

Product Overview

- * The hotun 100 and 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. **Note: to ensure an effective seal, the tundish must be able to pass both 38mm (wg) waste and 4" (wg) soil pipe pressure tests; hotun meets these requirements.**
- * Specifically designed to achieve compliance with Water and G3/H1 Building Regulations, hotun allows a discharge from a sealed system's T/PRV or PRV to be directly connected to a foul waste or soil pipe (providing back-flow contamination and back-siphonage protection of the wholesome water and waste pipe contaminants (Category 5 risk water).
- * hotun tundishes are rated for temperatures to 120°C, allowing both trickle and high volume flows for all applications.

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. Specifically, any work on a water heater over 15 litres in capacity, must be undertaken by a G3 accredited installer.

Regulatory Requirements

Unvented hot water heaters -

Diag. 2 and 3

The Guidance regarding the conveyance of water from a temperature and pressure relief valve (T/PRV) to a safe and visible point of discharge, can be found in The G3/H1 Building Regulations; The Water Supply (water fittings) Regulations and BS 67000-2006 (unless superseded).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, that gasses from the drain are not allowed to ventilate back into the building and that the pipe is suitable for the temperature and volumes expected in a failure scenario. Under G3,

the "Requirement" for compliance is:

"...shall incorporate precautions to ensure that any discharge 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."

Boilers - Diag. 1

There are no specific Building Regulations giving guidance for the use of a dry-trap tundish in boiler applications, however, BS6798 - 7.4.3 states that the relief valve water must; *"not discharge on to the occupants of the premises" & "where the discharge is unlikely to cause damage to the premises"* and making sure that any dry trap tundish fitted does not allow the air from the connected drain pipe to ventilate back into the building. For Regulations applicable for compliance Please see

www.hotun.co.uk/compliance-regulations or scan the QR code "CR"



Waste Pipe Material Suitable for Use

Unvented hot water heaters

Applications requiring the use of a Temperature & Pressure Relief Valve (T/PRV)

It is generally accepted that *** Polypropylene (PP)** (Push fit), *** Modified Unplasticised Polyvinyl Chloride (MuPVC or PVC-C** (Solvent Weld), *** High density PolyEthylene (HDPE)** (Mechanical Coupling System), are all suitable D2 Waste pipe materials, suitable for use in this application. The contractor must make sure that the pipework is correctly supported (e.g. every 300mm)

Boilers

Applications using a Pressure Relief Valve (PRV) **Note:** G3 Building Regulations do NOT apply to boiler PRV discharge requirements.

BS6798 - 7.4.3 states: *"the discharge pipe from the valve... manufactured to withstand the maximum temps & pressures...to which it is likely to be subject to under fault conditions."*

If an installer uses a hotun tundish there is no need to use "heat rated" D2, waste pipe. The temperature loss through the hotun is

sufficient to drop the temperature of the water by approximately 20°C, and therefore a wider choice of pipework materials may be considered suitable for the D2. Due to the nature and of operation of a Pressure Relief Valve (PRV), the flow rates from PRV's are very low and of much shorter duration. Typically boiler PRV's only flow as the water expands in the heat up phase. Therefore most of the flow will be occurring at below 80°C. However, we would recommend that the D2 pipework be capable of withstanding short, occasional 70°C - 80°C flow.

Installation Instructions

The hotun tundish & all associated pipework, should be installed in accordance with these instructions, the G3/H1 Building Regulations Approved Document, and The Water Regulations or BS 6798 (for boilers):

The installer must check the tundish for correct seal against ingress of any gasses. A simple test is to pressurise the outlet D2, (see Technical Bulletin TBRA 0103 on our website). The tundish seal is working correctly if no air escapes during the test.

The tundish must be mounted vertically and in a position where any water dripping through the tundish is easily seen. If it is not possible to locate the tundish correctly, the use of the hotun detect alarm unit in addition to the tundish, may be considered as an (indirect) suitable alternative.

hotun is used on both unvented hot water cylinder (T/PRV) and boiler (PRV) discharges. There are specific differences in how these valves operate.

A PRV is considered a **low volume (LV)** application; a combined T/PRV is considered a **high volume (HV)** application

1. D1 Tundish "Inlet" Pipe

a) LV Applications: We recommend a minimum dimension from PRV outlet to tundish inlet to be - 20mm (see diag 1).

b) HV Applications: We recommend a

minimum 200mm of vertical pipe between the: T/PRV outlet or last upstream change of direction.

This dimension can be decreased depending on the maximum flow volume of the installation. Turbulence increases with higher volumes, so the length of straight pipe needed upstream of the tundish can be altered to suit.

Note: Excessive turbulence on **HV applications** is typically created at flow volumes in excess of

16LPM, below this there is less chance of compromised flow.

In order to minimize turbulence, it is good practice to debur the D1 pipe. Please see:

www.hotun.co.uk/technical-bulletins or scan the QR code "TB"

2. D2 Tundish "Outlet" Pipe

Note: D2 pipework from **LV applications**, do not have a requirement for any particular drop to the first elbow or change of direction. This includes boiler and unvented water heaters that just have PRV discharges.

a) LV Applications

A PRV discharges at low volumes and velocities. When using a hotun dry trap tundish, on **LV applications**, the water

temperature drops by up to (approx) 20°C through the hotun tundish and therefore the choice of pipe materials used is considerably wider than with HV applications and the use of condensate pipe can be considered suitable.

b) HV Applications

We recommend the use of 28mm copper, or 32mm "heat suitable" plastic D2 pipework on all (**HV application**) T/PRV discharges.

Note: Care should be given to the pipework configuration and routing of the D2 if 22mm pipe is used. High Volume flows can easily choke 22mm pipe, causing backing up and overflowing. However if using 22mm is unavoidable please consider the following guidance:

1. For 22mm D2 Always have 300mm drop between the tundish and the first change of direction.
2. Use pulled bends (rather than elbows).
3. Never use close coupled short radius elbows.
4. For 28mm or 32mm D2, due to the flow carrying capacity of the larger pipe, the need to provide a 300mm drop to the first elbow may be able to be relaxed. However, the installation should be tested for full flow to ensure compliance. Please see www.hotun.co.uk/technical-bulletins, or scan the QR code "TB".



Testing/Commissioning

EVERY D1/tundish/D2 installation should be tested for flow as part of the appliance commissioning process.

Note/Warning: High volume testing T/PRV discharges.

It is especially important to establish that the installation can cope with full discharge and is verified at time of installation. Failure to test could mean that the installation would not flow correctly when required and the installer be liable for any consequential issues or damages.

By testing and completing the attached commissioning record the installer can mitigate that liability.

1. T/PRV's on Unvented Water Heaters

a. Trickle Flow Test

Gently pour a small amount of water into the tundish, the water should pass through the tundish before the water fills to the bolt support arms. The "trigger point for the valve is between 5 & 25ml water. If the valve does not trigger at this point, see "note" below.

b. Full Flow Test

Gently and slowly open the T/PRV until full bore flow has been established. Keep the valve fully open for approx 10-20 seconds. The test is passed if the flow successfully passes to drain without backing up and spilling over. If water backs up there may be one of

several reasons (See "note" below)

2. PRV's on Boilers & Water Heaters

a. Trickle Flow Test

Same test as for Water Heaters.

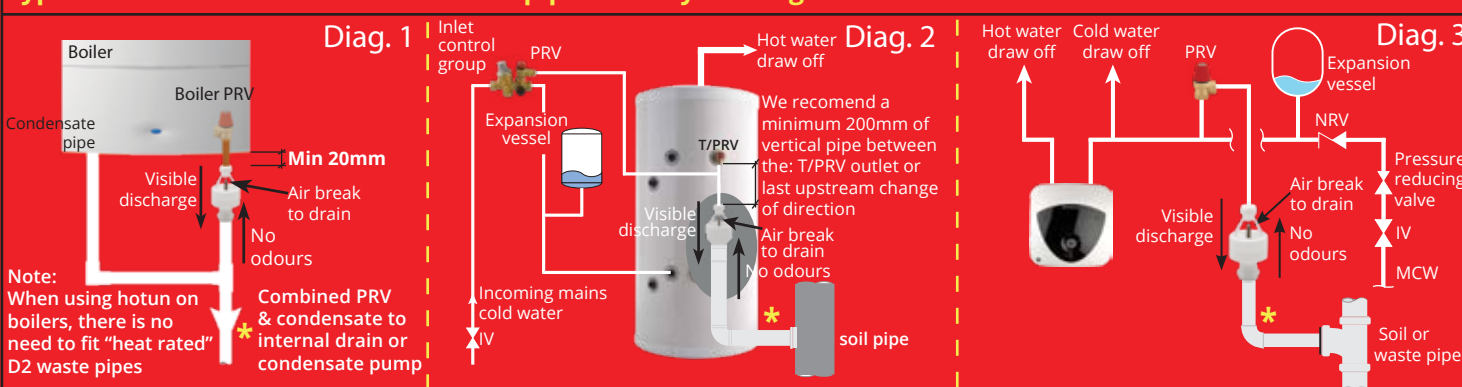
b. Full Flow Test

There is no real need to test boiler PRV's for full flow testing as part of the commissioning process. However it may be useful for a higher flow to be tested just to ensure that the D2 pipework is clear of any significant obstructions.

Note:

If the tundish does not operate as expected when carrying out the above tests please revert to our Technical Please see www.hotun.co.uk/technical-bulletins or scan the "TB" QR code above or call our Technical Helpline for further advice on (01332) 702678

Typical and recommended installation pipework layout diagrams



*Note: Do NOT fit or have any other form of trap between the tundish outlet & point of connection to the waste or soil pipe (Double Trapped)

Annual Servicing

NOTE: An annual service is recommended and is an express requirement as part of the warranty conditions. If regular annual services are NOT carried out and there are subsequent issues which causes consequential damages, RA Tech UK Ltd cannot be held responsible or liable for any such damages howsoever caused.

The unit should be checked for correct operation by depressing the valve stem and ensuring a smooth movement. If any build up of limescale is noticed, this can be easily cleaned by pulling the rubber valve up out of the aperture of the tundish and then back down again once or twice and wiping with a suitable cloth, if required.

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 developed with the appliance requiring remedial repair work.

Installation, commissioning and service records

10 year Product Warranty conditions

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

- The tundish has been installed to these instructions, has been tested at time of installation, passes those test and has been registered with RA Tech UK Ltd within 28 days of the installation date and signed off accordingly.
- The hotun tundish has been serviced annually by a suitably qualified tradesperson.
- It is an express condition of this warranty that if the tundish and system has not been properly commissioned, signed off, registered and serviced in line with these instructions, then no claims of liability of any damages of any kind, how so ever caused, will be accepted
- Manufacturing defect warranty claims are limited to the cost of replacement product unless agreed otherwise with RA Tech Uk Ltd.

Commissioning Checklist

Installer details

Name.....

Company.....

Phone No.....

Date of installation.....

Have you informed the end user of the need for an annual service Yes No

Has the tundish and system been commissioned in accordance with these instructions? Yes No

I hereby certify that the product has been installed, tested and been commissioned in accordance with these instructions and relevant Building and Water regulations and has passed the commissioning tests? Yes No

Signed.....

Service 1

Date.....

Name.....

Co Name.....

Tel No.....

Comments.....

Professional qualifications.....

Sign.....

I hereby sign that the service for this tundish has been carried out in accordance with the attached instructions

Service 3

Date.....

Name.....

Co Name.....

Tel No.....

Comments.....

Professional qualifications.....

Sign.....

I hereby sign that the service for this tundish has been carried out in accordance with the attached instructions

Service 2

Date.....

Name.....

Co Name.....

Tel No.....

Comments.....

Professional qualifications.....

Sign.....

I hereby sign that the service for this tundish has been carried out in accordance with the attached instructions

Service 4

Date.....

Name.....

Co Name.....

Tel No.....

Comments.....

Professional qualifications.....

Sign.....

I hereby sign that the service for this tundish has been carried out in accordance with the attached instructions

Upon completion of the installation, please fill out the commissioning checklist above and register the product either online at www.hotun.co.uk/warranty-registration/

or
 Take a copy of this leaflet and send to info@ratechuk.co.uk with the subject title of "Warranty Registration"
Please give this leaflet to your customer as a record of your completed compliant work

Customer notice

Water passing through the tundish is a warning that there is something wrong with the boiler or hot water cylinder

DO NOT IGNORE

Please contact your professional heating or hot water service engineer to fix the issue

The hotun Dry Trap Solution Features and Benefits

Feature	Benefit
* In Situ Maintenance - without having to remove from the pipeline or dismantled	Easy servicing in just a few seconds - suitable for use in hard water areas.
* Fully Water and (G3) Building Regulations compliant relief valve discharge to internal drain.	Saving up to 3 hours of time on the a typical boiler installation. Eliminates the need for an external discharge.
* 10 Year warranty	Sector leading commitment to quality
* 120°C rated	Suitable for all installation applications
* Discharged water till visible even after PRV has stopped running	Diagnosis of system issues is simple and efficient
* Open sided construction, giving unrivalled visibility to any discharged water.	Removing any doubt that the PRV has discharged
* Water Regulation required air break to drain design	Avoids contamination of wholesome water
* All fittings included	Easy installation
* hotun is accepted for use by many of the world's largest heating equipment manufacturers	Trusted design and technology
* Best in class size requiring only 73mm between pipes	Easy installation even in the tightest of spaces
* Designed and manufactured in Great Britain, by an installer for installers	RA tech understands what an installer needs

MADE IN BRITAIN

KIWA

UKAS

WRAS

hotun - it's not just a tundish

hotun 100C Range

hotun SF Range

10 Year Warranty (tundish only)

PATENTED

Winner Innovation Product

Installation, Commissioning, Service and Warranty Instructions

(for all hotun dry trap tundishes)

ARISTON
The Home of sustainable comfort

ideal
HEATING

RAVENHEAT

BAXI

INTERGAS
BOILERS

Vaillant

Fertoli

NAVIEN

Vokera
RIELO

Glow-worm
The energy you need

POTTERTON

WORCESTER
Bosch Group

hotun is the ONLY dry trap tundish recognised and accepted for use by many of the world's largest boiler and water heater manufacturers

hotun detect - it makes hotun sense

Introducing the award winning and critically acclaimed, in-tundish, water detection and temperature sensing, audible and visual alarm unit

Never miss another dripping PRV again!

World's First

Ancillary Product of the Year

Congratulations

ASCP
Safety & Compliance Awards
HIGHLY COMMENDED

HEWLETT
AWARDS
FINALIST

hotun by tech

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