



Providing sustainable energy solutions worldwide

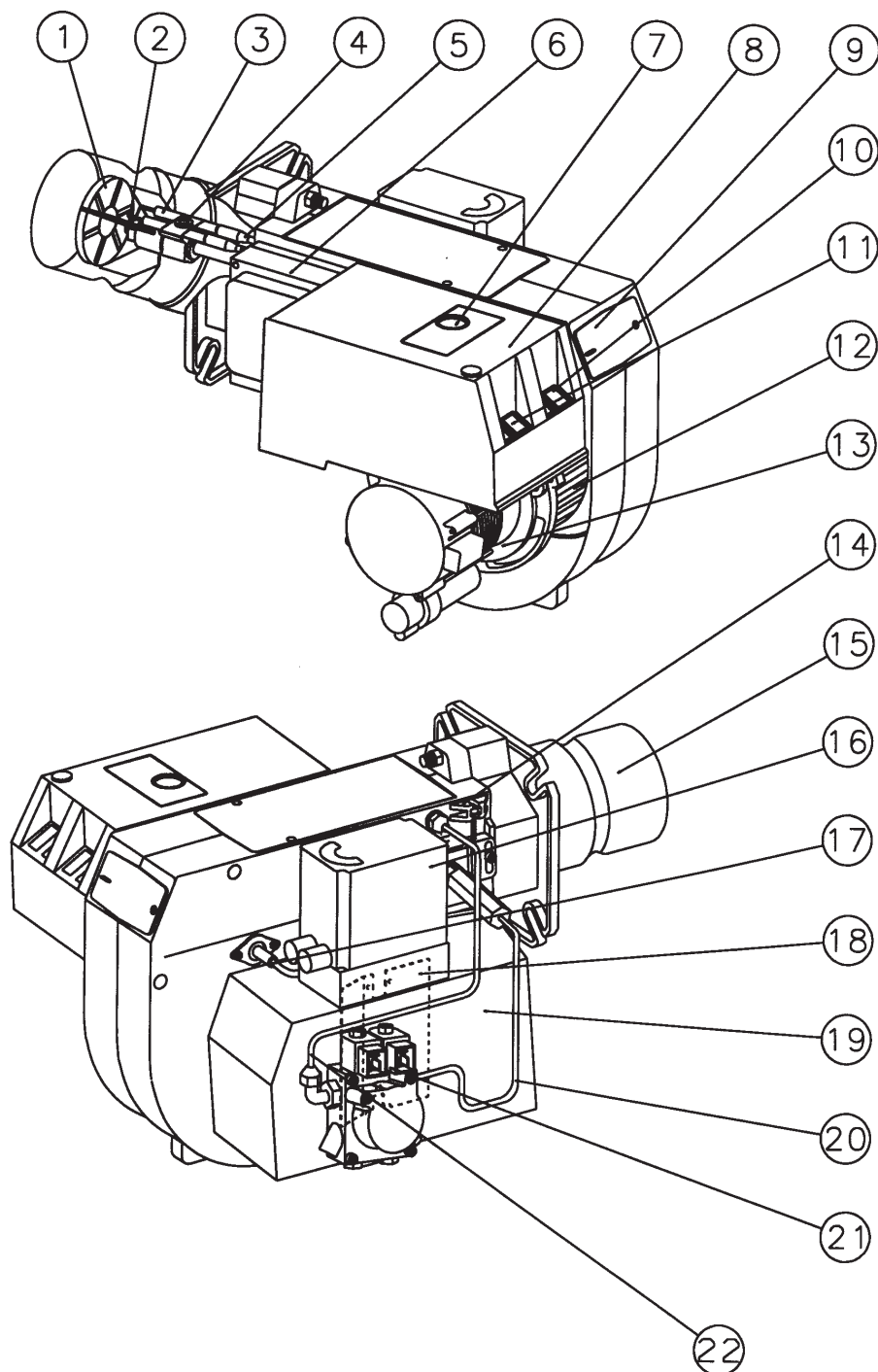
Installation- and maintenance instruction

**B 30 2A**



# DESCRIPTION

## Components



- 1. Shrouded disc
- 2. Nozzle
- 3. Ignition electrodes
- 4. Nozzle assembly
- 5. Ignition cable
- 6. Ignition transformer
- 7. Reset button
- 8. Electric panel

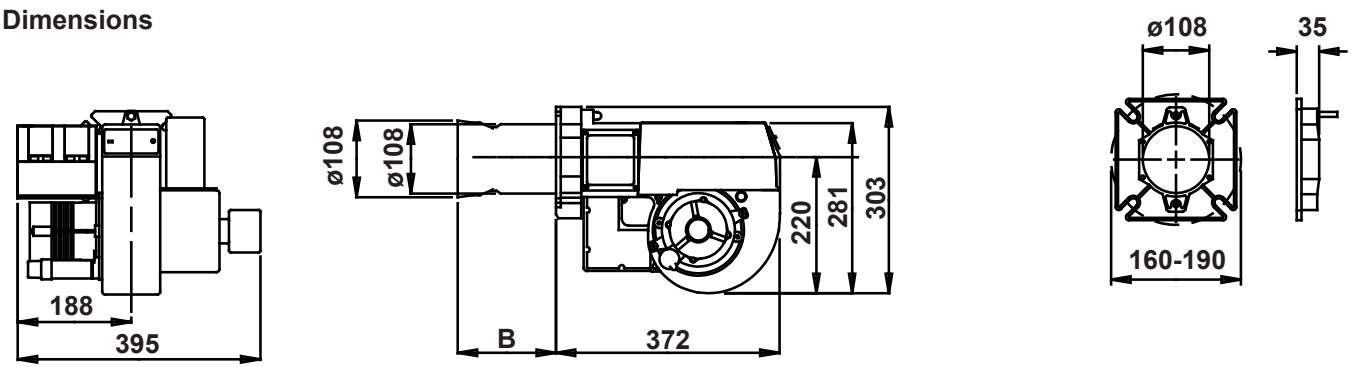
- 9. Cover, inspection glass
- 10. Switch I-II
- 11. Switch 0-I
- 12. Fan wheel
- 13. Motor
- 14. Nozzle assembly adjustment
- 15. Blast tube
- 16. Damper motor

- 17. Photo cell
- 18. Air damper
- 19. Air intake
- 20. Connecting pipe Stage 1
- 21. Solenoid valve
- 22. Connecting pipe Stage 2

# TECHNICAL DATA

Type designation B30A

## Dimensions



Burner tube	Length of burner tube	Incl. flange A Measure B
A	209	174
A	309	274

## Output range and nozzles recommended

Burner tube	Oil capacity	Capacity		Recommended nozzle			Recommended Pump pressure	
	kg/h	kW	Mcal/h	Angle	Danfoss	Monarch	Stage 1	Stage 2
A	6,0-17,0	71-202	61-173	45° - 60°	S, B	R, PLP	8-12	18-25

The net calorific value of 11,86 kWh/kg for light oil has been used.

## Recommended nozzle

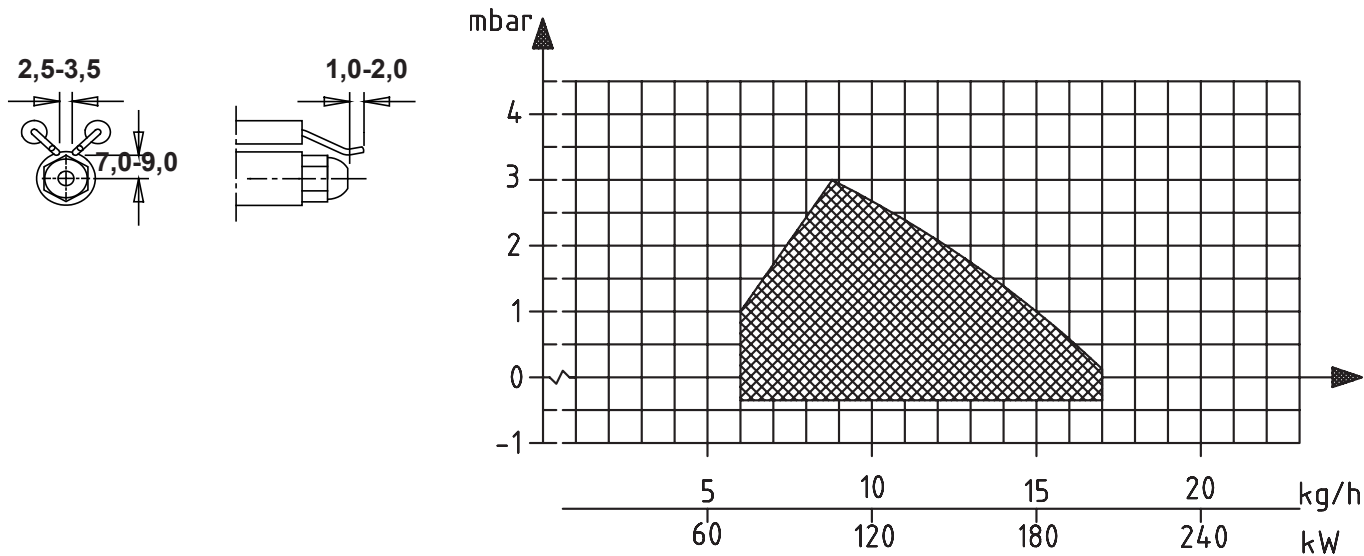
Because of different boiler types existing on the market, with varying combustion chamber designs, it is

not possible to state a definite spray angle or spray pattern. Note that the spray angle and the spray pattern change with the pump pressure.

## Recommended pump pressure

The factory setting of the pump pressure is 10 bar for stage 1 and 20 bar for stage 2. To accommodate the range of the burner the pressure can be reduced and/or increased within the limits for the pressure range of the pump.

## Electrode adjustment



# GENERAL INSTRUCTIONS

## General rules

The installation of an oil burner should be carried out in accordance with local regulations. The installer of the burner must therefore be aware of all regulations relating to oil and combustion.

Only oil suitable for the burner should be used and then in combination with a suitable oil filter before the oil pump of the burner.

If the burner is replacing an existing burner make sure that the oil filter is replaced or cleaned. The installation must only be undertaken by experienced personnel. Care should be taken by the installer to ensure that no electrical cables or fuel/gas pipes are trapped or damaged during installation or service/maintenance.

## Installation instructions

General installation instructions accompany the burner and should be left in a prominent place adjacent to the burner.

## Adjustment of burner

The burner is from the factory pre-set to an average value that must then be adjusted to the boiler in question.

All burner adjustments must be made in accordance with boiler manufacturers instructions. These must include the checking of flue gas temperatures, average water temperature and CO<sub>2</sub> or O<sub>2</sub> concentration.

To adjust the combustion device, start by increasing the air volume and the nozzle assembly somewhat. When the burner starts it is burning with excess air and smoke number 0. Reduce the nozzle assembly adjustment until soot occurs, and then increase the adjustment to make the soot disappear again. Then the volume of air is reduced until soot occurs and increased again to reach a combustion free of soot.

By this procedure an optimum adjustment is obtained. If larger nozzles are used the preadjustment of both the air volume and the nozzle assembly must be increased.

A whistling sound may be heard which can be eliminated or reduced as follows: Increase the nozzle assembly adjustment somewhat. The CO<sub>2</sub>-content and consequently the air volume will then be reduced.

## Condensation in chimney

A modern burner works with less excess air and often also with smaller

nozzles than older models.

This increases the efficiency but also the risk of condensation in the chimney. The risk increases if the area of the chimney flue is too large. The temperature of the flue gases should exceed 60°C measured 0,5 metres from the chimney top.

Measures to raise the temperature: Insulate the chimney in cold attics

Install a tube in the chimney  
Install a draught regulator (dilutes the flue gases during operation and dries them up during standstill)

Increase the oil quantity

Raise the flue gas temperature by removing turbulators, if any, in the boiler.

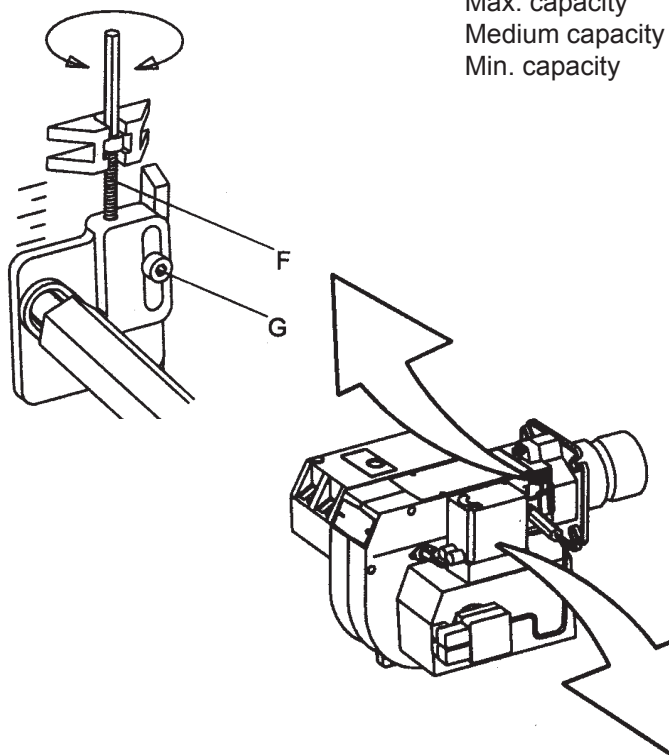
## Instructions for use

The end user of the burner should be instructed about the operation and safety features of the burner.

He should also be made aware of the importance of the area around the boiler/burner being kept free of combustible material.

## Pump adjustment

See separate description.



## Air adjustment

See page "Air adjustment with damper motor"

## Maintenance

The boiler/burner should be examined regularly for any signs of malfunction or oil leakage.

## Oil supply

The oil line should be dimensioned in accordance with the pump manufacturer's instruction. In the suction line to the burner a filter should be mounted to prevent any particles in the oil from reaching the burner. If the installation consists of several burners each one should have its own suction line from the tank or a circulation system should be used.

The temperature in the oil line should be kept as constant as possible. Avoid exposing the line to excessive cold which may cause blockages of paraffin deposits.

The oil pipe and electric cable should be fitted so that the burner can be placed on the floor for inspection of the combustion device.

## Adjustment of nozzle assembly

Loosen the screw G and adjust the nozzle assembly by turning the screw F.

- |                 |                   |
|-----------------|-------------------|
| Max. capacity   | - Front position  |
| Medium capacity | - Middle position |
| Min. capacity   | - Rear position   |





## AIR ADJUSTMENT WITH DAMPER MOTOR

The damper motor turns the damper between 3 preset positions: fully closed, low capacity and high capacity. These positions are controlled in the motor by cams which are set by means of the coloured disks. In addition there is a black disk controlling the connection of solenoid valve 2.

If the air volume needs changing: Remove the cover from the damper motor and change the position of the cams by turning them by hand. See fig.

### Low capacity:

Adjust the operating switch to high capacity (II).

- Reduce the air volume:  
Turn orange cam towards 0°.
- Increase the air volume:  
Turn orange cam towards 90°.

Adjust the operating switch back to low capacity and check.

### Full capacity:

Adjust the operating switch to low capacity (I).

- Reduce the air volume:  
Turn red cam towards 0°.
- Increase the air volume:  
Turn red cam towards 90°.

If the red cam is moved, change the black cam as much. Adjust the operating switch back to high capacity and ensure that the correct air volume has been obtained.

### Note!

The blue cam is the limit position for fully closed damper and it is normally not necessary to change it.

### Releasing button

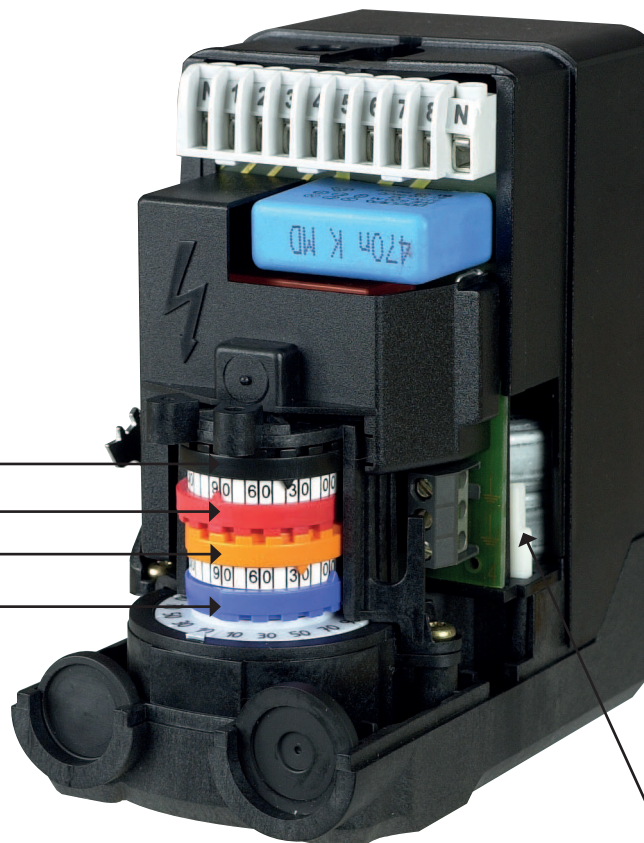
By pressing the button and snapping it down, the motor will be released and the damper can easily be turned. This function facilitates an exchange of damper motor.

Solenoid valve High capacity (black)

High capacity (red)

Low capacity (orange)

Closed damper (blue)



Releasing button

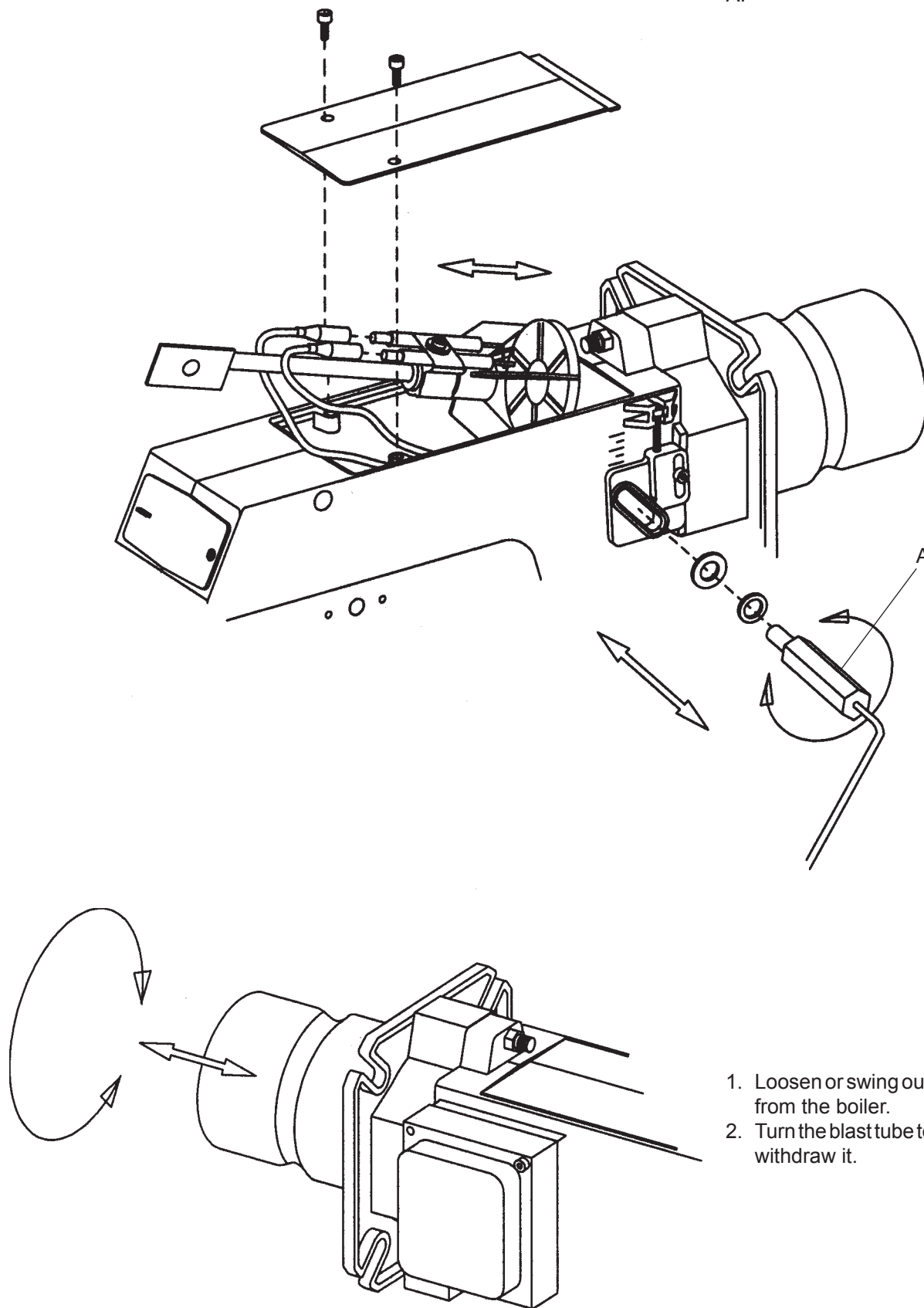
**N.B.** The upper position is the standard position

## MAINTENANCE OF OIL BURNER

**Warning:** Before doing any service switch off power at the main switch and cut off the oil supply.

### Service of burner head

Open the cover and disconnect the connecting pipes by loosening screw A.

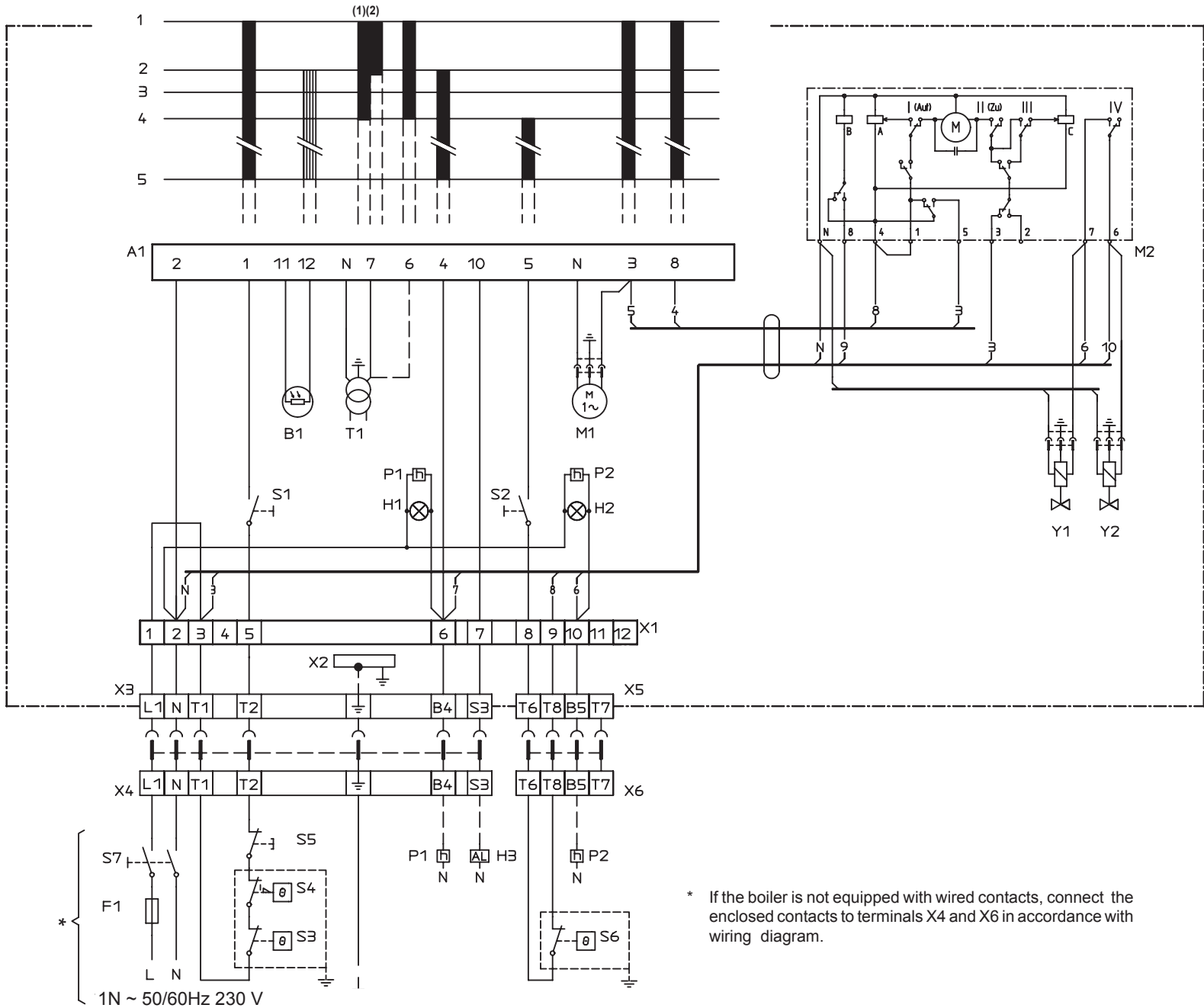


1. Loosen or swing out the burner from the boiler.
2. Turn the blast tube to the left and withdraw it.

# ELECTRIC EQUIPMENT

Oil burner control: LOA21... / LOA24...

Wiring diagram





# ELECTRIC EQUIPMENT

---

## List of components

A1 Oil burner control  
B1 Photoresistor  
F1 Fuse  
H1 Lamp, low capacity  
H2 Lamp, high capacity  
H3 Lamp, lock-out signal 220 V  
M1 Burner motor  
M2 Damper motor SQN75.244A21B  
P1 Time meter, low capacity (optional)  
P2 Time meter, high capacity (optional)  
S1 Operating switch  
S2 Operating switch, high/low capacity  
S3 Control thermostat  
S4 Temperature limiter  
S5 Micro switch for hinged door  
S6 Control thermostat, high/low  
S7 Main switch  
T1 Ignition transformer  
X1 Connection terminal board  
X2 Earth terminal  
X3 Plug-in-contact, burner  
X4 Plug-in-contact, boiler  
X5 Plug-in-contact high/low capacity , burner  
X6 Plug-in-contact high/low capacity, boiler  
Y1 Solenoid valve 1  
Y2 Solenoid valve 2

If S6 is missing connection between T6 and T8.

Mains connection and fuses in accordance with local regulations.

# ELECTRIC EQUIPMENT

---

## Function

### 1. Switch on operating switch and twin thermostat

A spark is formed. The air damper motor opens the damper to low load position. The burner motor starts, the prepurge goes on till the prepurge period expires and the solenoid valve 1 opens (2)

### 2. Solenoid valve 1 opens

Oil mist is formed and ignited. The photocell indicates a flame.

(1) The ignition spark goes out 15 s. after flame indication (**LOA24.171...**).

(2) The ignition spark goes out 2 s. after flame indication when the ignition transformer is connected to terminal 7 (**LOA24.173...**).

### 3. The safety time expires

- a. If no flame is established before this time limit the control cuts out.
- b. If for some reasons the flame disappears after this time limit, the burner will make an attempt to re-start.

### 4. High/Low thermostat ON

The burner is in operating position and can now change between full load and low load.

### 4-5. Operating position

If the burner operation is interrupted by means of the main switch or the thermostat, a new start takes place when the conditions in accordance with point 1 are fulfilled.

### The oil burner control cuts out

A red lamp in the control is lit. Press the reset button and the burner re-starts.

### Post-ignition

(2) If a post-ignition of 15 s. is wanted, move the ignition transformer from terminal 7 to terminal 6 (**LOA24.173...**).

## Technical data

Pre-ignition time:	13 s
Pre-purge time:	13 s
(1) Post-ignition time:	15 s
(2) Post-ignition time:	2 s
Safety lock-out time:	10 s
Reset time after lockout:	≈ 50 s
Reaction time on flame failure:	max. 1 s
Ambient temperature:	from - 20 to + 60°C
Min. current with flame established:	65 µ A
Max. photo current at start:	5 µ A
Enclosure:	IP 40
(Under voltage proof only LOA24...)	

### Control of photo current

the current through photo unit is measured with a d.c. ammeter (a moving coil instrument connected in series with the photo unit).

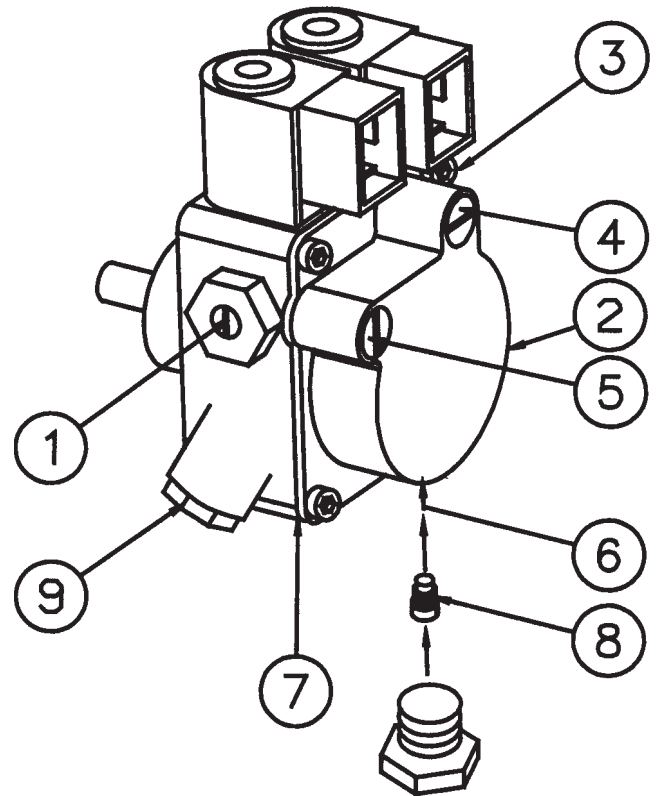
# INSTRUCTIONS PUMP TYPE SUNTEC AT2 45C

## Technical data

Viscosity range:	2-12 mm <sup>2</sup> /S
Pressure range:	8-25 bar
Factory setting:	Stage 1 10 bar
	Stage 2 20 bar
Rated voltage of coil:	220/240V
	50/60 Hz
Oil temperature:	max 60°C

## Components

1. Pressure adjustment Stage 1
2. Pressure gauge port G 1/8"
3. Nozzle outlet G 1/8"
4. Pressure gauge port G 1/8"
5. Vacuum gauge port G 1/8"
6. Return line G 1/4"  
and internal by-pass plug
7. Suction line G 1/4"
8. Return plug
9. Pressure adjustment Stage 2



## Suction line tables

The suction line tables consist of theoretically calculated values where the pipe dimensions and oil velocity have been matched so that turbulences will not occur. Such turbulences will result in increased pressure losses and in acoustic noise in the pipe system. In addition to drawn copper piping a pipe system usually comprises 4 elbows, a non-return valve, a cut-off valve and an external oil filter.

The sum of these individual resistances is so insignificant that they can be disregarded. The tables do not include any lengths exceeding 100 m as experience shows that longer lengths are not needed.

The tables apply to a standard fuel oil of normal commercial quality according to current standards. On commissioning with an empty tube system the oil pump should not be run without oil for more than 5 min. (a condition is that the pump is being lubricated during operation).

The tables state the total suction line length in metres at a nozzle capacity of 3,0 Gph. Max. permissible pressure at the suction and pressure side is 2,0 bar. For two-pipe system  $Q_{\max} = 55\text{l/h}$  pump capacity at 0 bar.

1-pipe system					1-pipe system				
Height		Pipe diameter			Height		Pipe diameter		
H		ø4 mm	ø6 mm	ø8 mm	H		ø6 mm		
m		m	m	m	m		m		
4,0		28	100	100	With an underlying tank a 1-pipe-system is not recommended				
3,0		24	100	100					
2,0		21	100	100					
1,0		18	92	100					
0,5		16	83	100					
0,0		14	75	100					
Two-pipe system					Two-pipe system				
Height		Pipe diameter			Height		Pipe diameter		
H		ø6 mm	ø8 mm	ø10 mm	H		ø6 mm	ø8 mm	ø10 mm
m		m	m	m	m		m	m	m
4,0		29	96	100	0,0		14	49	100
3,0		25	85	100	-0,5		12	43	100
2,0		22	73	100	-1,0		10	37	94
1,0		18	61	100	-2,0		7	26	65
0,5		16	55	100	-3,0		3	14	37
0,0		14	49	100	-4,0		0	2	8

## APPLICATIONS FOR SUNTEC AT2 45C

- Light oil.
- Nozzle flow up to 45 l/h (approx. 460 000 kcal/h - 534 kW).
- One or two-pipe system.

### Pump operating principle

The oil pump has a built in solenoid valve which controls the regulator cut-off valve giving fast cut-off and cut-on function independent of the rotational speed.

The gear-set draws oil from the tank through the built-in filter and transfers it to the valve that regulates the oil pressure to the nozzle line.

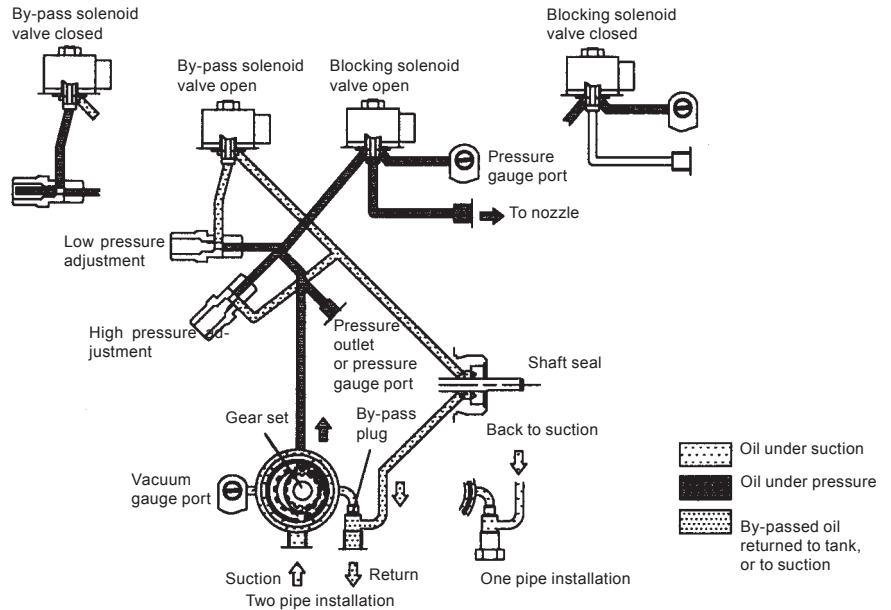
All oil which does not go through the nozzle line will be dumped through the valve back to the return line or, if it is a one-pipe installation, back to the suction port in the gear-set.

### - Two-pipe operation

When the solenoid valve is non-activated, the by-pass channel between the pressure and return sides of the valve is open.

No pressure will then be built up to open the valve. It does not matter which speed the gear set has.

When the solenoid is activated, this by-pass channel will be closed and because of the full speed of the gear-set, the pressure necessary to open the valve will be built up very rapidly which gives a very sharp cut-on function.



### - One-pipe operation

Bleeding on one-pipe is not automatic, and a pressure port must be opened to bleed the system.

#### Cut-off

When the burner stops, the solenoid opens the by-pass at the same moment which drains all the oil down to the return and the nozzle valve closes immediately. This gives a very sharp cut-off function. The cut-on and off can be regulated regardless of motor speed and has an extremely fast response.

When the solenoid is non activated, the torque requirement is low up to full motor speed.

Shaft rotation and nozzle location  
C: Anti-clock. rotation/  
Left hand nozzle (seen from  
Shaft end)

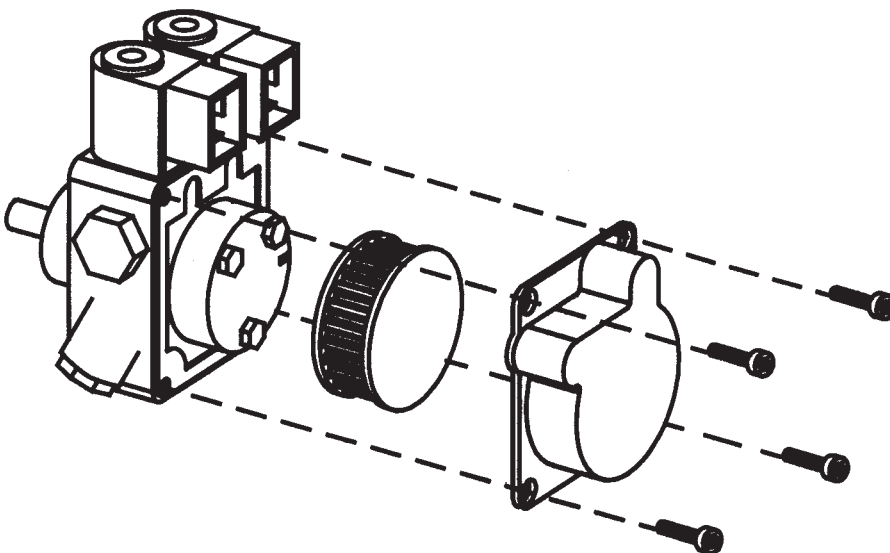
Gear set capacity  
(see pump capacity curves)

Standard model

Solenoid valve  
with cut-off

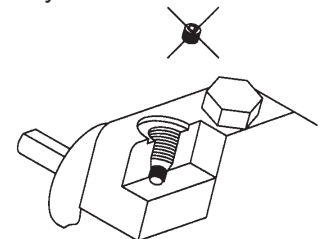
AT 2 45 C

### Exchange of filter

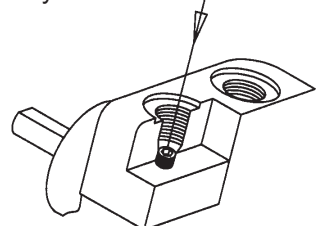


### Mounting/dismounting return plug

One pipe system



Two pipe system



# NOZZLE TABLE

Pump pressure bar

Gph	8			9			10			11		
	kg/h	kW	Mcal/h	kg/h	kW	Mcal/h	kg/h	kW	Mcal/h	kg/h	kW	Mcal/h
0,40	1,33	16	13	1,41	17	14	1,49	18	15	1,56	18	16
0,50	1,66	20	17	1,76	21	18	1,86	22	19	1,95	23	20
0,60	2,00	24	20	2,12	25	22	2,23	26	23	2,34	28	24
0,65	2,16	26	22	2,29	27	23	2,42	29	25	2,54	30	26
0,75	2,49	29	25	2,65	31	27	2,79	33	28	2,93	35	30
0,85	2,83	33	29	3,00	36	31	3,16	37	32	3,32	39	34
1,00	3,33	39	34	3,53	42	36	3,72	44	38	3,90	46	40
1,10	3,66	43	37	3,88	46	39	4,09	48	42	4,29	51	44
1,20	3,99	47	41	4,24	50	43	4,47	53	46	4,68	55	48
1,25	4,16	49	42	4,40	52	45	4,65	55	47	4,88	58	50
1,35	4,49	53	46	4,76	56	48	5,02	59	51	5,27	62	54
1,50	4,98	59	51	5,29	63	54	5,58	66	57	5,85	69	60
1,65	5,49	65	56	5,82	69	59	6,14	73	63	6,44	76	66
1,75	5,82	69	59	6,18	73	63	6,51	77	66	6,83	81	70
2,00	6,65	79	68	7,06	84	72	7,45	88	76	7,81	93	80
2,25	7,49	89	76	7,94	94	81	8,38	99	85	8,78	104	89
2,50	8,32	99	85	8,82	105	90	9,31	110	95	9,76	116	99
2,75	9,15	108	93	9,71	115	99	10,24	121	104	10,73	127	109
3,00	9,98	118	102	10,59	126	108	11,16	132	114	11,71	139	119
3,50	11,65	138	119	12,35	146	126	13,03	154	133	13,66	162	139
4,00	13,31	158	136	14,12	167	144	14,89	176	152	15,62	185	159
4,50	14,97	177	153	15,88	188	162	16,75	198	171	17,57	208	179
5,00	16,64	197	170	17,65	209	180	18,62	221	190	19,52	231	199
5,50	18,30	217	187	19,42	230	198	20,48	243	209	21,47	255	219
6,00	19,97	237	204	21,18	251	216	22,34	265	228	23,42	278	239
6,50	21,63	256	220	22,94	272	234	24,20	287	247	25,37	301	259
7,00	23,29	276	237	24,71	293	252	26,06	309	266	27,33	324	279
7,50	24,96	296	254	26,47	314	270	27,92	331	285	29,28	347	298
8,00	26,62	316	271	28,24	335	288	29,79	353	304	31,23	370	318
8,50	28,28	335	288	30,00	356	306	31,65	375	323	33,18	393	338
9,00	29,95	355	305	31,77	377	324	33,59	398	342	35,14	417	358

The table applies to oil with a viscosity of 4,4 mm<sup>2</sup>/s (cSt) with density 830 kg/m<sup>3</sup>.

## Burner with preheater

Consider that on preheating the oil quantity is reduced by 5-20% depending on.

- Rise in temperature at the nozzle
- Design of nozzle
- Capacity (high capacity - small difference)

# NOZZLE TABLE

Pump pressure bar

Gph	12			13			14			15		
	kg/h	kW	Mcal/h	kg/h	kW	Mcal/h	kg/h	kW	Mcal/h	kg/h	kW	Mcal/h
0,40	1,63	19	17	1,70	20	17	1,76	21	18	1,82	21	18
0,50	2,04	24	21	2,12	25	22	2,20	26	22	2,28	27	23
0,60	2,45	29	25	2,55	30	26	2,64	31	27	2,73	32	28
0,65	2,65	31	27	2,75	33	28	2,86	34	29	2,96	35	30
0,75	3,08	36	31	3,18	38	32	3,30	39	34	3,42	40	35
0,85	3,47	41	35	3,61	43	37	3,74	44	38	3,87	46	39
1,00	4,08	48	42	4,24	50	43	4,40	52	45	4,56	54	46
1,10	4,48	53	46	4,67	55	48	4,84	57	49	5,01	59	51
1,20	4,89	58	50	5,09	60	52	5,29	63	54	5,47	65	56
1,25	5,10	60	52	5,30	63	54	5,51	65	56	5,70	68	58
1,35	5,50	65	56	5,73	68	58	5,95	70	61	6,15	73	63
1,50	6,11	72	62	6,36	75	65	6,60	78	67	6,83	81	70
1,65	6,73	80	69	7,00	83	71	7,27	86	74	7,52	89	77
1,75	7,14	85	73	7,42	88	76	7,71	91	79	7,97	94	81
2,00	8,18	97	83	8,49	101	86	8,81	104	90	9,12	108	93
2,25	9,18	109	94	9,55	113	97	9,91	117	101	10,26	122	105
2,50	10,19	121	104	10,61	126	108	11,01	130	112	11,39	135	116
2,75	11,21	133	114	11,67	138	119	12,11	144	123	12,53	148	128
3,00	12,23	145	125	12,73	151	130	13,21	157	135	13,67	162	139
3,50	14,27	169	145	14,85	176	151	15,42	183	157	15,95	189	163
4,00	16,31	193	166	16,97	201	173	17,62	209	180	18,23	216	186
4,50	18,35	217	187	19,10	226	195	19,82	235	202	20,51	243	209
5,00	20,39	242	208	21,22	251	216	22,03	261	225	22,79	270	232
5,50	22,43	266	229	23,34	277	238	24,23	287	247	25,07	297	256
6,00	24,47	290	249	25,46	302	260	26,43	313	269	27,49	326	280
6,50	26,51	314	270	27,58	327	281	28,63	339	292	29,63	351	302
7,00	28,55	338	291	29,70	352	303	30,84	366	314	31,91	378	325
7,50	30,59	363	312	31,83	377	324	33,04	392	337	34,19	405	349
8,00	32,63	387	333	33,95	403	346	35,25	418	359	36,47	432	372
8,50	34,66	411	353	36,07	428	368	37,45	444	382	38,74	459	395
9,00	36,71	435	374	38,19	453	389	39,65	470	404	41,02	486	418

The table applies to oil with a viscosity of 4,4 mm<sup>2</sup>/s (cSt) with density 830 kg/m<sup>3</sup>.

## Burner with preheater

Consider that on preheating the oil quantity is reduced by 5-20% depending on.

- Rise in temperature at the nozzle
- Design of nozzle
- Capacity (high capacity - small difference)



# FAULT LOCATION

## Burner fails to start

Situation	Possible causes	Remedies
Motor runs	Flame instability	Check nozzle to burner head dimension and electrode position
Burner pre-purges	Incorrect head settings	Check oil pressure
	Low oil pressure	Adjust air damper
Flame occurs	Excess air	Check that photocell is clean and unobstructed
Burner locks out	Photocell not seeing light	Confirm with new photocell
	Photocell failed	Confirm with new control. (NB. it is advisable to change the photocell if also changing control)
	Control faulty	Check that photocell is not seeing ambient light
Motor runs	False light	Check that H.T. leads are sound and are not arcing other than at electrode gap
Burner pre-purges		Check oil supply to burner - check that pump is not airlocked
No flame occurs		Check operation of magnetic valve
Burner locks out	No spark	
	No oil	

## Burner fails to start after normal operation

Burner fails to start	Fuse has blown	Check or replace fuse if necessary. Check reason for failure
	Appliance thermostat has not reset	Adjust thermostat
Lamp not lit	Appliance overheat device has operated	Reset overheat device. Find reason for its operation and rectify
	Control relay or photocell defective	Check by replacement
	No oil being delivered	Check that tank, oil lines, fire valve, pump and nozzle are all in good order
Motor runs	Excessive flue draught is preventing flame establishment	Rectify condition
Burner runs to lockout	No spark	Check ignition transformer. Check electrode gap and porcelain

## Delayed ignition, burners starts violently

Burner pulsates on start-up only with hot flue	Excessive draught	Adjust the burner
Burner pulsates on start-up	Nozzle partly blocked	Replace nozzle
	Oil pressure too low	Check and adjust
	Flue blocked or damaged	Check and rectify
	Fan slipping on shaft	Check and retighten
	Pump coupling loose or worn	Check and replace
Burner starts violently	Delayed ignition	Check the electrode adjustment, see diagram
		Check electrodes for damage
		Check H.T. leads for damage and disconnection

Försäkran om överensstämmelse  
Declaration of conformity  
Konformitätserklärung  
Déclaration de conformité



Brännare, Burner, Ölbrenner, Brûleur

Certifikat TÜV Süddeutschland

Certifikat nr.	Typ, Type:	Certifikat nr.	Typ, Type:
08128915006	BF 1	02119815003	B 20, B 30, B 40, B 45
0111110535004	B 1	02119815004	B 50, B 60, B 70, B 80
0207110535005	B 2	040588622001	B 55
02119815001	ST 97, ST 108, ST 120, ST 133, ST 146	040588622002	B 65
02119815002	B 9, B 10, B 11	13129815007	B 45 MF, B 45-2 MF

Enertech AB försäkrar under eget ansvar att ovannämnda produkter är i överensstämmelse med följande standarder eller andra regelgivande dokument och uppfyller tillämpliga delar i EU direktiv.

Enertech AB declares under sole responsibility that the above mentioned product is in conformity with the following standards or other normative documents and follows the provisions of applicable parts in the following EU Directives.

Enertech AB erklärt in eigener Verantwortung, dass obenstehende Produkte mit folgenden Normen oder anderen normativen Dokumenten und anwendbare Teile in EU-Direktiven in Übereinstimmung stehen

Enertech AB déclare sous sa seule responsabilité que les produits désignés ci-dessus sont conformes aux normes et aux documents normatifs suivants et satisfont aux critères applicables des directives CE suivantes:

Dokument: EN 267  
EN 60335

EU direktiv. EU Directives, EU-Direktiven, CE suivantes:

2004/108/EC	Elektromagnetisk kompatibilitet, Electromagnetic compatibility EC-Richtlinie, Compatibilité électromagnétique
2006/95/EC	Lågspänningsdirektivet, Low-voltage directive, Niederspannungs-Richtlinie, Directive sur les basses tensions
2006/42/EC	Maskindirektivet, Machinery directive, Maschinen-Richtlinie, Directive sur les machines
92/42/EEC	Verkningsgradsdirektivet, Efficiency directive, Wirkungsgrad-Richtlinie, Directive sur les exigences de rendement

Genom att brännaren uppfyller ovannämnda standarder och direktiv erhåller brännaren CE - märkningen.

In that the burner conforms to the above mentioned standards it is awarded the CE mark.

Indem der Brenner die obengenannten Normen und Richtlinien erfüllt, erhält der Brenner die CE-Kennzeichnung.

Du fait de leur conformité aux directives mentionnées ci-dessus, les brûleurs Bentone bénéficient du marquage CE.

Enertech AB, Bentone Division/  
är kvalitetscertifierat enligt/  
is quality certified according to/  
ist nach dem Qualitätsmanagement /  
est certifiée à la norme de qualité  
SS-EN ISO 9001:2008

Ljungby, Sweden, 150227 (27/02/15)

**ENERTECH AB Bentone Division**

Box 309  
SE-341 26 Ljungby Sweden

Håkan Lennartsson

# OIL BURNERS MAINTENANCE INSTRUCTIONS

## General information

Keep the boiler room clean. Ensure that the boiler room has permanent fresh air intake. Switch off before dismantling the oil burner.

At hinged mounting, make sure that an automatic safety switch is fitted, so that the burner cannot start when the swing door is open.

Don't use the oil fired boiler to burn paper or rubbish, unless the boiler is especially fitted with a hinged door to make this possible.

Don't fill tank while burner is working.

## Starting precautions

Make sure that the oil tank is not empty

Make sure that the valves on oil and water supply pipes are open.

Make sure that the boiler flue damper is open.

Make sure that the boiler thermostat is set at the correct temperature.

Switch on the current. Most relay systems have a delayed action so that the burner will not start for perhaps 20 seconds.

With heavy oil the delay will be longer as the burner will not start until the oil in the preheater reaches the required temperature.

## If the burner will not start

Press the reset button on the relay. Check that the thermostats are correctly adjusted.

Don't forget the room thermostat, check that any fuses are intact and main switch is on.

## If the burner starts but does not ignite

Make an attempt to start the burner.

Never make close repeated start attempts.

Don't restart the burner until the boiler is free from oil gases.

If the burner still does not ignite send for the service engineer.

## When switching off during summer

Always use the main switch to cut out the burner even when adjusting the burner or cutting off the heating for a short time. For longer periods of shut down, close all valves and the oil supply stop-cock.

Clean the filter and nozzle by washing in petrol or paraffin.

Make sure the filter medium is not damaged or defective.

Protect electrical gear from damp.

## Warning

Never stand too near or put your face to the inspection or fire door, when the burner is about to start.

Never use a naked flame to ignite oil if the electrical ignition fails.

Always wait for about 10 minutes for the unburnt gases to disperse before restarting the oil burner if it has failed to ignite previously.

Installed by:

.....

Tel: .....





