

delta performance ventouse FV

- INSTALLATION OPERATING AND SERVICING INSTRUCTIONS
- NOTICE D'INSTALLATION, D'UTILISATION ET D'ENTRETIEN
- GEBRUIKSHANDLEIDING EN INSTALLATIEVOORSCHRIFT





excellence in hot water

INSTALLATION OPERATING AND SERVICING INSTRUCTIONS

1

(2) FV 35 : With ACV BMV1 oil burner

12 FV 50 : With ACV BMV2 oil burner

NOTICE D'INSTALLATION, D'UTILISATION ET D'ENTRETIEN

13

(2) FV 35 : Avec brûleur fioul ACV BMV1

19 19 PV 50 : Avec brûleur fioul ACV BMV2

GEBRUIKSHANDLEIDING EN INSTALATIEVOORSCHRIFT

25

(2) FV 35 : Met fuel brander ACV BMV1

12 FV 50 : Met fuel brander ACV BMV2

NOTICIAS DE INSTALACIÓN, UTILIZACIÓN Y MANTENIMIENTO

37

(2) FV 35 : Con quemador de gasoil ACV BMV1

elig FV 50 : Con quemador de gasoil ACV BMV2

INSTRUZIONI DELL' INSTALLAZIONE, DELL' USO E DI MANUTENZIONE

49

(2) FV 35 : Con bruciatore a gasolio ACV BMV1

felia FV 50 : Con bruciatore a gasolio ACV BMV2

ANLEITUNG ZUR INSTALLATION, GEBRAUCH UND WARTUNG

61

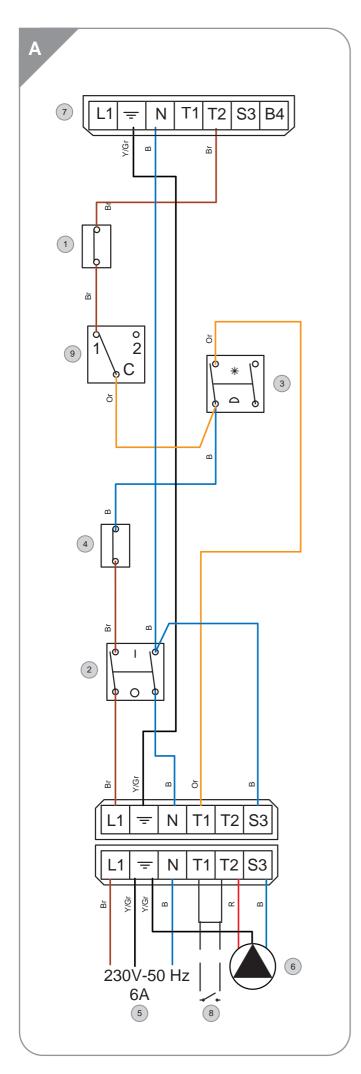
(2) FV 35 : Mit Ölbrenner ACV BMV1

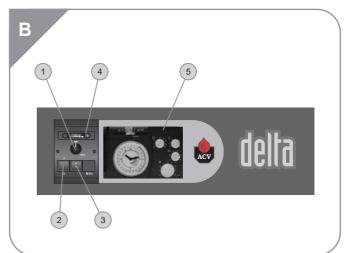
12 FV 50 : Mit Ölbrenner ACV BMV2





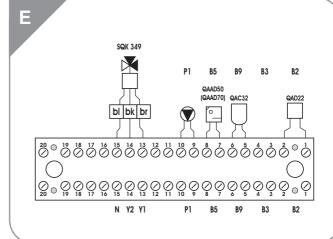




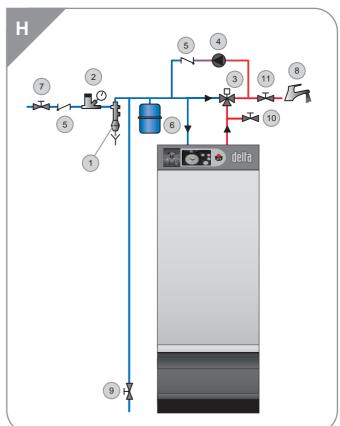


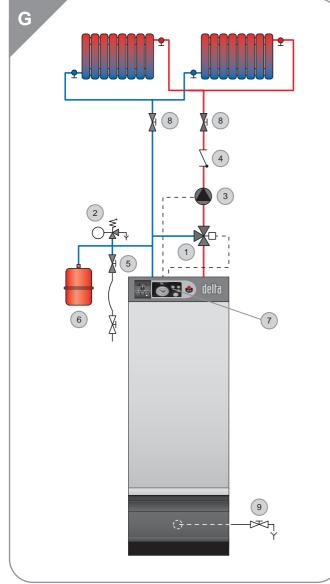


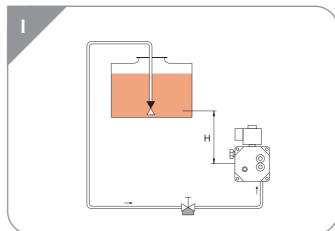


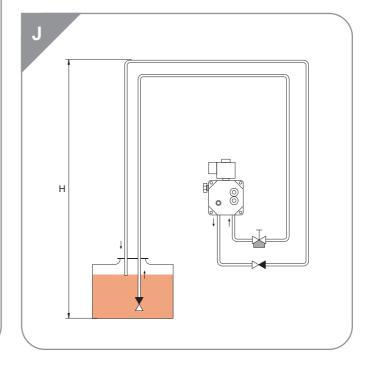


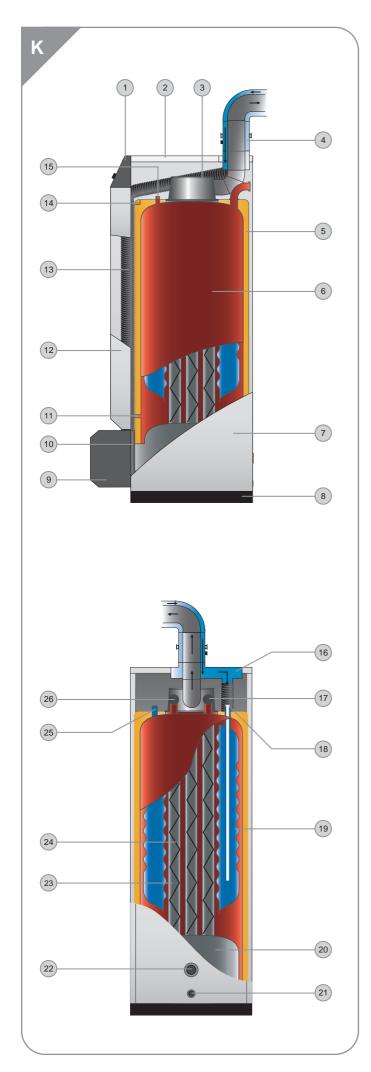


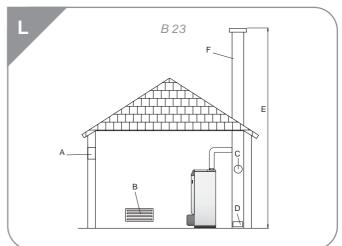


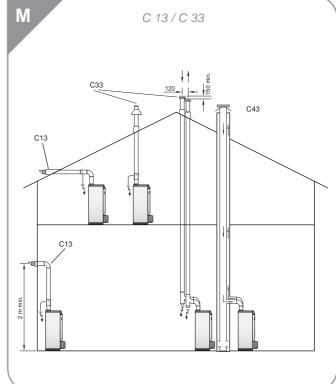


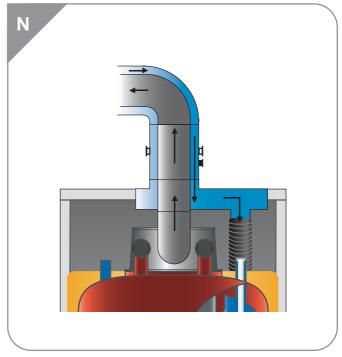


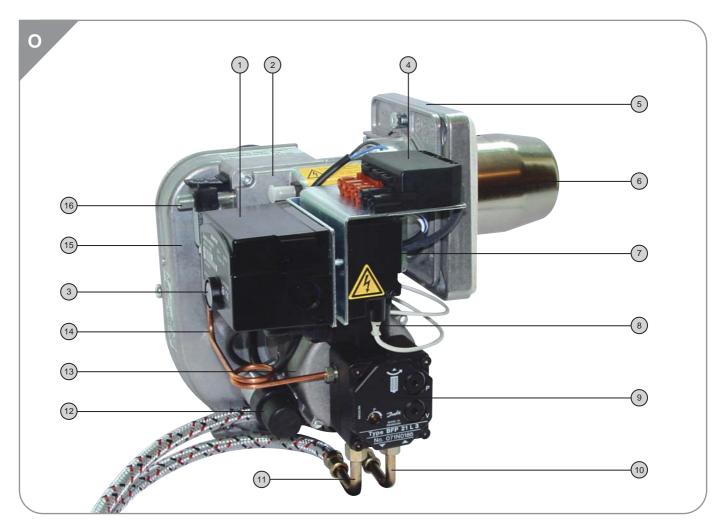


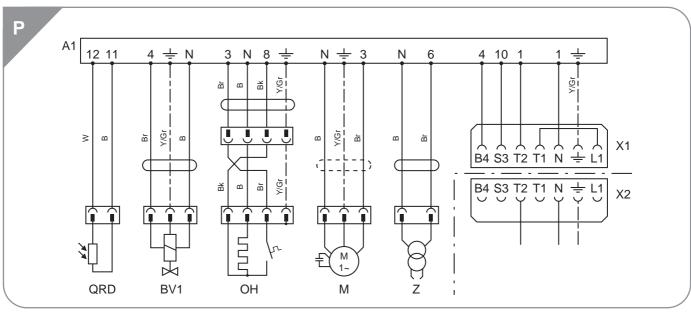
















INSTALLATION, OPERATING AND SERVICING INSTRUCTIONS



FV 35 with ACV BMV(K)1 oil burner

FV 50 with ACV BMV(K)2 oil burner



INDEX INTRODUCTION

INTRODUCTION	2
Intended users of these instructions Symbols	2
Applicable standards Warnings	2
DESCRIPTION	3
Overview Description of operation Construction features Boiler captions	3 3 3 3
TECHNICAL SPECIFICATION	4
General Maximum operating conditions Dimensions	4 4 4
Domestic hot water performance General features	5 5
INSTALLATION	6
Boiler room Chimney connections Heating connections	6 6 7
Hot water connections Controller kits	7 7
Electrical connection Oil supply	8
BURNER FEATURES	9
ACV BMV1 and BMV2 oil burners ACV BMV1 and BMV2 burner factory settings ACV BMV1 and BMV2 burner captions	9 9 9
STARTUP	10
Filling the hot water and heating circuits Commissioning ACV BMV1 and BMV2 burners	10 10
SERVICING	10
Recommendation Servicing the boiler	10 10
Servicing the safety devices	10
Servicing the burner Emptying the boiler	10 10
USER GUIDE	11
Using the boiler	11
Resetting ACV BMV1 and BMV2 burners	12

INTENDED USERS OF THESE INSTRUCTIONS

These instructions are intended for:

- specifying engineers
- installing engineers
- users
- servicing technicians

SYMBOLS

The following symbols are used in these instructions:



Essential instruction for operating the system correctly.



Essential instruction for personal safety and environmental protection.



Danger of electrocution.



Risk of burns.

APPLICABLE STANDARDS

The products have received the "EC" certificate of compliance with standards of individual countries (European Directive 92/42/EEC, "efficiency"). These products also have the Belgian OPTIMAZ mark.





WARNINGS

These instructions are an integral part of the equipment to which they refer and must be supplied to the user.

The product must be installed and serviced by qualified heating engineers, in compliance with the prevailing standards.

ACV accepts no liability for any damage resulting from incorrect installation or from the use of components or fittings not specified by ACV.



Failure to observe instructions regarding tests and test procedures can result in personal injury or pollution risks.

Note:

ACV reserves the right to modify the technical specifications and components of its products without prior notice.

OVERVIEW

- Combination boiler (central heating and domestic hot water).
- TANK-IN-TANK indirect storage type domestic hot water production.
- Equipment required: a hydraulic connection kit for the heating circuit (available as an option).
- The control panel comprises an on/off switch, adjustable thermostat, thermometer, Summer/Winter selector and knockout for fitting the ACV integrated control system (optional).
- The Delta Performance FV can be connected as a balanced flue system with a type C concentric adapter..., or with a type B23 adapter directly to the chimney.
- The Delta Performance FV 35 with a fixed output of 35 is fitted with the ACV BMV1 oil burner.
- The Delta Performance FV 50 with a fixed output of 50 is fitted with the ACV BMV2 oil burner.

DESCRIPTION OF OPERATION

The "Tank-in-Tank" concept

The Delta Performance balanced flue series differs from traditional hot water generators because of its ring-shaped tank immersed in the primary fluid contained in the outer body. When there is a demand for heat from the central heating system or the domestic hot water system, the potentiometer starts the burner. The combustion gases quickly heat up the primary fluid, creating a natural circulation around the tank.

Domestic hot water heated indirectly

This circulation facilitates heat exchange between the primary fluid and the domestic water, which takes place all over the tank surface. The corrugations on the inner and outer shells of the ring-shaped tank further boost the area of heat exchange and speed up the heating process of the domestic water.

Easy setting with safety assured

With a single command, the water temperature of both the primary circuit and the hot water circuit is set by the adjustable thermostat situated under the tank in the primary circuit.

A cut-off thermostat, placed on top of the boiler, automatically cuts out the burner when the water temperature in the primary circuit reaches 95 °C. A manually reset safety thermostat shuts off the burner if the temperature reaches 103 °C.

CONSTRUCTION FEATURES

Corps externe

The outer body containing the primary fluid is made of thick STW 22 steel.

"Tank-in-Tank" type exchanger accumulator

The ring-shaped inner tank with its large heating surface for producing domestic hot water is built of Chrome/Nickel 18/10 stainless steel. It is corrugated over its full height by an exclusive production process and entirely argon arc welded by the TIG (Tungsten Inert Gas) method.

Combustion gas circuit

The combustion gas circuit is protected by a high temperature resistant paint. It is composed of:

- Flue pipes. Delta Performance balanced flue models have 8 steel flue pipes with an internal diameter of 64 mm. Each pipe is fitted with a special steel baffle designed to improve heat exchange and reduce flue gas temperature.
- Combustion chamber. The sealed combustion chamber is water cooled

Insulation

The boiler body is fully insulated by rigid polyurethane foam with a high thermal insulation coefficient, sprayed on without the use of CFCs.

Jacket

The boiler is covered by a steel jacket which has been scoured and phosphated before being stove enamelled at 220 °C.

BOILER CAPTIONS (see illustration K)

- 1. Control panel
- 2. Removable jacket top
- 3. Flue reduction collar
- 4. Measuring unit
- 5. CFC-free polyurethane foam insulation
- 6. Inner ring-shaped domestic hot water tank
- 7. Side panel
- 8. Base
- 9. Burner and burner chamber plate cover
- 10. Burner chamber plate
- 11. Control thermostat bulb
- 12. Removable front panel
- 13. Tube supplying air to venturi
- 14. Manual reset safety thermostat 103 °C
- 15. Cut-off thermostat bulb 95 °C
- 16. Balanced flue connection unit
- 17. Heating return
- 18. Domestic cold water inlet
- 19. Inner ring-shaped domestic hot water tank
- 20. Combustion chamber
- 21. Boiler drain
- 22. Lower heating return
- 23. Flue pipes
- 24. Turbulators
- 25. Domestic hot water outlet
- 26. Central heating flow pipe

TECHNICAL SPECIFICATION

GENERALE

The units are delivered fully assembled, tested and packed on a timber base with shockproof edges and protected by heat-shrunk plastic film. On reception and after unpacking, check the equipment for damage. For transport purposes, refer to the weights and dimensions given below.

MAXIMUM OPERATING CONDITIONS

Maximum service pressure (tank full of water)

- Primary circuit: 3 bar - Secondary circuit: 10 bar

Test pressure (tank full of water)

- Primary circuit: 4.5 bar - Secondary circuit: 13 bar

Operating temperature

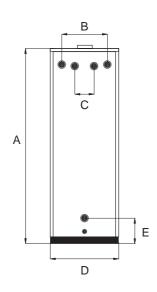
- Maximum temperature: 90 °C

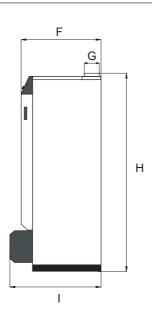
Water quality

• Chlorides: < 150 mg/l (Stainless steel 304) < 2000 mg/l (Duplex)

• 6 **a** ph **a** 8

DIMENSIONS





		FV/35	FV/50
Α	mm	1585	1830
В	mm	390	390
С	mm	200	200
D	mm	542	542
E	mm	125	125
F	mm	645	645
G	mm	80/80/125	100/100/150
Н	mm	1610	1880
1	mm	800	800
Weight empty	Kg	182	220

TECHNICAL SPECIFICATION

DOMESTIC HOT WATER PERFORMANCE

		FV/35	FV/50
Operating at 80 °C			
Peak delivery at 40 °C (T = 30 °C)	L/10'	283	377
Peak delivery at 40 °C (T = 30 °C)	L/60'	1024	1485
Continuous delivery at 40 °C (■T = 30	°C) L/h	920	1352
Tank refill time at 60 °C			
Initial heating time	minutes	20	13
After drawing off 140 L at 45° C	minutes	10	8

GENERAL FEATURES

		FV/35	FV/50
Input	L/10'	34.9	50
Output	L/60'	32.62	46.75
Maintenance loss at 60 °C as % of rated v	alue %	0.8/0.7	0.6/0.45
Total capacity	L	127	162
Primary capacity	L	62	82
Heating connection	Ø	1"	1"
Domestic hot water connection	Ø	3/4"	3/4"
Hot water tank heat exchange surface	m²	1.99	2.46
Combustion efficiency	%	94.7	93.5
Average CO2	%	13	13
Mass rate of combustion products	g/sec.	14.8	21.2

INSTALLATION

BOILER ROOM

Important

- · Keep vents free at all times.
- · Do not store inflammable products in the boiler room.
- Take care not to store corrosive products near the boiler, such as paints, solvents, chlorine, salt, soap and other cleaning products.

Access

The boiler room must be large enough to allow good access to the boiler. The following minimum distances (mm) are required around the boiler:

- front	500
- behind	150
- sides	100
- above	700

Ventilation

The boiler room must be fitted with top and bottom vents as shown in illustration "L".

The table below is an example compliant with the Belgian standard.

		FV/35	FV/50
Mandhadan			
Ventilation			
Min. fresh air requirement	m³/h	63	90
Top vent (A)	dm²	1.5	1.5
Bottom vent (B)	dm²	1.5	2
Draught regulator (C)	Ø	80	100

Note:

(B) and (C) only for B23 type connections

For other countries, refer to their regulations.

Base

The base on which the boiler rests must be made of noncombustible materials.

CHIMNEY CONNECTIONS



IMPORTANT

Boilers must be installed by a qualified heating engineer, in accordance with the prevailing local standards and regulations.



The chimney diameter must not be less than the diameter of the boiler connection.

Chimney connection type: B23 (See illustration L) The boiler is connected to the chimney by a metal pipe rising at an angle from the boiler to the chimney.

Un raccord de cheminée est nécessaire.

- A. Ventilation haute
- B. Ventilation basse
- C. Régulateur de tirage
- D. Regard de visite
- E. Hauteur de la cheminée tubée
- F. Diamètre de la cheminée

		FV/35	FV/50
Chimney			
E = 5 m Ø min. F	mm	213	236
$E = 10 \text{ m } \emptyset \text{ min. } F$	mm	179	199
E = 15 m Ø min. F	mm	162	179



Note:

Since the regulations vary from one country to another, the table above is given for information only.



Due to the high efficiency of our boilers, the flue gases are released at high temperature.

Therefore there is a risk of condensation in these flue gases, which could damage some chimneys.

To avoid this risk, it is strongly recommended to line the chimney.

Contact your installer for more information.

Chimney connection type: C...

(see illustrations M and N)

- C 13 : concentric horizontal connection
- C 33 : concentric vertical connection
- C 43 : Concentric chimney connection

Maximum length for concentric type: 6 metres

Note:

A pipe bend of 90° = an equivalent length of one metre



There should be a drain outlet close to the boiler to prevent chimney condensates entering the boiler.



To prevent condensation water running out of the terminal, all horizontal pipes should slope down to the boiler.

HEATING CONNECTION

Example of a basic circuit configuration

(see illustration G)

- 1. 3-way motorised mixing valve
- 2. Safety valve set to 3 bar with pressure gauge
- 3. Circulator
- 4. Non-return valve
- 5. System filling valve
- 6. Expansion tank
- 7. ACV 13 controller (see controller kit page 7)
- 8. Central heating isolating valve
- 9. Drain cock

Hydraulic kit + ACV heating kit (see illustration F)

ACV offers an optional pre-assembled circulation kit comprising:

- a circulator.
- a 3-way manual motorisable valve.
- connecting pipes including a second optional circuit.
- two isolating valves.
- adapters for mounting safety valve with pressure gauge and filling valve to right or left of expansion tank. The expansion tank is not included.

HOT WATER CONNECTION

Pressure reducer

If the water mains pressure is greater than 6 bar, a pressure reducer calibrated to 4.5 bar must be fitted.

Safety unit

The tank safety unit must be ACV approved and calibrated to 7 bar. The valve discharge must be connected to the sewer drain.

Hot water expansion tank

Installing a hot water expansion tank avoids any risk of pressure surges due to water-hammer or pressure variations.

Hot water circulation

If the tank is situated a long way from the point of use, then installing a closed return circuit can provide a faster supply of hot water always available.

Example of connection with thermostatic valve

(see illustration H)

- 1. Safetv unit
- 2. Pressure reducer
- 3. Thermostatic mixing valve
- 4. Hot water circulator
- Non-return valve
- 6. Hot water type expansion tank
- 7. Cold water feed valve
- 8. Drawoff tap
- 9. Drain cock
- 10. Bleed valve
- 11. Isolating valve

A DANGER

IMPORTANT

As a safety measure against burns, we strongly recommend installing a thermostatic mixer.

Optional fittings available

Safety unit	Ø 3/4"
Pressure reducer	Ø 3/4"
Thermostatic mixing valve	Ø 3/4"
Expansion tank	5 litres

CONTROLLER KITS

KIT 1: ACV 13.00 / Basic (see illustration C)

Basic kit for regulating flow temperature according to weather conditions.

It comprises: temperature regulator with analogue timer, water temperature detector (-30°/130 °C), outside temperature detector (-30°/50 °C), 230V - 3 spindle servomotor SQY 31 and intermediate socket.

KIT 2: ACV 13.00 / Standard (see illustration D)

Basic kit for regulating flow temperature according to weather conditions

It comprises: temperature regulator with analogue timer, water temperature detector (-30°/130 °C), outside temperature detector (-30°/50 °C), 230V - 3 spindle servomotor SQY 349 and intermediate socket.

Wiring diagram of ACV controller kits

(see illustration E)

- B2. Temperature probe
- B9. Outside temperature probe
- B5. Analogue/digital room thermostat
- P1. Central heating pump
- Y1/Y2/N. Mixer valve (SQK 349)
 - bl. Blue N
 - n/z. Black Y2 br. Brown Y1

INSTALLATION

ELECTRICAL CONNECTION

Power supply

The boiler operates with a 230 V - 50 Hz single phase supply. An on-off mains switch box with 6 A fuses must be fitted outside the boiler to allow power to be shut off during servicing and before any repairs are carried out on the boiler.

Conformity

Boiler installation must comply with the prevailing local technical standards and legislation.

Safety

The stainless steel tank must be earthed separately.



The power to the boiler must be switched off before any work is carried out.

Boiler electrical wiring (see illustration A)

- 1. Control thermostat (60/90 °C)
- 2. On/off switch
- 3. Summer/winter selector
- 4. Safety thermostat (103 °C max.)
- 5. Boiler power connection
- 6. Heating circulator connection
- 7. Burner connection
- 8. Room thermostat
- 9. Cut-off thermostat (95 °C)
- 10. Boiler power plug
- B. Blue
- Br. Brown
- Gr. Green
- Or. Orange
- R. Red Y/Gr. Yellow / Green

BMV1 and BMV2 oil burner electric wiring

(see illustration P)

The burner is supplied with power by a 3-core cable, to be plugged into the connector situated on the burner. Instructions for connection are given in the burner technical manual.

- A1. Automatic igniting device
- M. Burner motor
- QRB. Photoelectric resistor
- OH. Heater
- Z. Transformer
- BV1. Magnetic valve
- X1. Burner Euro plug connector
- X2. Boiler plug connector
- B. Blue
- Br. Brown
- Bk. Black
- W. White
- Y/Gr. Yellow / Green

OIL SUPPLY

System construction and installation must be in accordance with DIN 4755. Local regulations must be followed.

Oil pipes must be brought sufficiently close to the burner so that the tubes can be connected without strain. On the aspiration side of the line, fit a filter with a quick closing valve. Install a check valve on the return line.

The Burner can operate with a 1 or 2 line system.

In series, the burner is designed to operate with a two-line system. The vacuum in the aspiration line should not exceed 0.4 bar.



Refer to the ACV BMV1 and BMV2 burner manual supplied with them.

Single-line installation (see illustration I)

Height H	Ø 6 mm	Ø 6 mm	Ø 8 mm
4.0 m	100 m	100 m	100 m
3.5 m	100 m	100 m	100 m
3.0 m	100 m	197 m	100 m
2.5 m	100 m	181 m	100 m
2.0 m	100 m	165 m	100 m
1.5 m	197 m	149 m	177 m
1.0 m	165 m	132 m	151 m
0.5 m	132 m	116 m	126 m
Nozzle	uo to 2.5 Kg	uo to 5.0 Kg	uo to 10.0 Kg

Dual-line installation (see illustration J)

Height H	Ø 6 mm	Ø 8 mm	Ø 10 mm
0.0 m	17 m	53 m	100 m
0.5 m	15 m	47 m	100 m
1.0 m	13 m	41 m	199 m
1.5 m	11 m	34 m	184 m
2.0 m	19 m	28 m	168 m
2.5 m	17 m	22 m	153 m
3.0 m	15 m	15 m	137 m
3.5 m	13 m	19 m	122 m

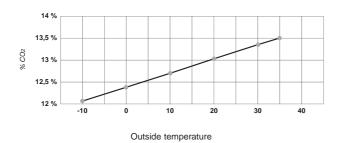
BURNER FEATURES

ACV BMV1 AND BMV2 OIL BURNERS

Description

For the Delta Performance oil-fuelled balanced flue model, we have opted for the all-new technology of the ACV BMV1 and BMV2 oil burner, manufactured from high quality components combining performance with perfect combustion.

CO2 chart for the ACV BMV1 and BMV2 burner



ACV BMV1 AND BMV2 BURNER CAPTIONS

(see illustration O)

- 1. Control unit
- 2. Nozzle line protection
- 3. Warning lamp
- 4. Electric plug connector
- Attachment bracket
- 6. Burner blast tube
- 7. Ignition unit
- 8. High tension ignition cable
- 9. Oil pump
- 10. Oil aspiration line connection (circuit with return only)
- 11. Oil return connection
- 12. Motor condenser
- 13. Motor
- 14. Pump / nozzle connecting pipe
- 15. Burner casing
- 16. Nozzle line adjustment screw

ACV BMV1 AND BMV2 BURNER FACTORY SETTINGS

		FV/35	FV/50
Burner		BMV1	BMV2
Input	kW	34.9	50
Nozzle	gal/h	0,75	1.25
Nozzle angle		60°H	60°H
Oil flow	Kg/h	2.95	4.22
Pump pressure	bar	11.8	9.5
Flue gas index		0 - 0.5	0 - 0.5
Air reducer	%	37	60
Air inlet	%	90	90
Nozzle line pressure	mbar	3.5 - 4	3.5 - 4
Nozzle line	mm	10	10
Weight	Kg	14.5	14.5

WARNING: Set the % of CO2 as per the data in the diagram above

STARTUP SERVICING

FILLING THE DOMESTIC HOT WATER AND HEATING CIRCUITS (see illustrations B, G et H)



IMPORTANT

The hot water tank must be pressurised before the heating circuit is filled.

- 1. Fill the domestic hot water circuit and bring it up to pressure.
- 2. Fill the heating circuit taking care not to exceed the 2 bar pressure limit.
- 3. Vent the air from the top of the boiler.
- 4. After venting the air from the system, bring the pressure up to the static head plus 0.5 bar: 1.5 bar = 10m -2 bar = 15 m.
- Check the power connection, the boiler room ventilation, and ensure that there are no leaks in the flue gas discharge pipes.
- 6. Set the boiler thermostat to between 60 and 90 °C.
- 7. Set the Summer/Winter selector to the desired position.
- 8. Switch the on/off switch to the ON position.
- 9. Check the oil supply (and return).
- Carry out the required venting, measurement and setting procedures.

STARTING ACV BMV1 AND BMV2 BURNERS

Refer to the ACV BMV1 and BMV2 burner manual supplied with them.

RECOMMENDATION

ACV advises that boilers should be serviced at least once a year. The burner must be serviced and tested by a competent engineer.

SERVICING THE BOILER (see illustration K)

- Switch off the power at the mains switch outside the boiler and shut off the oil supply.
- 2. Set the on/off switch on the control panel to the OFF position.
- Remove the top cover of the boiler (2) and take off the top of the chimney reduction (3).
- Remove the turbulators (23) from the flue pipes (22) for cleaning. Change them if in poor condition.
- 6. Unscrew the burner chamber plate (10).
- Brush the flue pipes (22).
- 8. Clean the burner chamber (18) and the burner.
- 9. Check the condition of the burner chamber plate insulation.

SERVICING THE SAFETY DEVICES

- Check that all thermostats and safety devices are working properly: boiler thermostat, cut-off thermostat and manually reset safety thermostat.
- Test the safety valves on the central heating and hot water circuits.

SERVICING THE BURNER

Refer to the ACV BMV1 and BMV2 burner manual supplied with them.

EMPTYING THE BOILER



Water flowing out of the drain cock is extremely hot and can cause severe burns.

Keep people away from discharges of hot water.

Emptying the heating circuit (see illustration G)

- Set the on/off switch on the control panel to the OFF position, turn off the power at the external mains switch and close the oil feed valve.
- 2. Close the isolating valves (8).
- 3. Connect a hose to the drain cock (9).
- 4. Open the drain cock to empty the primary circuit.

Emptying the hot water circuit (see illustration H)

- Set the on/off switch on the control panel to the OFF position, turn off the power at the external mains switch and close the oil feed valve.
- 2. Lower the pressure in the heating circuit until the pressure gauge indicates zero bar.
- 3. Close the valves (7 and 11).
- 4. Open valves (9) and (10) (first 9 then 10).
- 5. Let the water empty into the drain .



For the tank to be emptied, valve (9) must be situated at ground level.

USING THE BOILER



Have your system serviced every year by a qualified heating engineer. If the boiler is subject to heavy usage, it may need more frequent servicing. If this is the case, ask your installer for advice.

Starting the burner:

In normal operation, the burner starts automatically whenever the boiler temperature falls below the set temperature.



Before doing any work on the boiler, switch off the power at the mains switch installed in the boiler room by the electrician.

On the control panel, switch off the ON/OFF switch.

Getting to know the control panel (see illustration B)



The user should not access the components inside the control panel.

1. Control thermostat - 60 to 90 °C

When the boiler is used only to produce domestic hot water, the temperature can be set between 60 and 90 °C. If the boiler is used for both hot water and heating, the control thermostat will, as a general rule, be set to 80 °C to ensure optimum operating conditions.

2. ON/OFF switch

Used to start and stop the boiler.

3. Summer/winter selector

Starts and stops the heating pump (if fitted).

4. Thermometer

Shows the boiler temperature in the primary circuit.

The temperature should not exceed 90 °C. If it does, switch off the boiler and check the thermostat settings. If there is a fault, call a heating engineer.

5. Controller

See the user instructions supplied with the unit if you have chosen this option.

6. Burner reset

7. Burner indicator lamp

Safety valve (heating)

If water flows from one of the safety valves, shut off the boiler and call your heating engineer.

A monthly inspection is recommended:

Lift the lever on the emptying device for a few seconds to ensure that the safety valve is working properly.



If a fault occurs after this short trial, call the installing engineer.

Safety unit (domestic hot water)

A monthly inspection is recommended.

Lift the lever on the emptying device for a few seconds to ensure that the safety unit is working properly.



If a fault occurs after this short trial, call the installing engineer.



Water flowing out of the safety valve or safety unit may be extremely hot and can cause very serious burns.

USER GUIDE

RESETTING ACV BMV1 AND BMV2 BURNERS

(see illustration Q)

If the burner is not working:

- 1. Remove the protective cover of the burner.
- 2. If the red light is lit, press the button to start the burner.
- 3. If the burner lights, replace the cover.



If the burner does not operate, switch off the power before removing the front cover panel.

4. Reset the safety thermostat on top of the boiler. (see illustration R).



Wait until the boiler temperature is below 60 $^{\circ}\text{C}$ then replace the front cover panel.

- 5. If the burner lights, replace its cover.
- 6. If the fault persists, notify the installing engineer.

Starting the burner

In normal operation, the burner starts automatically whenever the boiler temperature falls below the set temperature.



To ensure your system operates properly, have it professionally serviced once a year before the central heating season begins.

REPLACEMENT PARTS / PIECES DETACHEES / WISSELSTUKKEN

EN	FR	NL	Codes
Burner	Brûleur	Brander	
See Oil burner instructions	Voir notice du brûleur fioul	Zie handleiding van de stookoliebrander	
BMV(K)1 / BMV(K)2	BMV(K)1 / BMV(K)2	BMV(K)1 / BMV(K)2	
Casing	Jaquette	Mantel	
Front panel	Face avant	Voorpaneel	21473397
Left panel	Face latérale gauche	Links zijpaneel	21472397
Right panel	Face latéral droite	Rechts zijpaneel	21471397
Rear panel	Face arrière	Achterpaneel	21474397
Large top cover	Grand couvercle supérieur	Groot deksel bovenaan	21475397
Small top cover	Petit couvecle supérieur	Klein deksel onderaan	21478397
Burner hood	Coiffe de la porte foyère	Kap van de vuurhaarddeur	21476397
Control panel	Tableau	Schakelpaneel	21477342
Electrical control panel	Tableau électrique	Elektrisch schakelbord	
Control panel + wiring	Tableau de commande + câblage	Bedieningspaneel + bekabeling	24614064
Summer/Winter selector	Interrupteur Eté/Hiver	Zomer/winter-schakelaar	54766007
Jumper plug (T1 - T2)	Prise pontée (T1 - T2)	Brugstekker (T1-T2)	257F1026
Accessories	Accessoires	Accessoires	
Deep tube PVCC	Plonge PVCC	PVCC-buis	
Ø 19,5 mm / L. 800 mm	Ø 19,5 mm / L. 800 mm	Ø 19,5 mm / L 800 mm	49410045
Bulb for thermostat	Doigt de gant laiton	Messing voeler huls	
Ø 1/2" / L. 100 mm	Ø 1/2" / L. 100 mm	Ø 1,2" / L 100 mm	63438001
Spring clips FPL3017	Clips ressort FPL3017	Veerclips FPL3017	47405006
Baffle, Mignon DN	Chicane Mignon DN	Retarders Mignon DN	50423352
Balanced flue adapter	Adaptateur ventouse	Concentrische aansluiting	
Ø 80/125 mm	Ø 80/125 mm	Ø 80/125 mm	507F3038
Cerablanket isulation	Isolation cérablanket	Isolatie Cerablanket	51305000
Condensate collector with	Récupération des condensats	Meetelement met	
measuring devices	avec éléments de meusure	condensopvang	537D6068
Flexible Master-Neo	Flexible Master-Neo	Flexibele slang Master-Neo	
Ø 80 / L. 2 m	Ø 80 / L. 2 m	Ø 80 /L 2 m	537D6137
Control thermostat	Thermostat de réglage	Regelthermostaat	54322000
Reset thermostat	Thermostat à réarmement	Thermostaat voor de herinschakeling	54764010
Drain cock Ø 1/2"	Robinet de vidange Ø 1/2"	Leegloopkraan Ø 1/2 "	55426001
			===40040
Chiney reducing joint Ø 325	Joint réduction de cheminée Ø 325	Dichting schouwreductiestuk Ø 325	557A0016



excellence in hot water

INTERNATIONAL

ACV international n.v KERKPLEIN, 39 B-1601 RUISBROEK - BELGIUM TEL.: +32 2 334 82 20 FAX: +32 2 378 16 49 E-MAIL: international.info@acv-world.com

ACV BELGIUM nv/sa

KERKPLEIN, 39 B-1601 RUISBROEK-BELGIUM TEL.: +32 2 334 82 40 FAX: +32 2 334 82 59 E-MAIL: belgium.info@acv-world.com

ALBIN TROTTER Y ACV LTDA
SAN PABLO 3800
QUINTA NORMAL - SANTIAGO - CHILE
TEL.:+56 2 772 01 69 FAX:+56 2 772 92 62/63 E-MAIL: chile.info@acv-world.com

CZECH REPUBLIC

ACV CR SPOL. s.r.o NA KRECKU 365 CR-109 04 PRAHA 10 - CZECH REPUBLIC TEL.:+420 2 720 83 341 FAX:+420 2 720 83 343 E-MAIL: ceskarepublika.info@acv-world.com

DEUTSCHLAND

ACV WÄRMETECHNIK GMBH & CO KG GEWERBEGEBIET GARTENSTRASSE D-08132 MÜLSEN OT ST. JACOB - DEUTSCHLAND TEL.:+49 37601 311 30 FAX:+49 37601 311 31 E-MAIL: deutschland.info@acv-world.com

ESPAÑA ACV ESPAÑA

C/DE LA TEIXIDORA, 76 POL. IND. LES HORTES E-08302 MATARÓ - ESPANA TEL.:+34 93 759 54 51 FAX:+34 93 759 34 98 E-MAIL: spain.info@acv-world.com

FRANCE

ACV FRANCE sa 31, RUE AMPERE - Z.I MI - PLAINE F-69680 CHASSIEU - FRANCE TEL.:+33 4 72 47 07 76 FAX:+33 4 72 47 08 72 E-MAIL: france.info@acv-world.com

ITALIA ACV ITALIA

VIA PANA 92 I-48018 FAENZA (RA) - ITALIA TEL.:+39 0546 64 61 44 FAX:+39 0546 64 61 50 E-MAIL: italia.info@acv-world.com

NEDERLAND

ACV NEDERLAND by

POSTBUS 350 NL-2980 AJ RIDDERKERK - NEDERLAND TEL.:+31 180 42 10 55 FAX:+31 180 41 58 02 E-MAIL: nederland.info@acv-world.com

POLAND

ACV POLSKA sp. z.o.o.

UL.WITOSA 3 87 - 800 WWOCWAWEK - POLAND TEL.:+48 54 412 56 00 FAX:+48 54 412 56 01 E-MAIL: polska.info@acv-world.com

PORTUGAL

BOILERNOX LDA

BOILERNOX LIDA RUA OUTEIRO DO POMAR CASAL DO CEGO, FRACÇÃO C, PAVILHÃO 3 - MARRAZES 2400-402 LEIRIA - PORTUGAL TEL.:+351 244 837 239/40 FAX:+351 244 823 758 E-MAIL: boilernox@mail.telepac.pt

RUSSIA

ACV RUSSIA 1/9, MALYI KISELNYI 103031 MOSCOW - RUSSIA TEL.:+7 095 928 48 02 / +7 095 921 89 79 FAX:+7 095 928 08 77 E-MAIL: russia.info@acv-world.com

SLOVAK REPUBLIC

ACV SLOVAKIA s.r.o. PLUHOVÁ 49 831 04 BRATISLAVA - SLOVAK REPUBLIC TEL.:+421 2 444 62 276 FAX:+421 2 444 62 275 E-MAIL: slovakia.info@acv-world.com

SLOVENIA ACV D.O.O. SLOVENIA

OPEKARNA 22b 1420 TRBOVLJE - SLOVENIA TEL.:+386 356 32 830 FAX:+ 386 356 32 831 E-MAIL: slovenia.info@acv-world.com

UK

ACV UK Ltd

ST. DAVID'S BUSINESS PARK
DALGETY BAY - FIFE - KY11 9PF
TEL.:+44 1383 82 01 00
FAX:+44 1383 82 01 80 E-MAIL: uk.info@acv-world.com

USA

TRIANGLE TUBE PHASE III

FREEWAY CENTER - 1 TRIANGLE LANE BLACKWOOD NJ 08012 - USA TEL.:+1 856 228 8881 FAX:+1 856 228 3584 E-MAIL: sales@triangletube.com

ARGENTINA

TECNOPRACTICA
ALFEREZ BOUCHARD 4857
1605 CARAPACHAY - BUENOS AIRES
TEL:: +54 11 47 65 33 35 FAX: +54 11 47 65 43 07 E-MAIL: jchas@tecnopractica.com

AUSTRALIA

\\

HUNT HEATING PTY LTD

10 GARDEN BOULEVARD 3172 VICTORIA - AUSTRALIA TEL.: +61 3 9558 7077 FAX: +61 3 9558 7027 E-MAIL: enquiries@huntheat.com.au

SIMETAL INDUSTRIA E COMERCIO DE FERRAMENTAS LTDA

RUA GERSON ANDREIS 535 95112 - 130 CAXIAS DO SUL - BRAZIL TEL.: +55 54 227 12 44 FAX: +55 54 227 12 26

BULGARIA

PROXIMUS ENGINEERING LTD

E-MAIL: export@simetall.com.br

7 BIAL KREM STR. 9010 VARNA - BULGARIA TEL.:+359 52 500 070 FAX:+359 52 301 131 E-MAIL: info@proximus-bg.com

BEIJING HUADIAN HT POWER TECHNOLOGY

DEVELOPMENT CO. LTD

ROOM B-912, TOWER B, COFCO PLAZA

N°. 8, JIANGUOMENNEI AVENUE

BEIJING 100005 - PEOPLE'S REPUBLIC OF CHINA

TEL.:+86 10 652 30 363/393 EXT 101 FAX:+86 10 652 27 071 E-MAIL: li.zheng@acv-world.com

SHANGHAI COOLTECH LTD 14/F E. CHINA MERCHANTS PLAZA

N°. 333 CHENGDU ROAD (N) 200041 SHANGHAI - CHINA TEL.:+86 21 52 98 11 22 - 820 FAX:+86 21 52 98 13 58 E-MAIL: cooltech@cooltech.sh.cn

DENMARK

VARMEHUSET

FRICHSVEJ 40 A 8600 SILKEBORG - DENMARK TEL.:+45 86 82 63 55 FAX:+45 86 82 65 03 E-MAIL: vh@varmehuset.dk

ESTONIA

TERMOX AS TAHE 112A

51013 TARTU - ESTONIA TEL.:+372 736 73 39 FAX:+372 736 73 44 E-MAIL: termox@termox.ee

ESTIAS

MARASLI STREET 7 54248 THESSALONIKI - GREECE TEL.:+30 23 10 31 98 77 / +30 23 10 32 03 58 FAX:+30 23 10 31 97 22 E-MAIL: info@genikithermanseon.gr

ÎLE MAURICE SOTRATECH

29, RUE MELDRUM BEAU BASSIN - ÎLE MAURICE TEL.:+230 46 76 970 FAX:+230 46 76 971 E-MAIL: stech@intnet.mu

LITHUANIA

UAB "GILIUS IR KO"

SAVARNORIU PR. 192 3000 KAUNAS - LITHUANIA TEL.:+370 37 308 930 FAX:+370 37 308 932

MAROC

CASATHERM PLACE EL YASSIR

20300 CASABLANCA - MAROC TEL.:+212 22 40 15 23 FAX:+212 22 24 04 86

MOLDAVIA

STIMEX - PRIM S.R.L.
STR BUCURESTI, 60A
2012 CHISINAU - MOLDAVIA
TEL.:+37 32 22 46 75 FAX:+37 32 27 24 56 E-MAIL: stimex@slavik.mldnet.com

NEW ZEALAND

ENERGY PRODUCTS INTERNATIONAL

8/10 BELFAST PLACE PO BOX 15058 HAMILTON - NEW ZEALAND TEL.:+64 7 847 27 05 FAX:+64 7 847 42 22 E-MAIL: pmckenzie@tycoint.com

ÖSTERREICH

PROTHERM HEIZUNGSTECHNIK Gmbh

TRAUNUFERSTRASSE 113 4052 ANSFELDEN - ÖSTERREICH TEL.:+43 7229 804 82 FAX:+43 7229 804 92 E-MAIL: protherm@nextra.at

ROMANIA

SC TRUST EURO THERM SA D.N PIATRA NEAMT - ROMAN

km 2 C.P 5 O.P 3 jud. Neamt 5600 PIATRA NEAMT - ROMANIA TEL.:+40 233 20 62 06 FAX:+40 233 20 62 00 E-MAIL: office@eurotherm.ro

TUNISIE

SO.CO.ME CHAUMAX

BOÎTE POSTALE N°44 1002 TUNIS - TUNISIE TEL.:+216 71 78 15 91 FAX:+216 71 78 87 31

UKRAINE

UKRTEPLOSERVICE LTD
PR. LAGUTENKO 14
83086 DONETSK - UKRAINE
TEL.:+38 062 382 60 47/48
FAX:+38 062 335 16 89