just in peculiar case it is necessary to reduce the air flow in high flame closing air intake damper.
2. The position of gas butterfly valve must 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.

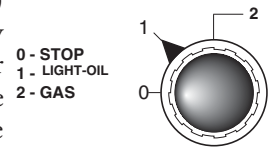




OPERATION OF BURNER WITH LIGHT-OIL FUEL

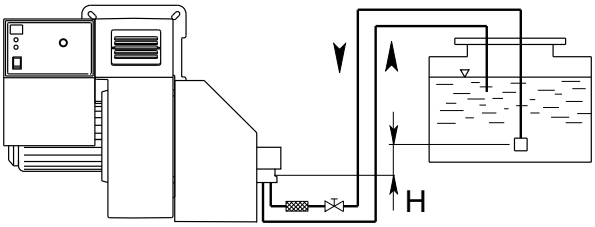
Gas/Light-oil dual burners must always be adjusted for a first light-oil ignition.
Once having installed the burner, check the following items:
- The burner power feeding and the main line protection fuses
- The correct length of pipes and that the same are sealed.
- The type of fuel, which must be suitable for burner.
- The connection of boiler's thermostats and all the safeties.
- The motor rotation direction.
- The correct calibration of the motor's thermal protection.

When all the above mentioned conditions are checked and accomplished, it is possible to go on with burner's tests.
To turn the switch on the position "1" light-oil. Power the burner. The control box feeds the ignition transformer and the burner's motor at the same time, which will run a prepurging of the combustion chamber for about 20 sec.
At the end of prepurging, the control box opens the fuel pump and the 1st stage (Low flame) solenoid valves, the ignition transformer produces a spark and the burner ignites. After a safety interval of 3 seconds and a correct ignition, the control box turns off the ignition transformer and, 10 seconds later, sets the motorised air damper to its maximum opening and opens the 2nd stage solenoid valve (High flame). In case of faulty ignition, the control box switches the burner into safety condition. In such a case, the manual rearming of the burner shall not take place before 30 seconds have elapsed from the burner's safety shutdown. In order to obtain an optimal combustion, it is necessary adjust the LOW - HIGH flame air flow, according to the instruction given further on. During such a phase, it will be possible to manually switch between HIGH (II) and LOW (I) flame and viceversa, through the High/Low flame switch. At the end of the adjusting phase, leave the switch in position II (HIGH flame).



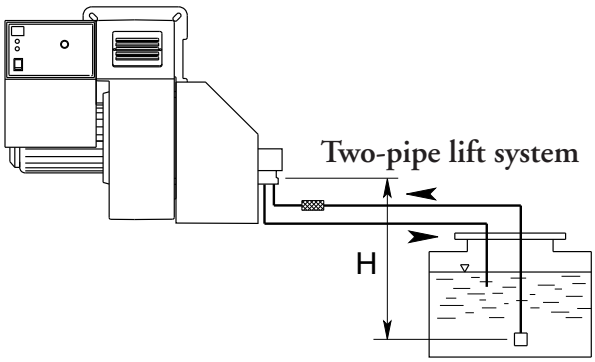
MAXIMUM LENGTH OF SUCTION LINES FOR TWO-PIPE SYSTEM

Two-pipe siphon feed 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

Two-pipe lift 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	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

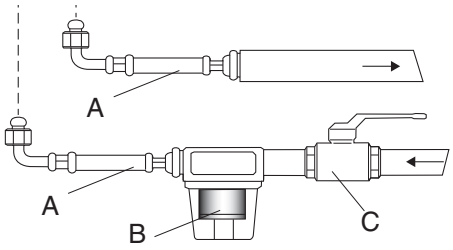
The correct length of pipes is calculated by summing up the length of all vertical and horizontal right sections and bends. The static suction head will be the distance between the non-return valve and the burner's pump axle.
The depression must not be greater than 0.45 bar; should it be higher, some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

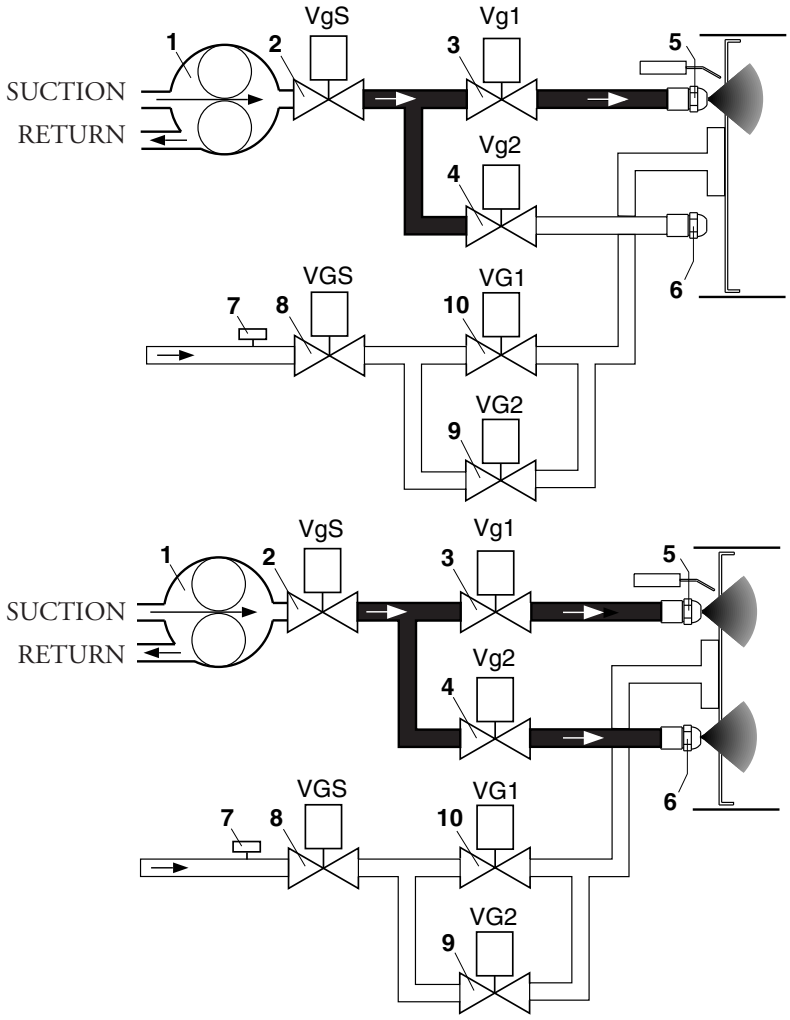
NOZZLE FLOW RATE (DELAVAN B - MONARCH PLP)

NOZZLE	PUMP PRESSURE (bar)						
GPH	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						

LIGHT-OIL CIRCUIT

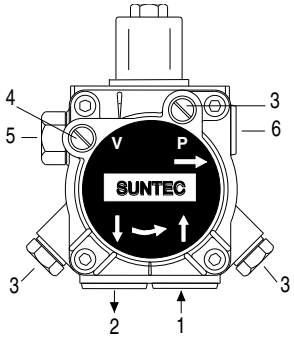
A - HOSE
B - OIL FILTER
C - OIL COCK
1 - PUMP
2 - SAFETY OIL VALVE
3 - LOW FLAME OIL VALVE
4 - HIGH FLAME OIL VALVE
5 - LOW FLAME NOZZLE
6 - HIGH FLAME NOZZLE
7 - GAS PRESSURE SWITCH
8 - SAFETY GAS VALVE
9 - LOW FLAME GAS VALVE
10 - HIGH FLAME GAS VALVE





PRIMING AND ADJUSTMENT OF OIL PUMP

SUNTEC AS 67 ...



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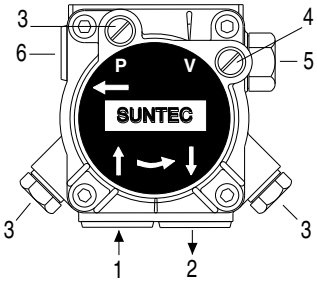

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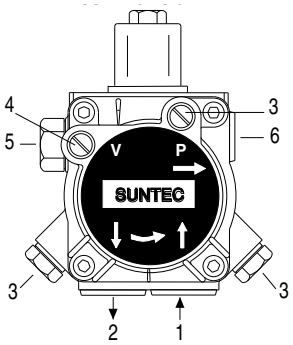

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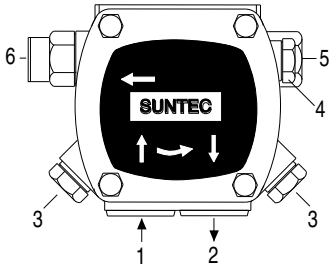
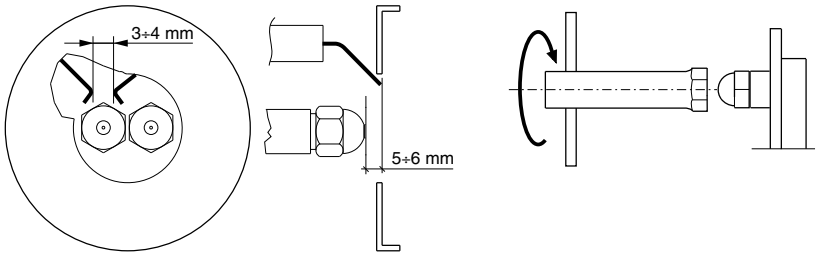


1 - INLET
2 - RETURN
3 - BLEED AND PRESSURE GAUGE PORT
4 - VACUUM GAUGE PORT
5 - PRESSURE ADJUSTMENT
6 - TO NOZZLE

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.**

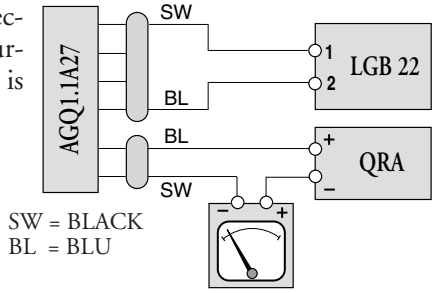
NOZZLE CLEANING AND REPLACEMENT

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.



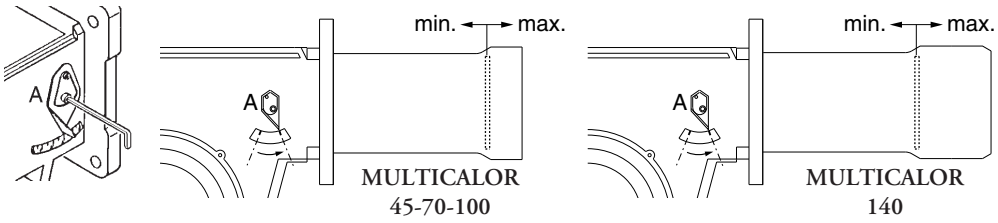
FLAME DETECTOR SYSTEM CHECK

The control of the detector current shall be carried out by plugging a microamperometer with full scale at 1000 µA (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 µA.

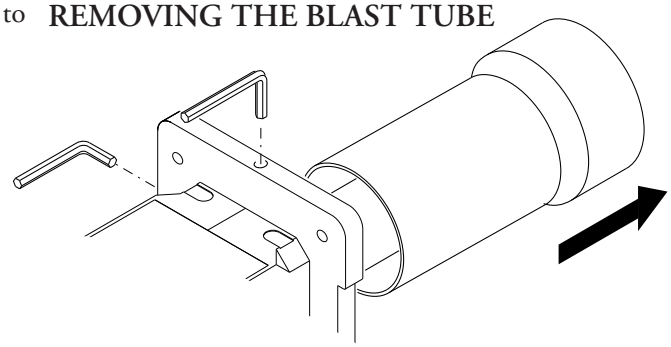


ADJUSTING THE FIRING HEAD

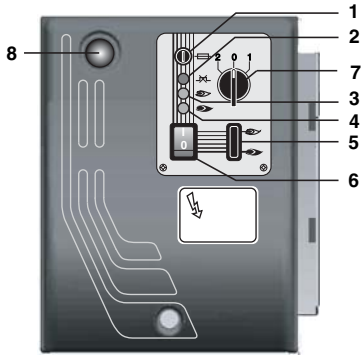
The adjustment of the combustion head position is carried out in order to obtain the best combustion efficiency. When installed for small output operations, the head shall be adjusted back.
For maximum operation the position is fully forward.
Steps: loosen the locking screw of A lever. Move the lever to the needed position. Tighten back the locking screw.



REMOVING THE BLAST TUBE

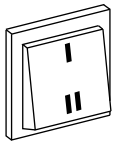


DESCRIPTION OF CONTROL PANEL



1 - Fuse
2 - Termal lock-out lamp
3 - Light-oil working lamp
4 - Gas working lamp
5 - High-low flame switch
6 - Main switch I / O
7 - Gas/Light-oil selector switch:
1- Light-oil operation
2- Gas operation
8 - Lockout disable push button

I - Manual low flame position
II - Manual operation : high flame position
Automatic operation : HI-LOW flame position by the HI-LOW thermostat.



Pull up the switch on the terminal strip to keep burner in first stage.

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 (CO2 = 9.5 ÷ 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:

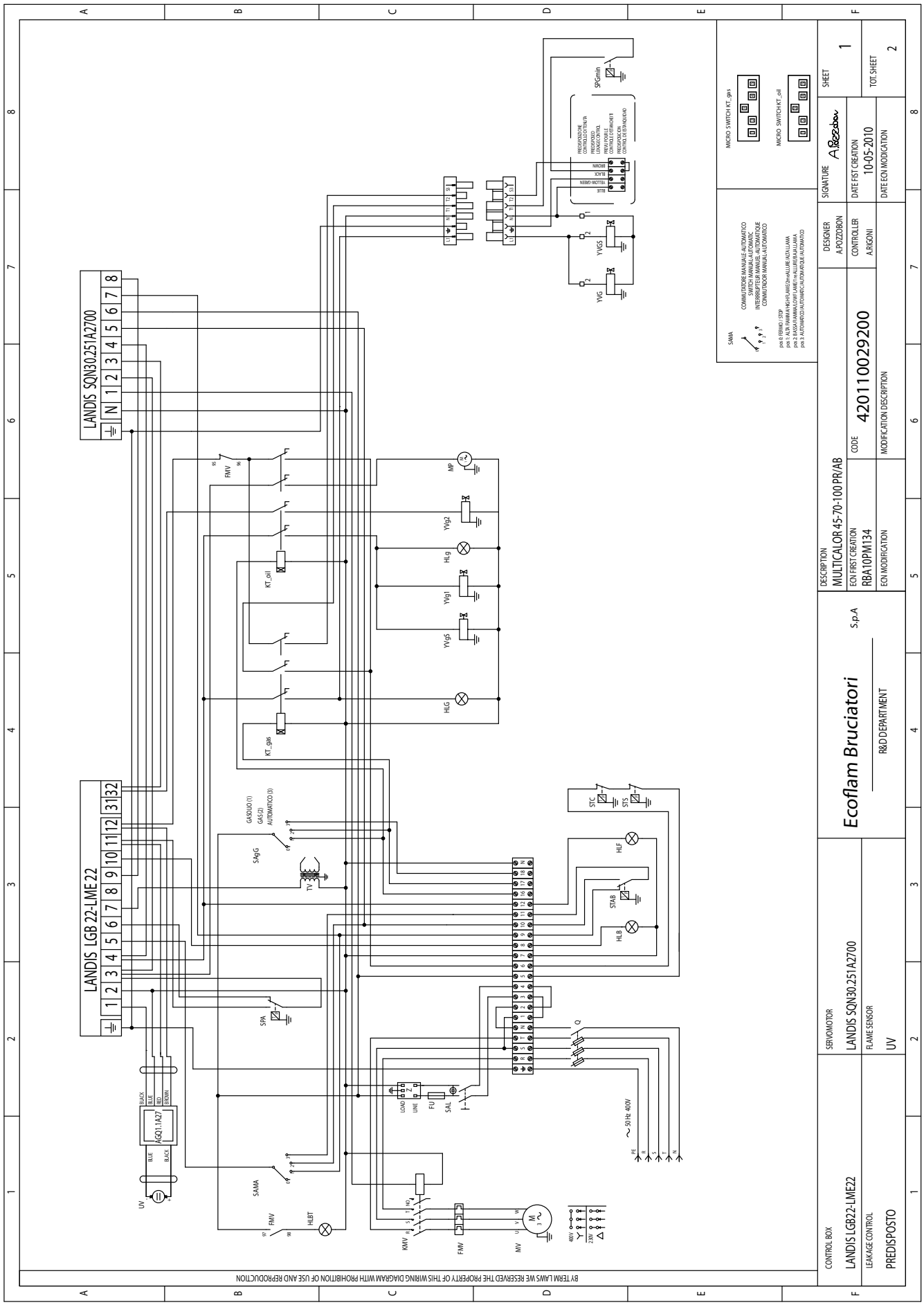
Check the position of the electrodes; check the ignition cable;
Check the ignition transformer;
Check the control box.

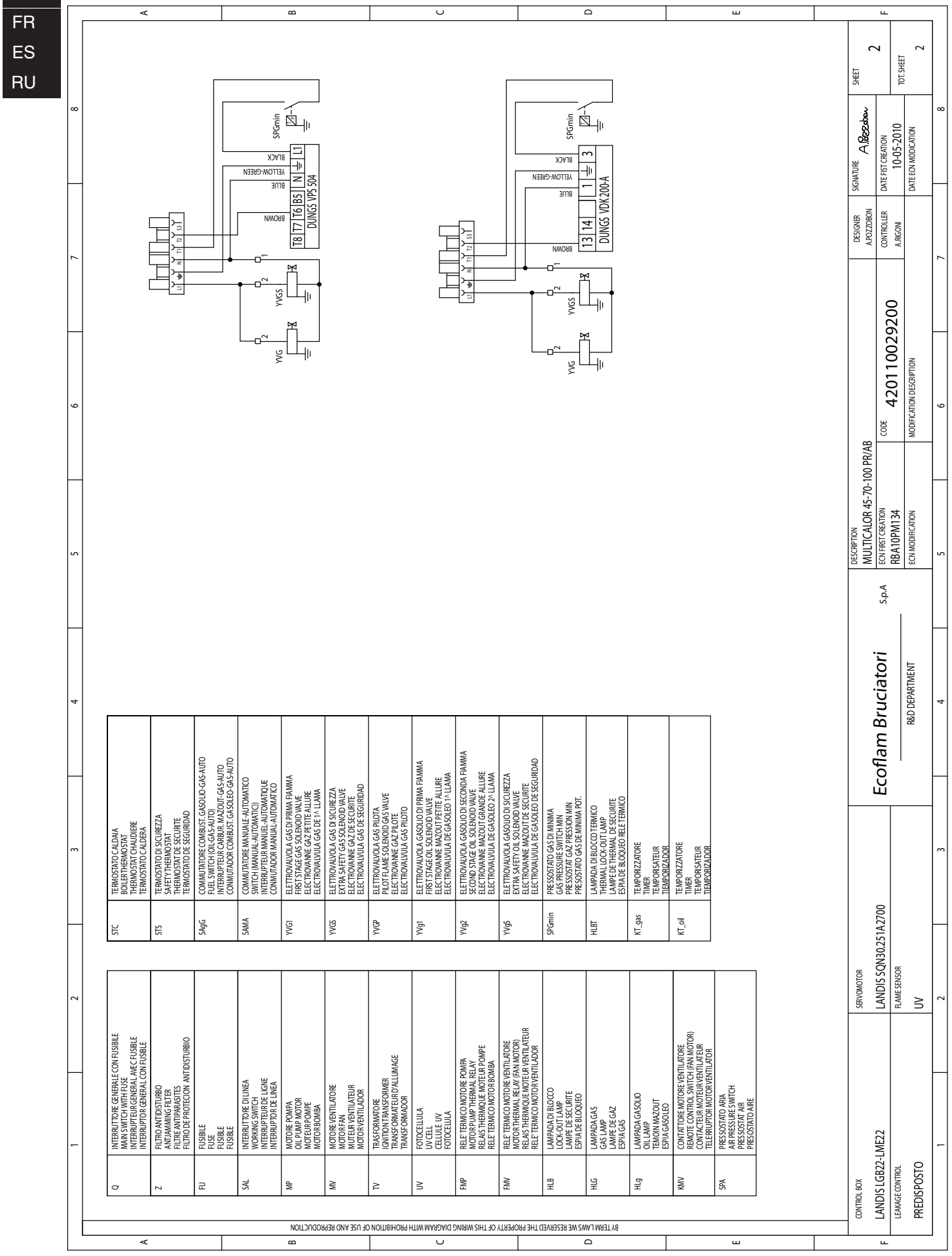
THE BURNERS IGNITES BUT SWITCHES TO LOCKOUT AFTER THE SAFETY TIME:

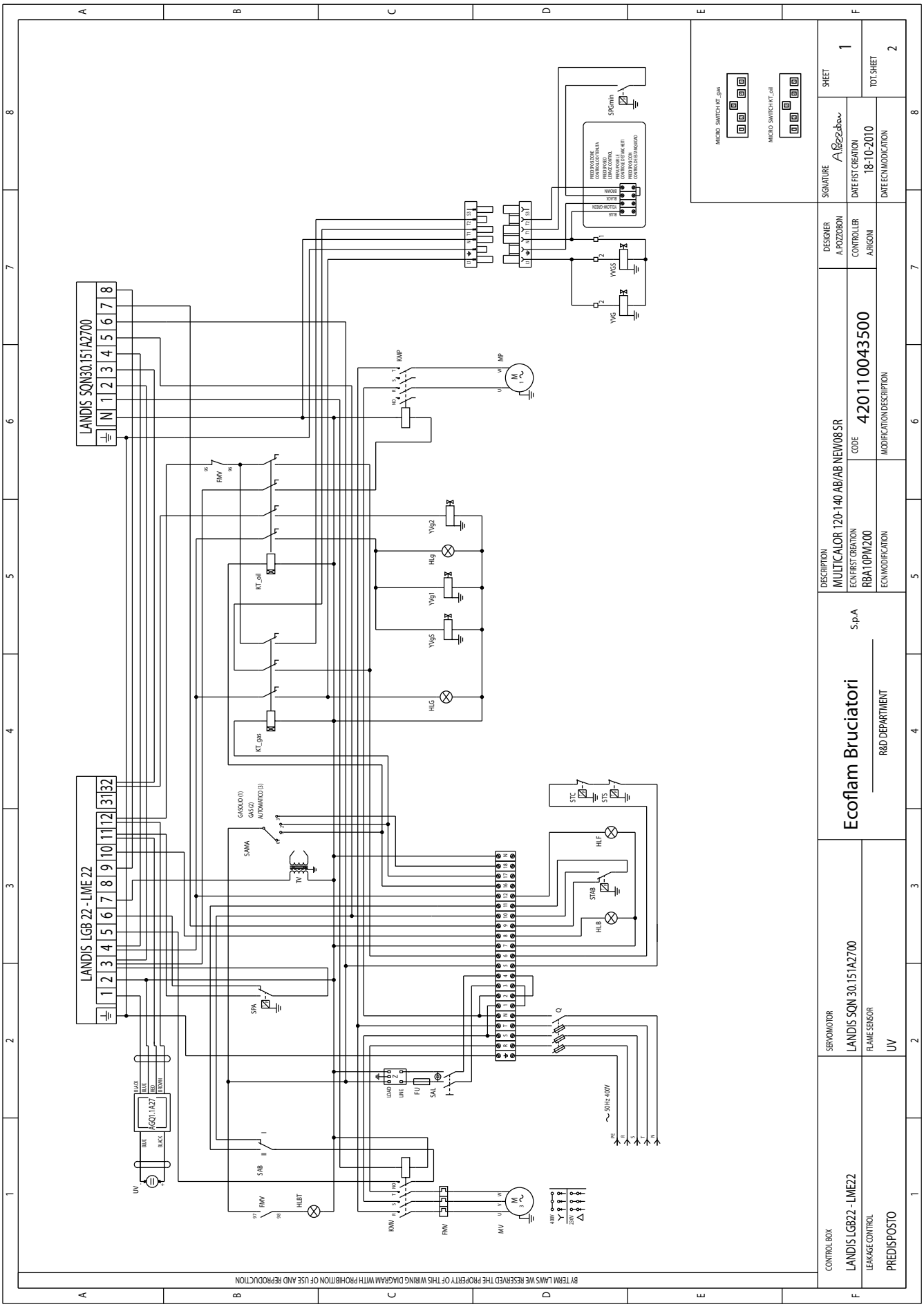
Check phase and neutral for a correct connection.
Check gas solenoid valve.
Check the position of ionisation probe and its connection.
Check the control box.
Check nozzles (clogged or worn).
The photoresistor does not detect the flame.
The filters are clogged. Light-oil pressure too low.
Combustion air's 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).

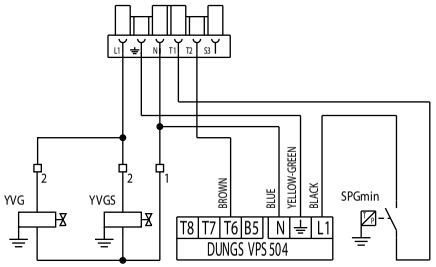

LANDIS SQN30.251A2700
LANDIS LGB 22-LME22
MICRO SWITCH KT_gas
MICRO SWITCH KT_oil
SAMA
COMMUTATORE MANUALE AUTOMATICO
SWITCH MANUAL/AUTOMATIC
INTERRUPTEUR MANUEL AUTOMATIQUE
CONMUTADOR MANUAL-AUTOMÁTICO
pos 0: FERMO / STOP
pos 1: ALTA FIAMMA/HIGH FLAME/2ème ALLURE/ALTA LLAMA
pos 2: BASSA FIAMMA/LOW FLAME/1ère ALLURE/BAJA LLAMA
pos 3: AUTOMATICO/AUTOMATIC/AUTOMATIQUE/AUTOMÁTICO
DESCRIPTION
MULTICALOR 45-70-100 PR/AB
EGN FIRST CREATION
RBA10PM134
EGN MODIFICATION
CODE
420110029200
MODIFICATION DESCRIPTION
DESIGNER
A.POZZOBON
CONTROLLER
A.RIGONI
SIGNATURE
DATE FIRST CREATION
10-05-2010
DATE EGN MODIFICATION
SHEET
1
TOT. SHEET
2
Ecoflam Bruciatori S.p.A
R&D DEPARTMENT
CONTROL BOX
LANDIS LGB22-LME22
LEAKAGE CONTROL
PREDISPOSTO
SERVOMOTOR
LANDIS SQN30.251A2700
FLAME SENSOR
UV
BY TERMS LAWS WE RESERVED THE PROPERTY OF THIS WIRING DIAGRAM WITH PROHIBITION OF USE AND REPRODUCTION

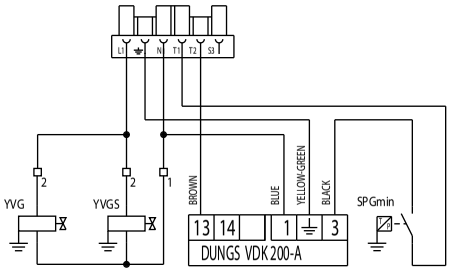

Ecoflam Bruciatori S.p.A
R&D DEPARTMENT
DESCRIPTION MULTICALOR 45-70-100 PR/AB
ECN FIRST CREATION RBA10PM134
ECN MODIFICATION
CODE 420110029200
MODIFICATION DESCRIPTION
DESIGNER A.POZZOBON
CONTROLLER A.RIGONI
SIGNATURE
DATE FIST CREATION 10-05-2010
DATE ECN MODIFICATION
SHEET 2
TOT. SHEET 2
CONTROL BOX LANDIS LGB22-LME22
SERVOMOTOR LANDIS SQN30.251A2700
FLAME SENSOR UV
LEAKAGE CONTROL PREDISPOSTO
BY TERM LAWS WE RESERVED THE PROPERTY OF THIS WIRING DIAGRAM WITH PROHIBITION OF USE AND REPRODUCTION
Q INTERRUTTORE GENERALE CON FUSIBILE
MAIN SWITCH WITH FUSE
INTERRUPTEUR GENERAL AVEC FUSIBLE
INTERRUPTOR GENERAL CON FUSIBLE
Z FILTRO ANTIDISTURBO
ANTI JAMMING FILTER
FILTRE ANTIPARASITES
FILTRO DE PROTECION ANTIDISTURBIO
FU FUSIBILE
FUSE
FUSIBLE
FUSIBLE
SAL INTERRUTTORE DI LINEA
WORKING SWITCH
INTERRUPTEUR DE LIGNE
INTERRUPTOR DE LINEA
MP MOTORE POMPA
OIL PUMP MOTOR
MOTEUR POMPE
MOTOR BOMBA
MV MOTORE VENTILATORE
MOTOR FAN
MUTEUR VENTILATEUR
MOTOR VENTILADOR
TV TRASFORMATORE
IGNITION TRANSFORMER
TRANSFORMATEUR D'ALLUMAGE
TRANSFORMADOR
UV FOTOCELLULA
UV CELL
CELLULE UV
FOTOCELULA
FMP RELE' TERMICO MOTORE POMPA
MOTOR PUMP THERMAL RELAY
RELAIS THERMIQUE MOTEUR POMPE
RELE' TERMICO MOTOR BOMBA
FMV RELE' TERMICO MOTORE VENTILATORE
MOTOR THERMAL RELAY (FAN MOTOR)
RELAIS THERMIQUE MOTEUR VENTILATEUR
RELE' TERMICO MOTOR VENTILADOR
HLB LAMPADA DI BLOCCO
LOCK-OUT LAMP
LAMPE DE SECURITE
ESPIA DE BLOQUEO
HLG LAMPADA GAS
GAS LAMP
LAMPE DE GAZ
ESPIA GAS
HLg LAMPADA GASOLIO
OIL LAMP
TEMOIN MAZOUT
ESPIA GASOLEO
KMV CONTATTORE MOTORE VENTILATORE
REMOTE CONTROL SWITCH (FAN MOTOR)
CONTACTEUR MOTEUR VENTILATEUR
TELERRUPTOR MOTOR VENTILADOR
SPA PRESSOSTATO ARIA
AIR PRESSURE SWITCH
PRESSOSTAT AIR
PRESOSTATO AIRE
STC TERMOSTATO CALDAIA
BOILER THERMOSTAT
THERMOSTAT CHAUDIERE
TERMOSTATO CALDERA
STS TERMOSTATO DI SICUREZZA
SAFETY THERMOSTAT
THERMOSTAT DE SECURITE
TERMOSTATO DE SEGURIDAD
SAgG COMMUTATORE COMBUST. GASOLIO-GAS-AUTO
FUEL SWITCH (OIL-GAS-AUTO)
INTERRUPTEUR CARBUR. MAZOUT-GAS-AUTO
CONMUTADOR COMBUST. GASOLEO-GAS-AUTO
SAMA COMMUTATORE MANUALE-AUTOMATICO
SWITCH (MANUAL-AUTOMATIC)
INTERRUPTEUR MANUEL-AUTOMATIQUE
CONMUTADOR MANUAL-AUTOMATICO
YVG1 ELETTROVALVOLA GAS DI PRIMA FIAMMA
FIRST STAGE GAS SOLENOID VALVE
ELECTROVANNE GAZ PETITE ALLURE
ELECTROVALVULA GAS DE 1^ LLAMA
YVGS ELETTROVALVOLA GAS DI SICUREZZA
EXTRA SAFETY GAS SOLENOID VALVE
ELECTROVANNE GAZ DE SECURITE
ELECTROVALVULA GAS DE SEGURIDAD
YVGP ELETTROVALVOLA GAS PILOTA
PILOT FLAME SOLENOID GAS VALVE
ELECTROVANNE GAZ PILOTE
ELECTROVALVULA GAS PILOTO
YVg1 ELETTROVALVOLA GASOLIO DI PRIMA FIAMMA
FIRST STAGE OIL SOLENOID VALVE
ELECTROVANNE MAZOUT PETITE ALLURE
ELECTROVALVULA DE GASOLEO 1^ LLAMA
YVg2 ELETTROVALVOLA GASOLIO DI SECONDA FIAMMA
SECOND STAGE OIL SOLENOID VALVE
ELECTROVANNE MAZOUT GRANDE ALLURE
ELECTROVALVULA DE GASOLEO 2^ LLAMA
YVgS ELETTROVALVOLA GASOLIO DI SICUREZZA
EXTRA SAFETY OIL SOLENOID VALVE
ELECTROVANNE MAZOUT DE SECURITE
ELECTROVALVULA DE GASOLEO DE SEGURIDAD
SPGmin PRESSOSTATO GAS DI MINIMA
GAS PRESSURE SWITCH MIN
PRESSOSTAT GAZ PRESSION MIN
PRESOSTATO GAS DE MINIMA POT.
HLBT LAMPADA DI BLOCCO TERMICO
THERMAL LOCK-OUT LAMP
LAMPE DE THERMAL DE SECURITE
ESPIA DE BLOQUEO RELE' TERMICO
KT_gas TEMPORIZZATORE
TIMER
TEMPORISATEUR
TIEMPORIZADOR
KT_oil TEMPORIZZATORE
TIMER
TEMPORISATEUR
TIEMPORIZADOR
T8 T7 T6 B5 N L1
DUNGS VPS 504
13 14 1 3
DUNGS VDK 200-A
BROWN
BLUE
YELLOW-GREEN
BLACK
SPGmin
YVGS
YVG
L1 N T1 T2 S3 T1


LANDIS SQN30.151A2700
LANDIS LGB 22 - LME 22
MICRO SWITCH KT_gas
MICRO SWITCH KT_oil
DESCRIPTION
MULTICALOR 120-140 AB/AB NEW08 SR
ECN FIRST CREATION
RBA10PM200
ECN MODIFICATION
CODE
42011004350O
MODIFICATION DESCRIPTION
DESIGNER
A.POZZOBON
CONTROLLER
A.BRIGONI
SIGNATURE
DATE FIST CREATION
18-10-2010
DATE ECN MODIFICATION
SHEET
1
TOT. SHEET
2
Ecoflam Bruciatori S.p.A
R&D DEPARTMENT
CONTROL BOX
LANDIS LGB22 - LME22
SERVOMOTOR
LANDIS SQN 30.151A2700
FLAME SENSOR
UV
LEAKAGE CONTROL
PREDISPOSTO
BY TERM LAWS WE RESERVED THE PROPERTY OF THIS WIRING DIAGRAM WITH PROHIBITION OF USE AND REPRODUCTION

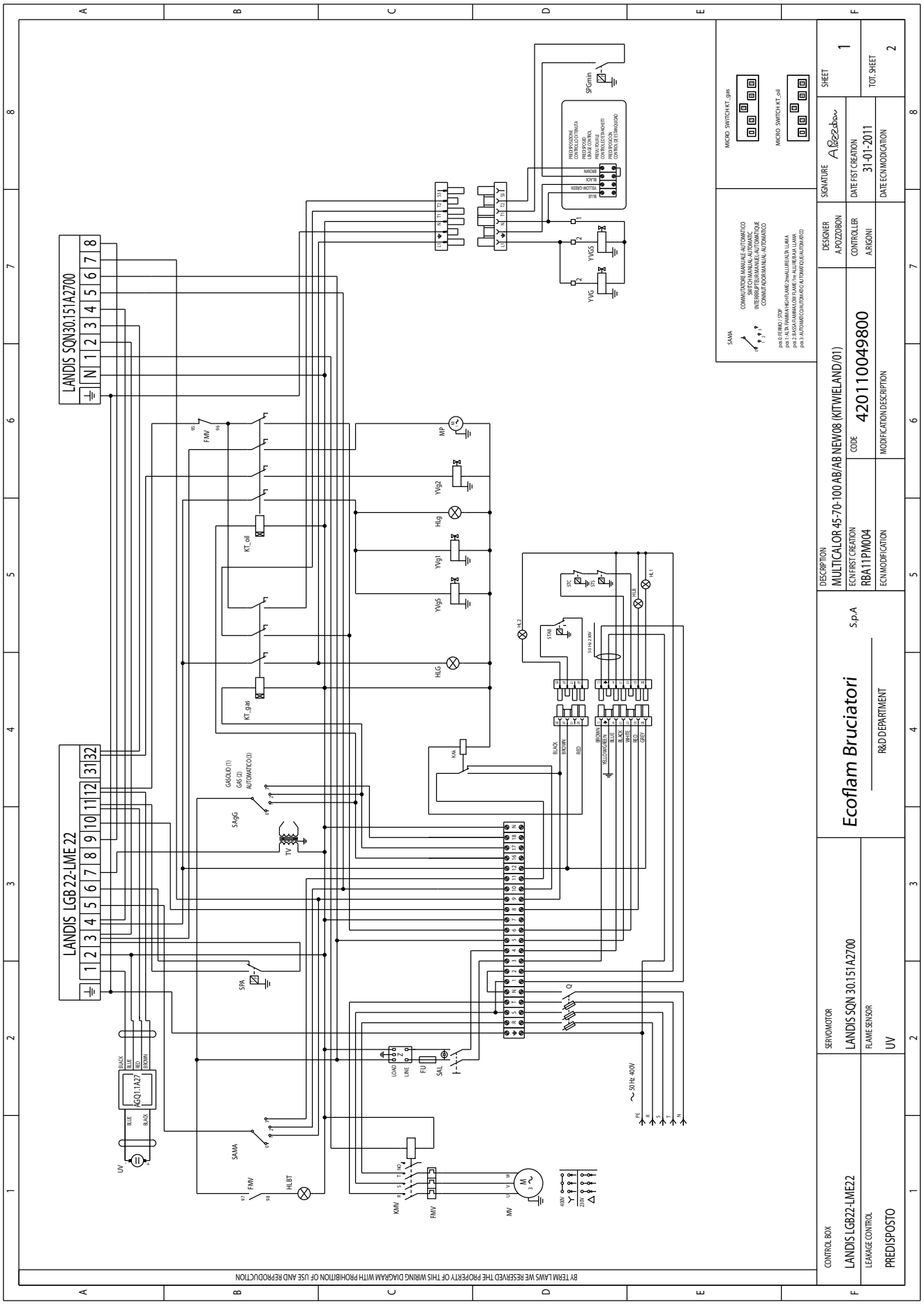
Q	INTERRUTTORE GENERALE CON FUSIBILE MAIN SWITCH WITH FUSE INTERRUPTEUR GENERAL AVEC FUSIBLE INTERRUPTOR GENERAL CON FUSIBLE
Z	FILTRO ANTIDISTURBO ANTJAMMING FILTER FILTRE ANTIPARASITES FILTRO DE PROTECION ANTIDISTURBIO
FU	FUSIBILE FUSE FUSIBLE FUSIBLE
SAL	INTERRUTTORE DI LINEA WORKING SWITCH INTERRUPTEUR DE LIGNE INTERRUPTOR DE LINEA
MP	MOTORE POMPA OIL PUMP MOTOR MOTEUR POMPE MOTOR BOMBA
MV	MOTORE VENTILATORE MOTOR FAN MUTEUR VENTILATEUR MOTOR VENTILADOR
TV	TRASFORMATORE IGNITION TRANSFORMER TRANSFORMATEUR D'ALLUMAGE TRANSFORMADOR
UV	FOTOCELLULA UV CELL CELLULE UV FOTOCELULA
FMV	RELE' TERMICO MOTORE VENTILATORE MOTOR THERMAL RELAY (FAN MOTOR) RELAIS THERMIQUE MOTEUR VENTILATEUR RELE' TERMICO MOTOR VENTILADOR
HLB	LAMPADA DI BLOCCO LOCK-OUT LAMP LAMPE DE SECURITE ESPIA DE BLOQUEO
HLG	LAMPADA GAS GAS LAMP LAMPE DE GAZ ESPIA GAS
HLg	LAMPADA GASOLIO OIL LAMP TEMOIN MAZOUT ESPIA GASOLEO
KMP	CONTATTORE MOTORE POMPA POMP REMOTE CONTROL SWITCH CONTACTEUR MOTEUR POMPE EMPALME MOTOR BOMBA
KMV	CONTATTORE MOTORE VENTILATORE REMOTE CONTROL SWITCH (FAN MOTOR) CONTACTEUR MOTEUR VENTILATEUR TELERRUPTOR MOTOR VENTILATOR
SPA	PRESSOSTATO ARIA AIR PRESSURE SWITCH PRESSOSTAT AIR PRESOSTATO AIRE
STC	TERMOSTATO CALDAIA BOILER THERMOSTAT THERMOSTAT CHAUDIERE TERMOSTATO CALDERA

STS	TERMOSTATO DI SICUREZZA SAFETY THERMOSTAT THERMOSTAT DE SECURITE TERMOSTATO DE SEGURIDAD
SAB	DEVIATORE ALTA-BASSA FIAMMA HIGH-LOW FLAME SWITCH INTERRUPTEUR GRANDE/PETIRE ALLURE CONMUTADOR DE ALTA/BAJA LLAMA
SAMA	COMMUTATORE MANUALE-AUTOMATICO SWITCH (MANUAL-AUTOMATIC)) INTERRUPTEUR MANUEL-AUTOMATIQUE CONMUTADOR MANUAL-AUTOMATICO
YVG1	ELETTROVALVOLA GAS DI PRIMA FIAMMA FIRST STAGE GAS SOLENOID VALVE ELECTROVANNE GAZ PETITE ALLURE ELECTROVALVULA GAS DE 1^ LLAMA
YVGS	ELETTROVALVOLA GAS DI SICUREZZA EXTRA SAFETY GAS SOLENOID VALVE ELECTROVANNE GAZ DE SECURITE ELECTROVALVULA GAS DE SEGURIDAD
YVg1	ELETTROVALVOLA GASOLIO DI PRIMA FIAMMA FIRST STAGE OIL SOLENOID VALVE ELECTROVANNE MAZOUT PETITE ALLURE ELECTROVALVULA DE GASOLEO 1^ LLAMA
YVg2	ELETTROVALVOLA GASOLIO DI SECONDA FIAMMA SECOND STAGE OIL SOLENOID VALVE ELECTROVANNE MAZOUT GRANDE ALLURE ELECTROVALVULA DE GASOLEO 2^ LLAMA
YVgS	ELETTROVALVOLA GASOLIO DI SICUREZZA EXTRA SAFETY OIL SOLENOID VALVE ELECTROVANNE MAZOUT DE SECURITE ELECTROVALVULA DE GASOLEO DE SEGURIDAD
SPGmin	PRESSOSTATO GAS DI MINIMA GAS PRESSURE SWITCH MIN PRESSOSTAT GAZ PRESSION MIN PRESOSTATO GAS DE MINIMA POT.
HLBT	LAMPADA DI BLOCCO TERMICO THERMAL LOCK-OUT LAMP LAMPE DE THERMAL DE SECURITE ESPIA DE BLOQUEO RELE TERMICO
KT_gas	TEMPORIZZATORE TIMER TEMPORISATEUR TIEMPORIZADOR
KT_oil	TEMPORIZZATORE TIMER TEMPORISATEUR TIEMPORIZADOR



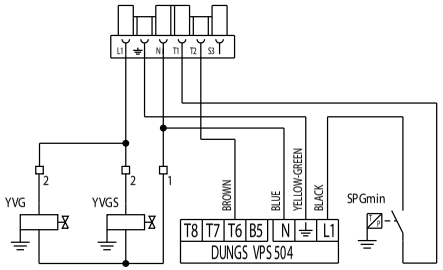


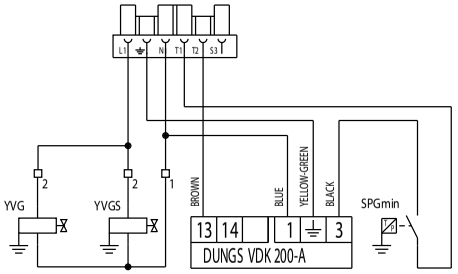
CONTROL BOX: LANDIS LGB22 - LME22	SERVOMOTOR: LANDIS SQN 30.151A2700	Ecoflam Bruciatori S.p.A R&D DEPARTMENT	DESCRIPTION: MULTICALOR 120-140 AB/AB NEW08 SR		DESIGNER: A.POZZOBON	SIGNATURE: A.Pozzobon	SHEET: 2
LEAKAGE CONTROL: PREDISPOSTO	FLAME SENSOR: UV		ECN FIRST CREATION: RBA10PM200	CODE: 420110043500	CONTROLLER: A.RIGONI	DATE FIST CREATION: 18-10-2010	TOT. SHEET: 2
			ECN MODIFICATION	MODIFICATION DESCRIPTION		DATE ECN MODICATION	


LANDIS SQN30.151A2700
LANDIS LGB22-LME22
MULTICALOR 45-70-100 AB/AB NEW08 (KITWIELAND/01)
420110049800
Ecoflam Bruciatori S.p.A
R&D DEPARTMENT
CONTROL BOX
LANDIS LGB22-LME22
SERVOMOTOR
LANDIS SQN 30.151A2700
LEAKAGE CONTROL
PREDISPOSTO
FLAME SENSOR
UV
SHEET 1
TOT. SHEET 2
DATE FIST CREATION 31-01-2011
DESIGNER A.POZZOBON
CONTROLLER A.RIGONI
SIGNATURE A.Pozzobon
MICRO SWITCH KT_gas
MICRO SWITCH KT_oil
COMMUTATORE MANUALE-AUTOMATICO
SWITCH MANUAL-AUTOMATIC
INTERRUTTORE MANUALE-AUTOMATICO
COMMUTATEUR MANUAL-AUTOMATICO
pos 0 : FERMO / STOP
pos 1 : ALTA FIAMMA MANUALE / 2nd FLAME MANUAL
pos 2 : BASSA FIAMMA MANUALE / 1st FLAME MANUAL
pos 3 : AUTOMATICO/AUTOMATIC/AUTOMATIQUE/AUTOMATICO
BY TERM LAWS WE RESERVED THE PROPERTY OF THIS WIRING DIAGRAM WITH PROHIBITION OF USE AND REPRODUCTION

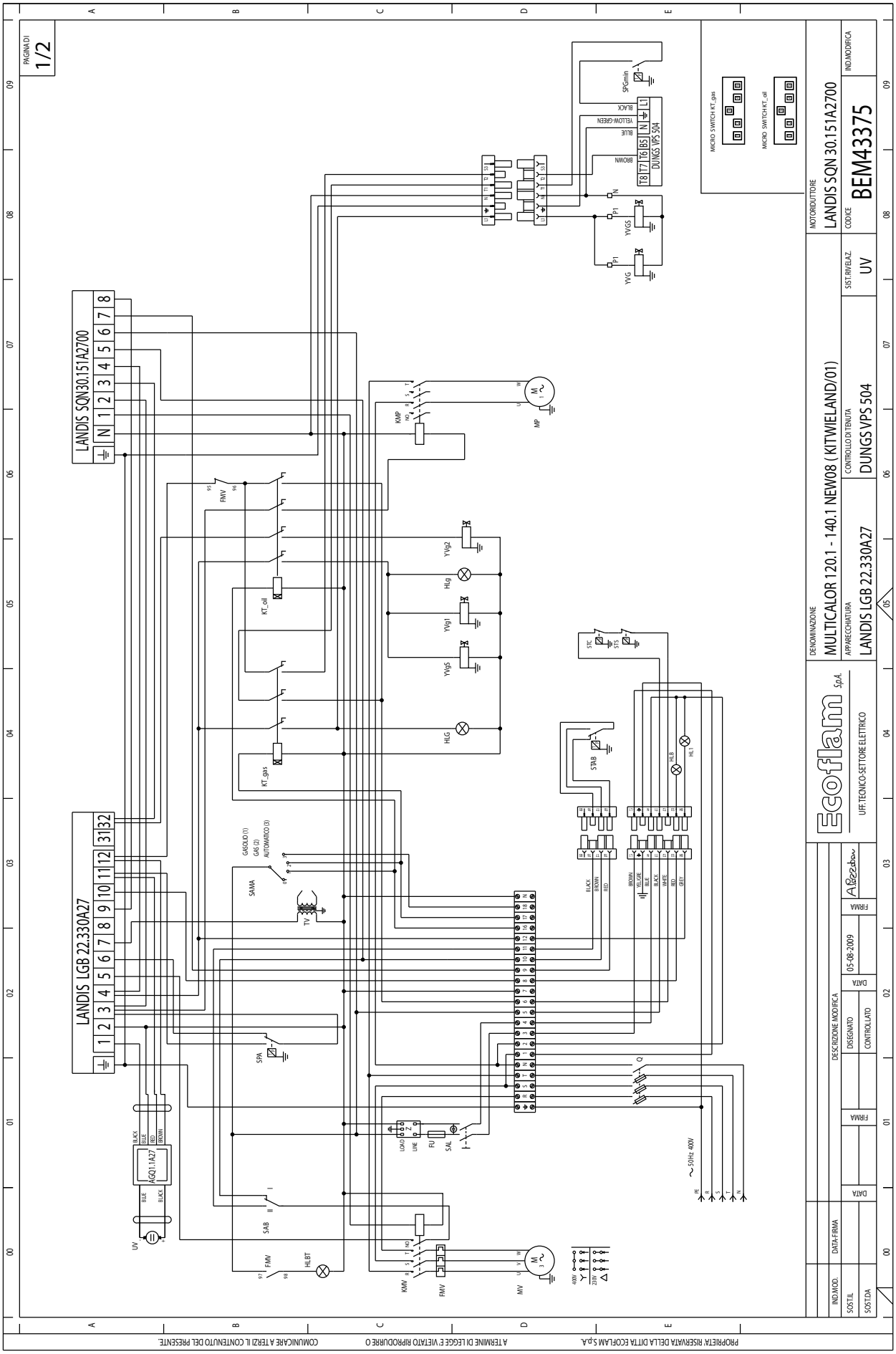
Q	INTERRUTTORE GENERALE CON FUSIBILE MAIN SWITCH WITH FUSE INTERRUPTEUR GENERAL AVEC FUSIBLE INTERRUPTOR GENERAL CON FUSIBLE
Z	FILTRO ANTIDISTURBO ANTJAMMING FILTER FILTRE ANTIPARASITES FILTRO DE PROTECION ANTIDISTURBIO
FU	FUSIBILE FUSE FUSIBLE FUSIBLE
SAL	INTERRUTTORE DI LINEA WORKING SWITCH INTERRUPTEUR DE LIGNE INTERRUPTOR DE LINEA
MP	MOTORE POMPA OIL PUMP MOTOR MOTEUR POMPE MOTOR BOMBA
MV	MOTORE VENTILATORE MOTOR FAN MUTEUR VENTILATEUR MOTOR VENTILADOR
TV	TRASFORMATORE IGNITION TRANSFORMER TRANSFORMATEUR D'ALLUMAGE TRANSFORMADOR
UV	FOTOCELLULA UV CELL CELLULE UV FOTOCELULA
FMV	RELE' TERMICO MOTORE VENTILATORE MOTOR THERMAL RELAY (FAN MOTOR) RELAIS THERMIQUE MOTEUR VENTILATEUR RELE' TERMICO MOTOR VENTILADOR
HLB	LAMPADA DI BLOCCO LOCK-OUT LAMP LAMPE DE SECURITE ESPIA DE BLOQUEO
HLG	LAMPADA GAS GAS LAMP LAMPE DE GAZ ESPIA GAS
HLg	LAMPADA GASOLIO OIL LAMP TEMOIN MAZOUT ESPIA GASOLEO
KMV	CONTATTORE MOTORE VENTILATORE REMOTE CONTROL SWITCH (FAN MOTOR) CONTACTEUR MOTEUR VENTILATEUR TELERRUPTOR MOTOR VENTILATOR
SPA	PRESSOSTATO ARIA AIR PRESSURE SWITCH PRESSOSTAT AIR PRESOSTATO AIRE
STAB	TERMOSTATO DI ALTA-BASSA FIAMMA HIGH-LOW FLAME THERMOSTAT THERMOSTAT GRANDE-PETIRE ALLURE TERMOSTATO DE ALTA-BAJA LLAMA

STC	TERMOSTATO CALDAIA BOILER THERMOSTAT THERMOSTAT CHAUDIERE TERMOSTATO CALDERA
STS	TERMOSTATO DI SICUREZZA SAFETY THERMOSTAT THERMOSTAT DE SECURITE TERMOSTATO DE SEGURIDAD
SAgG	COMMUTATORE COMBUST. GASOLIO-GAS-AUTO FUEL SWITCH (OIL-GAS-AUTO) INTERRUPTEUR CARBUR. MAZOUT-GAS-AUTO CONMUTADOR COMBUST. GASOLEO-GAS-AUTO
SAMA	COMMUTATORE MANUALE-AUTOMATICO SWITCH (MANUAL-AUTOMATIC)) INTERRUPTEUR MANUEL-AUTOMATIQUE CONMUTADOR MANUAL-AUTOMATICO
YVG1	ELETTROVALVOLA GAS DI PRIMA FIAMMA FIRST STAGE GAS SOLENOID VALVE ELECTROVANNE GAZ PETITE ALLURE ELECTROVALVULA GAS DE 1^ LLAMA
YVGS	ELETTROVALVOLA GAS DI SICUREZZA EXTRA SAFETY GAS SOLENOID VALVE ELECTROVANNE GAZ DE SECURITE ELECTROVALVULA GAS DE SEGURIDAD
YVg1	ELETTROVALVOLA GASOLIO DI PRIMA FIAMMA FIRST STAGE OIL SOLENOID VALVE ELECTROVANNE MAZOUT PETITE ALLURE ELECTROVALVULA DE GASOLEO 1^ LLAMA
YVg2	ELETTROVALVOLA GASOLIO DI SECONDA FIAMMA SECOND STAGE OIL SOLENOID VALVE ELECTROVANNE MAZOUT GRANDE ALLURE ELECTROVALVULA DE GASOLEO 2^ LLAMA
YVgS	ELETTROVALVOLA GASOLIO DI SICUREZZA EXTRA SAFETY OIL SOLENOID VALVE ELECTROVANNE MAZOUT DE SECURITE ELECTROVALVULA DE GASOLEO DE SEGURIDAD
SPGmin	PRESSOSTATO GAS DI MINIMA GAS PRESSURE SWITCH MIN PRESSOSTAT GAZ PRESSION MIN PRESOSTATO GAS DE MINIMA POT.
HLBT	LAMPADA DI BLOCCO TERMICO THERMAL LOCK-OUT LAMP LAMPE DE THERMAL DE SECURITE ESPIA DE BLOQUEO RELE TERMICO
KT_gas	TEMPORIZZATORE TIMER TEMPORISATEUR TIEMPORIZADOR
KT_oil	TEMPORIZZATORE TIMER TEMPORISATEUR TIEMPORIZADOR
HL1	LAMPADA DI FUNZIONAMENTO WORKING LAMP LAMPE DE FONCTIONNEMENT ESPIA DE FUNCIONAMIENTO
KAk	RELE' RELAY RELAIS RELE'





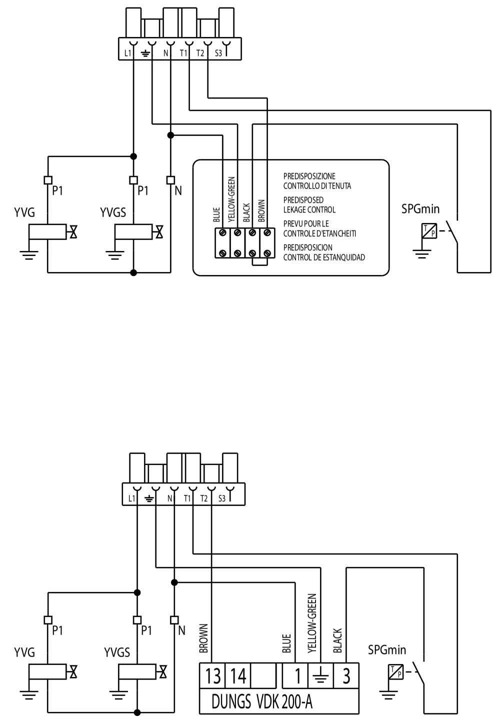
CONTROL BOX	SERVOMOTOR	Ecoflam Bruciatori S.p.A	DESCRIPTION		DESIGNER	SIGNATURE	SHEET
LANDIS LGB22-LME22	LANDIS SQN 30.151A2700		MULTICALOR 45-70-100 AB/AB NEW08 (KITWIELAND/01)		A.POZZOBON	A.Pozzobon	2
LEAKAGE CONTROL	FLAME SENSOR	R&D DEPARTMENT	ECN FIRST CREATION	CODE	CONTROLLER	DATE FIST CREATION	TOT. SHEET
PREDISPOSTO	UV		RBA11PM004	420110049800	A.RIGONI	31-01-2011	2
			ECN MODIFICATION	MODIFICATION DESCRIPTION		DATE ECN MODICATION	


PAGINA DI 1/2
LANDIS SQN30.151A2700
LANDIS LGB 22.330A27
MOTORIDUTTORE
LANDIS SQN 30.151A2700
CODICE
BEM43375
SIST. RIVELAZ.
UV
CONTROLLO DI TENUTA
DUNGS VPS 504
APPARECCHIATURA
LANDIS LGB 22.330A27
DENOMINAZIONE
MULTICALOR 120.1 - 140.1 NEW08 (KITWIELAND/01)
Ecoflam S.p.A.
UFF. TECNICO-SETTORE ELETTRICO
DESCRIZIONE MODIFICA
DISEGNATO
CONTROLLATO
DATA
FIRMA
IND. MODIFICA
IND.MOD.
SOST. IL
SOST. DA
DATA-FIRMA
MICRO SWITCH KT_gas
MICRO SWITCH KT_oil
PROPRIETA' RISERVATA DELLA DITTA ECOFLAM S.p.A.
A TERMINE DI LEGGE E' VIETATO RIPRODURRE O
COMUNICARE A TERZI IL CONTENUTO DEL PRESENTE.

PAGINA DI 2/2

Q	INTERRUTTORE GENERALE CON FUSIBILE MAIN SWITCH WITH FUSE INTERRUPTEUR GENERAL AVEC FUSIBLE INTERRUPTOR GENERAL CON FUSIBLE
Z	FILTRO ANTIDISTURBO ANTJAMMING FILTER FILTRE ANTIPARASITES FILTRO DE PROTECION ANTIDISTURBIO
FU	FUSIBILE FUSE FUSIBLE FUSIBLE
KA2	RELE' RELAY RELAIS RELE'
SAL	INTERRUTTORE DI LINEA WORKING SWITCH INTERRUPTEUR DE LIGNE INTERRUPTOR DE LINEA
MP	MOTORE POMPA OIL PUMP MOTOR MOTEUR POMPE MOTOR BOMBA
MV	MOTORE VENTILATORE MOTOR FAN MUTEUR VENTILATEUR MOTOR VENTILADOR
TV	TRASFORMATORE IGNITION TRANSFORMER TRANSFORMATEUR D'ALLUMAGE TRANSFORMADOR
UV	FOTOCELLULA UV CELL CELLULE UV FOTOCELULA
FMP	RELE' TERMICO MOTORE POMPA MOTOR PUMP THERMAL RELAY RELAIS THERMIQUE MOTEUR POMPE RELE' TERMICO MOTOR BOMBA
FMV	RELE' TERMICO MOTORE VENTILATORE MOTOR THERMAL RELAY (FAN MOTOR) RELAIS THERMIQUE MOTEUR VENTILATEUR RELE' TERMICO MOTOR VENTILADOR
HLB	LAMPADA DI BLOCCO LOCK-OUT LAMP LAMPE DE SECURITE ESPIA DE BLOQUEO
HLG	LAMPADA GAS GAS LAMP LAMPE DE GAZ ESPIA GAS
HLg	LAMPADA GASOLIO OIL LAMP TEMOIN MAZOUT ESPIA GASOLEO
KMP	CONTATTORE MOTORE POMPA POMP REMOTE CONTROL SWITCH CONTACTEUR MOTEUR POMPE EMPALME MOTOR BOMBA
KMV	CONTATTORE MOTORE VENTILATORE REMOTE CONTROL SWITCH (FAN MOTOR) CONTACTEUR MOTEUR VENTILATEUR TELERRUPTOR MOTOR VENTILATOR

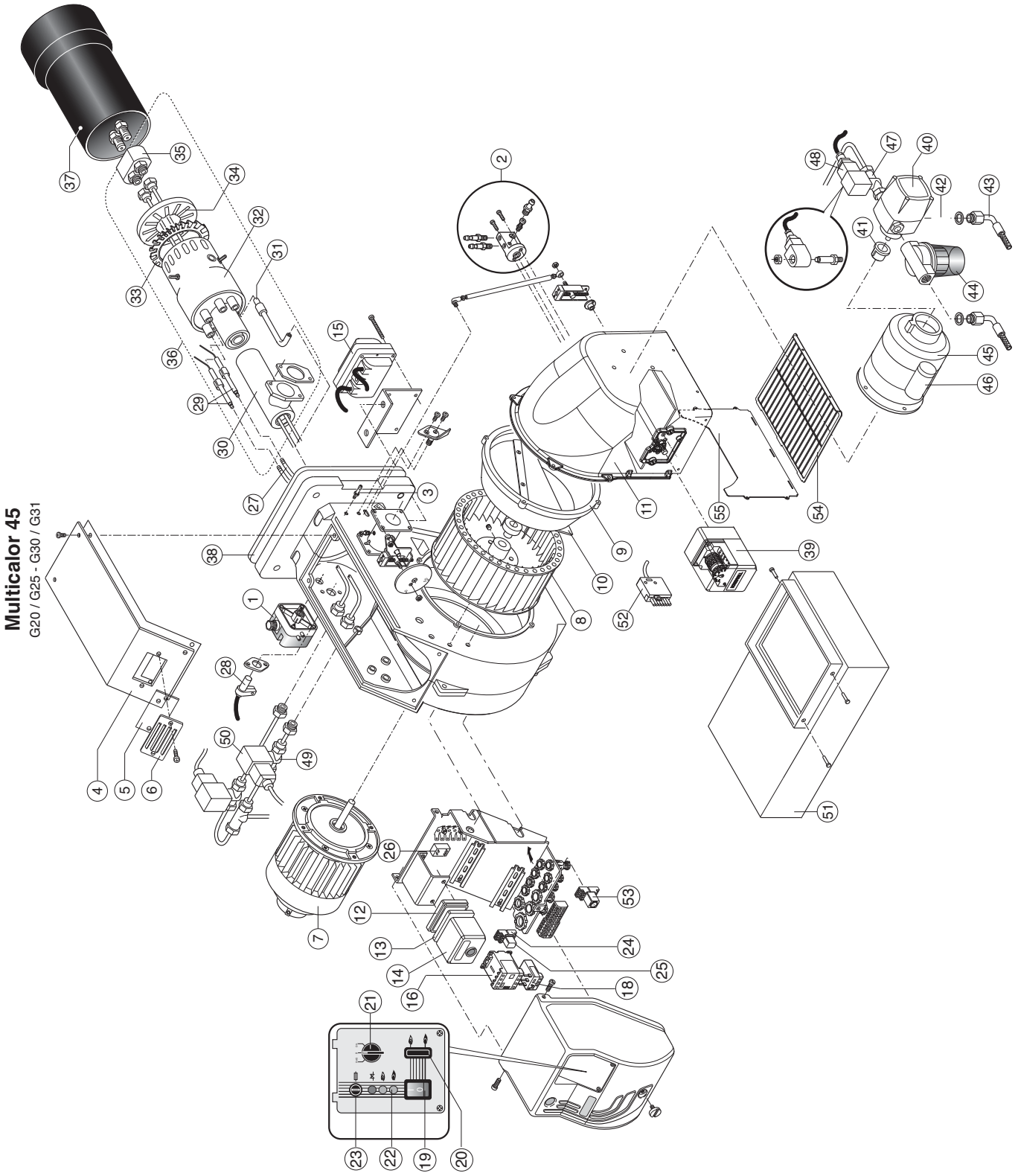
SPA	PRESSOSTATO ARIA AIR PRESSURE SWITCH PRESSOSTAT AIR PRESOSTATO AIRE
STC	TERMOSTATO CALDAIA BOILER THERMOSTAT THERMOSTAT CHAUDIERE TERMOSTATO CALDERA
STS	TERMOSTATO DI SICUREZZA SAFETY THERMOSTAT THERMOSTAT DE SECURITE TERMOSTATO DE SEGURIDAD
SAgG	COMMUTATORE COMBUST. GASOLIO-GAS-AUTO FUEL SWITCH (OIL-GAS-AUTO) INTERRUPTEUR CARBUR. MAZOUT-GAS-AUTO CONMUTADOR COMBUST. GASOLEO-GAS-AUTO
SAMA	COMMUTATORE MANUALE-AUTOMATICO SWITCH (MANUAL-AUTOMATIC)) INTERRUPTEUR MANUEL-AUTOMATIQUE CONMUTADOR MANUAL-AUTOMATICO
YVG1	ELETTROVALVOLA GAS DI PRIMA FIAMMA FIRST STAGE GAS SOLENOID VALVE ELECTROVANNE GAZ PETITE ALLURE ELECTROVALVULA GAS DE 1^ LLAMA
YVGS	ELETTROVALVOLA GAS DI SICUREZZA EXTRA SAFETY GAS SOLENOID VALVE ELECTROVANNE GAZ DE SECURITE ELECTROVALVULA GAS DE SEGURIDAD
YVGP	ELETTROVALVOLA GAS PILOTA PILOT FLAME SOLENOID GAS VALVE ELECTROVANNE GAZ PILOTE ELECTROVALVULA GAS PILOTO
YVg1	ELETTROVALVOLA GASOLIO DI PRIMA FIAMMA FIRST STAGE OIL SOLENOID VALVE ELECTROVANNE MAZOUT PETITE ALLURE ELECTROVALVULA DE GASOLEO 1^ LLAMA
YVg2	ELETTROVALVOLA GASOLIO DI SECONDA FIAMMA SECOND STAGE OIL SOLENOID VALVE ELECTROVANNE MAZOUT GRANDE ALLURE ELECTROVALVULA DE GASOLEO 2^ LLAMA
YVgS	ELETTROVALVOLA GASOLIO DI SICUREZZA EXTRA SAFETY OIL SOLENOID VALVE ELECTROVANNE MAZOUT DE SECURITE ELECTROVALVULA DE GASOLEO DE SEGURIDAD
SPGmin	PRESSOSTATO GAS DI MINIMA GAS PRESSURE SWITCH MIN PRESSOSTAT GAZ PRESSION MIN PRESOSTATO GAS DE MINIMA POT.
HLBT	LAMPADA DI BLOCCO TERMICO THERMAL LOCK-OUT LAMP LAMPE DE THERMAL DE SECURITE ESPIA DE BLOQUEO RELE TERMICO
KT_gas	TEMPORIZZATORE TIMER TEMPORISATEUR TIEMPORIZADOR
KT_oil	TEMPORIZZATORE TIMER TEMPORISATEUR TIEMPORIZADOR

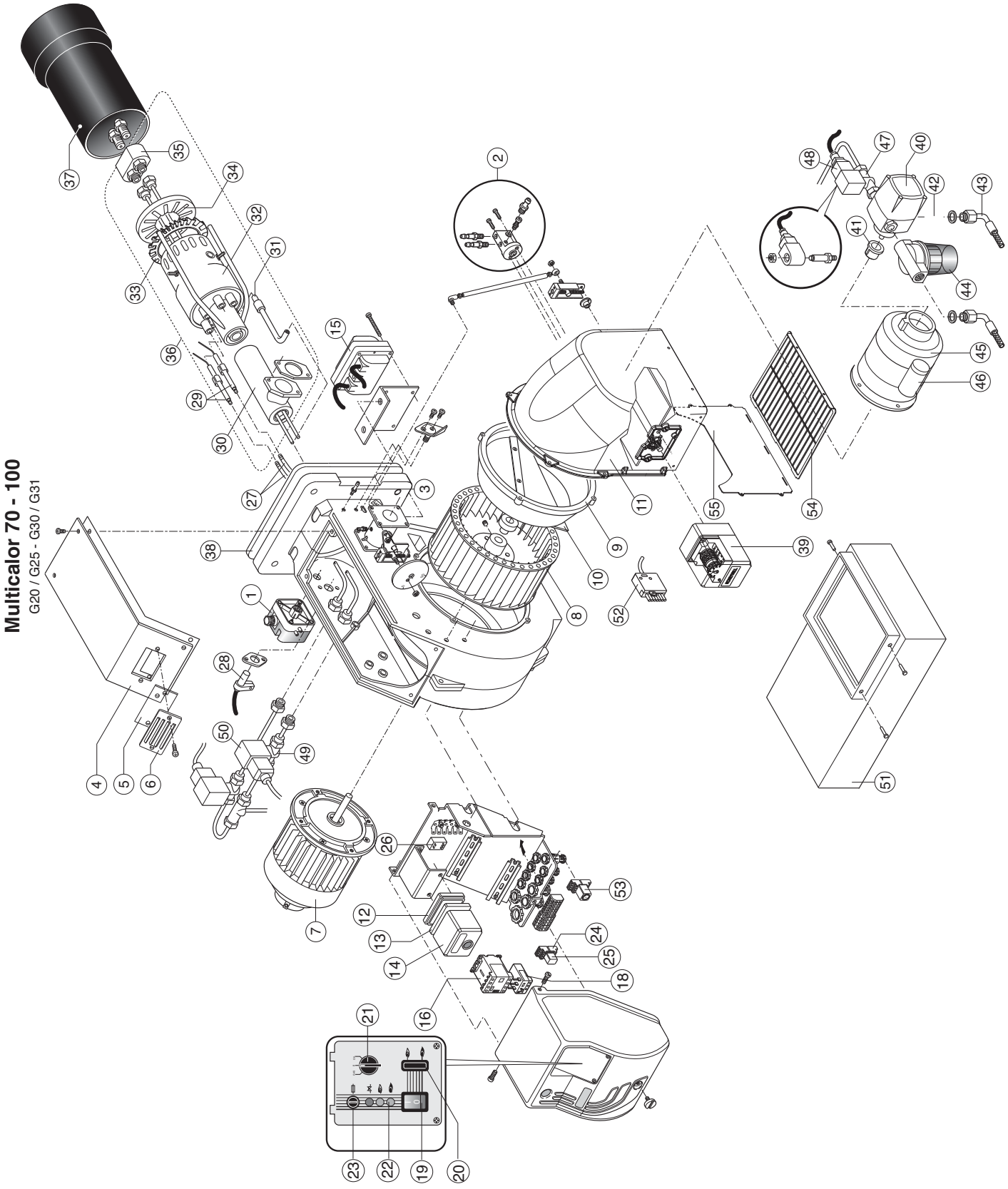


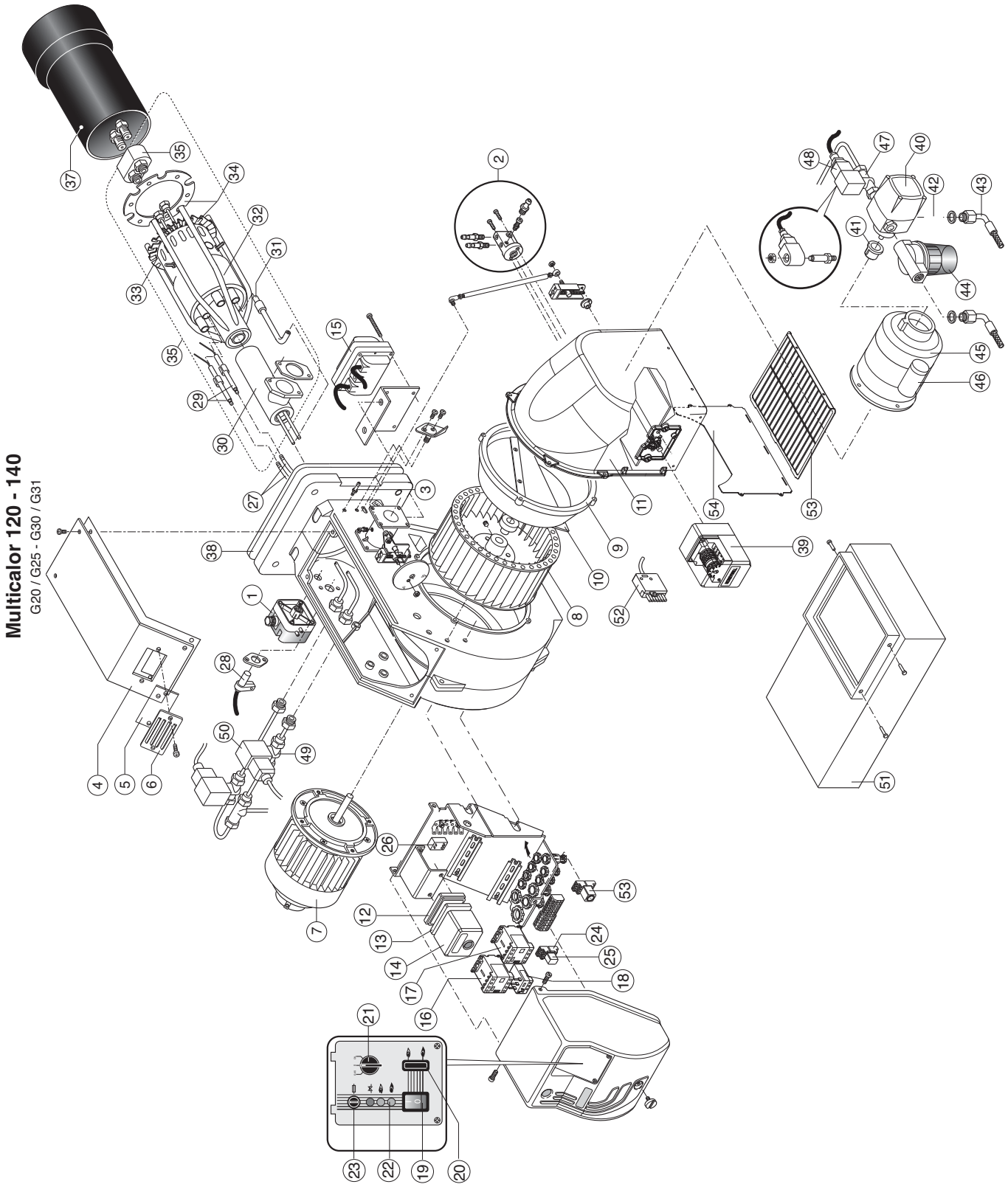
IND.MOD.	DATA-FIRMA	DESCRIZIONE MODIFICA							
SOST.IL		DATA	FIRMA	DISEGNATO	DATA	05-07-2009	FIRMA	A. Pizzabon	
SOST.DA				CONTROLLATO					

Ecoflam S.p.A.
UFF.TECNICO-SETTORE ELETTRICO

DENOMINAZIONE	MULTICALOR 120.1-140.1 NEW08		MOTORIDUTTORE	LANDIS SQN 30.151A2700
APPARECCHIATURA	LANDIS LGB 22.330A27	CONTROLLO DI TENUTA: DUNGS VPS 504	SIST. RIVELAZ.: UV	CODICE: BEM43375 — IND.MODIFICA


Multicalor 45
G20 / G25 - G30 / G31


Multicalor 70 - 100
G20 / G25 - G30 / G31


Multicalor 120 - 140
G20 / G25 - G30 / G31

			Multicalor 70	Multicalor 100
			code	code
1	AIR PRESSURE SWITCH	DUNGS LGW10 A2P	65323047	65323047
2	AIR INTAKE SET		65322346	65322346
3	COVER		65320489	65320489
4	BURNER COVER		65320674	65320674
5	GLASS		65320487	65320487
6	VIEWING WINDOW		65320488	65320488
7	MOTOR	740 W	65322834	-
		1100 W	-	65322803
8	FAN	250 X 84	65321777	-
		260 X 98	-	65321776
9	AIR CONVEYOR		65320639	65320639
10	FAN SCOOP		65320622	65320622
11	AIR INTAKE		65324812	65324812
12	ADAPTER	LANDIS AGQ1.1A27	65322038	65322038
13	CONTROL BOX BASE	LANDIS	65320092	65320092
14	CONTROL BOX	LANDIS LGB22	65320034	65320034
15	IGNITION TRANSFORMER	COFI 1020 CM	65323223	65323223
16	REMOTE CONTROL SWITCH	MC9.10	65323126	-
		BF12.10	-	65323129
17	REMOTE CONTROL SWITCH (PUMP)		-	-
18	MOTOR THERMAL RELAY	Lovato RF9 2-3,3A	65074494	-
		Lovato RF9 3-5A	-	65074495
19	MAIN SWITCH	cod.40100I1509	65323064	65323064
20	HIGH-LOW FLAME SWITCH	cod.360000001	65323065	65323065
21	GAS/LIGHT-OIL SELECTOR		65323067	65323067
22	LAMP	EL/N-SC4 Elettrospring	65322053	65322053
23	FUSE SUPPORT	FUSIT FH-B528	65322181	65322181
24	RELAY BASE	FINDER 5534	65323150	65323150
25	RELAY	FINDER 5534	65323140	65323140
26	ANTIJAMMING FILTER		65323170	65323170
27	IGNITION CABLE	TC	65320940	65320940
		TL	65320942	65320942
28	UV CELL	LANDIS QRA2	65320075	65320075
29	IGNITION ELECTRODES SET		65322322	65322322
30	PIPE		65321638	65321638
31	ROD		65320230	65320230
32	FIRING HEAD	TC	65321639	65321639
		TL	65324760	65324760
33	REAR DISC		65324760	65324760
34	FRONT DISC		65320808	65320808
35	NOZZLE HOLDER		65320711	65320711
36	INNER ASSEMBLY	TC	65322502	65322502
		TL	65322503	65322503
37	BLAST TUBE	TC	65320411	65320402
		TL	65320412	65320403
38	GASKET		65321117	65321117
39	AIR DAMPER MOTOR	LANDIS SQN 30.151A2700	65322897	65322897
40	OIL PUMP	SUNTEC AS 67 B	65322960	-
		(versione D) SUNTEC D 67A	65322956	
		SUNTEC AN 77 A	-	65322953
		DANFOSS RSA 60	-	65322964
41	COUPLING		65322918	65322920
42	NIPPLE	TN 6x1500	65323194	65323194
43	HOSES	TN 14x1200	65323184	65323184
44	OIL FILTER	art. 70301-01P	65324051	65324051
45	PUMP MOTOR	200 W	65322789	65322789
46	CONDENSATOR	6.3 µF	65321852	65321852
47	OIL VALVE	DELTA 1/8 F.84	65323754	65323754
48	COIL	DELTA	65323765	65323765
49	OIL VALVE	PARKER SCEM VE131	65323624	65323624
50	COIL	PARKER	65323782	65323782
51	SILENCER	(OPTION)	65074536	65074536
52	PLUG WIELAND	6 pin	65322072	65322072
53	TIMER	(AUTOMATIC CHANGEOVER)	65324212	65324212
54	PROTECTION		65324049	65324049
55	SHEET CLOSING		65324050	65324050

TC = SHORT HEAD TL = LONG HEAD

				Multicalor 140
N°	DESIGNATION	DESCRIPCION		code
1	PRESSOSTAT AIR	PRESOSTATO AIRE	DUNGS LGW10 A2P	65323047
2	SET DE PRISES D'AIR	COJUNTO TOMAS DE AIRE		65322346
3	COUVERCLE	TAPA		65320489
4	COUVERCLE DU BRULEUR	TAPA QUEMADOR		65320674
5	HUBLOT	VIDRIOSO		65320487
6	PROTECTION HULBOT	SOPORTE VIDRIOSO		65320488
7	MOTEUR	MOTOR	2200 W	65322841
8	VENTILATEUR	VENTILADOR	260 x 110	65321775
9	CONVOYEUR D'AIR	CONDUCTO DE AIRE		65320639
10	SURPRESSEUR	SURPRESSORE		65320622
11	BOITE D'AIR	REJILLA DE PROTECCION		65324054
12	ADAPTATEUR	ADACTADOR	LANDIS AGQ1.1A27	65322038
13	SOCLE	BASE DEL EQUIPO	LANDIS	65320092
14	COFFRET DE SECURITE	EQUIPO CONTROL LLAMA	LANDIS LGB22	65320034
15	TRASFORMATEUR D'ALLUMAGE	TRANSFORMADOR	COFI 1020 CM	65323223
16	TELERUPTEUR	EMPALME MOTOR VENTILADOR	BG0910A	65323138
17	TELERUPTEUR (POMPE)	EMPALME MOTOR (BOMBA)	BG0910A	65323138
18	RELAIS THERMIQUE	TERMICO	Lovato RF9 4,5. 7,5A	65323101
19	INTERRUPTEUR DE TRAVAIL	INTERRUPTOR DE LINEA	cod.40100I1509	65323064
20	INTERRUPTEUR 1RE. ET 2ME. ALLURE	INTERRUPTOR 1°-2° LLAMA	cod.360000001	65323065
21	SELECTOR	GAS/GASOLEO CONMUTADOR		65323067
22	LAMPE	ESPIA	EL/N-SC4 Elettrospring	65322053
23	PORTEFUSIBLE	PORTAFUSIBLE	FUSIT FH-B528	65322181
24	SOCLE RELAIS	BASE DEL RELE'	FINDER 5534	65323150
25	RELAIS	RELE'	FINDER 5534	65323140
26	FILTRE ANTIPARASITES	FILTRO DE PROTECION ANTIDISTURBIO		65323170
27	CABLE D'ALLUMAGE	CABLE DE ENCENDIDO	TC	65320940
			TL	65320942
28	PHOTOCELLULE	FOTOCELULA	LANDIS QRA2	65320075
29	ELECTRODE D'ALLUMAGE	ELECTRODO		65322322
30	TUYAU SUPPORT TETE	TUBO		65321638
31	SUPPORT	SOPORTE CABEZA DE COMBUSTION		65320230
32	TETE DE COMBUSTION	CABEZA DE COMBUSTION	TC	65321641
			TL	65321642
33	ASSIEME DISCO	DISC ASSEMBLY		65322310
34	DISQUE ANTERIEUR	DISCO ANTERIOR		-
35	PORTE GICLEUR	PORTAINYECTOR		65320711
36	GROUPE TETE DE COMBUSTION	GRUPO CABEZA DE COMBUSTION	TC	65322504
			TL	65322504
37	GUEULARD	TUBO LLAMA	TC	65320419
			TL	65320420
38	JOINT	JUNTA		65321119
39	SERVOMOTEUR	MOTORREDUCTOR	LANDIS SQN 30.151A2700	65322897
40	POMPE	BOMBA	SUNTEC AJ6CC10002P	65322950
41	JOINT D'ACCOUPLEMENT	ACOPLAMIENTO		65322920
42	MAMELONS	TUERCA	TN 6x1500	65323194
43	FLEXIBLES	LATIGUILLOS	TN 14x1200	65323184
44	FILTRE	FILTRO	art. 70301-01P	65324051
45	MOTEUR POMPE	MOTOR BOMBA	370 W	65322775
46	CONDENSATEUR	CONDENSADOR	14 µF	65321854
47	VANNE	VÁLVULA GASOLEO	DELTA 1/8 F.84	65323754
48	BOBINE	BOBINA	DELTA	65323765
49	VANNE	VÁLVULA GASOLEO	PARKER SCEM VE131	65323624
50	BOBINE	BOBINA	PARKER	65323782
51	SILENCIEUX	SILENCIADOR	(OPTION)	65074536
52	FICHE MALE WIELAND	ESPINA WIELAND	6 pin	65322072
53	TEMPORISATEUR	TEMPORIZADOR	(AUTOMATIC CHANGEOVER)	65324212
54	PROTECTION	PROTECCION		65324049
55	FEUILLE FERMANTE	HOJA CERRADA		65324050

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