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

Ecoflam

CE

BLU 1000.1 P AB
BLU 1200.1 P AB

G20-G25
G30-G31

420010263002

420010263002
21.03.2013

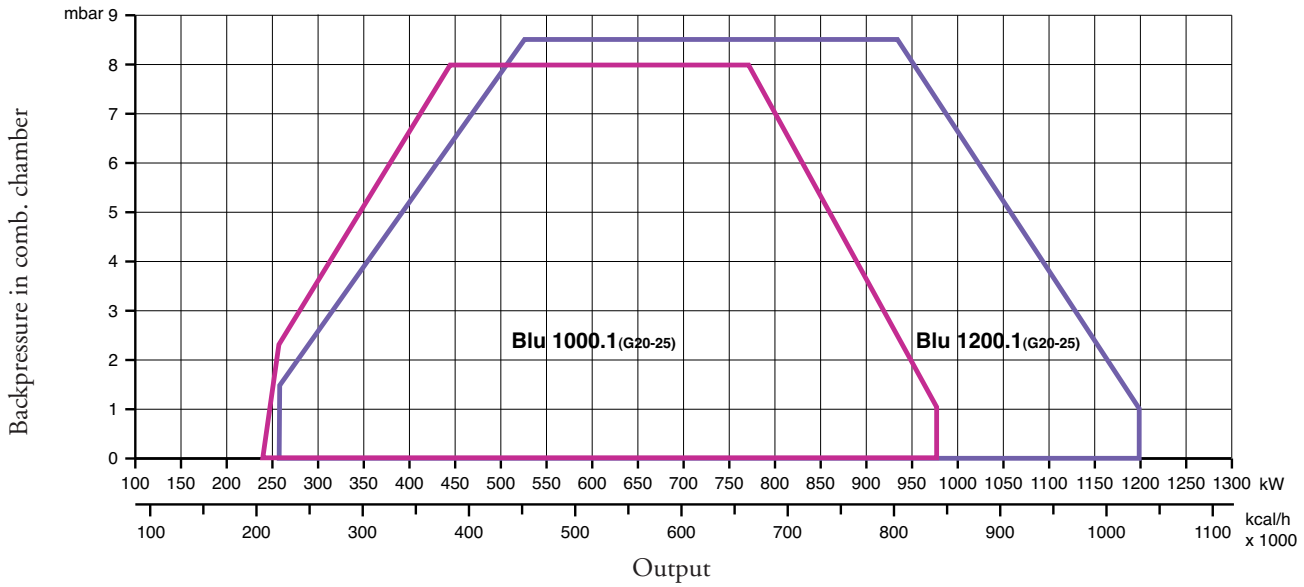
OPERATING FEATURES

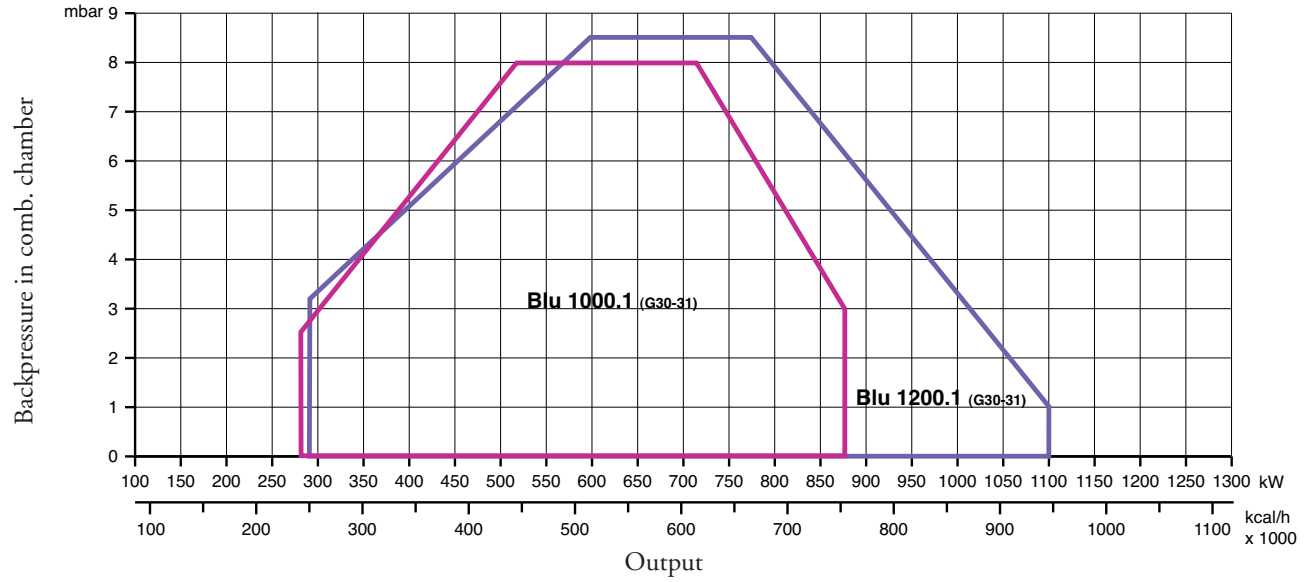
Model : BLU 1000.1-1200.1 PAB		Gas family - II 2H 3P			
		G20	G25	G31	G30
Max. gas pressure	mbar	25	-	45	35
Min. gas pressure	mbar	17	-	25	20
Fuel L.C.V.	kcal/Nm³	8.570	-	22.260	29.320

TECHNICAL DATA

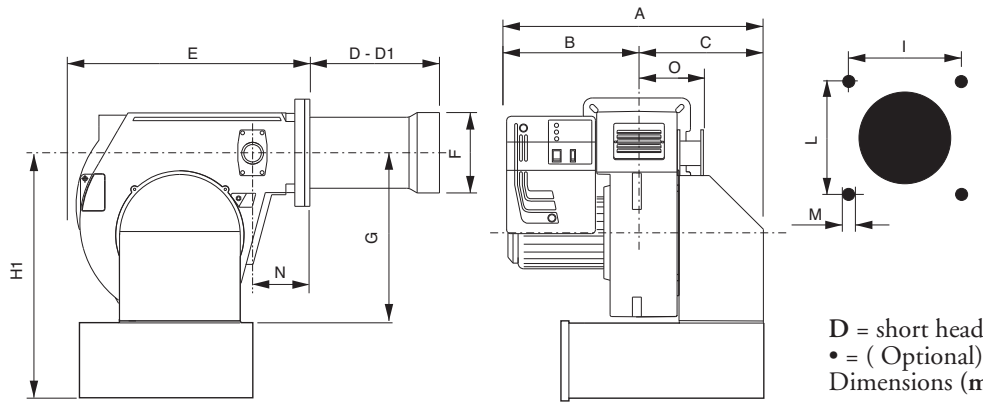
BLU (G20-G25)		1000.1 P AB	1200.1 P AB
Termal power max.	kW	970	1200
	kcal/h	836.200	1034.500
Termal power min.	kW	245	260
	kcal/h	211.200	224.140
BLU (G30-G31)		**1000.1 P AB**	**1200.1 P AB**
Termal power max.	kW	875	1100
	kcal/h	752.500	946.000
Termal power min.	kW	280	290
	kcal/h	240.800	249.400
Voltage	50 HzV	230 / 400	230 / 400
Motor	kW	1,1	2,2
Rpm	N°	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
BLU 1000.1 PAB	650	330	320	175	395	555	190	390	600•	190	190	M10	140	165
BLU 1200.1 PAB	670	350	320	310	460	555	200	390	600•	190	190	M10	140	165

ELECTRICAL CONNECTIONS

All burners factory tested at 400 V 50 Hz three-phase for motors and 230 V 50 Hz monophase with neutral for auxiliary equipment. If mains supply is 230 V 50 Hz threephase withuot 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.

START UP OF THE BURNER

PRELIMINARY CHECKS

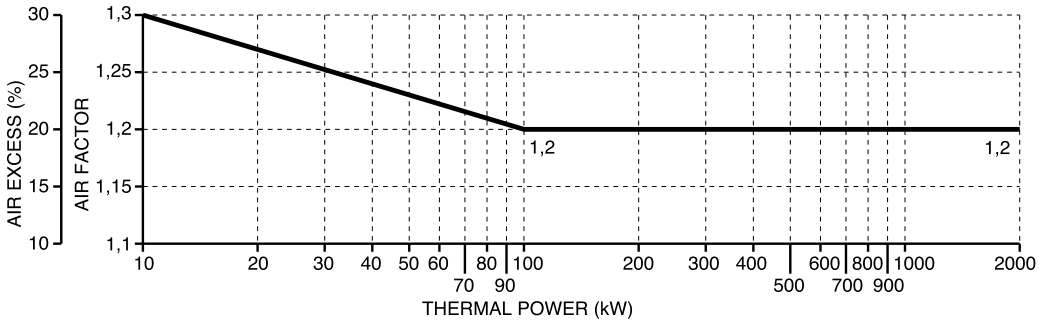
Before starting up the boiler check the following:
- gas type and feed pressure;
- gas valves closed;
- the seals in the pipe fittings;
- gas pipe breather and input pressure;
- that the cable complies with the diagram and the phase and neutral wires correspond;
- that the burner shuts down when the 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 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



Nat. gas
CO^2 9,6 %
CO < 50 ppm

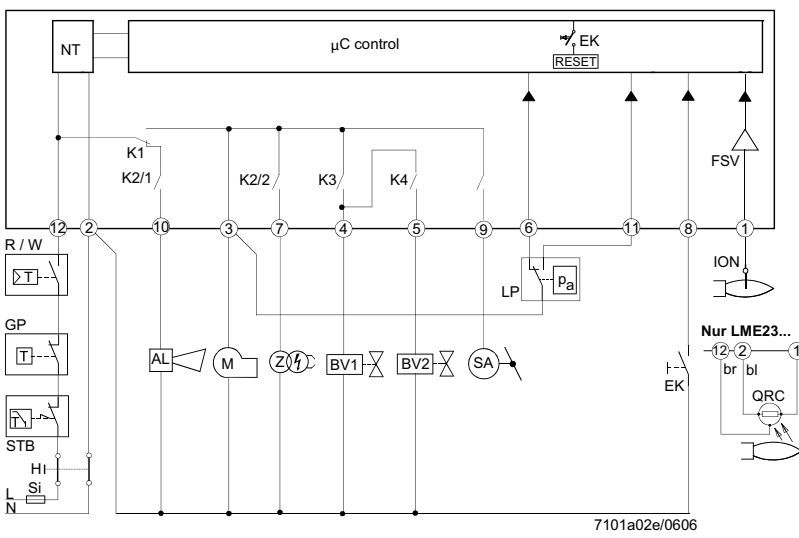
L.P.G.
CO^2 11,7 %
CO < 50 ppm

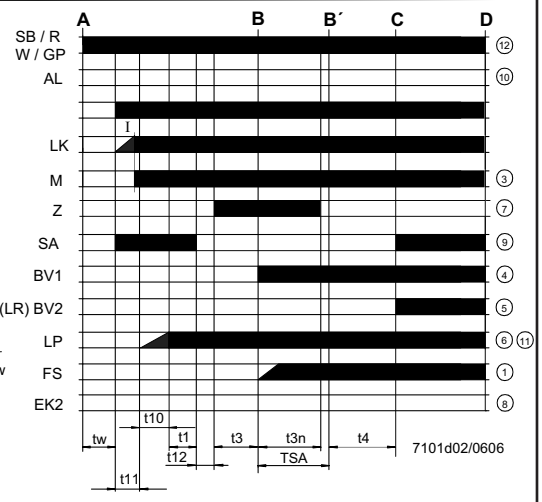
WARNING: *in order to adjust combustion and thermal capacity correctly, the fumes must be analyzed using specific instruments. Combustion and thermal capacity must be adjusted simultaneously, making sure that the values read are correct and in any case, that they comply with the safety regulations in force.*

THIS OPERATION MUST BE PERFORMED BY PERSONNEL WHO ARE PROFESSIONALLY QUALIFIED AND AUTHORIZED BY ECOFLAM SPA.

CONTROL BOXES LME22

Connection diagram and control sequence LME22… / LME23…

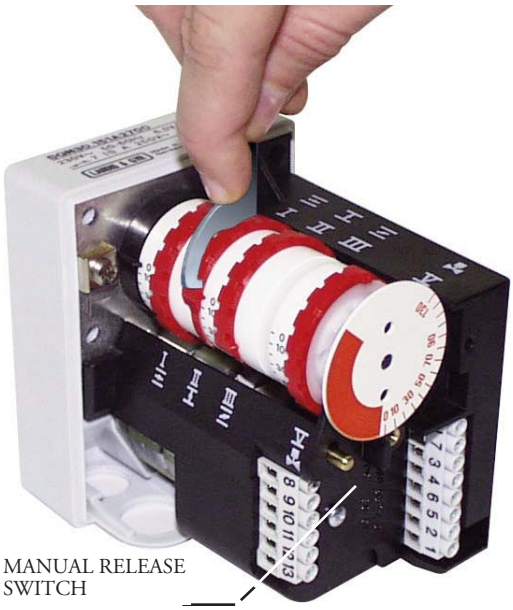




AGK25...	PTC resistor	LP	Air pressure switch		reached
AL	Error message (alarm)	LR	Load controller	C-D	Burner operation (generation of heat)
V...	Fuel valve	M	Fan motor		
CPI	Closed Position Indicator	R	Control thermostat / pressurestat	D	Controlled shutdown by «R»
DBR...	Wire link	SA	Actuator	t1	Prepurge time
EK	Lockout reset button (internal)	STB	Safety limit thermostat	t3	Preignition time
EK2	Remote lockout reset button	Si	External pre-fuse	t3n	Postignition time
ION	Ionization probe	t	Time	t4	Interval between ignition «Off» and release of «V2»
FS	Flame signal	W	Limit thermostat / pressure switch	t10	Specified time for air pressure signal
FSV	Flame signal amplifier	Z	Ignition transformer		
GP	Pressure switch	ZV	Pilot gas valve	t11	Programmed opening time for actuator «SA»
H	Main switch	A	Start command (switching on by «R»)	t12	Programmed closing time for actuator «SA»
HS	Auxiliary contactor, relay	B-B´	Interval for establishment of flame	TSA	Ignition safety time
K1...4	Internal relays	C	Operating position of burner	tw	Waiting time
KL	Low-fire				
LK	Air damper				
LKP	Air damper position				

Color code table for multicolor signal lamp (LED)		
Status	Color code	Color
Waiting time «tw», other waiting states	❍	Off
Ignition phase, ignition controlled	● ❍ ● ❍ ● ❍ ● ❍ ● ❍ ● ❍ ● ❍ ● ❍ ● ❍ ● ❍ ● ❍ ● ❍	Flashing yellow
Operation, flame o.k.	❑.....	Green
Operation, flame not o.k.	❑ ❍ ❑ ❍ ❑ ❍ ❑ ❍ ❑ ❍ ❑ ❍ ❑ ❍ ❑ ❍ ❑ ❍ ❑ ❍ ❑ ❍ ❑ ❍	Flashing green
Extraneous light on burner startup	❑ ▲ ❑ ▲ ❑ ▲ ❑ ▲ ❑ ▲ ❑ ▲ ❑ ▲ ❑ ▲ ❑ ▲ ❑ ▲ ❑ ▲ ❑ ▲	Green-red
Undervoltage	● ▲ ● ▲ ● ▲ ● ▲ ● ▲ ● ▲ ● ▲ ● ▲ ● ▲ ● ▲ ● ▲ ● ▲	Yellow-red
Fault, alarm	▲.....	Red
Error code output (refer to «Error code table»)	▲ ❍ ▲ ❍ ▲ ❍ ▲ ❍ ▲ ❍ ▲ ❍ ▲ ❍ ▲ ❍	Flashing red
Interface diagnostics	▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲	Red flicker light
Legend: ..... Steady on	▲ Red ❑ Green ❍ Off ● Yellow	

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



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 not used.

"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 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.

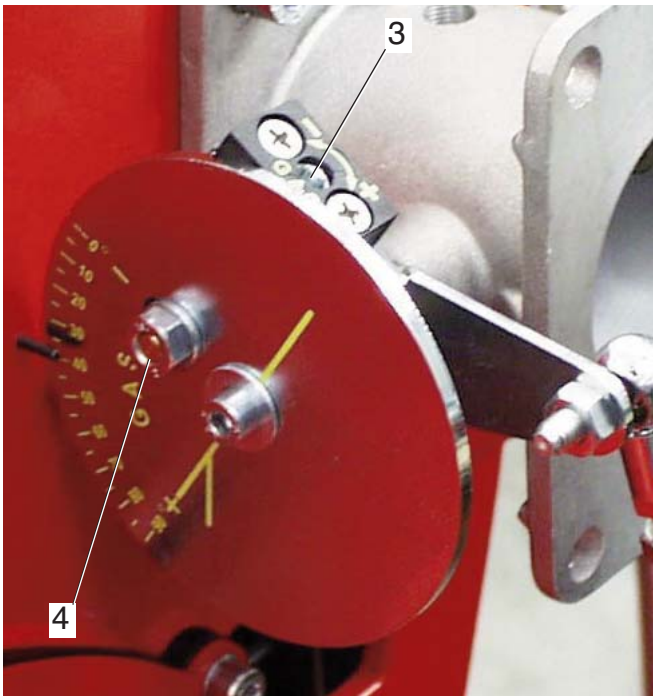
HIGH FLAME

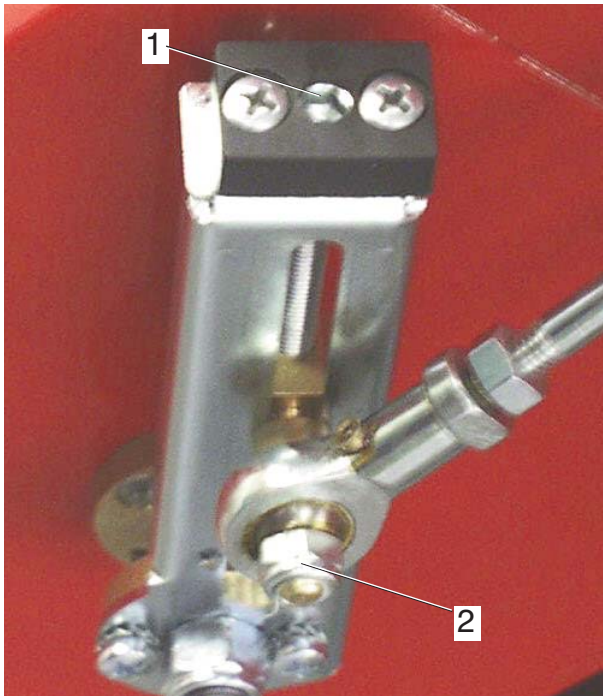
1. Bring the burner in high flame , air inlet must be set at 75 ° (maximum opening position).
To adjust air capacity operate on the combustion head position.
Just in peculiar case it is necessary to reduce the air flow in high flame closing air intake damper.
2. The position of gas butterfly valve must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





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

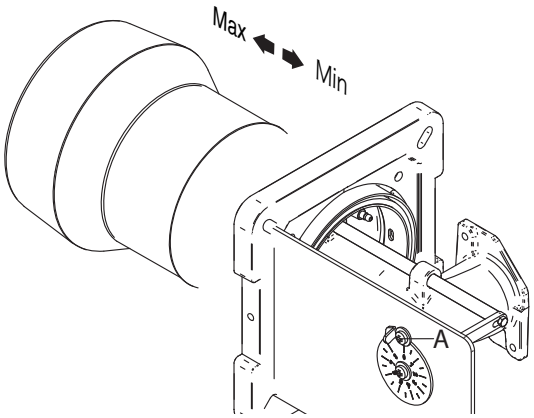
f
- G20 = 34,02
- G25 = 29,25
- G30 = 116
- G31 = 88

COMBUSTION ADJUSTMENT

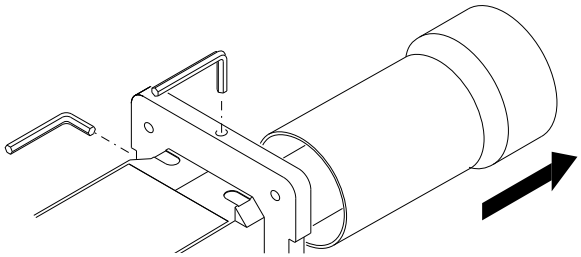
WARNING: In order to have a correct combustion and thermal output adjustments, these must be carried out together with a combustion analysis, to be executed through suitable devices, taking care that the values are the correct ones and are in accordance with the local safety regulations. The adjustments must be carried out by qualified and skilled technicians authorised by Ecoflam S.p.A.

SETTING THE FIRING HEAD

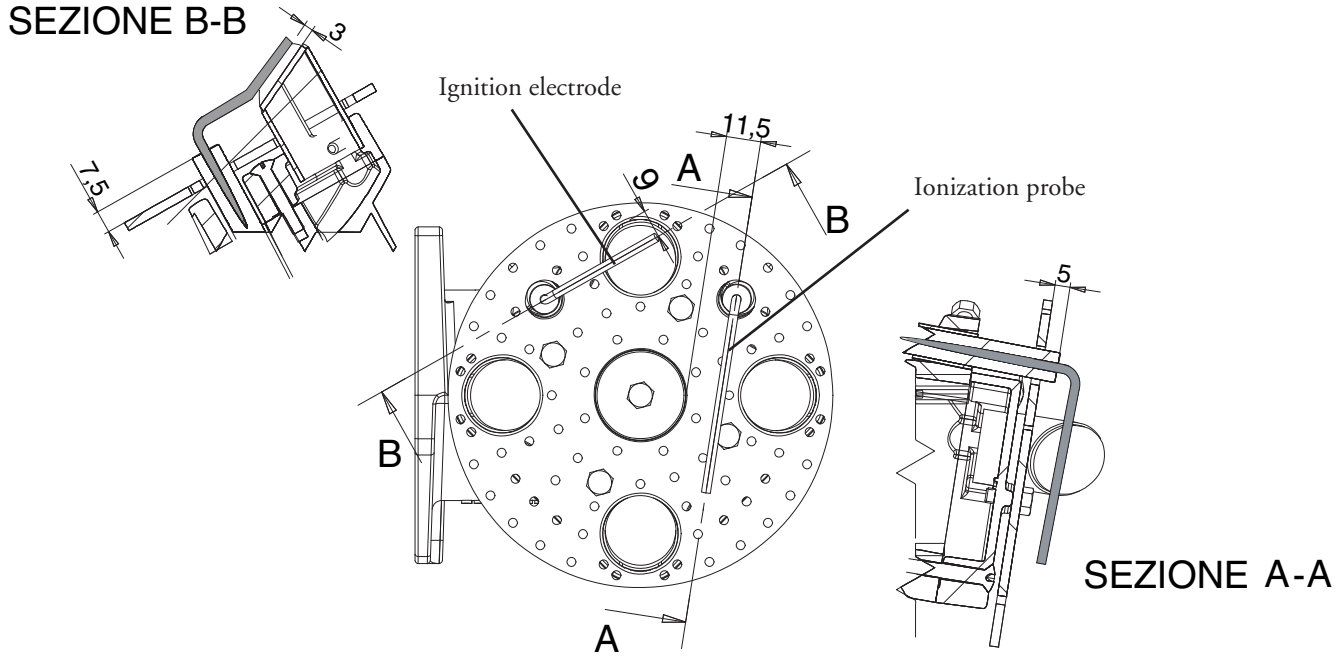
The adjustment of the position of the firing head is made to obtain the best combustion performance. When used at the minimum power output the firing head is move back, whilst is forwarded at the maximum output. **Execution :** -loosen the locking screw of adjusting device A; - move the adjusting device until the desired position is reached; - tighten the locking screw.



REMOVING THE NOSEPIECE

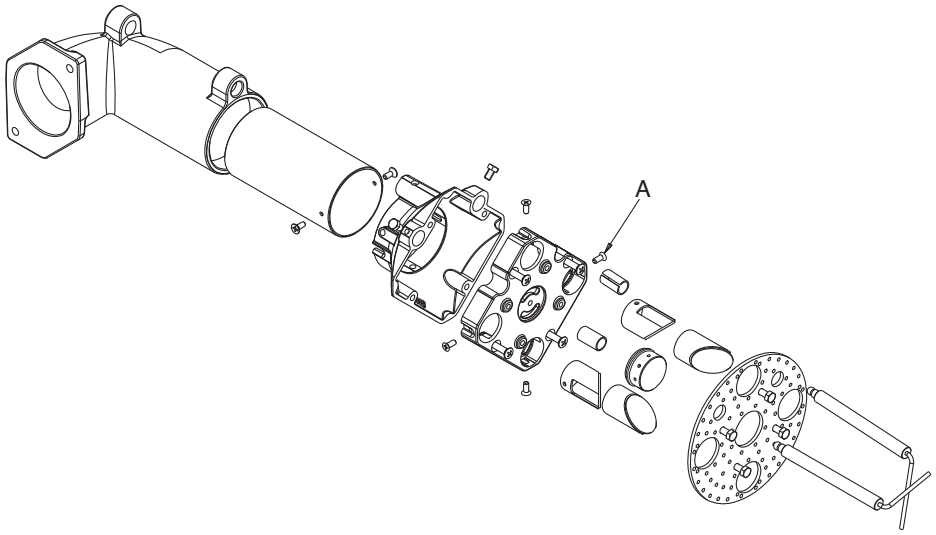


POSITION OF ELECTRODES



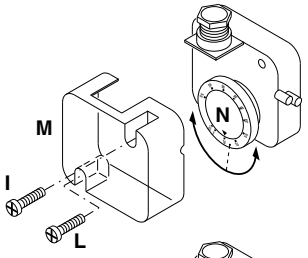
CHANGE BURNER OPERATION FROM NATURAL GAS TO LPG

In order to change the burner operation from natural gas to LPG you have to follow these instructions :
- Remove the blast tube. - Remove the ignition electrode. - Replace 4 Diffusers (only 1000.1, 1200.1) with LPG version, remove A screws. - Remove the disc. - Replace Tooth with LPG version. - Install the disc and ignition electrode correctly. - Replace the blast tube with LPG version.



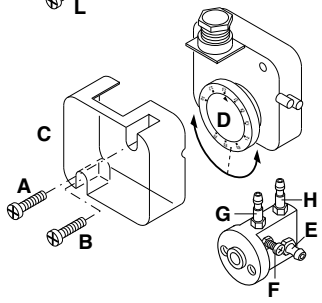
ADJUSTMENT OF GAS MINIMUM PRESSURE SWITCH

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

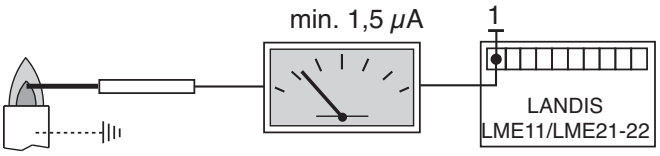


ADJUSTMENT OF THE AIR PRESSURE SWITCH

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.

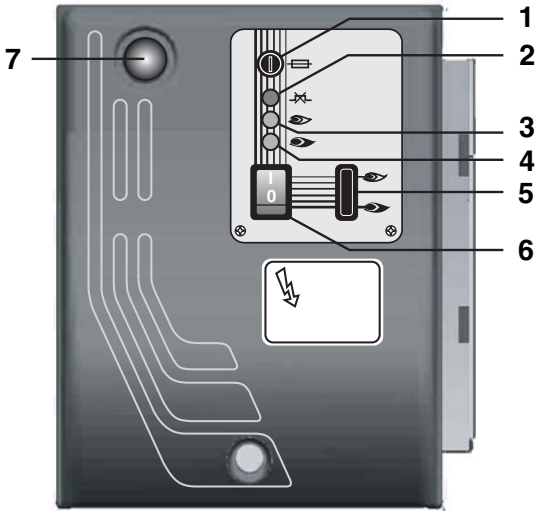


FLAME DETECTION SYSTEM CHECK



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.

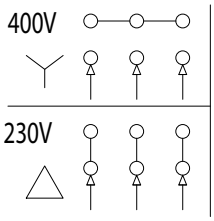
DESCRIPTION OF THE CONTROL PANEL OF THE BURNER



1 - fuse
2 - termal lock-out lamp
3 - 1 st. stage working lamp
4 - 2 nd. stage working lamp
5 - high-low flame switch
6 - main switch I / O
7 - reset key

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 Ecoflam staff.



MAINTENANCE

YEARLY CHECKS:

The periodical checks of the burner (combustion head, electrodes etc.) must be carried out by authorised technicians once or twice in a year, according to burner's duty conditions.
Before going on with maintenance operations, it is advisable to proceed through a control of the burner's general state as follows:

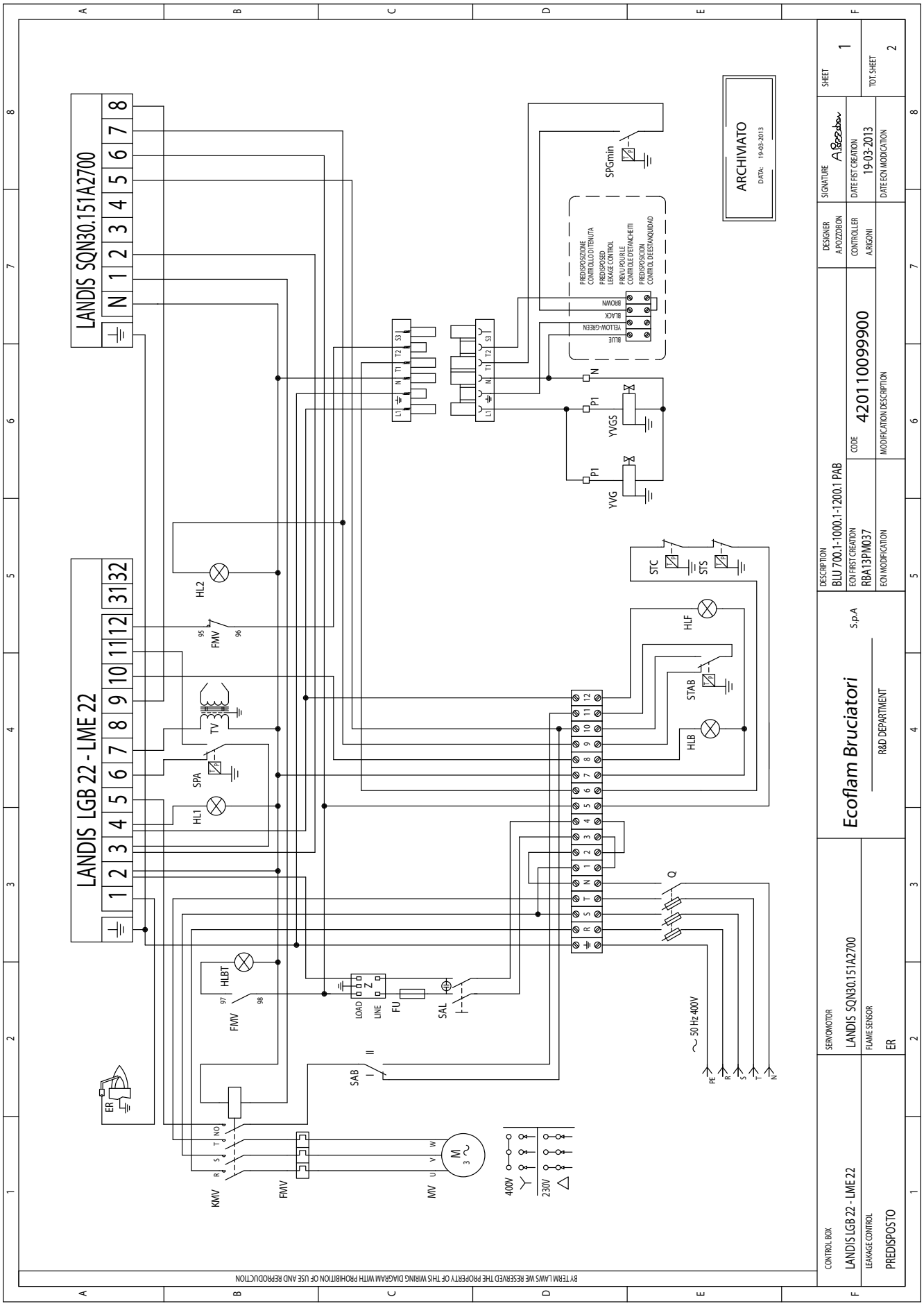
- Unplug the burner from supply mains.
- Close the gas cock.
- Remove burner's cover and clean fan and air intake's duct.
- Clean the combustion head and check electrodes position.
- Reassemble the whole.
- Check fittings seal.
- Check the chimney.
- Restart the burner and check combustion values
  (CO2 = 9,7% (G 20); 11,7% (G 30); 11,7% (G 31); CO lower than 75 ppm).

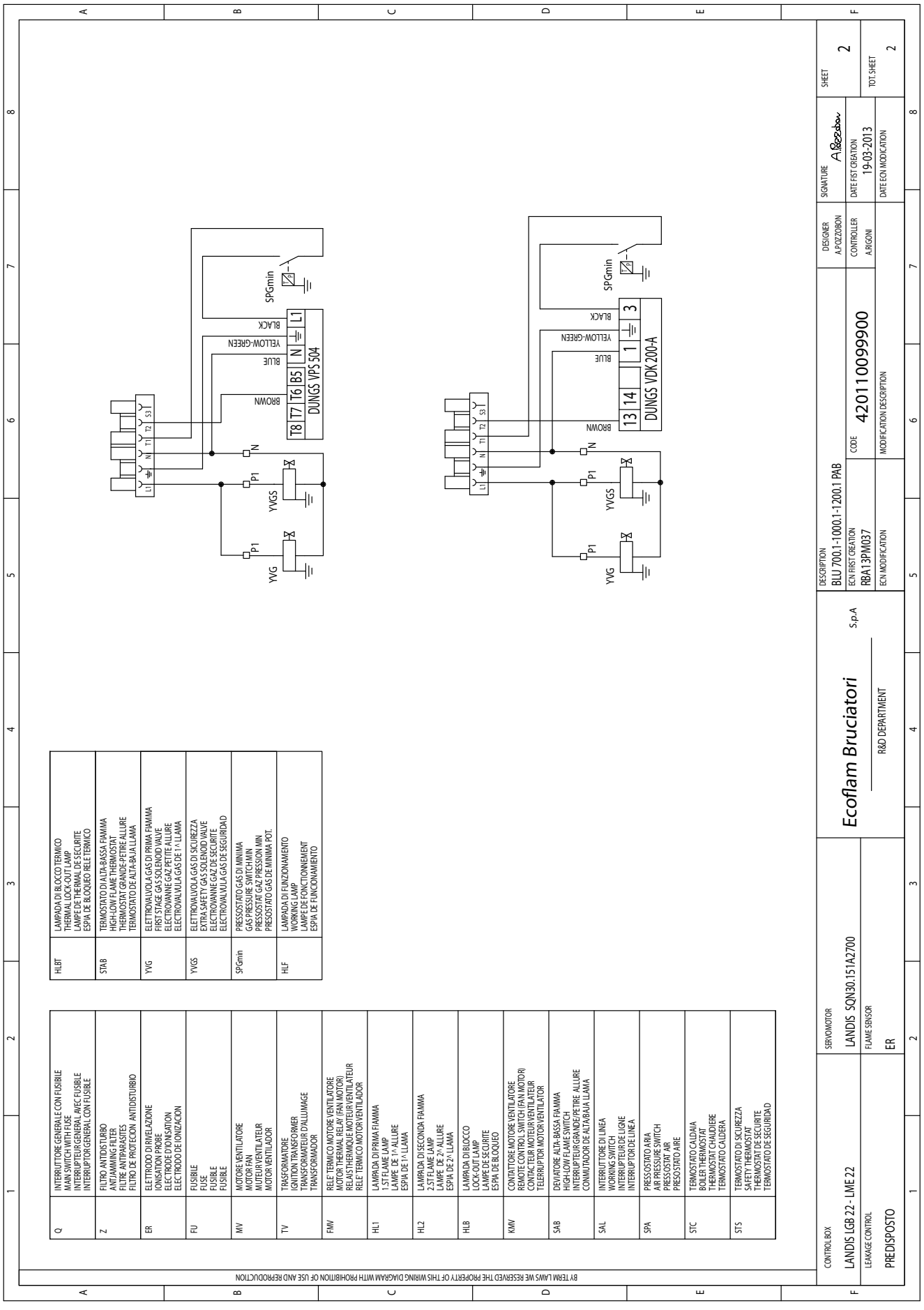
BEFORE ANY INTERVENTION VERIFY THAT:

- The system is supplied with power and the burner is plugged in.
- Gas pressure is the correct one and the gas cock is open.
- The control devices are suitably connected.
- If all such a conditions are satisfied, start the burner by pressing the lockout rearm button and check its ignition sequence.

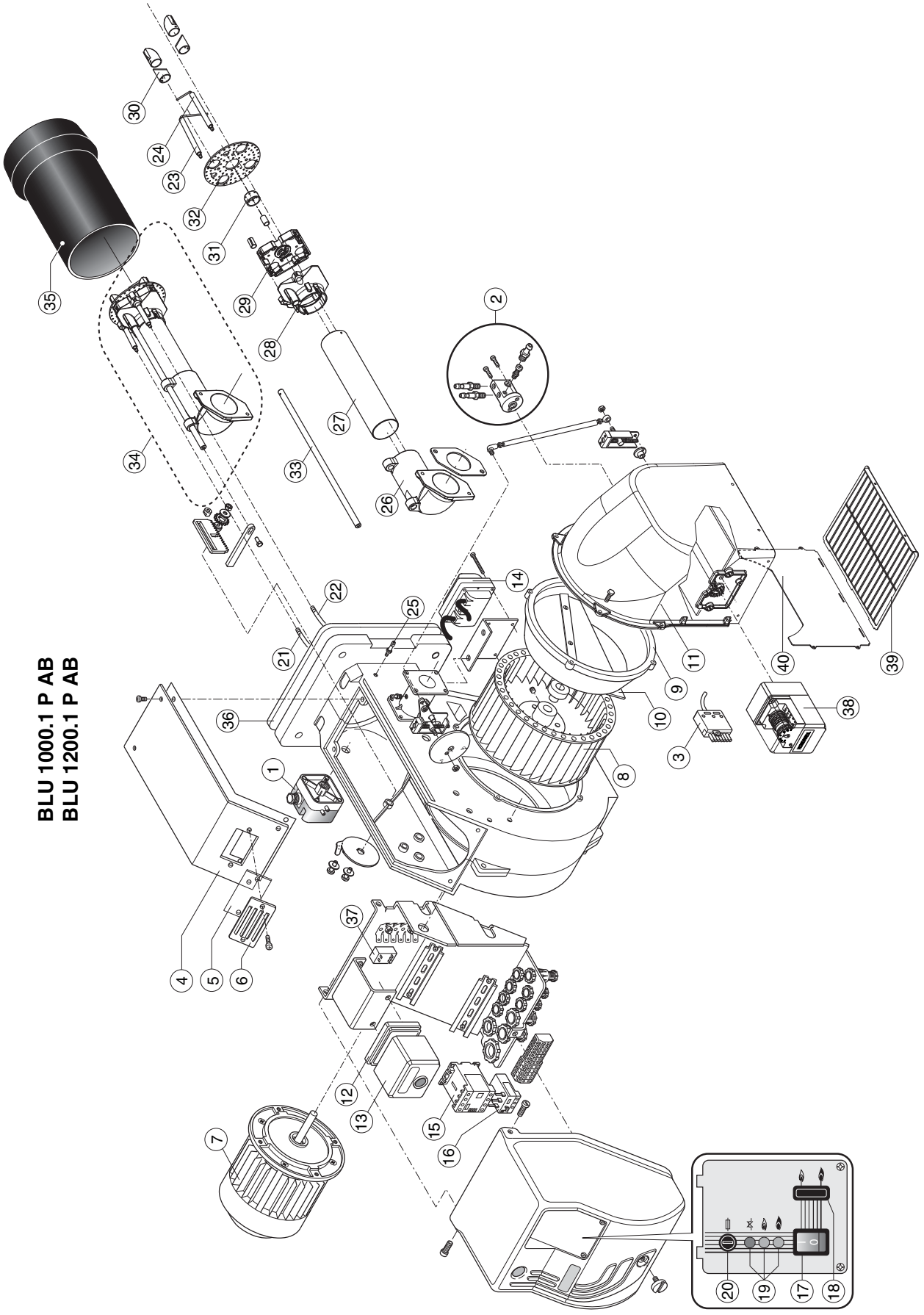
SHORT TROUBLESHOOTING:

- The burner does not start: check power switch, thermostats, motor, gas pressure, leakage control device (if any).
- The burner runs the pre-purging but switches to lockout at the end of cycle: check air pressure, fan and air pressure switch.
- The burner runs the pre-purging but does not ignite: check electrodes installation and position, ignition cable, ignition transformer, control box and gas solenoid valves.
- The burner ignites but switches to lockout at the expiring of safety time: check that phase and neutral are properly connected; check ionization probe's position and connection; check control box.
- The burner ignites properly but switches to lockout after few minutes of working: check gas pressure governor and filter, gas pressure, detection value (1,5 µA min.) and combustion values.


LANDIS SQN30.151A2700
LANDIS LGB 22 - LME 22
ARCHIVIATO
DATA: 19-03-2013
SPGmin
YVGS
YVG
HL2
HL1
HLB
HLF
HLBT
SPA
TV
FMV
STAB
STC
STS
SAB
SAL
FU
LOAD
LINE
Q
KMV
MV
400V
230V
~ 50 Hz 400V
PE
R
S
T
N
BLUE
YELLOW-GREEN
BLACK
BROWN
PREDISPOSIZIONE CONTROLLO DI TENUTA
PREDISPOSED LEAKAGE CONTROL
PREVU POUR LE CONTROLE D'ETANCHEITE
PREDISPOSICION CONTROL DE ESTANQUIDAD
DESCRIPTION
BLU 700.1-1000.1-1200.1 PAB
ECN FIRST CREATION
RBA13PM037
ECN MODIFICATION
CODE
420110099900
MODIFICATION DESCRIPTION
DESIGNER
A.POZZOBON
CONTROLLER
A.ARGONI
SIGNATURE
DATE FIST CREATION
19-03-2013
DATE ECN MODICATION
SHEET
1
TOT.SHEET
2
Ecoflam Bruciatori S.p.A
R&D DEPARTMENT
CONTROL BOX
LANDIS LGB 22 - LME 22
LEAKAGE CONTROL
PREDISPOSTO
SERVOMOTOR
LANDIS SQN30.151A2700
FLAME SENSOR
ER
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 / ANTIJAMMING FILTER / FILTRE ANTIPARASITES / FILTRO DE PROTECCION ANTIDISTURBIO
ER ELETTRODO DI RIVELAZIONE / IONISATION PROBE / ELECTRODE D'IONISATION / ELECTRODO DE IONIZACION
FU FUSIBILE / FUSE / FUSIBLE / FUSIBLE
MV MOTORE VENTILATORE / MOTOR FAN / MOTEUR VENTILATEUR / MOTOR VENTILADOR
TV TRASFORMATORE / IGNITION TRANSFORMER / TRANSFORMATEUR D'ALLUMAGE / TRANSFORMADOR
FMV RELE' TERMICO MOTORE VENTILATORE / MOTOR THERMAL RELAY (FAN MOTOR) / RELAIS THERMIQUE MOTEUR VENTILATEUR / RELE TERMICO MOTOR VENTILADOR
HL1 LAMPADA DI PRIMA FIAMMA / 1.ST FLAME LAMP / LAMPE DE 1^ ALLURE / ESPIA DE 1^ LLAMA
HL2 LAMPADA DI SECONDA FIAMMA / 2.ST FLAME LAMP / LAMPE DE 2^ ALLURE / ESPIA DE 2^ LLAMA
HLB LAMPADA DI BLOCCO / LOCK-OUT LAMP / LAMPE DE SECURITE / ESPIA DE BLOQUEO
KMV CONTATTORE MOTORE VENTILATORE / REMOTE CONTROL SWITCH (FAN MOTOR) / CONTACTEUR MOTEUR VENTILATEUR / TELERUPTOR MOTOR VENTILATOR
SAB DEVIATORE ALTA-BASSA FIAMMA / HIGH-LOW FLAME SWITCH / INTERRUPTEUR GRANDE/PETITE ALLURE / CONMUTADOR DE ALTA/BAJA LLAMA
SAL INTERRUTTORE DI LINEA / WORKING SWITCH / INTERRUPTEUR DE LIGNE / INTERRUPTOR DE LINEA
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
HLBT LAMPADA DI BLOCCO TERMICO / THERMAL LOCK-OUT LAMP / LAMPE DE THERMAL DE SECURITE / ESPIA DE BLOQUEO RELE TERMICO
STAB TERMOSTATO DI ALTA-BASSA FIAMMA / HIGH-LOW FLAME THERMOSTAT / THERMOSTAT GRANDE-PETITE ALLURE / TERMOSTATO DE ALTA-BAJA LLAMA
YVG 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
SPGmin PRESSOSTATO GAS DI MINIMA / GAS PRESSURE SWITCH MIN / PRESSOSTAT GAZ PRESSION MIN / PRESOSTATO GAS DE MINIMA POT.
HLF LAMPADA DI FUNZIONAMENTO / WORKING LAMP / LAMPE DE FONCTIONNEMENT / ESPIA DE FUNCIONAMIENTO
DUNGS VPS 504
T8 T7 T6 B5 N L1
BROWN BLUE YELLOW-GREEN BLACK
SPGmin
YVG YVGS P1 N
L1 N T1 T2 S3
DUNGS VDK 200-A
13 14 1 3
BROWN BLUE YELLOW-GREEN BLACK
SPGmin
YVG YVGS P1 N
L1 N T1 T2 S3
BY TERM LAWS WE RESERVED THE PROPERTY OF THIS WIRING DIAGRAM WITH PROHIBITION OF USE AND REPRODUCTION
CONTROL BOX
LANDIS LGB 22 - LME 22
SERVOMOTOR
LANDIS SQN30.151A2700
LEAKAGE CONTROL
PREDISPOSTO
FLAME SENSOR
ER
Ecoflam Bruciatori S.p.A
R&D DEPARTMENT
DESCRIPTION
BLU 700.1-1000.1-1200.1 PAB
ECN FIRST CREATION
RBA13PM037
ECN MODIFICATION
CODE
420110099900
MODIFICATION DESCRIPTION
DESIGNER
A.POZZOBON
CONTROLLER
A.BRIGNOLI
SIGNATURE
DATE FIST CREATION
19-03-2013
DATE ECN MODIFICATION
SHEET
2
TOT. SHEET
2

BLU 1000.1 P AB
BLU 1200.1 P AB



			BLU 1000.1 P AB	BLU 1200.1 P AB
N°	DESCRIPTION		code	code
1	AIR PRESSURE SWITCH	DUNGS LGW10 A2P	65323047	65323047
2	AIR INTAKE SET		65322346	65322346
3	PLUG WIELAND	6 poli	65322072	65322072
4	BURNER COVER		65324052	65324052
5	GLASS		65320487	65320487
6	PEED WINDOM FRAME		65320488	65320488
7	MOTOR	1100 W	65322803	-
		2200 W	-	65322841
8	FAN	260 x 98	65321776	-
		260 x 110	-	65321775
9	AIR CONVEYOR		65320639	65320639
10	FAN SCOOP		65320622	65320622
11	AIR INTAKE		65324054	65324054
12	CONTROL BOX BASE	LANDIS	65320092	65320092
13	CONTROL BOX	LME22.331C2	65324042	65324042
14	IGNITION TRANSFORMER		65323227	65323227
15	REMOTE CONTROL SWITCH	TRIP. BG0910A	65323138	65323138
16	MOTOR THERMAL RELAY	Lovato RF9 3-5 A	65323100	-
		Lovato RF9 4,5 - 7,5 A	-	65323101
17	MAIN SWITCH	cod.40100I1509	65323064	65323064
18	HIGH-LOW FLAME SWITCH	cod.360000001	65323065	65323065
19	LAMP	EL/N-SC4 Elettrospring	65322053	65322053
20	FUSE SUPPORT	FUSIT FH-B528	65322181	65322181
21	IONIZATION CABLE	TC	65320948	65320948
		TL	65322003	65322003
22	IGNITION CABLE	TC	65320940	65320940
		TL	65320943	65320943
23	IONIZATION PROBE		65320902	65320902
24	IGNITION ELECTRODES		65320903	65320903
25	PRESSURE GAUGE		65321341	65321341
26	HEAD SUPPORT PIPE		65321649	65321649
27	HEAD PIPE	TC	65324339	65324209
		TL	65324340	65321651
28	FIRING HEAD		65321646	65321646
29	HEAD CAP		65321647	65321647
30	DIFFUSER		65321653	65321655
		(G30-G31)	65321654	65321654
31	TOOTH	(G20)	65324161	65324161
		(G30-G31)	65324162	65324162
32	FRONT DISC		65324345	65320824
33	ROD	TC	65324341	65324210
		TL	65324342	65320253
34	INNER ASSEMBLY	TC	65324354	65324356
		(G30-G31) TC	65324448	65324459
		TL	65324457	65322550
		(G30-G31) TL	65324458	65324452
35	BLAST TUBE	TC	65324453	65324454
		(G30-G31) TC	65324346	65320415
		TL	65324455	65324211
		(G30-G31) TL	65324347	65320416
36	GASKET ISOMART		65321116	65321116
37	ANTIJAMMING FILTER		65323170	65323170
38	AIR DAMPER MOTOR	LANDIS SQN 30.151A2700	65322897	65322897
39	PROTECTION		65324049	65324049
40	SHEET CLOSING		65324050	65324050

TC = SHORT HEAD TL = LONG HEAD