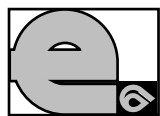
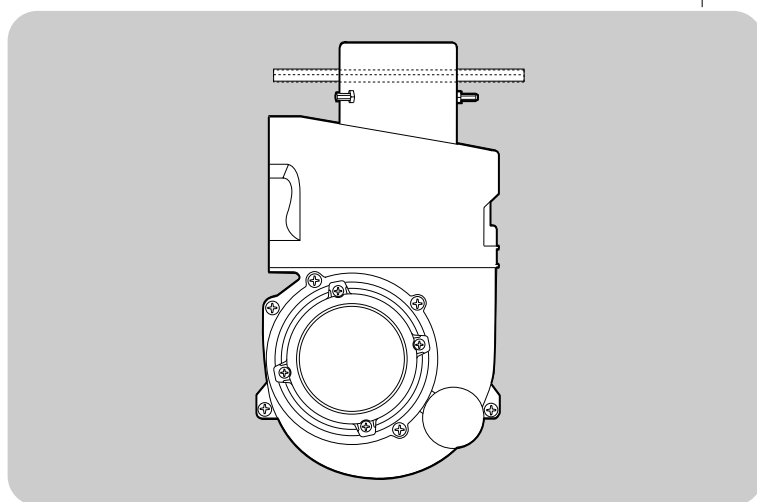


OIL BURNERS



Ecoflam
techniques for energy saving

MODEL



MINOR 1 COOKER



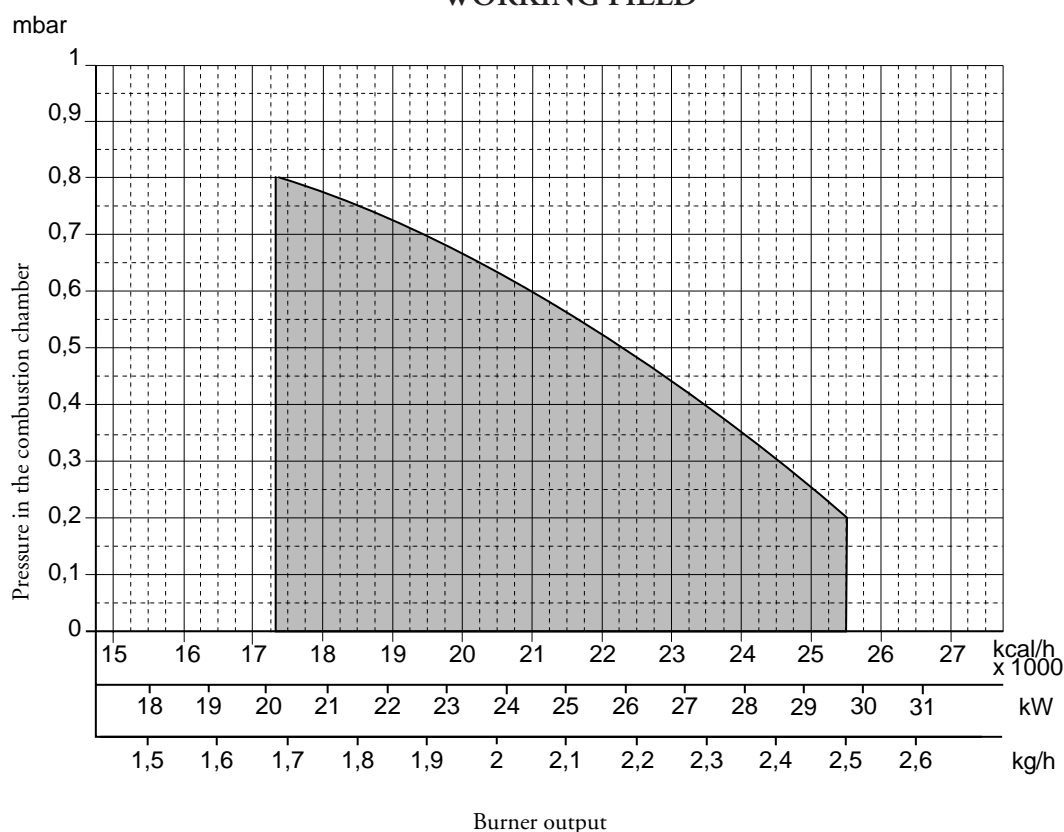
LB 435

06.07.2004

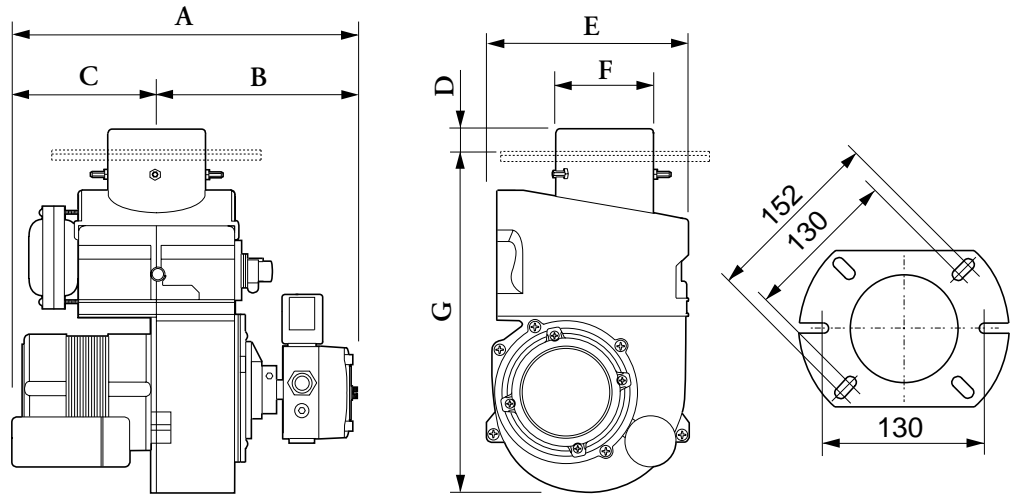
TECHNICAL DATA

MODEL		MINOR 1 COOKER	
Thermal power input	kW	19.6	
	Btu/h	67.000	
Oil flow-kerosene	kg/h	1.63	
Oil flow-gas oil	kg/h	1.65	
Voltage single phase 50 Hz	Volt	240	
Motor	W	70	
Capacitor	μ F	3.5	
RPM	N ^o	2800	
Ignition transformer	kV/mA	8/20	
Control box	Landis	LOA 24	
Fuel :	Kerosene	MJ/kg	43.3, visc.28 sec at 20°C
	Gas oil	MJ/kg	42.7, visc.35 sec at 20°C

WORKING FIELD



OVERALL DIMENSIONS

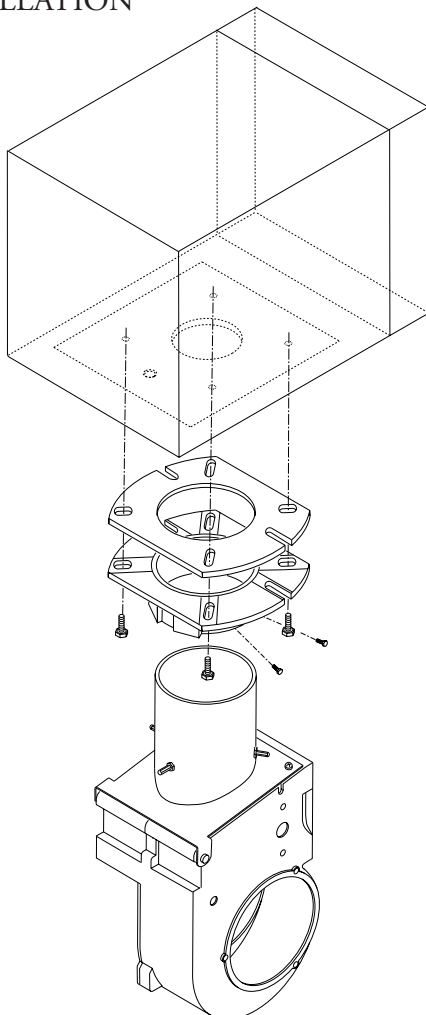


MODEL	A	B	C	D	E	F	G	H	M
MINOR 1 COOKER	248	133	115	19	142	89	265	125	M8

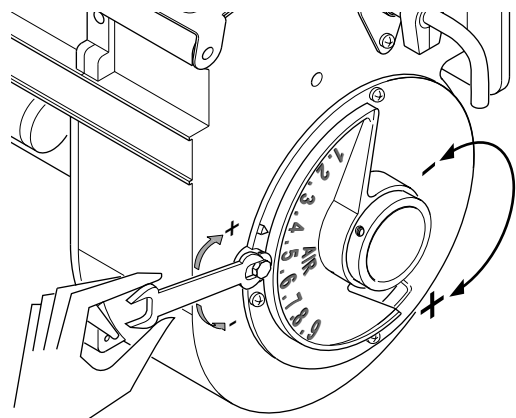
BURNER START - UP

Make sure there are no leaks on flexible oil line connections. Bleed air from the pump (see page 4). Install a suitable nozzle for the required output. Turn the thermostat to the required setting. The burner will purge for approximately 13 seconds. At this point the oil valve opens and oil is ignited. Regulate the pump pressure (see page 4). Regulate the air. In case of no ignition the burner goes to lock-out in 10 seconds.

INSTALLATION



AIR REGULATION

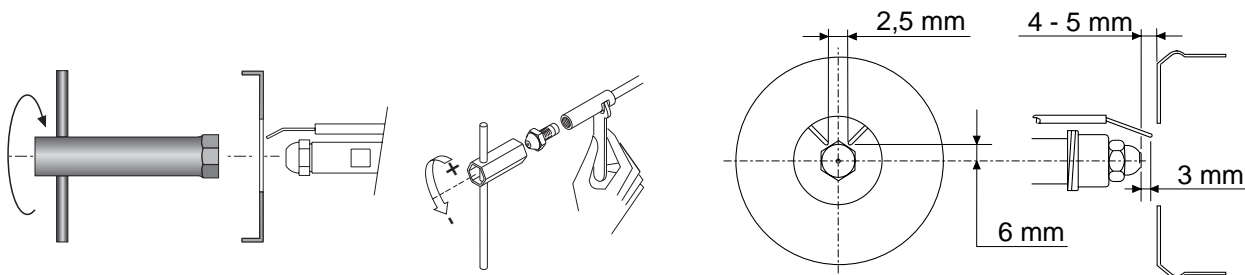


NOZZLE REPLACEMENT

Remove the nozzle carefully taking great care not to damage the electrodes.

Fit the new nozzle with the same care.

Notice : Always check the position of the electrodes after replacing the nozzle (see plan).



Ignition electrodes setting on firing head

Nozzle USgal/h	Spray angle	Spray pattern	Pump pressure	Output (kg/h)
0,5 (C.E.N.)	60°	Danfoss S	7,59 bar (110 p.s.i.)	1,62 ± 20%

FAULT FINDING

Burner does not start up

- Mains switch not on.
- Blown fuse.
- Boiler thermostats not made.
- Fault in control box.

Burner pre-purges and stops

- Fault in control box.

Burner does not ignite during cycle and stops

- Fault in control box.
- Fault in photo-resistor.

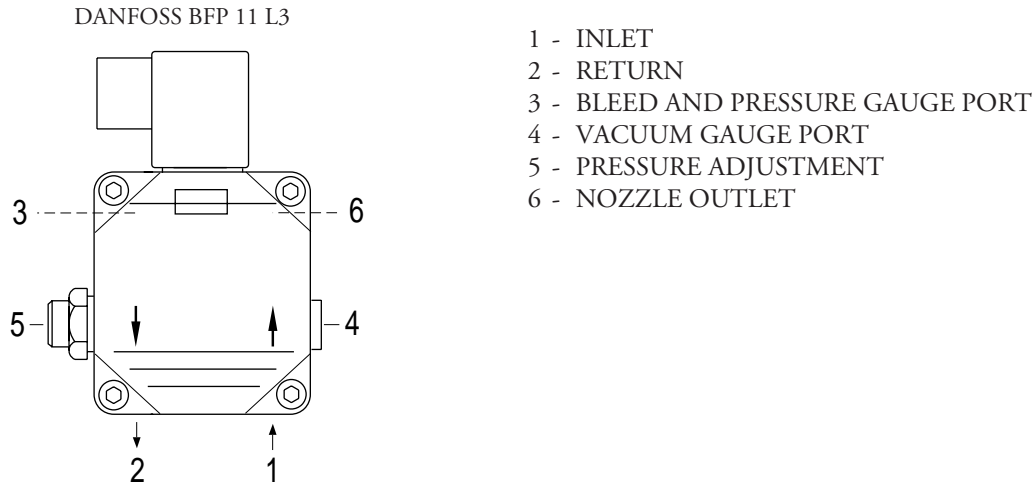
Burner does not ignite

- Dirty ignition electrodes.
- Fault at electrodes.
- Electrodes installed wrongly.
- Faulty ignition transformer.
- Blocked nozzle.
- Nozzle needs replacing.
- Oil pressure too low.
- Blocked oil filter.
- Excessive combustion air for nozzle capacity.
- Fault in control box.

Burner ignites and then stops

- Faulty nozzle.
- Photo-resistor does not "see" flame.
- Excessive combustion air for nozzle capacity.
- Fault in control box.
- Oil pressure too low.
- Blocked oil filter.

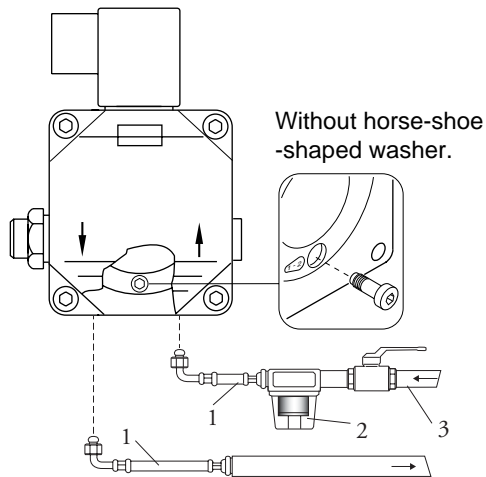
PRIMING AND ADJUSTMENT OF THE PUMP



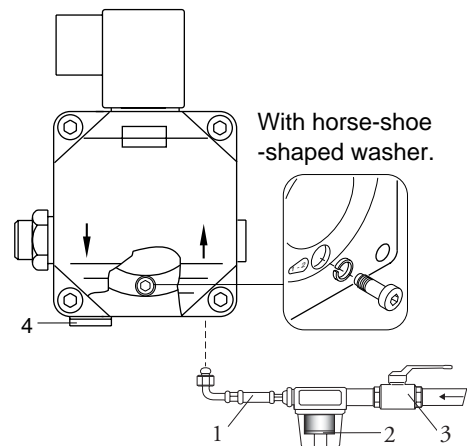
The pump setting indicated by client is carried out in the factory during testing. To prime the pump first of all start the burner and bleed air from the pump through the gauge port. If the burner goes to lock-out after the prepurging time due to lack of pressure in the oil pump, restart the burner.

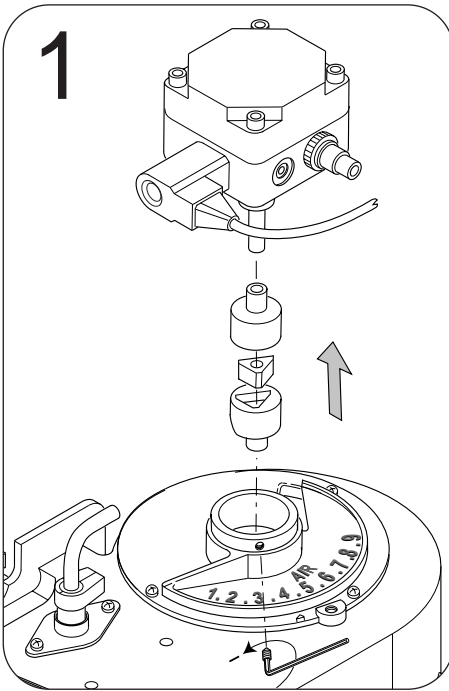
NOTE : before starting up the burner, make sure that the return pipe is clear. Check that the pipes do not leak. It is advisable to use copper pipes. Do not exceed the depression limit of 4 mt.(0,45 bar) to keep low noise levels. The return pipe must reach the same level as the check valve at the bottom of the oil tank..

Two-pipe system



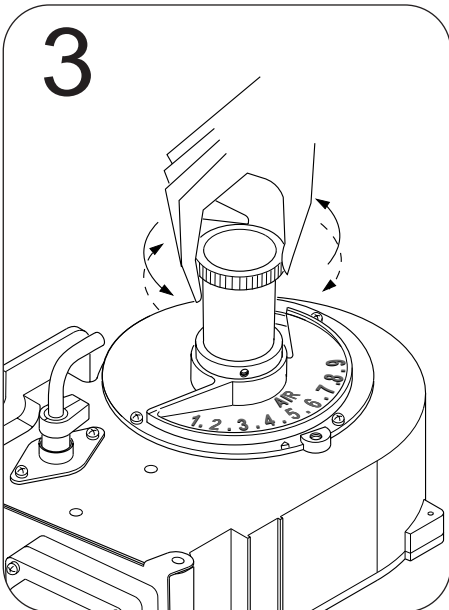
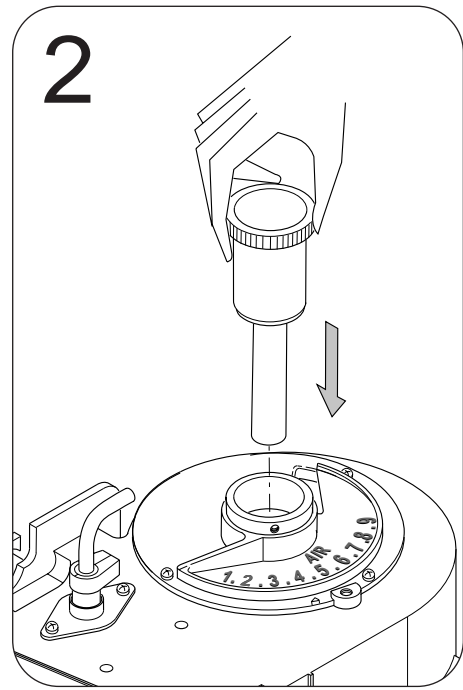
One-pipe system





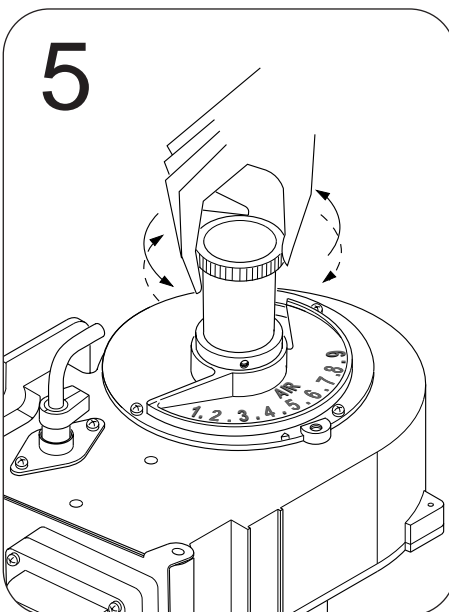
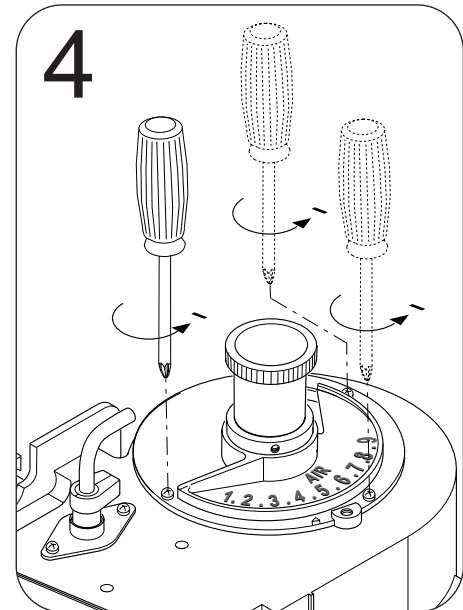
1) Take off pump and coupling.

2) Insert instrument in motor shaft.



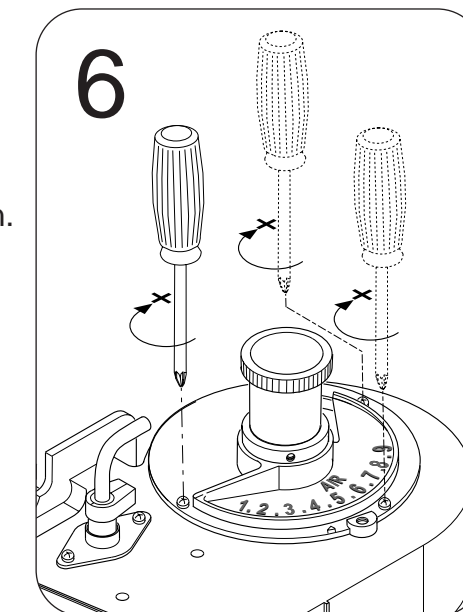
3) Check that the pump support is in the correct position by rotating the instrument.

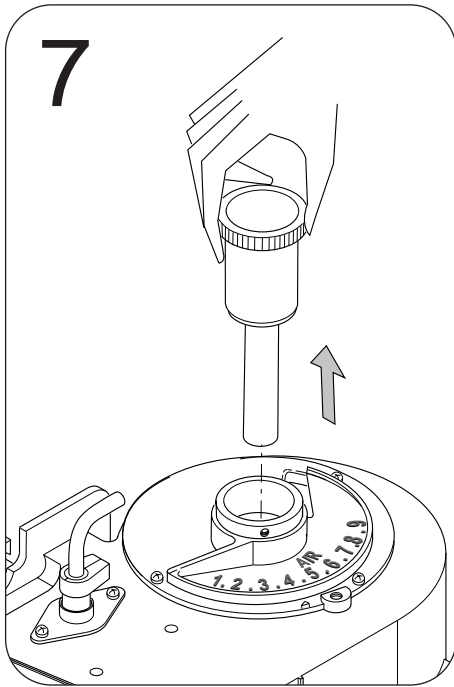
4) If the instrument doesn't rotate easily on the motor shaft, loosen the 3 screws that lock the pump support.



5) Turn the instrument until the pump support is in the correct position.

6) Fix the 3 screws to lock the pump support and check the instrument rotates easily.

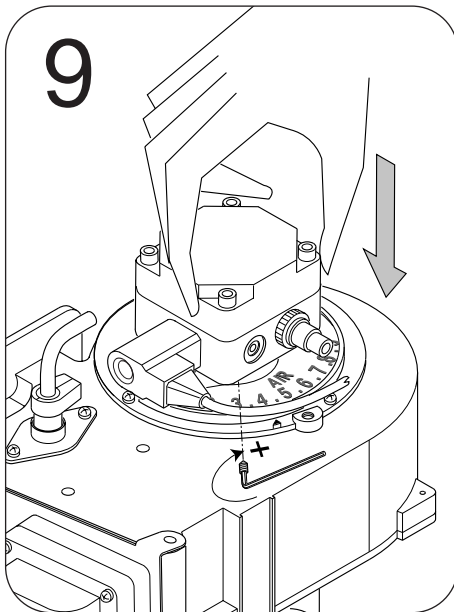
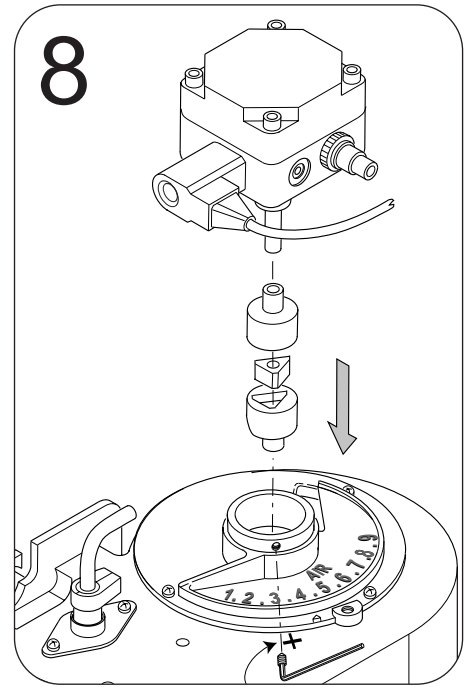


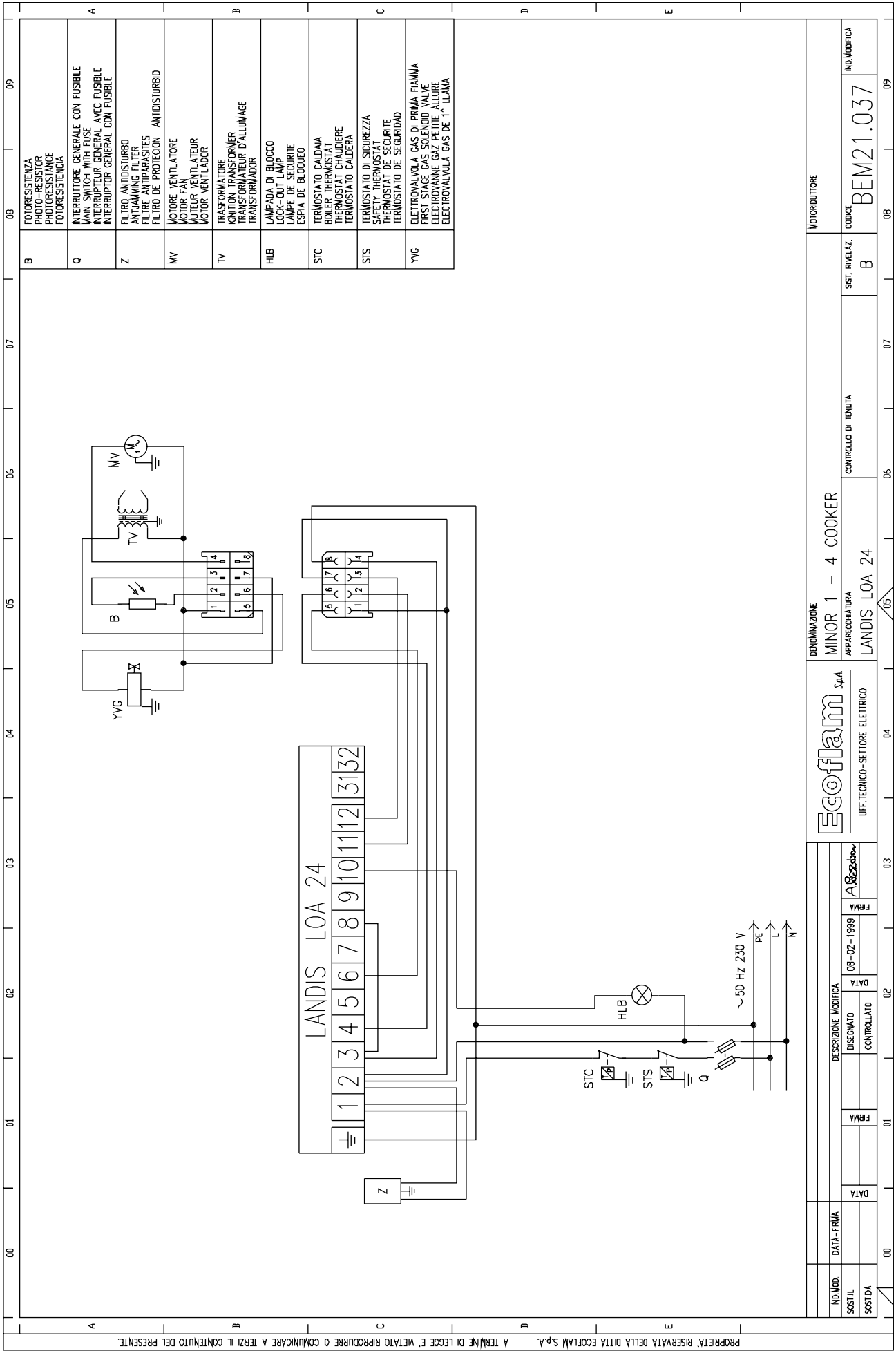


7) Repeat the procedure until the instrument rotates easily in the motor shaft and then remove the instrument.

8) Fit coupling and pump

9) Fix the pump in it's place, keeping the cover pushed firmly down and fixing the screws at the same time.



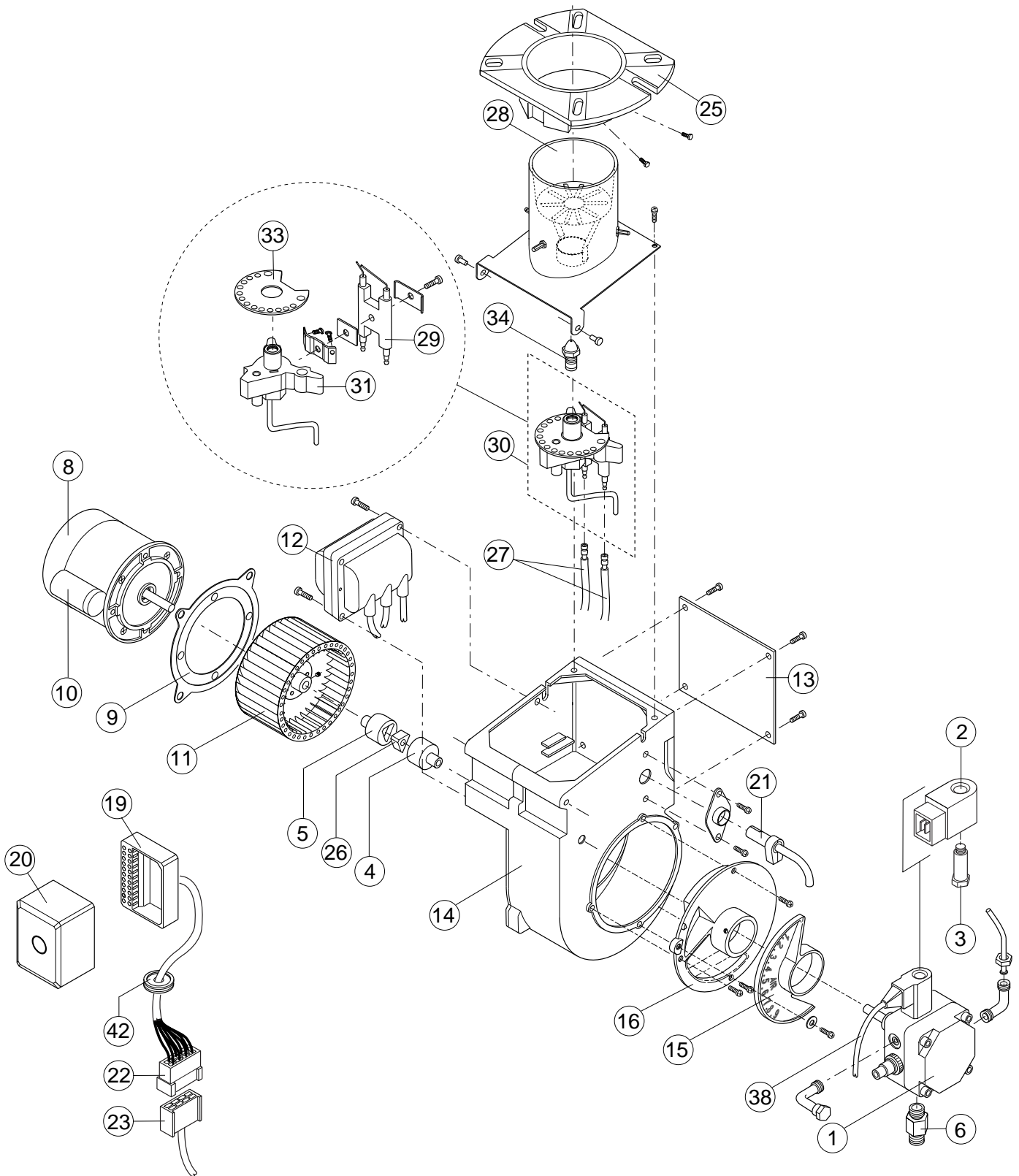


B	FODRESISTENZA PHOTO-RESISTOR PHOTORESISTANCE FOTORESISTENCIA
Q	INTERRUTTORE GENERALE CON FUSIBILE MAIN SWITCH WITH FUSE INTERRUPTEUR GENERAL AVEC FUSIBLE INTERRUPTOR GENERAL CON FUSIBLE
Z	FILTRO ANTIDISTURBO ANTI-DAMPING FILTER FILTRER ANTISTRALES FILTRO DE PROTECCION ANTIDISTURBO
MV	MOTORE VENTILATORE MOTOR FAN MOTEUR VENTILATEUR MOTOR VENTILADOR
TV	TRASFORMATORE IGNITION TRANSFORMER TRANSFORMATEUR D'ALLUMAGE TRANSFORMADOR
HLB	LAMPADA DI BLOCCO LOCK-OUT LAMP LAMPE DE SECURITE ESPIJA DE BLOQUEO
STC	TERMOSTATO CALDAIA BOILER THERMOSTAT THERMOSTAT CHAUDIERE TERMOSTATO CALDERA
STS	TERMOSTATO DI SICUREZZA SAFETY THERMOSTAT THERMOSTAT DE SECURITE TERMOSTATO DE SEGURIDAD
YVG	ELETTROVALVOLA GAS DI PRIMA FIAMMA FIRST STAGE GAS SOLENOID VALVE ELECTROVANNE GAZ PETITE ALLURE ELECTROVALVULA GAS DE 1 ^a LLAMA

IND. MOD.		DESCRIZIONE MODIFICA		IND. MODIFICA	
SOSTIT	DATA	DISEGNATO	DATA	SIST. RIVELAZ.	IND. MODIFICA
SOSTIDA	FRMA	CONTROLLATO	FRMA	B	BEM21.037
DATA-FIRMA		FRMA		MOTORIZZATORE	
Ecoflam S.p.A.		A. Zappavigna		MINOR 1 - 4 COOKER	
UFF. TECNICO-SETTORE ELETTRICO		APPARECCHIATURA		CONTROLLO DI TENUTA	
LANDIS LOA 24		LANDIS LOA 24		CONTROLLO DI TENUTA	
DENOMINAZIONE		DENOMINAZIONE		DENOMINAZIONE	
MINOR 1 - 4 COOKER		MINOR 1 - 4 COOKER		MINOR 1 - 4 COOKER	

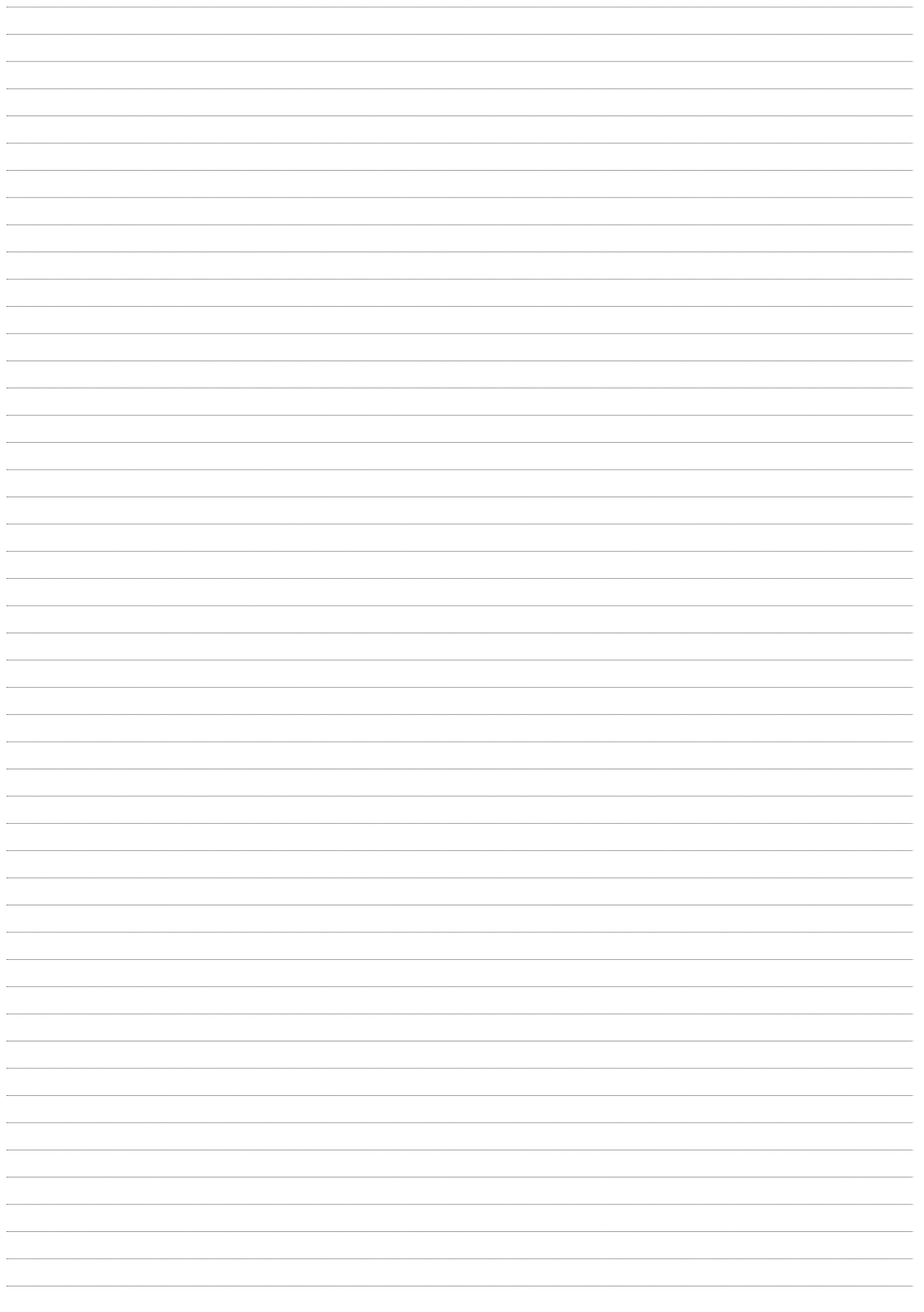
PROPRIETA' RISERVATA DELLA DITTA ECOFLAM S.P.A. A TERMINI DI LICENZA E' VIETATO RIPRODURRE O COMUNICARE A TERZI IL CONTENUTO DEL PRESENTE.

MINOR 1 COOKER



N°	DESCRIPTION	MINOR 1 COOKER code
1	- OIL PUMP DANFOSS BFP11 L3	P121/5
2	- COIL DANFOSS	V510/2
3	- OIL VALVE DANFOSS	V412/1
4	- PUMP BLACK LATERAL COUPLING	BFC02032/1
5	- MOTOR BLACK LATERAL COUPLING	BFC02032/2
6	- NIPPLE	BFR01103/001
7	- FLAP	-
8	- MOTOR 70 W	M185/1
	- PLUG AND LEAD FOR A.M. MOTOR	E1109
9	- SUPPORT	BFF03005/001
10	- CAPACITOR 3,5 µF	C107/8
11	- FAN 99 x 44	BFBV10001/001
12	- IGNITION TRANSFORMER COFI E820 CM	T125/1
	- PLUG AND LEAD FOR A.M. TRANSF.	E1108
13	- COVER	BFC02016/001
14	- FAN HOUSING	BFF04336/011
15	- AIR DAMPER	BFC08115/1
16	- AIR CONVEYOR	BFC08114
17	- AIR DAMPER SCREW	-
18	- PUMP SUPPORT	-
19	- CONTROL BOX BASE LANDIS	A402
20	- CONTROL BOX LANDIS LOA 24	A117/1
21	- PHOTORESISTOR LANDIS	A208/6
22	- PLUG	E405/1
23	- SOCKET	E405
24	- GASKET	-
25	- FLANGE	BFF01008
26	- YELLOW ULTRAFLEX COUPLING	BFC02018
27	- CABLES	BFE01401/2
28	- BLAST TUBE TC	BFB01029/002
29	- ELECTRODES	BFE01106
30	- FIRING HEAD TC	GRTT5503/018
31	- NOZZLE HOLDER TC	GRCR009/15
32	- DIFFUSER	-
33	- REAR DISC	BFD01012/001
34	- NOZZLE SOLID SPRAY PATTERN	U1050/60 S
35	- ROD	-
36	- INDEX	-
37	- SCREW	-
38	- CABLE DANFOSS	E1103/051
39	- SUPPORT	-
40	- AIR DAMPER SETTING	BFT05110/001
41	- FAN SCOOP	-
42	- GASKET	E516/1

TC = SHORT HEAD TL = LONG HEAD





 **Ecoflam**

DESIGN AND SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

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