INSTALLATION & SERVICING INSTRUCTIONS

ATAG

Blauwe Engel

These instructions to be retained by user.

CE PIN 0063AS3538

ATAG

8G.51.28.01/04.03 *We reserve the right to make changes*

Contents

1 Introduction 4
2 Regulations 4
3 Description of the appliance 5
4 Scope of the supply 5
5 Mounting of the boiler 5
5.1 Dimensions 6
6 Connecting the boiler 7
6.1 Central heating system 8
6.2 Expansion vessel 9
6.3 Underfloor heating systems (plastic pipes) 10
6.4 Gas connection 10
6.5 Hot water supply (S-HR-T) 11
6.6 Hot water supply S-HR 15, 24 and 35 11
6.7 Condensation drain pipe 11
6.8 Flue gas exhaust system and air supply system 12
7 External hot water cylinders 14
8 Electrical connection 14
9 Boiler controls 16
9.1 Explanation of the function keys 16
10 Filling and venting the boiler and installation 17
10.1 Central heating system 17
10.2 Hot water supply 17
11 Commissioning the boiler 18
11.1 Central Heating system 18
11.2 Hot water supply 18
11.3 Adjustments 18
12 Isolating the boiler 21
13 Commissioning 22
13.1 Checking for contamination 22
13.2 Checking of the zero pressure control 22
13.3 Checking the CO_2 23
14 Maintenance 24
14.1 The frequency of maintenance 24
14.2 Maintenance activities 24
14.3 Further checks 24
15 Technical specifications 25
16 Diagram showing various parts of the boiler 26
17 Example diagrams for connecting the boiler 28
17.1 Radiator installation without thermostat valves 28
17.2 radiator installation with thermostat valves only 29
18 Error indication 30
19 CE-Certificate United Kingdom 31
20 CE-Certificate Ireland 32

The appliance should only be installed by a Competent Gas Installer.

1 Introduction

These instructions describe the functioning, installation, use and primary maintenance of ATAG central heating units for United Kingdom and Ireland. Where necessary different regulations of each country are separately described.

These instructions are intended for the use of Corgi registerd installers or registered Bord Gais installers in connection with the installation and putting into operation of ATAG units. It is advisable to read these instructions thoroughly, well in advance of installation. Separate instructions for use are supplied with the unit for users of ATAG central heating units. ATAG is not liable for the consequences of mistakes or shortcomings which have found their way into the installation instructions or user's manual. Further, ATAG reserves the right to alter its products without prior notification.

⚠ **When delivering the unit, give the customer clear instructions concerning its use; present the customer with the user's manual and card.**

Each unit is fitted with an identification plate. Consult the details on this plate to verify whether the unit is compliant with its intended location, e.g.: gas type, power source and exhaust classification.

On completion of the installation the installer or commissioning engineer must fill out and complete the Benchmark commission section of the boiler log book and hand to customer or end user for future record keeping. The Benchmark log book must also be filled out and completed by the service agent following each service call, and returned to the customer. A copy of the Benchmark commissioning certificate must be returned to ATAG Heating UK Ltd along with the warranty registration card to register the appliance for the standard warranty benefits.

2 Regulations

The following regulations apply to installation of ATAG central heating units:

Legislation and Regulations.
Gas Safety (Installation and Use). All gas appliances must by law, be installed by a competent person, eg. Members of CORGI and in accordance with the current Gas Safety Regulation. Failure to install appliance correctly could lead to prosecution.

In addition to the above regulations this appliance must be installed in compliance with the current IEE Regulations, the Building Standards (Scotland Consolidation) Regulations. Regulations and bye laws of the Local Water Authority and the Current Health and Safety Regulation.

Ireland:
- Irish standard 813
- Domestic gas installations

The current, Electricity at Work Regulation must be complied with and also be in accordance with the relevant and current editions of the British Standards.

The ATAG Blauwe Engel boiler is a certified appliance and must not be modified or installed in any way contrary to this Installation Manual.
Manufactures instructions must not be taken in any way as overriding statutory obligations.

The ATAG Blauwe Engel is a central heating unit with an optional integrated hot water function. These units must be connected according to these instructions and all installation norms in respect of the part of the unit to be connected.

Observe the following rules of safety:
- All work on the unit must take place in a dry environment.
- ATAG units may never be in operation without their housing, except in connection with maintenance or adjustments (see Chapter 13 and 14).
- Never allow electrical or electronic components to come into contact with water.

Carry out the following tasks in connection with maintenance, etc. to an already-installed unit:
- Shut down all programmes
- Close the gas tap
- Remove the plug from the wall socket
- Close the stop cock of the unit's intake connection

Take note of the following when maintenance or adjustments are needed:
- The unit must be able to function during these activities; for this reason, the unit's supply voltage, gas pressure and water pressure must be maintained. Ensure that these are not a source of potential danger during these activities.

⚠ **Following maintenance or other activities; always check the installation of all parts through which gas flows (using leak-search spray).**

⚠ **Following maintenance or other activities, always replace the housing and secure it with the screw behind the door at the front of the casing.**

The following (safety) symbols may be encountered in these installation instructions and on the unit:

This symbol indicates that the unit must be stored away from frost.

This symbol indicates that the packaging and/or contents can be damaged as a result of insufficient care taken during transport.

This symbol indicates that, whilst still in its packaging, the unit must be protected from weather conditions during transport and storage.

KEY-symbol. This symbol indicates that assembly or dismantling, must be carried out.

ATTENTION symbol. This symbol indicates that extra attention must be paid in connection with a particular operation.

Danger: High Voltage!

3 Description of the appliance

The ATAG Blauwe Engel S-HR boiler is a room sealed, condensing and modulating central heating boiler, with or without an integrated hot water facility.
The built-in fan sucks the combustion air from outside and provides full premixing of the gas and air. The gas mixture is guided through the ceramic burner which is fitted above the heat exchanger. As a result of the small flame height a compact construction is possible. The combustion gasses are exhausted after passing through the stainless steel heat exchanger. The formed condensate water is discharged through the waste trap.

The boiler has been tested according to valid CE* standards and has a CE* certificate and SEDBUK A-rating.
The operating efficiency of the boiler is higher than 98% (on upper value Hs). As a result of its compact construction the radiation, convection and stand by losses are very low. The emission of damaging substances is far below the standard set for equipment with the gas quality-control label for clean combustion.

The boiler is provided with an automatic venting program. In case of a recently topped up or filled up installation this program takes care of the removal of any present air in the boiler. In this case the control will check the water pressure and if it is to low, will report this on the display.

The boiler anticipates the heat requirement of the central heating installation or the hot water supply. As a result the boiler will adjust its capacity to the installation and will switch on less often, which means that the boiler will operate longer and at a low level. It is possible that the boiler will only have to switch on once an hour. In this case the aim is to obtain maximum comfort and efficiency.

In order to be able to anticipate installation heat emissions the boiler has been fitted with a proportional gradient control system. After the boiler goes into operation this control provides a uniform increase of power, instead of immediately burning at full power. When the installation does require full power the control will adjust as required. By this means a uniform increase of the water temperature is effected.
If an outside sensor is connected, the control will operate weather-dependent. This means that the control measures the outside temperature and the flow water temperature. On the basis of this data the control calculates the optimal flow water temperature in the installation.

The S-HR-T combination boiler provides a hot water supply by means of a high output cylinder fitted on the right hand side of the boiler. An adjustable thermostatic mixing valve is fitted which provides a constant hot water temperature (60°C factory setting).

4 Scope of the supply

The boiler is supplied ready for use. The supply kit is composed as follows:
- Boiler with casing;
- Automatic vent (inside the boiler);
- Safety valve (inside the boiler);
- Suspension bracket
- Filling and draining valve with T-piece;
- Fixing material consisting of plugs and screws;
- Template on the package wrapper;
- Installation instructions
- Operating manual;
- Warranty card;
- Benchmark logbook.

5 Mounting of the boiler

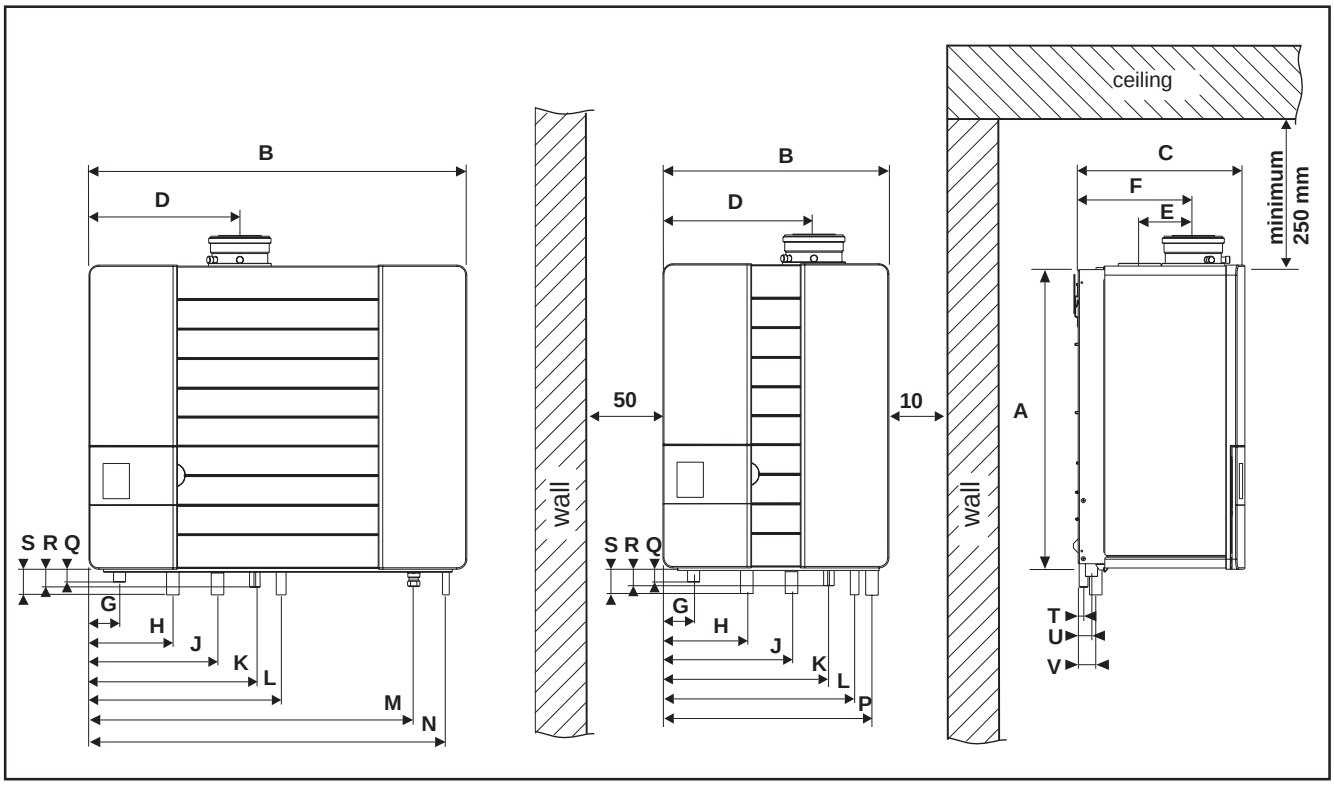
The boiler can be mounted practically to any wall with the suspension bracket and the enclosed fixing equipment. The wall must be flat and of sufficient strength in order to be able to carry the boiler weight.
Above the boiler there must be at least 250 mm working space in order to be able to fit a coaxial flue system or a twin supply. On the left side of the boiler at least 50 mm and on the right side 10 mm must be reserved in connection with fitting or removing of the casing. The location of the boiler can be determined by using the template located inside the boiler packaging.

5.1 Dimensions

	type of unit		S-HR 15	S-HR 24	S-HR 24T	S-HR 35	S-HR 35T	S-HR 51	S-HR 51T	S-HR 60
A	height	mm	680	680	680	680	680	680	680	680
B	width	mm	500	500	840	500	840	660	1000	660
C	depth	mm	370	370	370	370	370	370	370	370
D	left side / flue gas concentric	mm	335	335	335	335	335	495	495	495
E	centre to centre / flue gas exhaust and supply	mm	120	120	120	120	120	120	120	120
F	back / flue gas exhaust	mm	270	270	270	270	270	270	270	270
G	left side / gas pipe	mm	65	65	65	65	65	65	65	65
H	left side / flow pipe	mm	185	185	185	185	185	185	185	185
J	left side / return pipe	mm	285	285	285	285	285	445	445	445
K	left side / condensation pipe	mm	370	370	370	370	370	530	530	530
L	left side / expansion tank pipe	mm			430		430		590	
M	left side / cold water pipe	mm			725		725		885	
N	left side / hot water pipe	mm			795		795		955	
P	left side / return pipe DHW	mm	475	475		475				
Q	pipe lenght of g*	mm	18	18	18	18	18	18	18	18
R	pipe lenght of c and k*	mm	40	40	40	40	40	40	40	40
S	pipe lenght of f; r; e and w*	mm	60	60	60	60	60	60	60	60
T	back / centre of pipe c*	mm	25	25	25	25	25	25	25	25
U	back / centre of pipe g*	mm	40	40	40	40	40	40	40	40
V	back / centre of pipe f;r;e;k;w*	mm	50	50	50	50	50	50	50	50

Dimensions (see figure 2)*

table 1

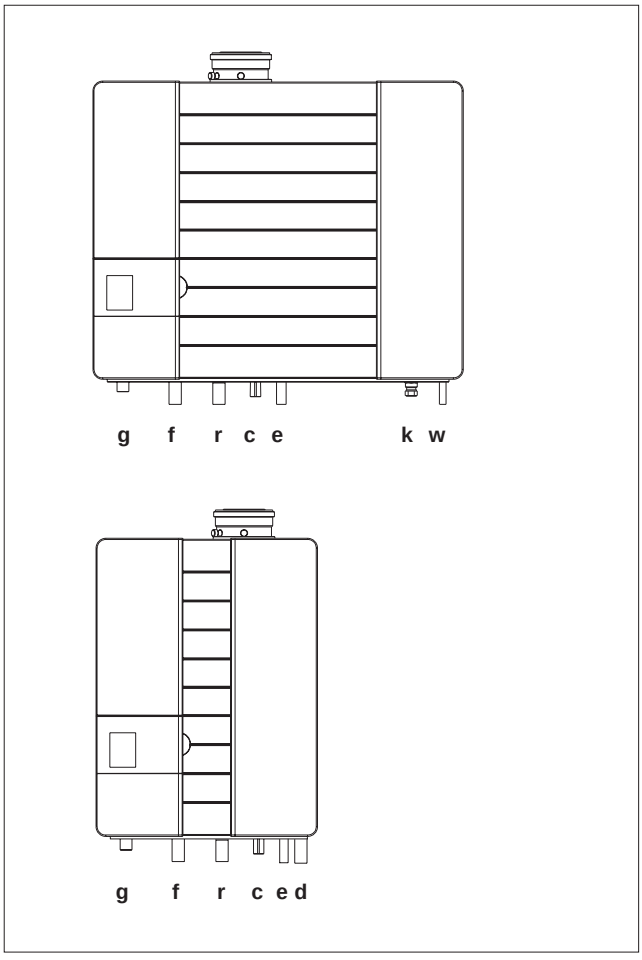


Dimensions (in mm)

figure 1

type of unit		S-HR 15	S-HR 24	S-HR 24T	S-HR 35	S-HR 35T	S-HR 51	S-HR 51T	S-HR 60
combustion air supply/flue gas exhaust	mm	80/125	80/125	80/125	80/125	80/125	80/125	80/125	80/125
gas pipe - g		½" inside	½"inside	½" inside	½" inside	½" inside	¾" inside	¾" inside	¾"inside
central heating flow pipe - f	mm	28	28	28	28	28	35	35	35
central heating return pipe - r	mm	28	28	28	28	28	35	35	35
condensation discharge pipe - c	mm	24	24	24	24	24	24	24	24
expansion vessel pipe - e	mm	22	22		22			22	
cold water pipe - k	mm			15		15		15	
hot water pipe - w	mm			15		15		15	
return pipe DHW - d	mm	28	28		28				

connection diameters table 2



boiler pipes bottom figure 2

6 Connecting the boiler

The boiler has the following connection pipes;

- The central heating pipes.
  These can be connected to the installation by means of compression fittings;
- The gas pipe.
  It is provided with a female thread into which the tail piece of the gas valve can be screwed;
- The condensation drain pipe.
  It consists of an oval 24 mm plastic pipe. The drain pipe can be connected to this by means of an open connection. If the open connection is fitted in a different location, then the pipe can be lengthened by means of a 32 mm PVC sleeve;
- The flue gas exhaust system and air supply system.
  It consists of a concentric connection 80/125 mm.
- Cold and hot water pipes.
  These consist of 15 mm copper pipe and can be connected to the installation by means of compression fittings.

When removing the plastic sealing caps from the pipes, contaminated testing water can be released.

It is advisable to spray-clean all of the unit's connecting pipes and/or to spray-clean/blow-clean the installation before connecting it to the unit.

6.1 Central heating system

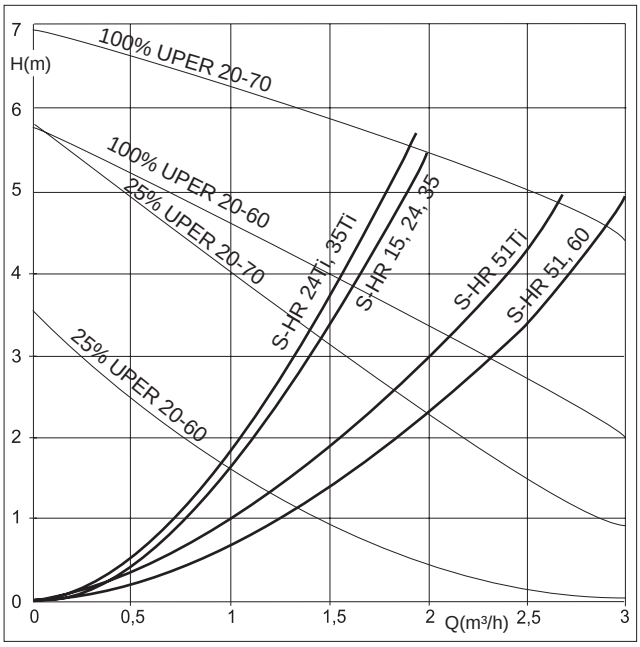
The boiler pipes can be connected to the installation by means of compression fittings. Reducers should be used for connecting to thick-walled pipe (welded or threaded).

The boiler has a self-adjusting and self-protecting control system for the load and the pump capacity. By this means the temperature difference between the flow and return water is checked. The circulation pump will be able to supply the given water displacement with an installation resistance of up to 20 kPa, for this see table 3.

type of unit	Pump type	water flow rate ΔT 20°C		permissible installation resistance	
	UPER	l/min	l/h	kPa	mbar
S-HR 15	20-60	9,5	570	42	420
S-HR 24/24T	20-60	15,1	908	30	300
S-HR 35/35T	20-60	22,1	1324	20	200
S-HR 51/51T	20-70	32,1	1924	25	250
S-HR 60	20-70	37,8	2267	20	200

available water flow at full load table 3

the pump will rotate at maximum pump capacity and the load will be adjusted until an acceptable temperature difference between flow and return water has been obtained. If, after this, the temperature difference remains to much then the boiler will switch itself off and wait until an acceptable temperature has arisen.

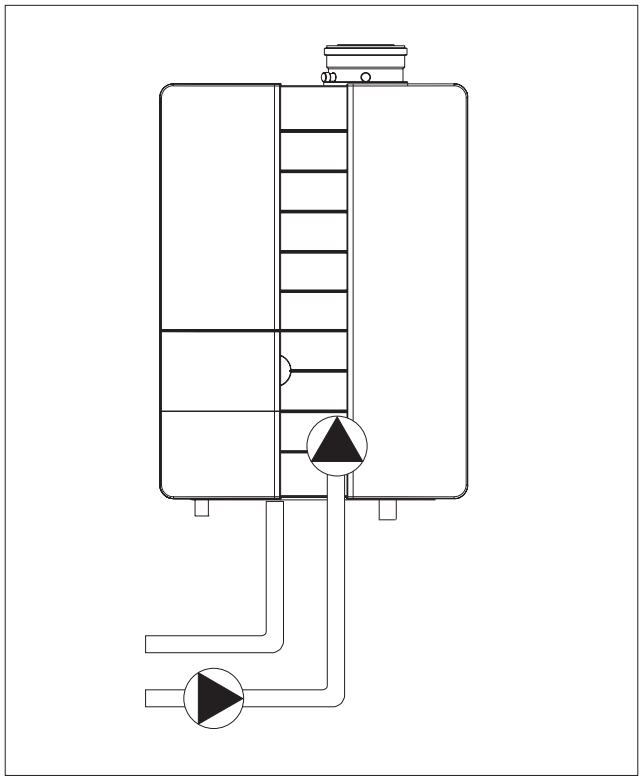


pump index lines graph 1

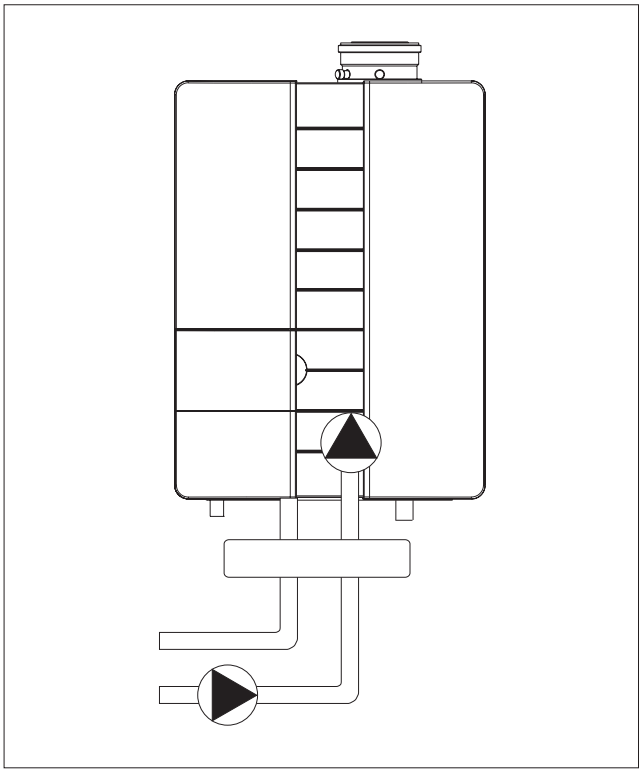
If an unacceptable temperature is detected, then the control will repeatedly try to achieve water flow, and if this does not work then the boiler will switch off.

The S-HR 60 boiler has a circulation pump which has a residual suction head for the installation of 20 kPa. This means that the boiler can function normally in installations which have an installation resistance of up to 20 kPa and in cascade installations.
If the installation resistance is higher than 20 kPa, the boiler will automatically reduce in power.

If the capacity of the boiler pump is insufficient, an extra external pump can be installed in series with the boiler. The electrical side of this external circulation pump can be connected in the Control Tower, by which means this pump switches at the same times as the boiler pump. The maximum absorbed current consumption of the external circulation pump may be 230 W (1 Amp).
Use with a low velocity header can also be selected. In this case a larger secondary sided water output has to be taken into account, in order to affect the maximum water temperature.



external installation pump in series figure 3



external installation pump with low velocity header figure 4

As standard the boiler is provided with a water filter in the return pipe of the boiler. With this, possible contamination of the central heating water is prevented from ending up in the boiler. The boiler is also provided with an internal safety valve set at 3 bar. This is connected to the waste discharge together with the condensation discharge.

If all, or a large part of the radiators are provided with thermostatic radiator valves it is advisable to use a pressure difference control (bypass) in order to prevent flow problems in the installation.

The boiler is designed to be used on sealed system only.

Additives in the installation water are only permitted in consultation with the country distributor.

When using more than one boiler in an installation please refer to the cascade installation instructions.

6.2 Expansion vessel

All ATAG Blauwe Engel S-HR-24T and 35T boilers are provided with an expansion vessel on top of the cylinder. This expansion vessel is connected to the three-way valve and the circulation pump. By this means the expansion water, when functioning for the hot water supply, is prevented from being shut off from the expansion vessel when the radiator thermostat valves are fully closed. The ATAG Blauwe Engel S-HR 51T is provided with a expansion vessel connection. The expansion vessel of correct size must be connected to this pipe. A second expansion vessel in the installation is not a problem.

The ATAG Blauwe Engel S-HR boilers are not equipped with an expansion vessel connection. If a S-HR boiler is combined with an Comfort cylinder, the expansion vessel connection is included in the internal piping of the Comfort cylinder, to which the expansion vessel can be connected. If a different cylinder is used then one has to take into account that the expansion vessel should be connected between the three-way valve and the boiler circulation pump.

In connection with correct functioning of the boiler it is necessary for the expansion vessel to be connected to the expansion vessel pipe of the boiler.

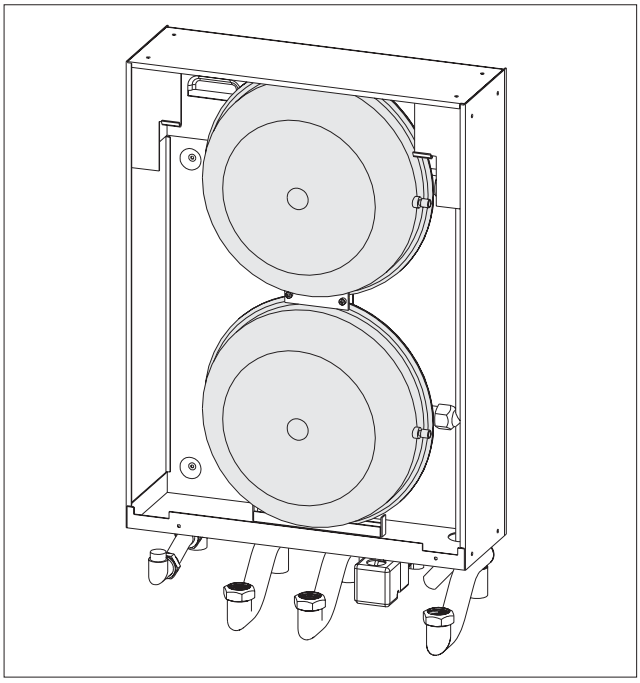
The expansion vessel which is used should be geared to the water content of the installation. The pre-charge pressure depends on the installation height above the mounted expansion vessel.

installation height above the expansion vessel	pre-charge pressure of the expansion vessel
5 m	0,5 bar
10 m	1,0 bar
15 m	1,5 bar

choice of expansion vessel table 4

The ATAG S-HR24 and S-HR35 boilers can be provided with an expansion vessel module. By this means the external expansion vessel is cancelled. This expansion vessel module is placed behind the S-HR boiler, by which means the expansion vessel is not noticeable. If the S-HR boiler is provided with a ATAG Comfort cylinder the overall depth will be equal. The content of the two expansion vessels is 20 litres. The pre-charge pressure is 1 bar.

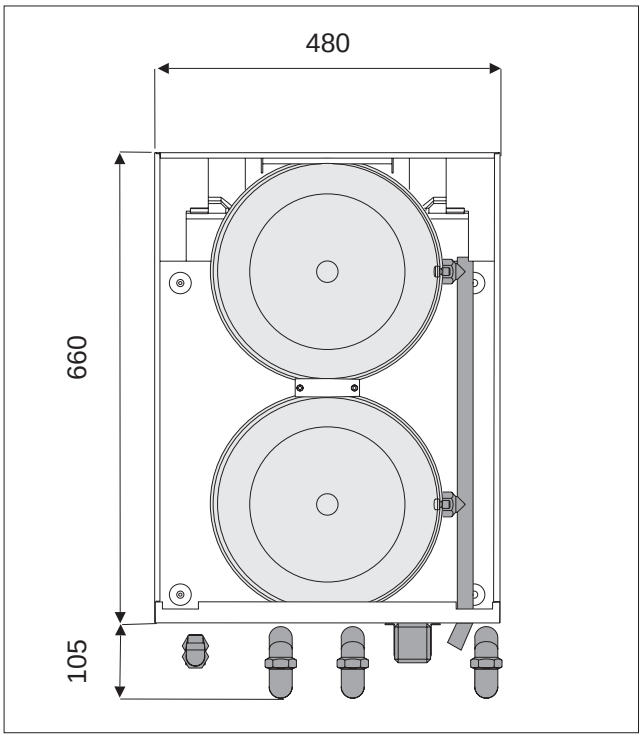
The expansion vessel module can be supplied with the necessary pipes to connect with the S-HR boiler. The connecting pipes for the installation correspond with those of the boiler and have the same centre-to-centre distance to the wall. When checking the expansion vessels these are accessible via the left, right and upper sides. From these sides the tanks are also removable and the boiler does not have to be dismantled.



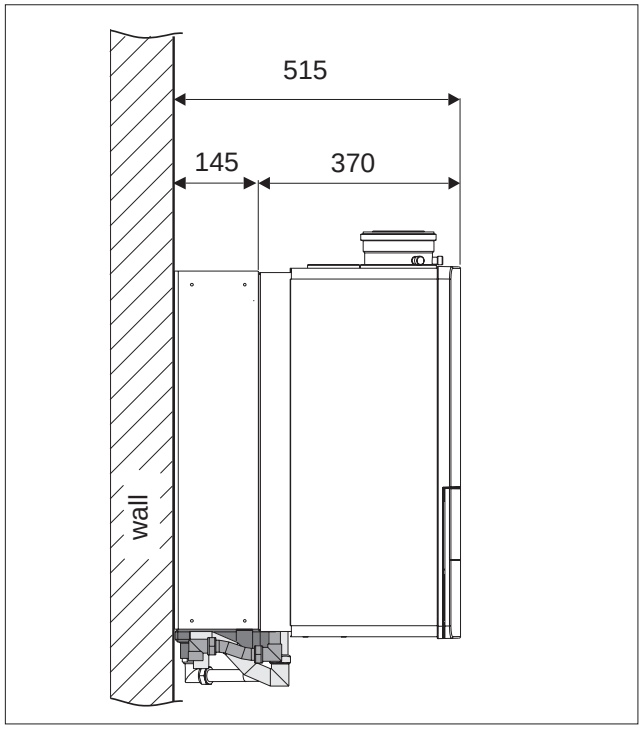
expansion vessel module figure 5

The space which is required for mounting the expansion vessel module corresponds with the required space for mounting an S-HR boiler. They included template and mounting strip for the S-HR boiler which can be used for the expansion vessel module. The S-HR boiler is fitted on to this after the expansion vessel module has been mounted. The necessary mounting strip for the boiler is present on the module.
Article numbers:

- the expansion vessel module without pipe connections AA1EM09U
- pipe connections for expansion vessel module AA1LE04U



front view of the expansion vessel module (dimensions in mm) figure 6



side view of the module with S-HR boiler (dimensions in mm) figure 7

6.3 Underfloor heating system (plastic pipes)

When connecting or using an underfloor heating system, designed with plastic pipes, or plastic pipes are used elsewhere in the installation,one should ensure that the plastic pipes used comply with the DIN 4726/4729 standard. It is set out in this standard that the pipes may not have oxygen permeability higher than 0.1 g/m³.d at 40°C. If the system does not comply with this DIN standard, the underfloor heating component will have to be separated from the central heating appliance by means of a plate exchanger.

⚠ **No recourse can be made to the terms of the warranty in the event of failure to observe the regulations pertaining to plastic underfloor heating pipes.**

6.4 Gas connection

The appliance pipe is fitted with an internal thread, into which the tail piece of the gas tap can be screwed.

United Kingdom:
The gas supply must comply to the current Gas Safety Regulations.

Ireland:
- Irish standard 813
- Domestic gas installations

The connection to the appliance must include a suitable method of disconnection and a gas control cock must be installed adjacent to the appliance for isolation purposes. The nominal inlet working gas pressure measured at the appliance should be 20 mbar for Nat gas (G20).

Make sure that the gas pipe work does not contain dirt, particularly with new pipes.

6.5 Hot water supply (S-HR-T)

The sanitary water pipes can be connected to the installation by means of compression fittings.
The cold water inlet on the S-HR-T boilers must be provided with the following (counted in the water flow direction):
- Dosing valve (supplied);
- Safety group;
- Expansion vessel 6bar (potable water, blue).

A dosing valve must be fitted in the cold water pipe. The dosing valve provides that a quantity of water is supplied which has a guaranteed outlet temperature of 60°C (assuming a cold water temperature of 10°C). The quantity of water is virtually unaffected by the water pressure. With a water pressure lower than 1.5 bar it is advisable to remove the inside mechanism of the dosing valve. Connecting of the drinking water installation should be done according to the national water laws.

6.6 Hot water supply S-HR 15, 24 and 35

Depending of the comfort preferences different external hot water cylinders can be connected to the boiler. The choice of the cylinder depends on the coil output. The coil output must comply with the boiler output. The S-HR 15, 24 and 35 are provided with an internal 3 way valve. The return pipe of the cylinder is simply connected to the connection under the boiler. The flow pipe of the cylinder must be connected to a T-piece in the flow pipe of the boiler. The electrical connection are already made on the connection terminal in the Control Tower. Only the wire of the cylinder sensor should be connected to the terminal. See the wiring diagram on page 14 and 15.

By the SH-R 51 and 60 with larger cylinder pipes (coil resistance) we recommend the use of a cylinder pump.

6.7 Condensation drain pipe

The collective condensation drain pipe should be connected to the drain by means of an open connection. By this means the possibility of drain gases ending up in the boiler is prevented. The drain connection should have a minimum diameter of 25 mm.

The following components are connected to the collective condensation drain pipe:
- Condensation discharge;
- Safety valve;

Draining of the condensation water to the external rain guttering is not permitted in view of the danger of freezing.

Before putting the boiler into operation fill the siphon with 300 ml of water.

6.7 Flue gas exhaust system and air supply system

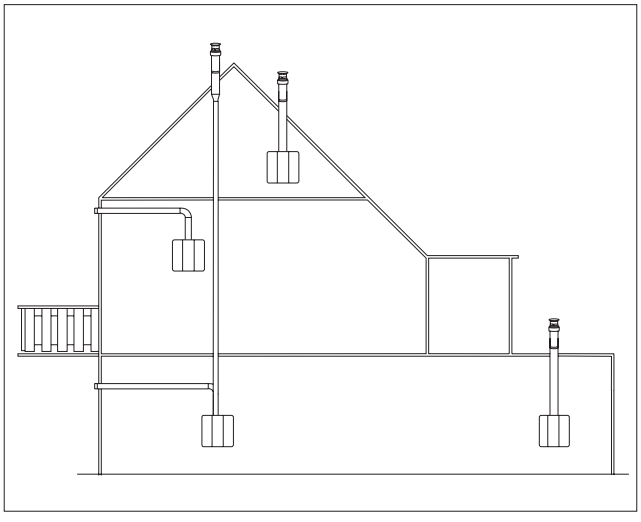
The appliance connection diameter is 80 mm, to which the flue gas outlet and air supply system can be fitted, with or without elbow pieces. It is also possible to use a concentric connection. The maximum permissible pipe length is set out in Table 5.
It is also possible to use a parallel pipe connection of 2x 80mm. In this case a seperate cover 125mm schould be ordered.

United Kingdom:
The flue gas outlet and air supply installation must comply with the current regulation requirements. IG UP 10 and BS 715.

Ireland:
- Irish standard is 813 section 9.10.1

The complete flue gas and air supply system includes the flue gas discharge duct and the roof or wall terminal. The maximum stated pipe length in metres is for the supply / exhaust system and is the distance between the unit and the roof or wall terminal.	
type of unit	**maximum linear pipe length in metres with 80 / 125 mm**
S-HR 15	17
S-HR 24/24T	17
S-HR 35/35T	11,5
S-HR 51/51T	5
S-HR 60	2,5
When using bends in the supply or exhaust system, the equivalent length stated below, must be added to the linear pipe lengths. Example: S-HR 24 with 10 metres exhaust duct 80 / 125 mm and 2 x 90° bends. This means: 10 metres + 2 x 1,2 metre = 12,4 metre. This is within the maximum permitted length.	
bend 90°	1,2
bend 45°	1,0

length supply and exhaust system table 5



supply and exhaust system figure 8

We recommend that you use a stainless steel flue gas outlet material. Using the ATAG icicle-free roof outlet prevents ice from building up on the roof outlet.

Flue systems must comply with the current regulations. It is essential that in practice, products of combustion discharging from the terminal cannot re- enter the building or any other adjacent building through ventilators, windows, doors, other sources of natural or mechanical air infiltration from forced ventilation or air conditioning systems.

Horizontal sections of flue sections of the flue system should always be installed sloping towards the boiler, in order to avoid condensate lying in the flue system.
The minimum gradient is 30mm/Mtr. With the condensate running back to the boiler the risk of ice forming at the terminal is reduced.

The terminal should be located where dispersal of combustion products is not impeded and with due regard for the damage or discolouration that might occur to building products in the vicinity (see fig 9).
In certain weather conditions condensation may also accumulate on the outside of the air inlet pipe. Such conditions must be considered and where necessary insulation of the inlet pipe may be required.

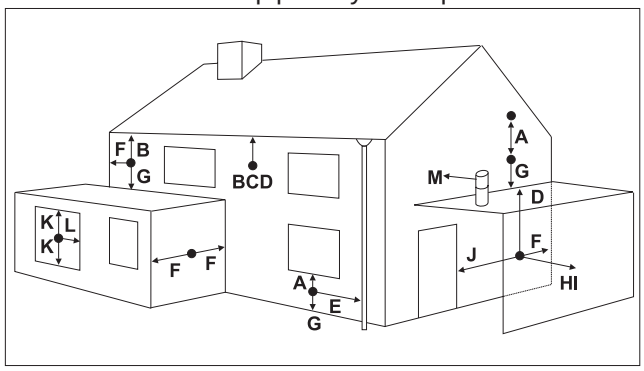


figure 9

	terminal position for fan assisted boiler		minimum distance
A	directly below an open window or other opening (e.g. air brick	mm	300
B	below gutters, soil pipes or drain pipes	mm	75
C	below eaves	mm	200
D	below balconies or car port roof	mm	200
E	from vertical drain pipes and soil pipes	mm	75
F	from internal or external corners	mm	300
G	above ground or below balcony level	mm	300
H	from a surface facing a terminal	mm	600
I	from a terminal facing a terminal	mm	1200
J	from an opening in the car port (e.g. door window) into dwelling	mm	1200
K	vertically from a terminal on the same wall	mm	1500
L	horizontally from a terminal on the same wall	mm	300
M	horizontally from a vertical terminal to a wall	mm	300

Dimensions table 6

In cold and/or humid weather water vapour may condense on leaving the flue terminal. The effect of such 'steaming' must be considered.

The terminal must not be located in a place where it is likely to cause a nuisance.
For protection of combustibles, refer to IS 813 section 9.10.1. where the terminal is less than 2m (6.6ft) above a pavement or platform to which people have access (including) any balcony or flat roof the terminal must be protected by a guard of durable material.
A suitable guard is available from the country distributor.

Where a terminal is fitted below a window which is hinged at the top, and where the hinge axis is horizontal, and the window opens outwards, the terminal shall be 1m below the bottom of the window opening.

If the boiler is to be located under stairs, a smoke alarm meeting the requirements of I.S. 409 or equivalent must be fitted.

The flue must be terminated in a place not likely to cause a nuisance.

For horizontal sections, the outlet system should always be fitted on an incline (30 mm/m) sloping down towards the appliance so that no condensation water is able to accumulate in the outlet system. The chances of icicles forming on the roof outlet is minimised by causing the condensation water to run back towards the appliance. In the case of horizontal outlets the inlet system should be fitted on an incline sloping down towards the outside to prevent rainwater from coming in.

Fitting an additional condensation collection device in the outlet system is surplus to requirement.

The appliance produces a white wisp of condensation. This wisp of condensation is harmless, but can be found to be unpleasant, particularly in the case of outlets in outside walls.

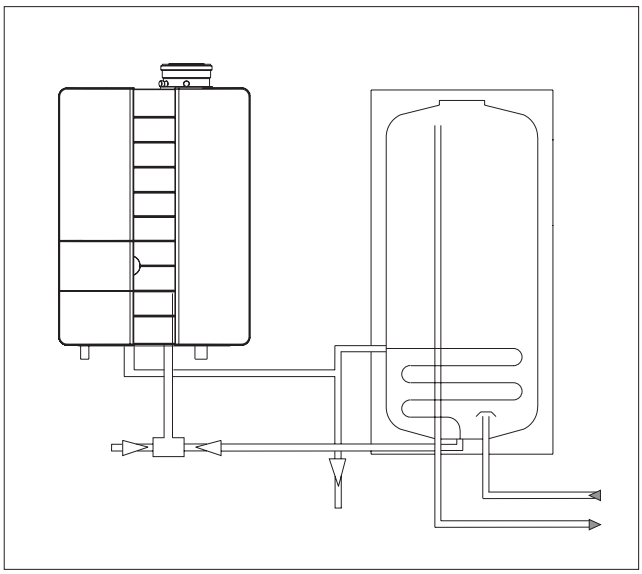
The appliance is not suitable as an "open" appliance. This means that combustion air should always be obtained through a direct connection.

For further information regarding the supply range of the exhaust and supply system please contact the country distributor.

7 External hot water cylinders

Various external hot water cylinders can be connected to a S-HR boiler, depending on the hot water require-ments. The wiring of the cylinder thermostat can be connected to the connection block in the Control Tower by means of the relevant plug.

S-HR51 and S-HR60
Consult your supplier when using cylinders with lower absorption than 35kW or primary pipe and/or coil size less than 1 inch.



S-HR with external cylinder figure 10

8 Electrical connection

The appliance complies with the CE Machinery Directive 89/392/EEC. The EC Low Voltage Directive 72/23/EEC and the EC EMC Directive 89/336/EEC.
A 230V -50Hz mains electrical supply is required fused externally at 5A.

The installation must continue to comply with:
United Kingdom:
- the national rules for electrical installations.

Ireland:
- the ECTI national rules for electrical installations

The appliance must be connected to an earthed socket. this must be visible and within reach.

The following general stipulations also apply:
- No changes may be made to the wiring of the appliance;
- All connections should be designed in accordance with the enclosed regulations.;
- Should it be necessary to change it, the mains power supply cable may only be replaced with an ATAG mains power supply cable (item No. S4407300).

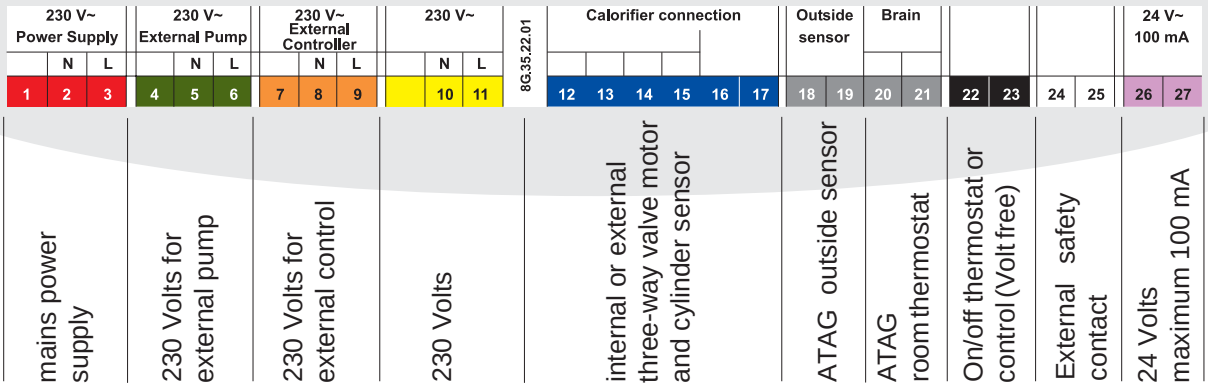
The ATAG room thermostat and controls must be connected to their allocated connections. All other types or makes of room thermostats or controls which are used must have a Volt free contact.

When using an on/off thermostat or control, it is possible that an anticipating resistance must be installed in order to prevent too high temperature fluctuations. As a standard rule this means mercury thermostats. This resistance wire is present in the Control Tower and must be connected to clamps 23 and 27. The anticipating resistance in the room thermostat has to be set at 0.11 A.

For more detailed questions regarding the components which are not supplied, the country distributor should be contacted.

All electrical connections must be done on the connection block in the Control Tower.

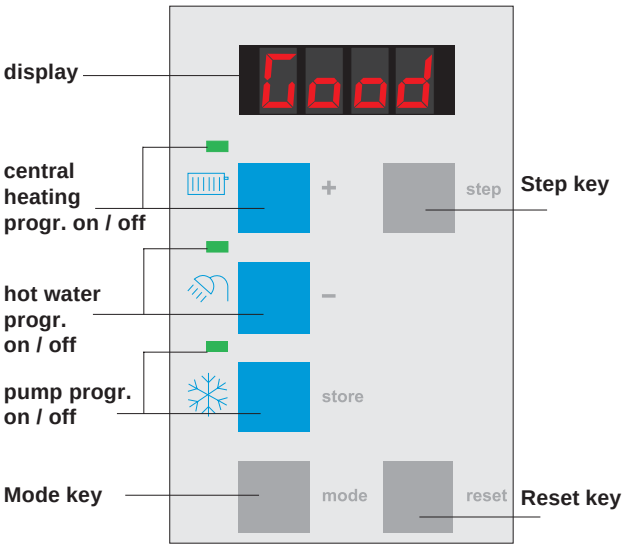
Connection block in the Control Tower



This renewed publication cancels all previous installation instructions.
The company reserves the right to change the specifications and dimensions without prior notice

E. & O. E.

Explanations of symbols and signs on the Control Tower display.



Mode key ~ Selecting chapters

Step key ~ Scrolling in a chapter

Reset key ~ Unlocking the boiler in case of error

Operation indication (in the first display position)

0	No heat requirement
1	Ventilation phase
2	Ignition phase
3	Burner active on central heating
4	Burner active on hot water
5	Fan check
6	Burner off when room thermostat is demanding
7	Pump overrun phase for central heating
8	Pump overrun phase for hot water
9	Burner off because of to high flow water temperature
A	Automatic venting programme

FILL — Water pressure is to low (<1,0 bar), flashing FILL will be altered with indication of water pressure, boiler power of 50% is possible. The installation needs to be topped up.

FILL — Water pressure is to low (<0,7 bar), FILL indication remains continuously visible, the boiler is taken out of operation. The installation needs to be topped up.

HIGH — Water pressure is to high (>2,8 bar), HIGH indication remains continuously visible, the boiler is taken out of operation. The installation pressure needs to be decreased by draining water.

Distributor for UK
ATAG Heating UK Ltd.
Unit M1
Hilton Business Park
East Wittering
West Sussex PO20 8RL

Phone: 01243 673888
Fax: 01243 673444

Email: info@atagheating.co.uk
Internet: www.atagheating.co.uk

Distributor for Ireland
Total Energy Management Ltd.
Unit 9, Ballybritt Industrial Estate,
Monivea Road,
Galway, Ireland.

Tel.: (091) 769174
Fax.: (091) 769485

Email: info@tem.ie
Internet: www.tem.ie