





GENERAL DESCRIPTION

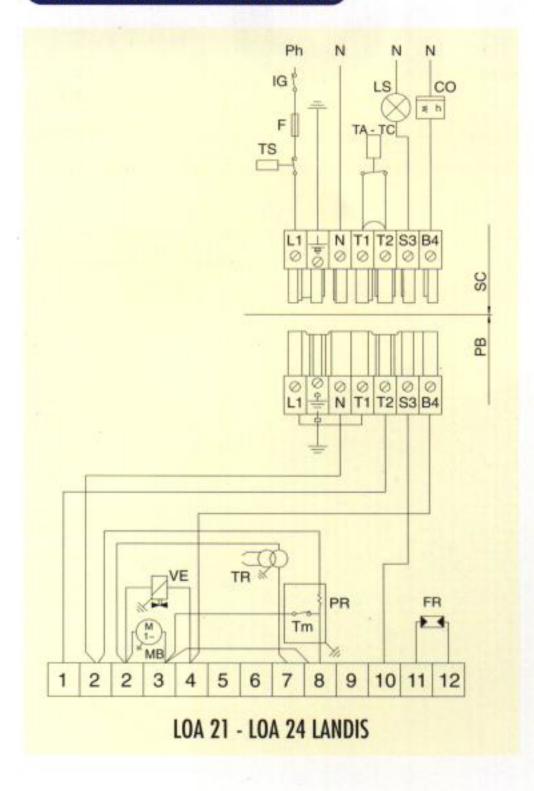
FERROLI is pleased to present its series of oil fired burners having an output range from 14 to 112 kW. Their compactness and design will mean that they can be used for most boilers currently available on the market. FERROLI has used the latest technology to produce a product range that optimizes the air to fuel ratio to obtain the maximum efficiency in use with resultant low levels of CO and NOx emissions, together with a beneficial reduction of noise level in operation. Here are the more important technical features:

- Fine adjustment of the position of the combustion head in relation to the nozzle by means of a micrometer screw.
- Accurate air adjustment on the intake.
- Air damper with gravity closing when the burner stops. This reduces heat loss when the boiler is on hold.
- Burner series 1R is complete with a preheater on the nozzle line. This improves combustion and ensures prompt ignition after lengthy periods at a standstill during the colder season and when 35 sec. heating oil is used.
- The inspection and servicing operations are comprehensive for all models.

300.0 A 32.5 0 91.0 Ø 140.0 Ø 170.0 FLANGE

TVOT	SPATIO 1R		SPATIO 2		SPATIO 3	
TYPE	Min	Max	Min	Max	Min	Max
FUEL FLOW RATE kg/h	1,2	4,8	3,0	6,1	4,2	9,5
THERMAL POWER RATE kW	14,2	56,9	35,6	72,3	49,8	112,7
MAX PRESS. IN CHAMBER mbar	0,60	0,36	0,70	0,36	1,0	0,55
A LENGTH mm	83		83		93	
E OVERALL ø mm	80		80		90	
PREHEATER	110 W					
IGNITION TRANSFORMER	10 KV 20 mA					
MOTOR	75 W 0.68A 2750 rpm					
FUEL	HEATING OIL MAX. 20°C: 1.5E					
EL. POWER SUPPLY	230 V 50 Hz					
INPUT	220 W					
PROT. CLASS	IP 40					

ELECTRICAL CONNECTIONS



CO	Hour	counter

-	
	Fuse
	1 036

FR Photocell

IG Main switch

LS Lock out light

MB Burner motor

PB Burner socket

PR Preheater (SPATIO 1R only)

SC Plug

TA-TC Boiler-room thermostat

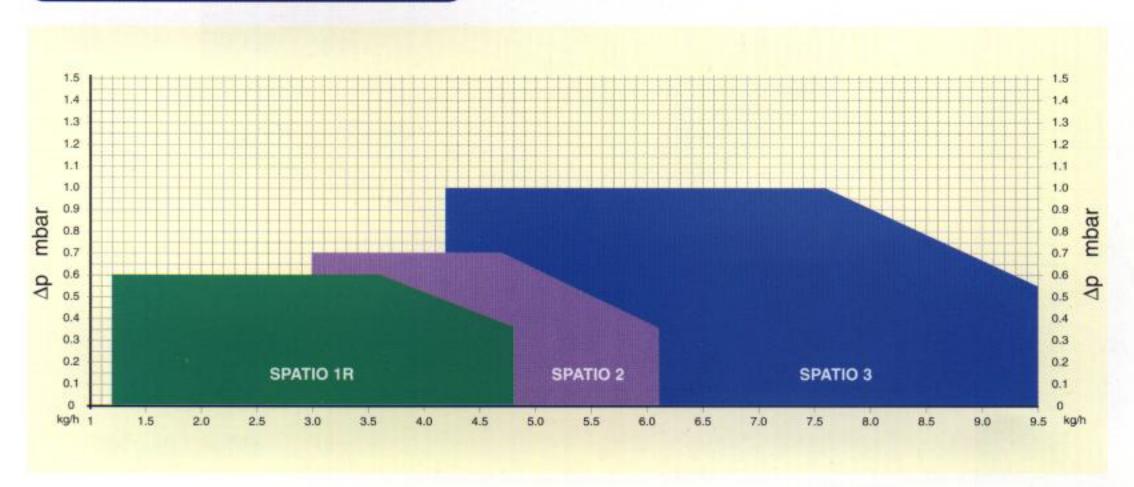
TR Ignition transformer

TS Safety thermostat

Tm Minimum rating thermostat

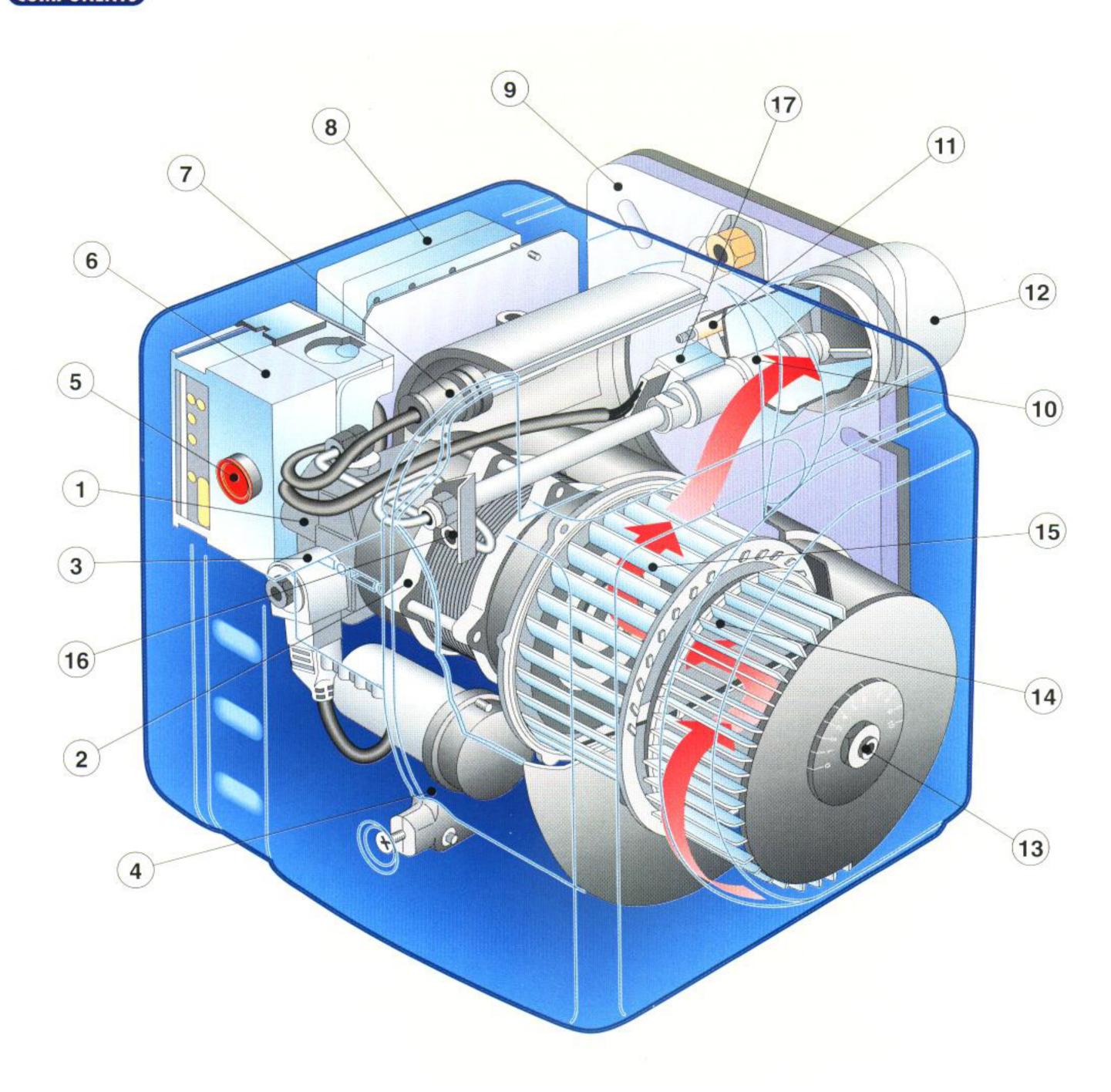
VE Solenoid valve

OPERATION RANGE OF THE BURNER





COMPONENTS



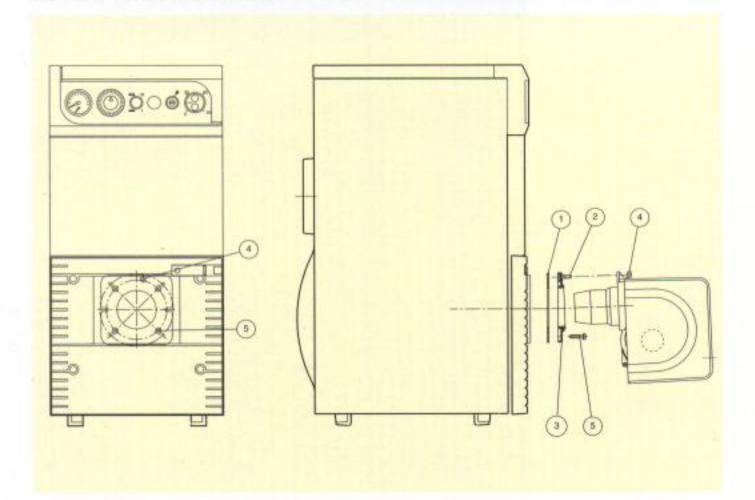
- 1 Oil pump
- 2 Motor
- 3 Solenoid valve
- 4 Burner body
- 5 Reset button
- 6 Control unit
- 7 Photo cell
- 8 Ignition transformer
- 9 Burner fitting flange

- 10 Nozzle holder (with preheater mod. 1R)
- 11 Ignition electrodes
- 12 Draught tube
- 13 Air shutter adjustment screw
- 14 Air damper
- **15** Fan
- 16 Combustion head adjustment
- 17 Preheater



BOILER ASSEMBLY

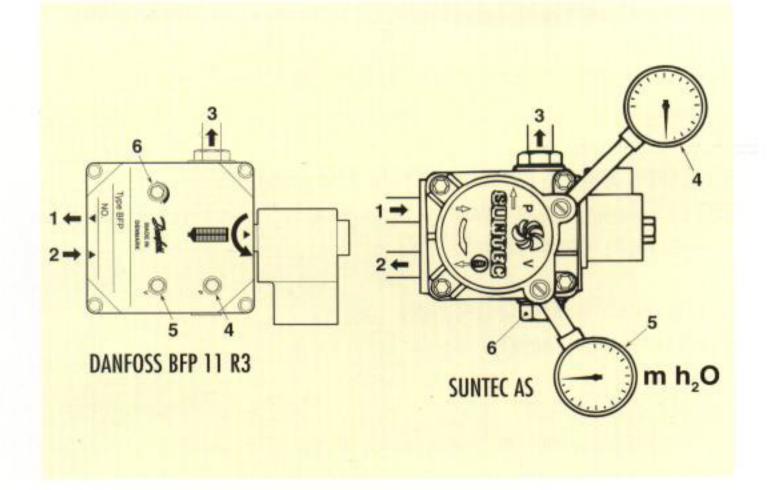
Insert screw 2 (m8x25) info flange 3. Attach flange 3 onto the boiler using the 5 screws (NR. 4xM8x30) with insulation 1 in between. Insert the burner into the boiler flange and fasten it to screw 2 with nut 4.



PUMP PRESSURE REGULATION

- 1 Suction
- 2 Return
- 3 To the nozzle

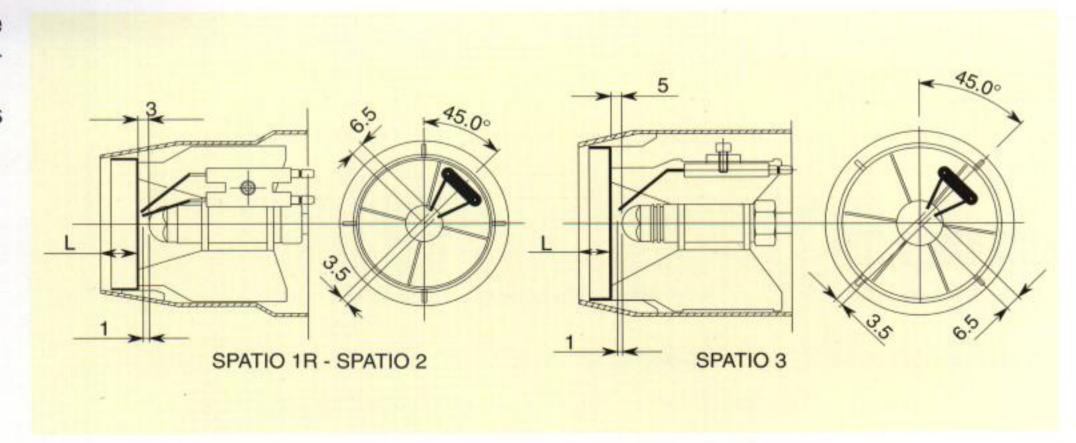
- 4 Manometer connection
- 5 Vacuum meter connection
- 6 Pressure regulator



POSITION OF ELECTRODES AND DEFLECTOR PLATE

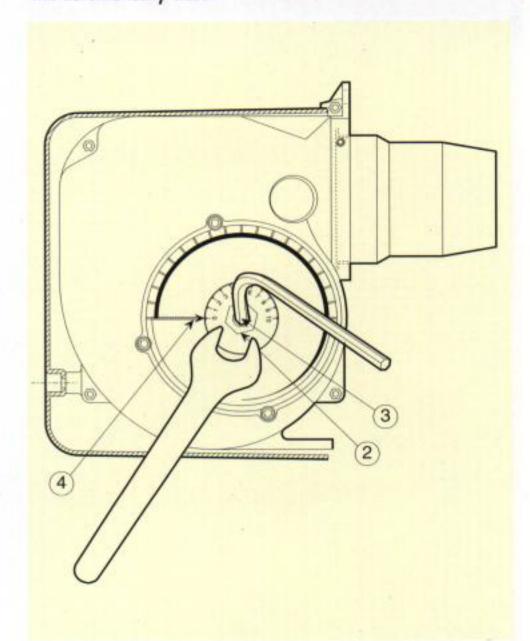
After having mounted the injector, check that the electrodes and deflector plate are correctly positioned according to the listed measurements.

Always check the dimensions whenever operations are carried out on the head.

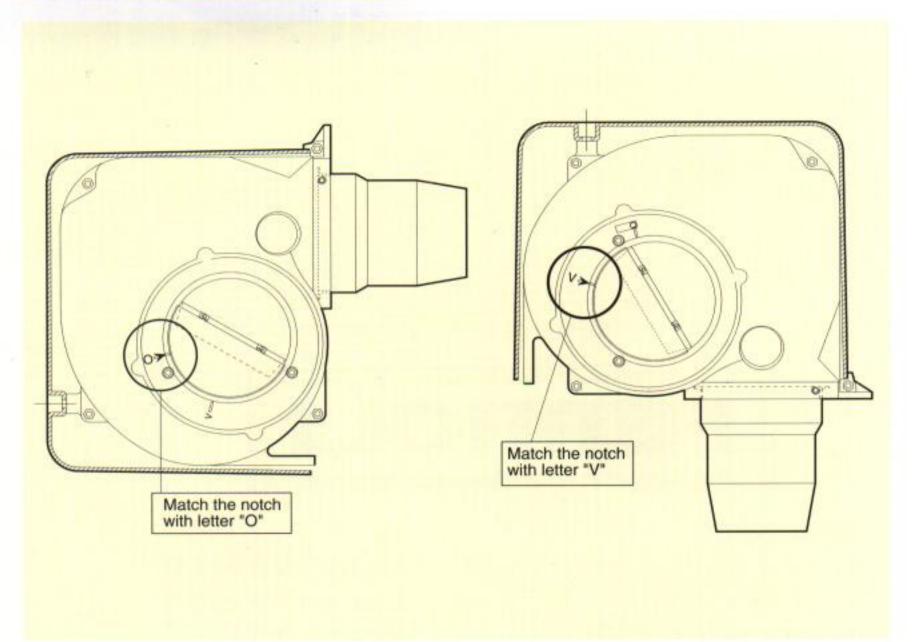


AIR SHUTTER ADJUSTMENT

Use nut (2) after having slackened screw (3). Match the notches with pointer 4. When the burner stops, the air damper will automatically close.

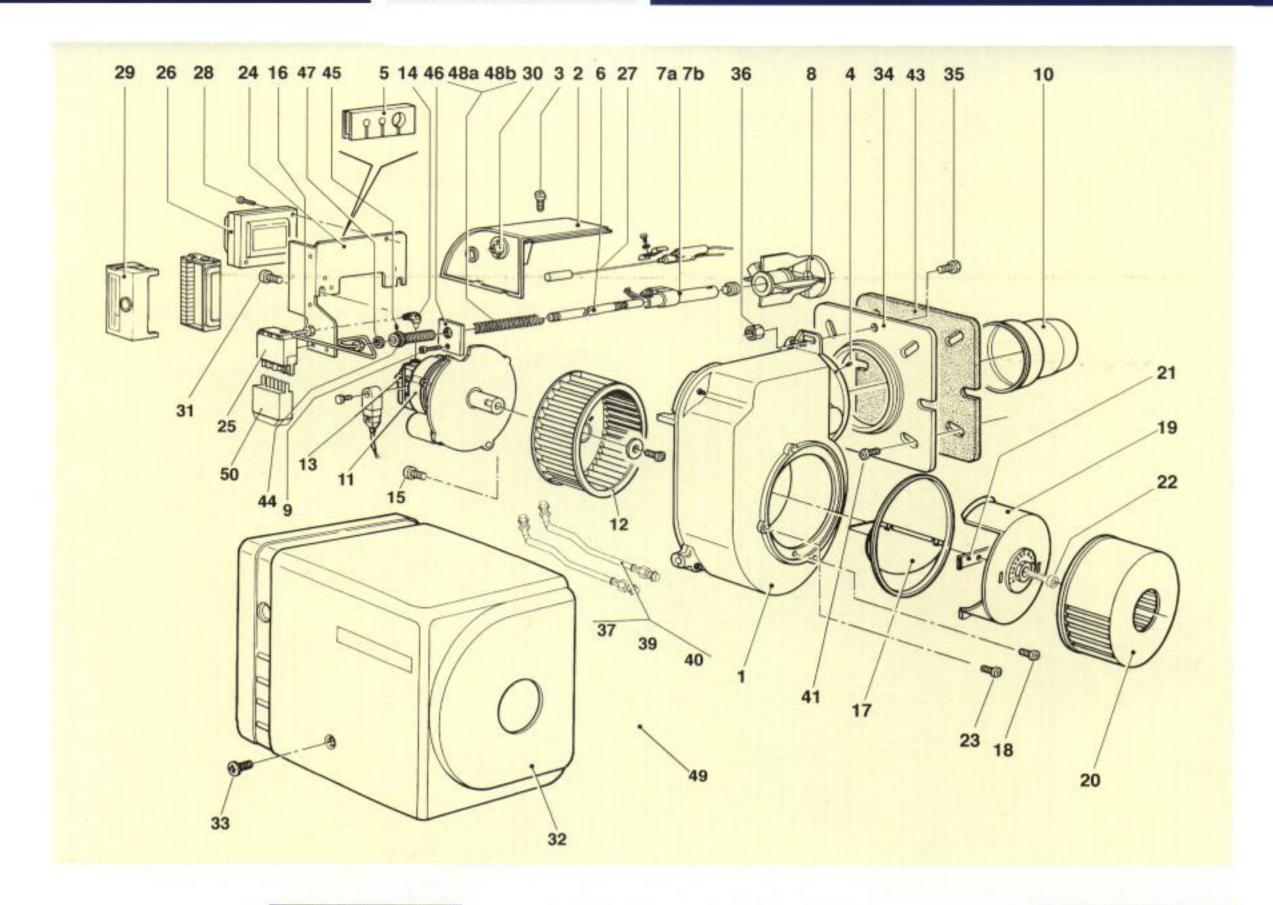


POSITIONING THE AIR DAMPER





COMPONENTS



		MODEL			
POS.	CODE	DESCRIPTION	1R	2	3
1	3890046/1	Aluminium burner shell	•	•	•
2	3560098/1	Inspection top cover	•	•	•
3	3450538/0	Screw M6x35	•	•	•
4	3450339/0	Screw M6x10	•	•	•
5	3560104/0	Ignition lead	•	•	•
6a	3560119/0	Shaft	•		
6b	3560120/0	Shaft		•	
6c	3560121/0	Shaft			•
7a	3560157/0	Preheater	•		
7b	3560105/1	Nozzle tube		•	•
8a	3560078/0	Fuel nozzle	•		
8b	3560076/0	Fuel nozzle		•	
8c	3560077/0	Fuel nozzle			•
9	3450369/0	Screw M6 L=14	•	•	•
10a	3560074/0	Draught tube	•	•	
10b	3560075/0	Draught tube			•
11	3560091/0	Single phase motor	•	•	•
12a	3560106/0	Impeller	•	•	
12b	3560107/0	Impeller			•
13a	3560092/0	Pump suntec	•	•	•
13b	3560158/0	Pump danfoss	•	•	•
14	3340089/0	Pipe fitting	•	•	•
15	3450369/0	Screw/thread M6 L=14	•	•	•
16	3560096/0	Bush	•	•	•
17	3890050/0	Air damper	•	•	•
18	3450429/0	Screw/thread M5x6	•	•	•
19a	3560101/0	Shutter housing	•	•	•
19b	3560102/0	Shutter housing			•
20	3560103/0	Air shutter	•	•	•
21	3560108/0	Connection	•	•	•
22	3450542/0	Screw/thread M6x25	•	•	•

		MODEL			
POS.	CODE	DESCRIPTION	1R	2	3
23	3450455/0	Screw/thread M6x8	•	•	•
24	3560109/0	Support bracket	•	•	•
25	3650581/0	Socket	•	•	•
26	3560163/0	Transformer Brahma	•	•	•
27	3560162/0	Ignition cable	•	•	•
28a	3450540/0	Screw/thread M4x55	•	•	•
28b	3450543/0	Screw/thread M4x60			•
29	3560082/0	Control box LOA 21-LOA 24 Landis	•	•	•
30	3560085/0	Photocell Landis	•	•	•
31	3450429/0	Screw/thread M5x6	•	•	•
32	3560110/1	Cover	•	•	•
33	3450455/0	Screw M6x8	•	•	•
34	3560113/0	Hinge flange	•	•	•
35	3450028/0	Screw/thread M8x20	•	•	•
36	3560100/0	Screw/thread M8xH14	•	•	•
37	3560155/0	Flexible oil lines	•	•	•
39a	3560080/0	Nipples 1/4" x 1/4"	•	•	•
39b	3560156/0	Nipples 1/4" x 3/8"	•	•	•
40	3370093/0	Screw	•	•	•
41	3450139/0	Screw M8x30	•	•	•
42	3560112/0	Key	•	•	•
43	3560114/0	Gasket	•	•	•
44	3560123/0	Pin	•	•	•
45	3450368/0	Screw M4x8	•	•	•
46	3560122/0	Support	•	•	•
47	3400843/0	Washer	•	•	•
48a	3560124/0	Spring	•	•	•
48b	3560125/0	Spring	•	•	•
49	3560161/0	Oil filter 3/8"	•	•	•
50	3650360/0	Male plug	•	•	



PRODUCT RANGE

BOILERS

WALL-MOUNTED BOILERS

With or without water production, these high performance, electronic and fully modulating systems are suitable for both hot water and heating applications. Models with outputs from 6 kW to 35 kW.

CAST IRON BOILERS ATMOSPHERIC GAS FIRED

High performance, with or without hot water production; models with outputs from 10 kW to 289 kW.

CAST IRON BOILERS PRESSURE JET OIL AND GAS FIRED

High performance, with or without hot water production, some models operate at low temperature. Models with outputs ranging from 17 kW to 650 kW.

HOT WATER STORAGE CALORIFIERS

From 100 to 500 litre capacity.

WELDED STEEL BOILERS

High performance models with outputs ranging between 87 kW and 10,465 kW for hot water, superheated hot water and steam up to 15 bar.

SOLID FUEL BOILERS

These units are ideal for burning wood chips and fluid fuels (2 fuels) with output ranging between 174 kW and 6,990 kW for production of hot water superheated hot water and steam up to 15 bar.

AIR-CONDITIONING

A complete range of products for air-conditioning ranging from mobile units, single and multisplit units, with chillers up to 143 kW.

WHIRLPOOL BATH

An exclusive range of whirlpool and showers complete with accessories are available in 4 colours.

ALL FERROLI BOILERS ARE CE APPROVED AND CONFORM TO THE RELEVANT EUROPEAN STANDARDS.



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