

OIL BURNERS

**INCINER8** *International*



**MAX P 15**

**MAX P 25**

**CONTINUOUS VENTILATION**

Light oil



420010402002

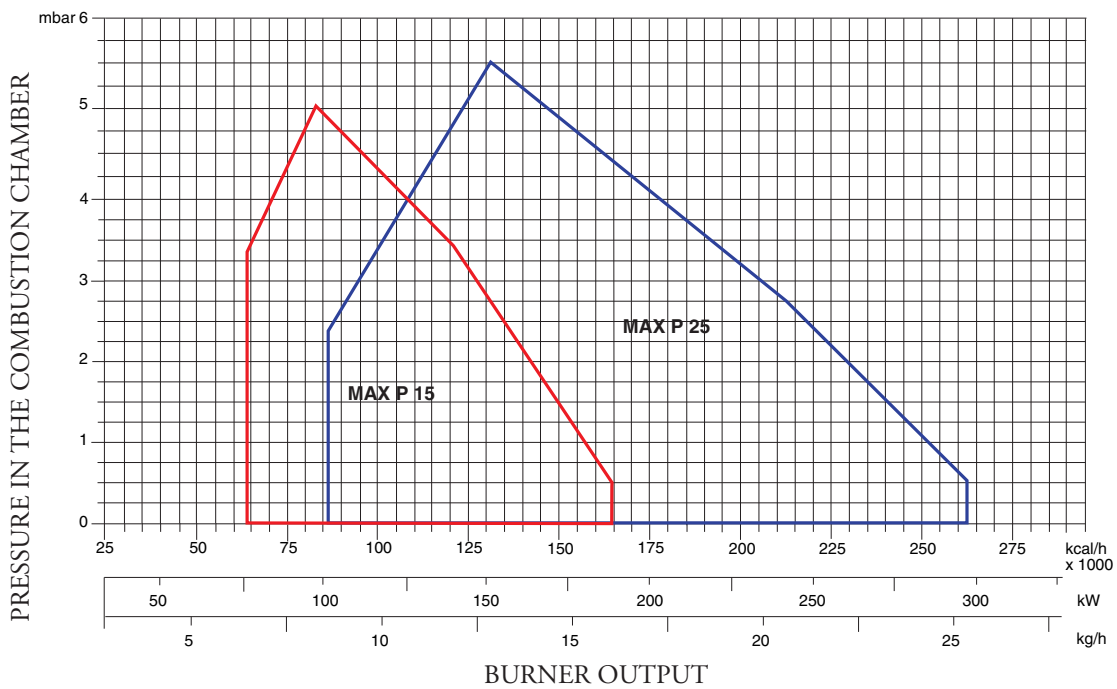
420010402002

26.06.2014

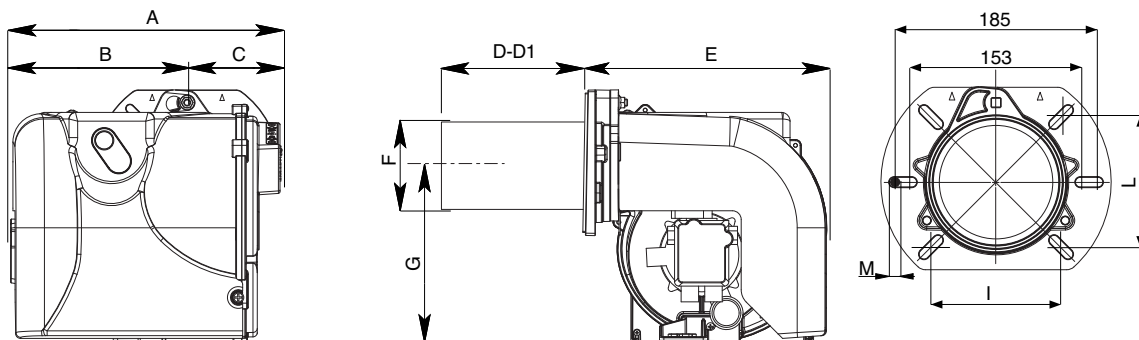
**TECHNICAL DATA**

MODELS		MAX P 15	MAX P 25
Thermal power max.	kcal/h	163.800	259.080
	kW	190	300
Thermal power min.	kcal/h	66.300	87.720
	kW	77	102
Max. flow rate light oil	kg/h	16	25,4
Min. flow rate light oil	kg/h	6,5	8,6
Feeding power	50 Hz V	230	230
Motor	W	130	200
Rpm	N°	2.800	2.800
Control box	LANDIS	LOA 24	LOA 24
Fuel: light oil	kcal/kg	10.200 max. visc 1,5°E a 20°C	

**WORKING FIELDS**



**OVERALL DIMENSIONS**

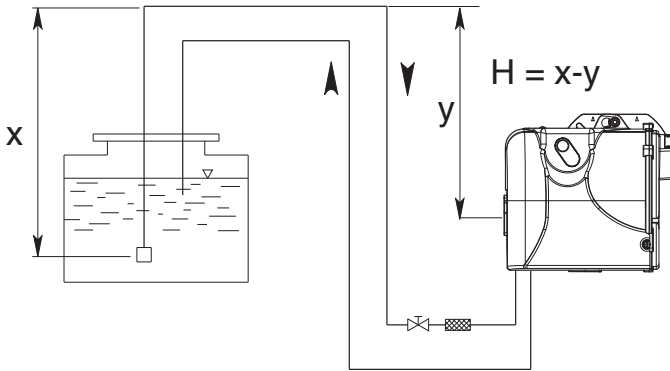


MODELS	A	B	C	D	D1	E	F	G	I	L	M
MAX P15	312	202	110	160	260	276	107	201	120-131	120-131	M 8
MAX P25	312	202	110	160	260	276	125	201	120-131	120-131	M 8

D = short head D1 = long head

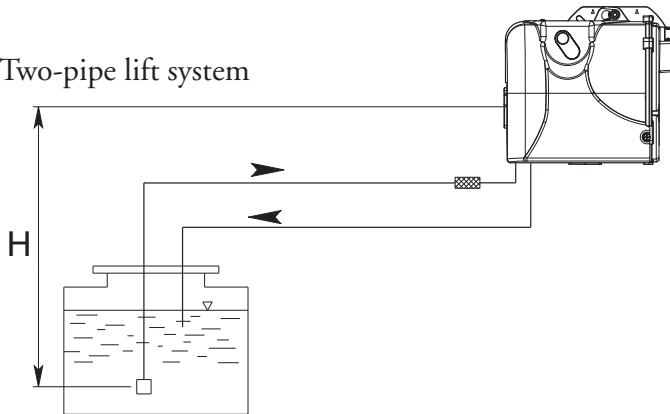
**MAXIMUM LENGTHS OF SUCTION LINES FOR TWO-PIPE SYSTEM SUNTEC**

Two-pipe siphon feed system



H (m)	Length pipe (m)	
	ø 8 mm	ø 10 mm
0,5	30	65
1	35	70
1,5	40	75
2	45	80
2,5	50	85
3	55	90
3,5	60	95

Two-pipe lift system



H (m)	Length pipe (m)	
	ø 8 mm	ø 10 mm
0,5	23	55
1	21	50
1,5	19	45
2	17	40
2,5	14	34
3	9	28
3,5	4	22

Correction of altitude	
Pump in suction (H +) or charging (H -)	
Altitude (m)	Theoretical H (m)
0-500	0
501-800	0,5
801-1300	1,0
1301-1800	1,5
1801-2200	2,0

e.g.: altitude 1100m Theoretical H = 1m actual H 2m, Corrected H for suction 2 + 1 = 3m Corrected H for charging 2 - 1 = 1m.  
Choose the Ø of the piping from the table, based on the length expanded between the tank and pump. If corrected H for suction exceeds 4m; make provisions for a transfer pump (max. pressure 2 bar).

**!** The length of the tubes apply to burners powered by 50 Hz mains electricity; in case of 60 Hz power, divide the relevant lengths by 1.5.

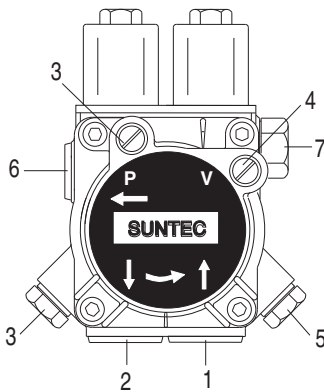
**ADJUSTMENT DATA**

	NOZZLE		PUMP	OUTPUT	FIRING HEAD SETTING	AIR DAMPER ADJUSTMENT
	gph	spry				
MAX P15	1,35	60°	15	6,28		
	1,50	60°	15	6,98		
	1,65	60°	15	7,68		
	1,75	60°	15	8,14		
	2,00	60°	15	9,3		
	2,25	60°	15	10,4		
	2,50	60°	15	11,64		
	2,75	60°	15	12,8		
MAX P25	3,00	60°	15	13,9		
	1,75	60°	15	8,14		
	2,00	60°	15	9,3		
	2,25	60°	15	10,4		
	2,50	60°	15	11,64		
	2,75	60°	15	12,8		
	3,00	60°	15	13,9		
	3,50	60°	15	16,29		
	4,00	60°	15	18,6		
	4,50	60°	15	21,3		
5,00	60°	15	24,2			
5,50	60°	15	25,6			

NOZZLE : DANFOSS H+S 80°-60°; DELAVAN W 60°; STEINEN S 60°

**PRIMING AND ADJUSTMENT OF OIL PUMP**

SUNTEC AT2 V 45A+C

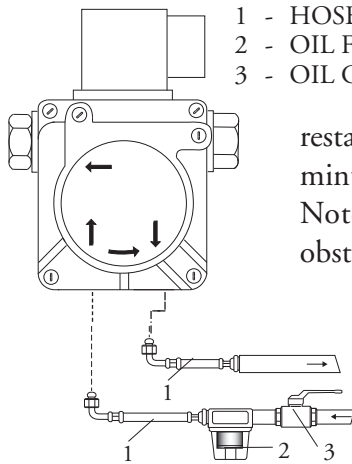


- 1 - INLET
- 2 - RETURN
- 3 - BLEED AND PRESSURE GAUGE PORT
- 4 - VACUUM GAUGE PORT
- 5 - PRESSURE ADJUSTMENT
- 6 - TO NOZZLE
- 7 - PRESSURE ADJUSTMENT

**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 pre-purging, 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 never allow the pump working without oil for more than three minutes.

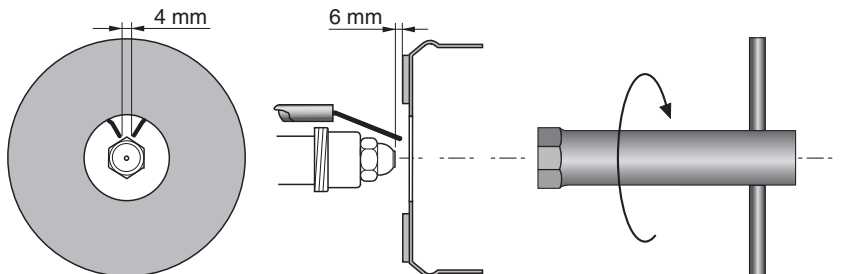


- 1 - HOSE
- 2 - OIL FILTER
- 3 - OIL COCK

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



## BURNER START-UP AND ADJUSTMENT

Once having installed the burner, check the following items:

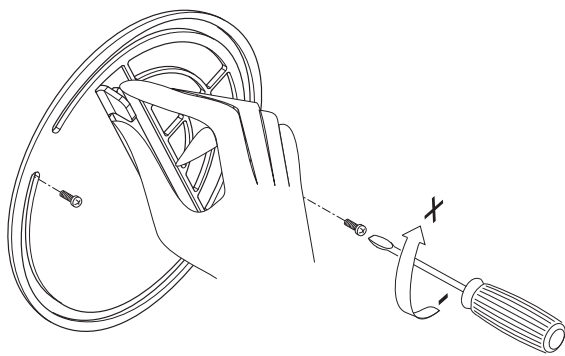
- The burner power feeding and the main line protection fuses.
- The correct electrical connections.
- The correct length of pipes and that the same are sealed.
- The type of fuel, which must be suitable for burner.
- The connection of boiler's thermostats and all safeties.

When all said conditions are checked and accomplished, it is possible to go on with burner's tests.

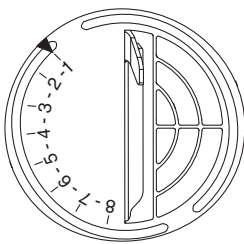
Power the burner. The control box feeds at the same time the ignition transformer and the burner's motor, which will run a prepurging of the combustion chamber for about 12 seconds. At the end of prepurging, the control box opens the fuel pump solenoid valve, the ignition transformer produces a spark and the burner ignites. After a safety interval of 5÷10 seconds and a correct ignition, the control box turns off the ignition transformer. In case of faulty ignition, the control box switches the burner into safety condition within 10 secs. The fuel pump feeding pressure, must keep around 12 bar.

Note: With preheated version, the burner runs a preheating of the combustion head for about 1 minute. In such a case, at the boiler's thermostats make, the ignition signal shall be done by the thermostat mounted on the preheater itself.

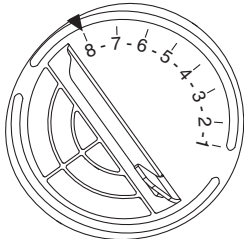
### AIR REGULATION



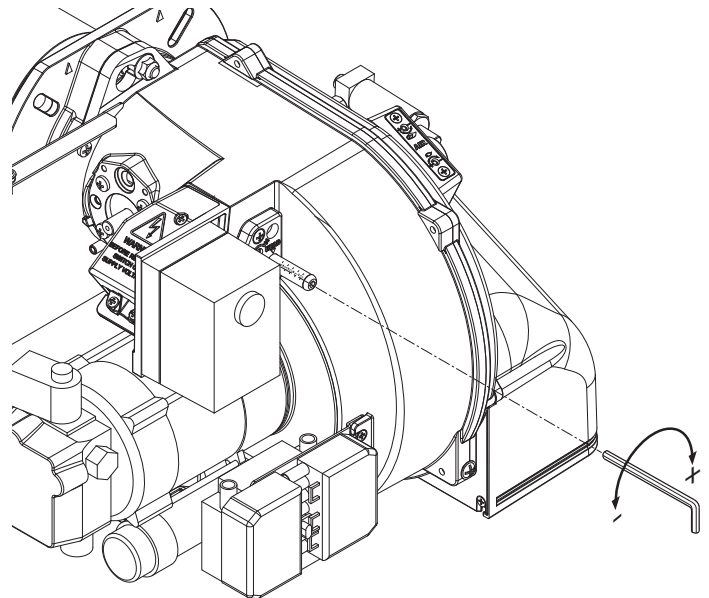
MIN



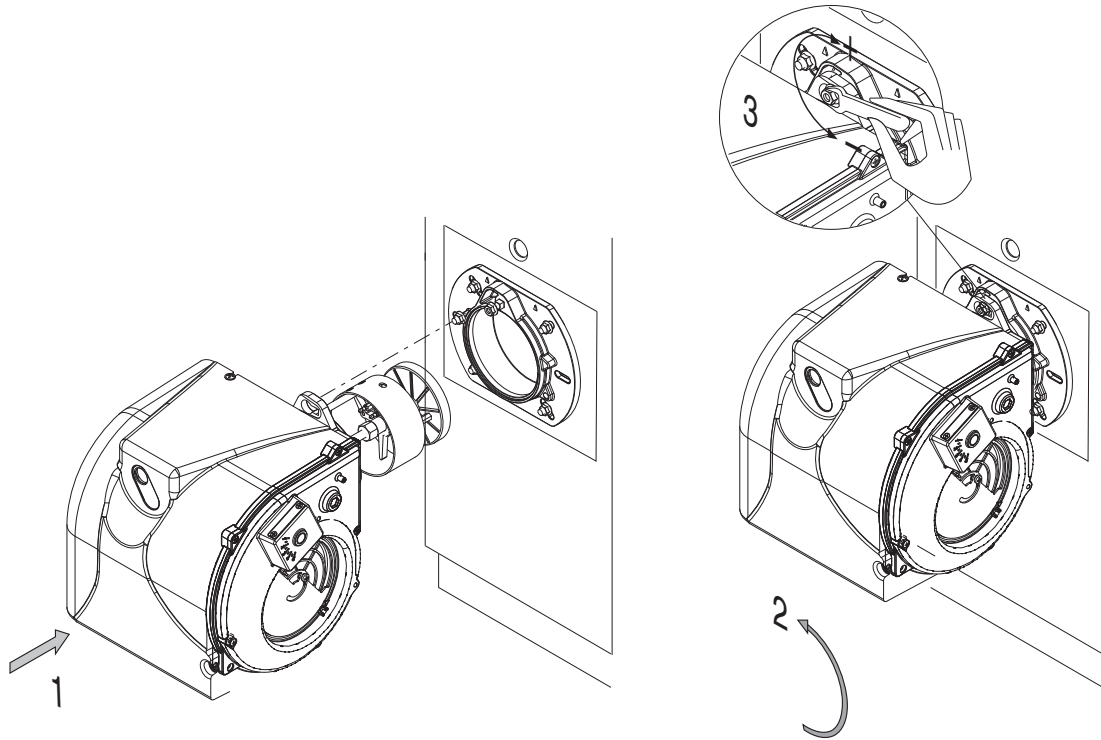
MAX



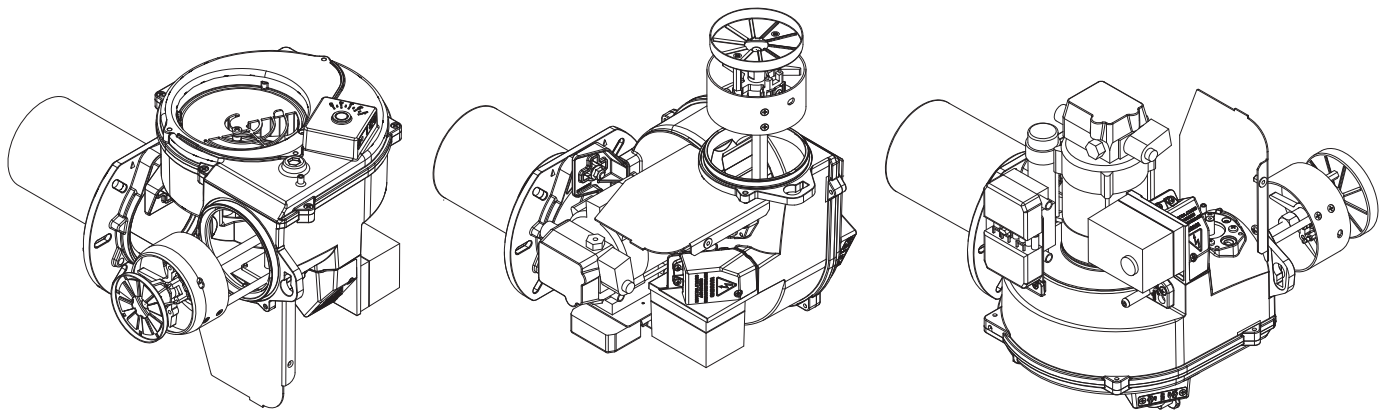
### FIRING HEAD SETTING



### MOUNTING TO THE BOILER

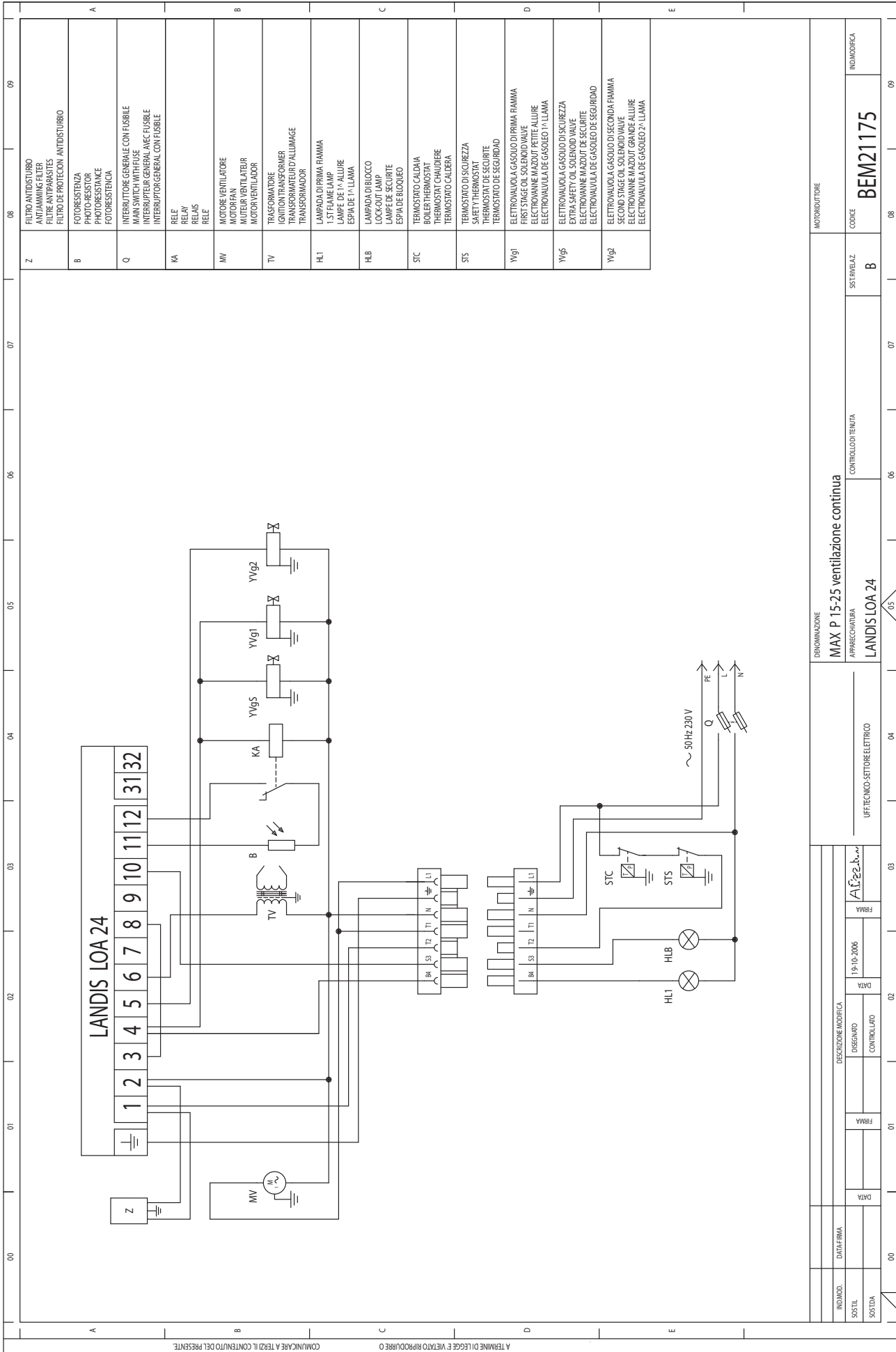


### MAINTENANCE POSITION



**FAULT FINDING**

<u>Burner does not start up</u>	<ul style="list-style-type: none"><li>- Mains switch not on.</li><li>- Blown fuse.</li><li>- Boiler thermostats not made.</li><li>- Fault in control box.</li></ul>
<u>Burner pre-purges and stops</u>	<ul style="list-style-type: none"><li>- Fault in control box.</li></ul>
<u>Burner does not ignite during cycle and stops</u>	<ul style="list-style-type: none"><li>- Fault in control box.</li><li>- Fault in photo-resistor.</li></ul>
<u>Burner does not ignite</u>	<ul style="list-style-type: none"><li>- Dirty ignition electrodes.</li><li>- Fault at electrodes.</li><li>- Electrodes installed wrongly.</li><li>- Faulty ignition transformer.</li><li>- Blocked nozzle.</li><li>- Nozzle needs replacing.</li><li>- Oil pressure too low.</li><li>- Blocked oil filter.</li><li>- Excessive combustion air for nozzle capacity.</li><li>- Fault in control box.</li></ul>
<u>Burner ignites and then stops</u>	<ul style="list-style-type: none"><li>- Faulty nozzle.</li><li>- Photo-resistor does not "see" flame.</li><li>- Excessive combustion air for nozzle capacity.</li><li>- Fault in control box.</li><li>- Oil pressure too low.</li><li>- Blocked oil filter.</li></ul>

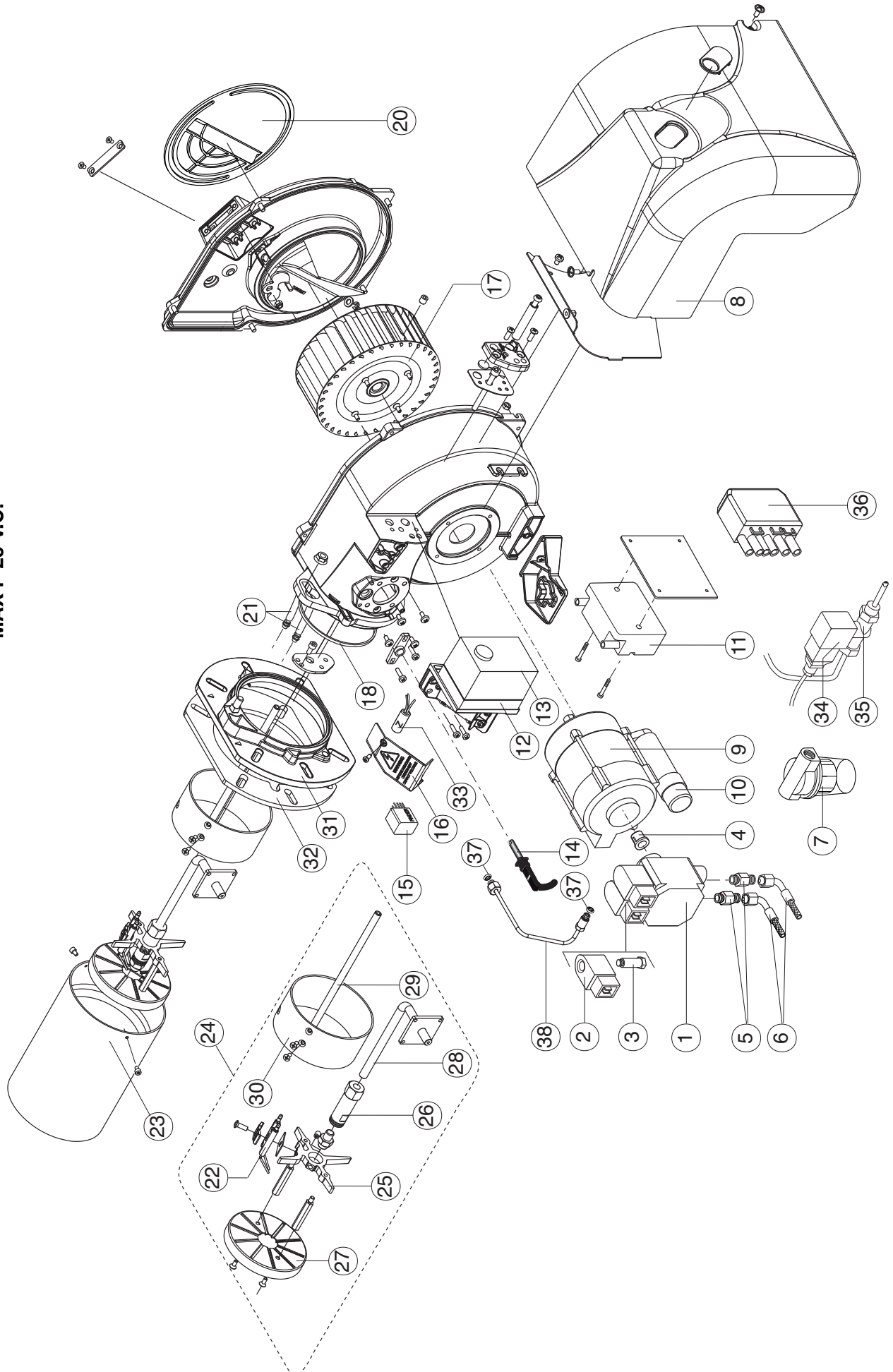


IND. MOD.		DESCRIZIONE MODIFICA		PERMANENZA		MOTORIDUTTORE	
DATA/FABRICA		DISG. DATA		MAX P 15-25 ventilazione continua		CONTROLLO DI TEMPI	
19-10-2006		A.L.P. S.p.A.		LANDIS LOA 24		SIST. RILAZ.	
SIST. DATA		CONTROLLO		UFF. TECNO. SETTORE ELETTRICO		B	
FRMA		FRMA		FRMA		CODICE	
						BEM21175	
						IND. MODIFICA	
						09	

TERMINI DI LEGGE E VENTRO RIPRODURRE O COMUNICARE A TERZI IL CONTENUTO DEL PRESENTE.



MAX P 15 V.C.  
MAX P 25 V.C.



			MAX P 15	MAX P 25
N°	DESCRIPTION		code	code
1	OIL PUMP	SUNTEC AT2 V 45A+C	65325121	65325121
2	COIL	SUNTEC	65323767	65323767
3	OIL VALVE	SUNTEC	65323744	65323744
4	COUPLING		65322920	65322920
5	NIPPLE	TN 6 X 700	65321179	65321179
6	HOSES	TN 6X700	65323189	65323189
7	FILTER	ART.70451-006AV	65325046	65325046
8	COVER		65320594	65320594
9	MOTOR	130 W	65322873	-
		200 W AEG	-	65322876
10	CAPACITOR	3 µF AEG	65321857	-
		6 µF AEG	-	65321850
		6,3 µF SIMEL	65325000	65325000
11	IGNITION TRANSFORMER		65323257	65323257
12	CONTROL BOX BASE	LANDIS	65320092	65320092
13	CONTROL BOX	LANDIS LOA 24	65320028	65320028
14	PHOTORESISTOR	LANDIS	65320076	65320076
15	RELAY	FINDER 5532	65323139	65323139
16	PROTECTION BOX		65320663	65320663
17	FAN	160 x 52	65323819	-
		160 x 62	-	65323820
18	ORING		65321061	65321061
19	AIR DAMPER		65321216	65321216
20	COVER AIR INLET		-	-
21	CABLES	TC	65320935	65320935
		TL	65320937	65320937
22	ELECTRODES		65320924	65320924
23	BLAST TUBE	TC	65320376	65320396
		TL	65320377	65320397
24	FIRING HEAD	TC	65322566	65325374
		TL	65325376	65325375
25	NOZZLE HOLDER SUPPORT		65320692	65320690
26	NOZZLE HOLDER		65320707	65320707
27	DIFFUSER		65326086	65320790
28	ROD	TC	65320191	65320191
		TL	65320192	65320192
29	WAISTBAND ROD	TC	65320195	65320195
		TL	65320196	65320196
30	WAISTBAND		65320225	65320224
31	FLANGE		65320970	65320971
32	GASKET		65321105	65321106
33	ANTI JAMMING FILTER	D.E.M.	65323169	65323169
34	COIL	Parker Scem VE131IND		
35	OIL VALVE	Parker Scem VE131IND	65323624	65323624
36	SOCKET WIELAND	7 pin	65322070	65322070
37	PIPE GASKET		65321065	65321065
38	PIPE		65321504	65321504

TC = SHORT HEAD TL = LONG HEAD

Lined page for notes or calculations. The page contains approximately 35 horizontal lines with dashed midlines, typical of a graph grid or ruled paper.

DESIGN AND SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

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