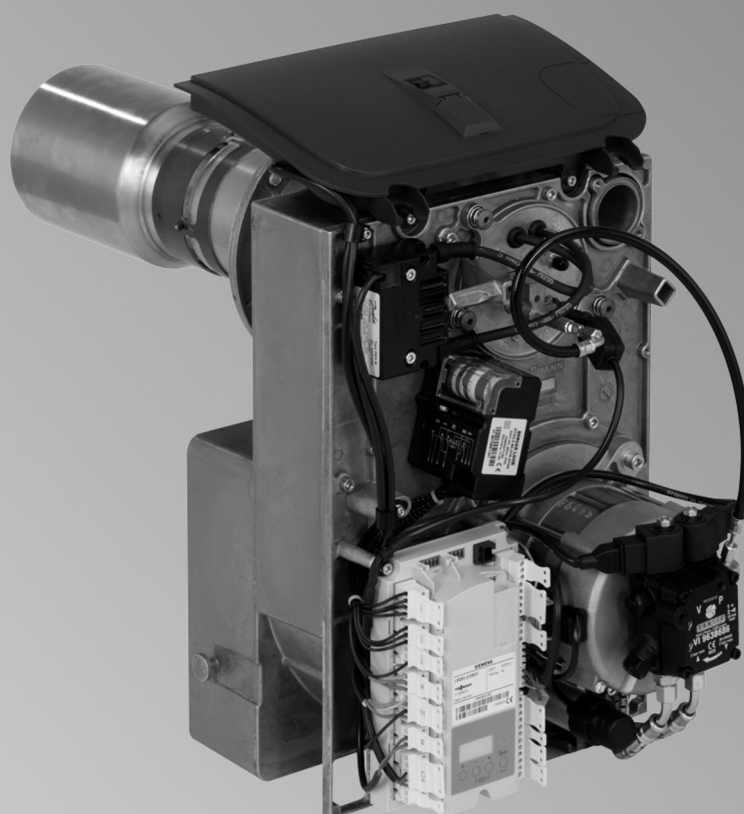


Vitoflame 300
Type VHG III
Pressure-jet oil burner
for the Vitorondens 200-T, 67.6 to 107.3 kW



VITOFLAME 300



Safety instructions



Please follow these safety instructions closely to prevent accidents and material losses.

Safety instructions explained



Danger

This symbol warns against the risk of injury.

Note

Details identified by the word "Note" contain additional information.

Target group

These instructions are exclusively intended for qualified contractors.

- Work on electrical equipment must only be carried out by a qualified electrician.

Regulations

Observe the following when working on this system

- National installation requirements
- Statutory instructions regarding the prevention of accidents
- Statutory instructions regarding environmental protection

- The Code of Practice of relevant trade associations
- All current safety regulations as defined by DIN, EN, DVGW, VDE and all locally applicable standards.
 - Ⓐ ÖNORM, EN and ÖVE
 - ⒸH SEV, SUVA, SVTI, SWKI and SVGW

Working on the system

- Isolate the system from the power supply and check that it is no longer 'live', e.g. by removing the separate fuse or by means of a main isolator.
- Safeguard the system against unauthorised reconnection.

Mounting the burner

Note

If required, widen the opening in the thermal insulation block on the boiler door to enable the flame tube to be inserted.

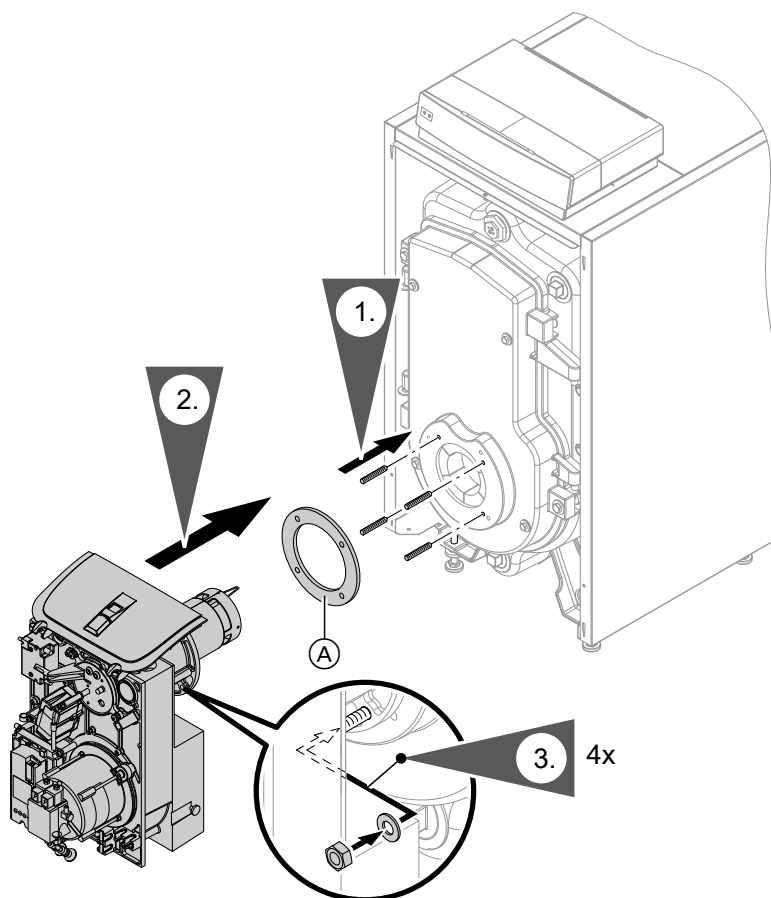


Fig. 1

Ⓐ Sealing plate

Mounting the burner (cont.)

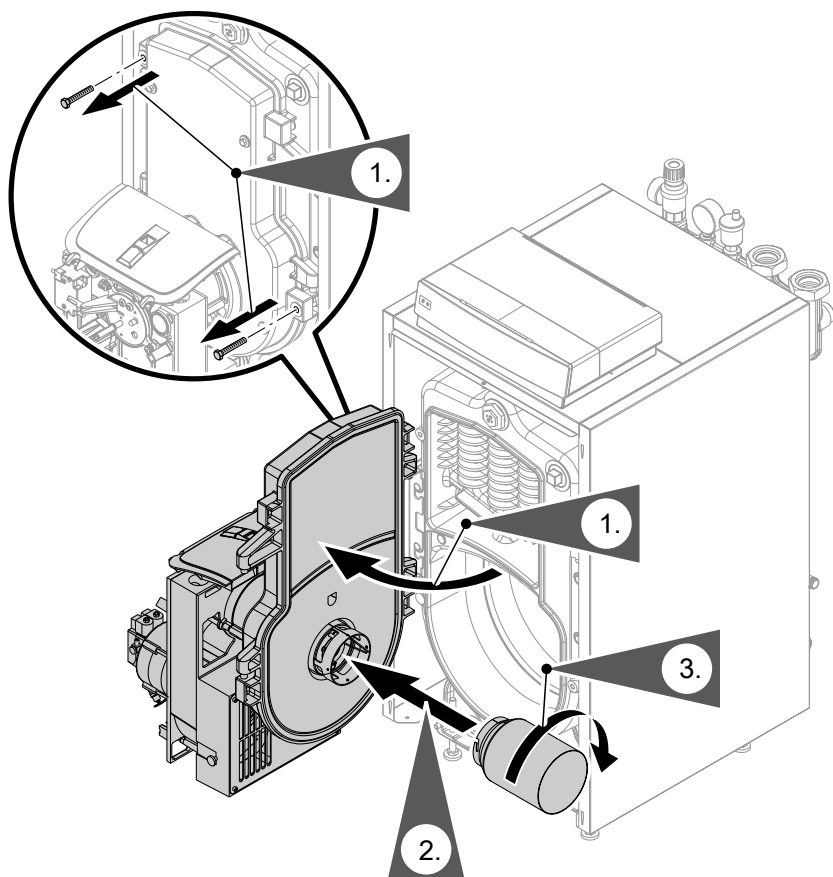


Fig. 2

Open the boiler door and fit the flame tube extension supplied.

Oil filters

Oil filter for single line system

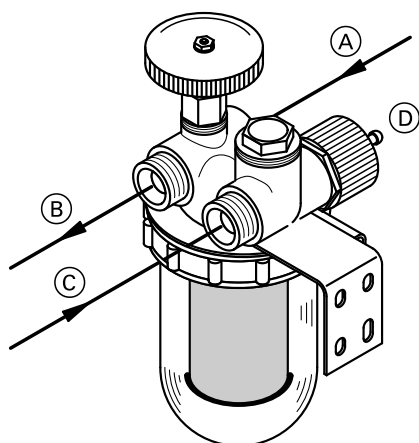


Fig. 3

- Ⓐ Oil feed line from tank
- Ⓑ To oil pump on burner
- Ⓒ From oil pump on burner
- Ⓓ Air vent valve

Install a single line fuel oil filter R ¾ (filter mesh max. 40 µm) and a fuel oil air vent valve in the oil supply.

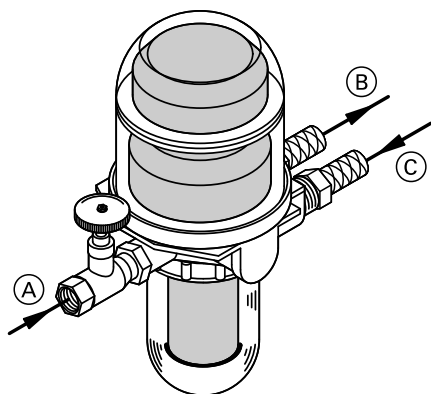


Fig. 4

- (A) Oil feed line from tank
- (B) To oil pump on burner
- (C) From oil pump on burner

Oil filter for two-line system

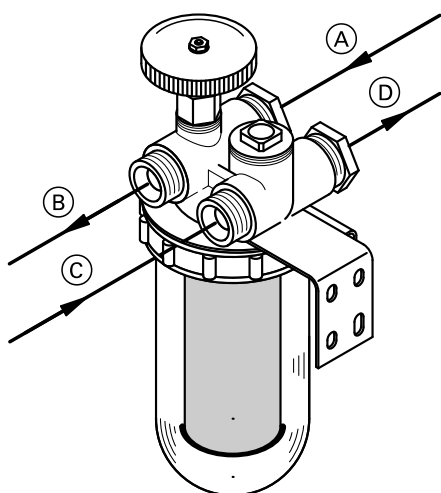


Fig. 5

- (A) Oil feed line from tank
- (B) To oil pump on burner
- (C) From oil pump on burner
- (D) Return to tank

We recommend the use of an automatic fuel oil air vent valve with integral oil filter.

It is essential to install a R $\frac{3}{8}$ fuel oil filter in the oil supply system (**filter grade: max. 40 μ m**).

Oil supply

Note

Also observe the oil pipe requirements according to DIN 4755-2 [or local regulations].

If the oil supply needs to be converted from a two-line to a single line system, select the suction line diameter according to the table on page.

The height differential H between the oil burner pump and the foot valve inside the tank below must not exceed:

- with tank below oil burner pump 3.5 m
- with tank above oil burner pump 4 m.

Greater height differentials lead to noisy operation and premature pump wear.

An oil feed pump is required if the suction head or maximum line run for tanks installed below the oil burner pump is greater than that shown in the following tables. If an oil feed pump is installed, the pressure at the suction connection of the oil burner pump must not exceed 2 bar, and the oil burner should be protected by an additional solenoid valve.

Solenoid valve line connection:



Accessory installation instructions

1. Size the oil line in accordance with the following tables.

2. Install the oil line.
3. Disconnect the oil burner from the oil line before testing for leaks.
4. Check the oil line and oil filter for leaks using a leak testing kit (min. 5 bar pressure).

Note

The oil burner should not be connected during these tests. All oil lines and joints must be absolutely tight. Any leaks in the suction line would draw in air, so that the oil spray would continue to feed the burner.

5. Connect the oil burner to the oil filter.

Note

If an anti-lift valve is required to meet the regulations of your regional water authority and the tank fill level is higher than the lowest point in the suction line, we recommend the installation of an electrically operated anti-lift valve.

Installing the oil supply as a two-line system

Tank above oil burner pump

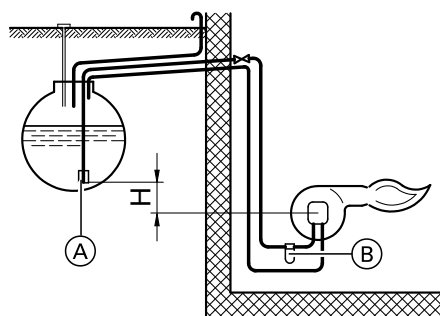


Fig. 6

- (A) Foot valve
- (B) Fuel oil filter

Suction head H in m	Diameter of the suction line in mm		
	8x1	10x1 Max. line run in m ^{*1}	12x1
+4.0	21	67	100
+3.5	20	63	100
+3.0	19	59	100
+2.5	17	55	100
+2.0	16	51	100

^{*1} A total pressure drop of 0.35 bar is assumed, based on fuel oil EL with 6.0 cSt (DIN 51603-1) including 4 pipe bends, 1 shut-off valve, 1 foot valve and 1 fuel oil filter.

Installing the oil supply as a two-line system (cont.)

Suction head H in m	Diameter of the suction line in mm		
	8x1	10x1	12x1
	Max. line run in m ^{*1}		
+1.5	15	46	100
+1.0	13	42	100
+0.5	12	38	94

Tank below oil burner pump

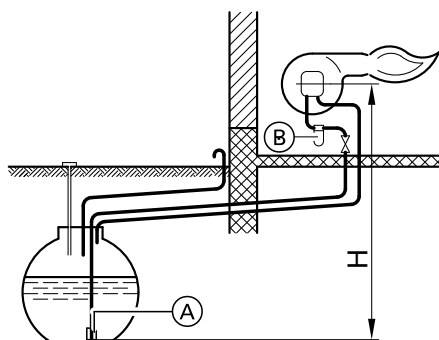


Fig. 7

- (A) Foot valve
- (B) Fuel oil filter

Suction head H in m	Diameter of the suction line in mm		
	8x1	10x1	12x1
	Max. line run in m ^{*1}		
0	11	34	84
-0.5	10	30	74
-1.0	8	26	64
-1.5	7	22	54
-2.0	6	18	44
-2.5	4	14	34
-3.0	—	10	24
-3.5	—	6	14

Installing the oil supply as a single line system

Tank above oil burner pump

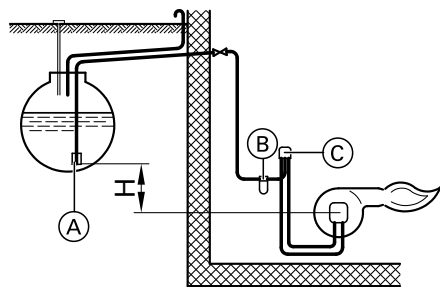


Fig. 8

- (A) Foot valve
- (B) Fuel oil filter
- (C) Fuel oil air vent valve

Suction head H	Rated boiler heating output in kW							
	80 to 105		115 to 200			225 to 300		
	Diameter of the suction line in mm							
	8x1	10x1	8x1	10x1	12x1	8x1	10x1	12x1
in m	Max. line run in m ^{*1}							
+4.0	100	100	64	100	100	43	100	100
+3.5	100	100	60	100	100	40	100	100
+3.0	100	100	56	100	100	38	100	100
+2.5	100	100	52	100	100	35	100	100
+2.0	97	100	49	100	100	33	100	100
+1.5	90	100	45	100	100	30	94	100
+1.0	82	100	41	100	100	27	86	100
+0.5	74	100	37	100	100	24	78	100

^{*1} A total pressure drop of 0.35 bar is assumed, based on fuel oil EL with 6.0 cSt (DIN 51603-1) including 4 pipe bends, 1 shut-off valve, 1 foot valve and 1 fuel oil filter.

Installing the oil supply as a single line... (cont.)

Tank below oil burner pump

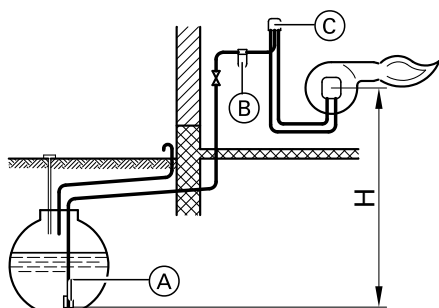


Fig. 9

- (A) Foot valve
- (B) Fuel oil filter
- (C) Fuel oil air vent valve

Suction head H in m	Rated boiler heating output in kW						
	80 to 105		115 to 200		225 to 300		
	Diameter of the suction line in mm						
	8x1	10x1	8x1	10x1	8x1	10x1	12x1
	Max. line run in m*1						
0	32	100	100	100	22	70	100
−0.5	28	100	93	100	19	61	100
−1.0	24	100	80	100	16	53	100
−1.5	20	100	68	100	14	45	100
−2.0	17	100	56	100	11	36	88
−2.5	13	84	43	100	8	28	67
−3.0	9	59	31	75	6	19	47
−3.5	5	35	19	45	3	11	26

Making the electrical connections

Note

Never interchange connections "L 1" and "N" at the power supply terminals of the control unit.

Insert plug 41 and 90

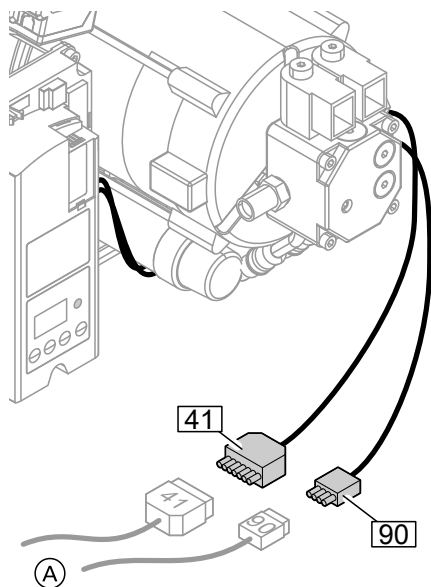


Fig. 10

(A) To the control unit

Mounting the burner hood

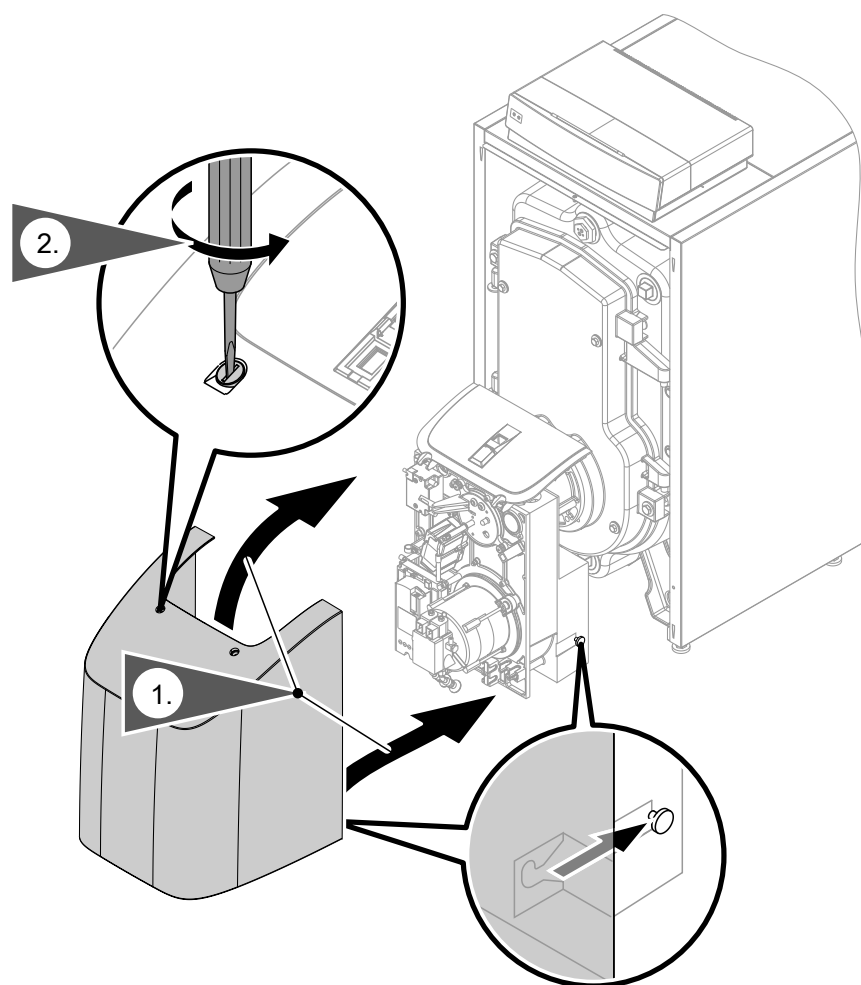


Fig. 11

Commissioning and adjustment



Service instructions



Danger

Contact with 'live' components can lead to serious injury from electric current.

The burner must only be operated with the burner hood fitted.

Exception: Adjustments made by a heating contractor.

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