

Installation Commissioning & Service Records

5-year Product Warranty

Our hotun dry-trap tundishes are covered for 5 years against manufacturing defects provided that;

- The unit has been installed to these instructions and all relevant Water & Building Regulations and has been tested at time of installation and satisfactorily passes those tests and the warranty card or online registration form has been filled out and sent to us within 14 days of the products installation date.
- The unit has been serviced annually by a suitably qualified installer/plumber/engineer.
- The warranty only covers for replacement product and does not cover for any consequential damage unless a manufacturing defect has been found. Does not cover for any labour cost associated with the replacement.

Online product registration can be found at www.hotun.co.uk

Commissioning Checklist Installer details

Name _____

Company _____

Phone No. _____

Email _____

Date of installation _____

Are you a qualified Water Safe, G3, Ciphe or Gas safe installer? Yes No

Certificate No. _____

Have you informed the end user that to keep the product in warranty it needs an annual service? Yes No

Has the product been commissioned in line with the enclosed instructions? Yes No

I hereby certify that the product has been installed, tested and commissioned in accordance with these instructions and relevant Water/Building Regulations (and/or) boiler manufacturers instructions and has passed the installation tests.

Signed _____

Service 1

Date _____

Installer Name _____

Co. Name _____

Tel. No. _____

Comments _____

Ciphe, WS, GS or G3 registered Yes No

Certification No. _____

Sign _____

I hereby sign that the service has been carried out in accordance with the instructions.

Service 3

Date _____

Installer Name _____

Co. Name _____

Tel. No. _____

Comments _____

Ciphe, WS, GS or G3 registered Yes No

Certification No. _____

Sign _____

I hereby sign that the service has been carried out in accordance with the instructions.

Service 2

Date _____

Installer Name _____

Co. Name _____

Tel. No. _____

Comments _____

Ciphe, WS, GS or G3 registered Yes No

Certification No. _____

Sign _____

I hereby sign that the service has been carried out in accordance with the instructions.

Service 4

Date _____

Installer Name _____

Co. Name _____

Tel. No. _____

Comments _____

Ciphe, WS, GS or G3 registered Yes No

Certification No. _____

Sign _____

I hereby sign that the service has been carried out in accordance with the instructions.

Upon completion of installation, please fill out the **Commissioning Checklist** above and register the product online at www.hotun.co.uk to validate the warranty.

Please give this leaflet to the customer as their record of compliant installation.

Customer notice

Water passing through the tundish is a warning that there is something wrong with your system or installation.

THIS WARNING SHOULD NOT BE IGNORED.

Please contact your Gas Safe registered or G3 accredited installer to diagnose the issue and carry out any necessary remedial work.

The hotun solution features & benefits

- The original, innovative & market leading and ONLY dry trap tundish on the market provides two vital functions
- 1. Compliant with regulations at point of installation
- 2. Visibility at point of diagnosis even after the PRV has stopped dripping
- hotun is the ONLY dry trap tundish on the market that provides easy visibility of any discharged water even AFTER the PRV has stopped dripping!
- hotun's unique design allows a small puddle of water to form in the visible area of the tundish, above the valve & is easily seen if the PRV has been dripping.
- Provides a safe discharge from relief valves, eliminating the risk of foul odors or gasses from entering back into the building
- The patented open sided valve design, uniquely allows cleaning or servicing without having to remove the tundish from the pipeline or dismantle in any way (*very useful in hard water areas*)
- 120°C temperature rating
- Passes 100mm drain & 38, air pressure test (*Building Regulations Document H1 2015 1.38 & 2.60*)

Installation Commissioning Service & Warranty Instructions

100C Range

hotun[®]
hiflo

hotun[®]



Officially accepted for use by some of the UK's largest manufacturers:



RA Tech UK Ltd
by tech

T: 01332 702678 E: info@ratechuk.co.uk www.hotun.co.uk

hotun[®], hotun hiflo[®] and hotun shield[®] are all registered trade marks of RA Tech UK Ltd.



Patent No. G02522634



5

YEAR WARRANTY

hotun hiflo is NPS UKAS
accredited flow-tested

Product Overview

The hotun 100 & SF range of products combines a tundish and dry-trap to provide safe and visible discharge from a relief valve whilst eliminating the risk of foul odours from a waste pipe entering back into the building. Specifically designed to achieve compliance with Water and Building Regulations, they allow a discharge direct to a foul waste or soil pipe provided that the D2 pipe is suitably rated for the appropriate temperatures and flow rates expected when operating at its intended flow rates and temperatures under failure conditions.

hotun tundishes are a suitable backflow contamination and back siphonage devices (nominally designated as an air break to drain), when connecting to any wholesome water source directly to drain (category 5 risk water) All hotun tundishes are rated for flow temperatures to 120°C, allowing both trickle flow and high flow volumes in accordance with the products rated flow.

Responsibility of Installation

All installations must be carried out by a qualified installer in line with industry best practice and all relevant Building and Water Regulations. Any work carried out on a boiler must be done by a registered Gas Safe installer. Any work on a cylinder over 15 litres must be undertaken by a G3 accredited installer.

Regulatory Requirements

Unvented Systems

The regulations regarding the conveyance of water from a temperature and pressure relief valve to a safe and visible point of discharge can be found in The Building Regulations G3; The Water Supply (water fittings) Regulations and BS 67000-2006 (unless superseded). It is important to ensure that where a dry-trap tundish routes the relief valve discharge to a drain or waste pipe, this pipe is suitable for the temperature and volume rated to the appropriate levels for the discharge.

Under G3, the requirement for compliance is:

"...shall incorporate precautions to: Ensure that any discharge from safety devices is safely conveyed to where it is visible but will not cause danger to persons in or about the building"

As stated in the guidance document, simply following the guidance does not guarantee compliance in an individual case and the installer must still ensure correct installation however it gives the installer the opportunity of achieving compliance using a different solution. It states (G3 – page 3):

"...there is therefore no obligation to adopt any particular solution contained in this approved document, if you would prefer to meet the relevant requirement in some other way. However persons intending to carry out building work should always check with their Building Control Body (BCB) that their proposals comply with the building regulations."

Boilers

There are no specific Building Regulations giving guidance for the use of a dry-trap tundish in boiler applications. However, the relief valve discharge must be conveyed to a safe and visible point of discharge and thereafter routed to drain. Boiler relief valve discharges (from a PRV) operate at much lower volumes (typically less than 1 litre and normally only in minor quantities (drips)) and for shorter time periods than unvented system relief valve discharges from T/PRV.

The full list of regulations applicable for compliance can be found on our website at www.hotun.co.uk/regulations-applicable-for-compliance

Waste pipe materials suitable for use

Unvented (applications requiring the use of a Temperature and Pressure Relief Valve (T/PRV))

It is generally accepted that polypropylene (PP) push fit, MuPVC, solvent weld & HDPE (high density polyethylene), mechanical, and correctly supported, are all suitable for use in this application.

Boiler (applications using a Pressure Relief Valve (PRV) only)

Due to the nature of operation of a pressure relief valve (PRV) normally found on boilers) as opposed to a combined temperature

and pressure relief valve (T/PRV) the flow rates are lower and of much shorter duration (typically seconds) a wider choice of pipework materials may be considered suitable. As there is no official regulatory guidance we would recommend that the D2 pipework be capable of withstanding short duration (seconds or until the pressure has been relieved) flow of typically 80°C but could be as high as 110°C.

Installation, Commissioning & Service Instructions

Installation

For unvented applications, all D1 and D2 pipework should be installed in line with G3 guidance. For boiler applications all D1 and D2 pipework should be installed in accordance with these or boiler manufacturer's instructions.

The discharge from a tundish with a 22mm outlet (from high-volume unvented applications) should have a drop of 300mm to the first bend. For a tundish with a 32mm outlet, the drop to the first bend should be a sufficient distance to allow for full bore flow. Please refer to RA Tech Technical Bulletin TBRA0102 (available on hotun.co.uk.)

The dry-trap tundish must be installed vertically and in a position where signs of discharge are clearly visible.

It is recommended that for boilers (in accessible locations) a hotun shield should be installed as a safety feature to prevent external contact with potentially scalding water.

1. Inlet

The 100 Range hotun tundishes must be installed using a flat face ½" tap connector with the supplied rubber "O" ring and the nut should only be hand tightened.

For applications on low flow rates i.e. systems

that only have a pressure relief valve (PRV) i.e. boilers and undercounter water heaters, there should be a minimum of 200mm of straight pipe between the tundish and the PRV or upstream elbow. (see diagram A & C)

For applications on systems that have high volume capability i.e. systems that are fitted with a T/PRV or "large" unvented cylinders, we recommend that there should be, a minimum of straight pipe of 200mm between the tundish and the T/PRV or upstream change of direction (see diagram B). This dimension can be varied depending on the maximum flow found on site. Turbulence increases with higher volumes, therefore the amount of straight pipe upstream of the tundish may need to be altered accordingly.

Note: Excessive turbulence from T/PRV's, "T" fittings and short radiused elbows, is typically created at flow volumes above 18-20LPM

In order to minimize turbulence, it is good practice to deburr the pipe coming into the tundish.

2. Outlet

On high volume applications i.e. systems that are fitted with a T/PRV e.g. "large" unvented cylinders, the use of 22mm D2 is not advisable and we encourage the use of 32mm D2 waste pipe.

However, if the use of 22mm D2 is unavoidable, in order to help prevent choking of water and thereafter backing up into the tundish, there are several steps an installer can take;

1. Always have at least 300mm from the outlet of the tundish before the first bend or elbow (as per G3 guidance)
2. Where possible, use pulled bends and avoid short radius elbows.
3. Avoid "close coupling" elbows and always have at least 300mm between short radiused elbows
4. For flow above 20LPM, never have more than 3 short radiused elbows on the D2 before the final discharge point of the pipe (i.e. soil stack)

The higher the volume, the more careful the installer has to be with the configuration of the installation of the D2 pipework, when using 22mm pipe.

For systems that have a relief valve operated by pressure only (i.e. a PRV) there is never a high flow volume, except where the valve is operated manually.

On systems that use 32mm waste pipe, the carrying capacity of the waste pipe will generally overcome most of the above issues.

Testing/Commissioning

EVERY installation should be tested to prove correct operation and to ensure compliance with the regulations.

NOTE/WARNING

Testing of the completed discharge system will highlight any issues that, if not discovered at time of installation, may lead to consequential damages. If the system is not tested at time of installation and the warranty card filled out as proof of satisfactory operation, RA Tech UK Ltd. cannot be held

responsible for subsequent issues, howsoever caused.

Testing

The entire system must be able to cope with discharge volumes expected from the appliance.

Unvented systems with T/PRV's

1. Trickle flow

Gently pour small quantities of water into the tundish. The tundish should allow that water to pass into the D2 when sufficient water has collected onto the valve. The "trigger point" for the valve operation should be between 5 & 30ml of water

2. Full flow

Gently and slowly, manually, open the T/PRV until full flow has been established. Keep the valve fully open for 20 seconds in one continuous flow to establish that, not only does water flows through the tundish but that the D2 pipe does not eventually back up into the tundish and over flow. Please note that some lever operated T/PRV's when operated in certain orientations cause such significant

turbulence that the tundish cant cope (despite having observed correct straight length of pipe) In that case, operate the lever at several different positions (usually 6 o'clock) to see if correct flow is restored.

Boilers and water heaters fitted with PRV's only

1. Trickle flow

As above

2. Full flow

It is not necessary to test for full flow on these systems as in normally "failure" operation the valve itself will only discharge minimal water and then closing the flow of water once the pressure has been dissipated. However, it may be useful for a higher flow to be tested just to ensure that the D2 pipework is clear of significant obstructions

If the tundish does not operate correctly when carrying the above tests please revert to our trouble shooting guides found on our website or call our technical team for further advice on 01332 702678.

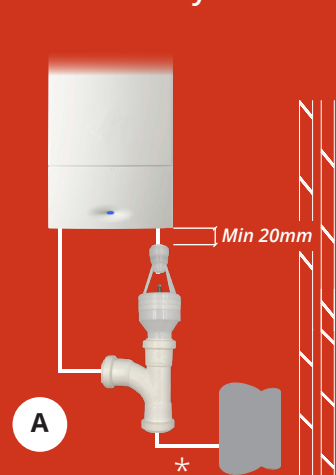
Service

As with all fitting of a mechanical nature, an annual service, to check correct operation as part of the appliances annual service is recommended and an express requirement as part of our products warranty conditions. If regular annual services are not carried out and there is a subsequent issue which causes consequential damages, RA Tech UK Ltd. cannot be held responsible or liable for such damages howsoever caused.

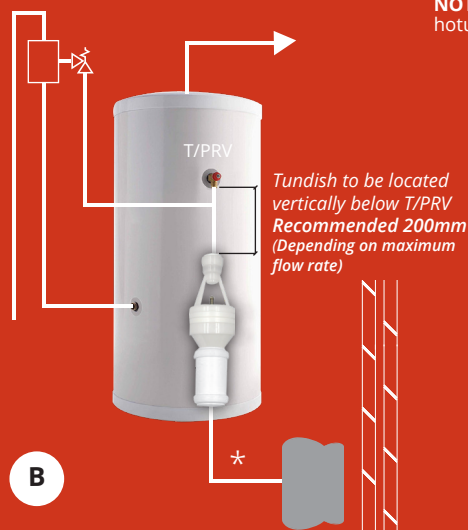
The unit should be checked for mechanical damage by depressing the valve stem and ensuring smooth movement. If any build up of limescale is noticed, this can be easily cleaned again by pulling the rubber valve up out of the aperture of the tundish and then back down again once or twice (note this can be done in situ without having to remove hotun from the pipeline or dismantle in any way). However if there is limescale present, this indicates that the PRV has operated and a fault with the appliance requiring remedial repair work may be necessary.

Testing at time of service – The units must be tested in line with the above commissioning procedures.

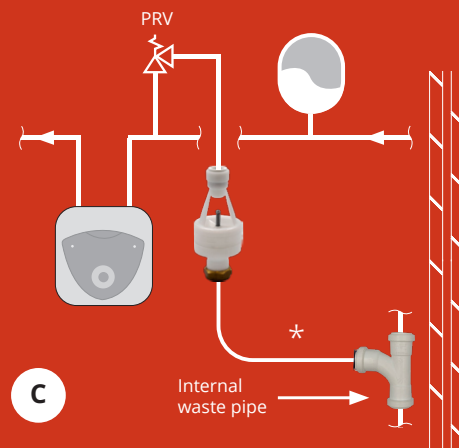
Typical recommended installation layouts



Typical boiler installation



Typical large unvented installation



Typical small water heater installation

NOTE: ★ There must not be any other forms of trap between the hotun tundish outlet and the point of connection at the soil stack.

Tundish to be located vertically below T/PRV
Recommended 200mm
(Depending on maximum flow rate)

Internal waste pipe