

# Trade Plumbing

Your Bathroom and Heating Supplier

**Why a  
Heated Towel Rail is a  
Bathroom Necessity**

**TP**

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## Why a Heated Towel Rail is a Bathroom Necessity

Add glamour and style to any bathroom with a heated towel rail



A heated towel rail can help keep bacteria like these out of your bathroom



### Abstract

This White Paper has been written to answer many of the questions that are most commonly asked about heated towel rails. It will cover the whole process, from the selection of a product all the way to offering tips on final installation.

### Introduction

Heated towel rails have become increasingly more popular in recent years. What used to be something you only ever saw in hotels abroad has now taken its rightful place as a tried and trusted part of the average household's bathroom.

As common-place as heated towel rails have become, there are still many questions asked about them. Collected here for your convenience are the answers to those questions.

### Frequently Asked Questions

#### Why would I want a Heated Towel Rail?

Who wouldn't want warm fluffy towels to wrap themselves in after a bath or shower?

Heated towel rails can also contribute towards keeping your bathroom dry and free of unpleasant, damp-loving bacteria which could harm you or your family.

This rail has been given a beautiful gold finish



A smart-looking stainless steel towel rail



### Which finishes can Heated Towel Rails come in?

Some of the more common finishes include chrome, white and gold, but a bespoke or specially ordered heated towel rail can come in almost any finish, with almost any sheen you could possibly imagine.

### What materials can a Heated Towel Rail be made from?

Some are made from soft steel, others from chrome or brass, however the most efficient and resilient rails are made from Type 304 Stainless Steel. Heated towel rails may also contain components made from nickel and copper.

### How long are Heated Towel Rails guaranteed for?

This depends entirely on the manufacturer, and how much confidence they have in their product. Across the market, anywhere from 1 to 2 years is the average length of a guarantee. Any more than that is exceptional.

### What size Heated Towel Rail do I need for my bathroom?

This depends on many factors; the two most important being the size of the bathroom in question, and the quality of insulation of said room. Generally the smaller and better insulated the room, the less heat is required to warm the room up sufficiently.

We have provided a BTU calculator on our website specifically to answer this question. Simply enter your bathroom dimensions and select which additional factors you will need to take into consideration such as whether or not your bathroom has double glazing or faces north.

You will be given an approximate calculation of your BTU requirements, which you can then use to determine which heated towel rail is right for you.

### What sizes do Heated Towel Rails come in?



Designer towel rails

The smallest standard model available is 800mm high x 300mm wide. You can have a smaller rail ordered and made but this will be a bespoke product and as such is likely to fall under special Terms & Conditions.

If you have acres of room in your bathroom and want to show off your towel rail to friends and relatives, heated towel rails can go even larger than 1800mm in both height and width.



come in all shapes and sizes

If you really want to amaze people, consider choosing an unconventional designer towel rail from the staggering array of different shapes and styles available.

### Can a Heated Towel Rail fully heat my bathroom?

The answer to this question will depend on the size of the bathroom, the quality of insulation and the heating output of the towel rail selected.



Use the BTU calculator as mentioned above to work out the amount of heat you would need to fully heat the room and then choose from the wide range of heated towel rails available that can provide the heat output you need.

You should remember that this is not the purpose of a heated towel rail, and should be thought of as a bonus effect rather than a deliberate design feature.

## How much do Heated Towel Rails cost?

Towel rails may have at one time been only for the wealthy, but nowadays towel rails come at prices just about anyone can afford.

Designer towel rails can add value to your home as well as providing warmth and comfort, or if you only have a small budget you can add a slightly plainer but still stunning-looking towel rail for a fraction of the cost.

## I've been told I need to buy valves as well?

Most heated towel rails, with the exception of electric-only option models, require a pair of valves.

There are only two different types of valves; angled and straight, but which types you need will depend on where your pipe-work will connect to.

- If the connection is at the bottom of your rail, then you will normally require a pair of straight valves.
- If the connection is at the side of the rail, you will normally need a pair of angled valves.
- However, if your pipe work comes from the wall, then regardless of whether your connection is on the bottom or the side of the rail, you will need a pair of angled valves.

The one exception to this is if your towel rail is dual fuel, then depending on the design of your particular rail, you may need a pair of hybrid valves (one angled, one straight) regardless of any other factors.

You will need to consult your rail's installation manual to see if it has this special requirement.

Angled Towel Rail Valve



Straight Towel Rail Valve



A dual fuel towel rail keeps working even when the central heating is off



A heated towel rail can be installed at different heights depending on your needs.



## I've heard about Dual Fuel before, but what is it?

Dual Fuel is an optional process where in addition to the standard central heating connections, an electric heating element is also inserted into the towel rail.

A special fitting called a T-piece is used to allow the electric element to be fitted vertically into the same entry point as the valve. The element is then wired into the electricity supply, meaning that the element can then be switched on even when the central heating is off, and will continue to work independently and heat the rail as normal.

This lets you have warm fluffy towels in the middle of summer or during an unexpected heat wave! These elements run from 150w all the way to 500w for the largest of bathrooms.

If you have small children and want a dual fuel heated towel rail, you may wish to consider having it mounted higher off the floor, as depending on the size of your heating element, a towel rail heated by electricity can be significantly hotter than one running off the central heating.

## Where in my bathroom can I install an Electric Towel Rail?

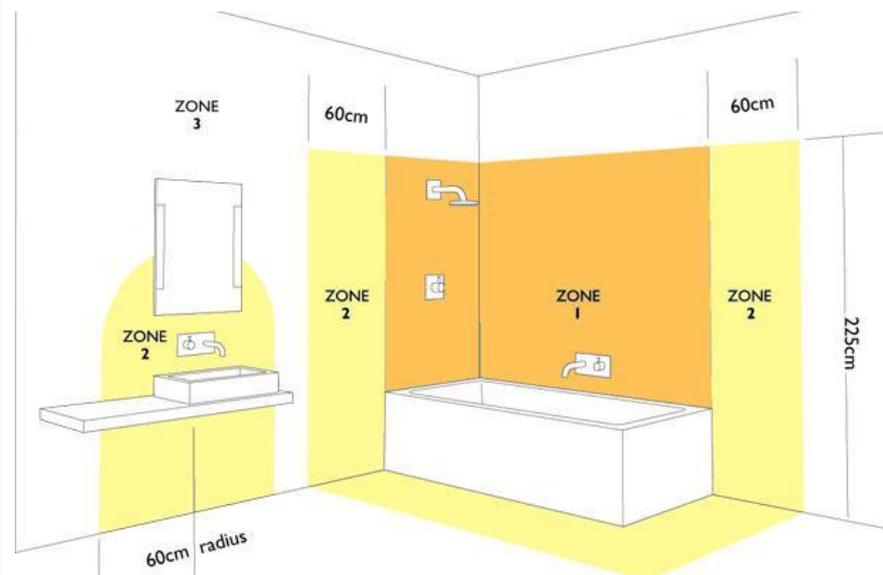
Under the 17<sup>th</sup> Edition of the Institution of Electrical Engineers (IEE) Wiring Regulations, your bathroom is divided into separate IP (Ingress Protection) zones. Each zone has restrictions on the type of electrical goods that can be installed in or near to that zone.

Zone 0 relates to the interior of the bath or shower that can hold water, and requires any electrical products installed here to be low voltage (max 12V) and rated IPX7.

Zone 1 relates to the area directly above zone 0, up to a height of 2.25m above the bath or shower and requires electrical products to have an IPX4 or better rating. Products should use safety extra low voltage (SELV) with the transformer located beyond zone 2.

Zone 2 comprises of the area 0.6m horizontally and up to 2.25m vertically beyond zones 0 and 1, and the recessed area of a window with a sill next to the bath. This zone also requires electrical products to have an IPX4 or better, and as with Zone 1, SELV products are permitted as long as the transformer is located outside of this zone.

Formerly known as Zone 3, any area beyond zone 2 is no longer defined. There are no specified IP numbers for this zone, although some products are marked as not suitable for bathroom use.



Installing a dual fuel towel rail  
is a job for the professionals



Electric towel rails are subject to BS EN 60335-2-43 (2003) which requires an IP rating of at least IPX1, and ideally should only be installed in undefined zones.

If a lack of space means that a towel rail can only be situated in Zone 2, this is permitted but the rail must have an IP rating of at least IPX4.

### **Can I install my Electric Towel Rail by myself or do I need an electrician?**

If you are plumbing your heated towel rail into your central heating system, you can do this yourself.

If on the other hand you have chosen to add a dual fuel electric heating element, it requires either a trained and qualified electrician, or a Part P registered plumber to install and wire it in.

The Part P qualification is only awarded to plumbers who have proven their competency to work safely, efficiently and legally on domestic electrical equipment, following assessment by any of these 5 governing bodies:

- [CORGI](#)
- [NICEIC](#)
- [NAPIT](#)
- [BSI](#)
- [ELECSA](#)

### **My Heated Towel Rail has a heating output in BTU. What does this mean?**

The BTU or British Thermal Unit is the standard measurement of heat in the UK.

A thermostatic heating element gives you greater control over your electric or dual fuel towel rail



Non-electric towel rails need periodic bleeding just like radiators



One BTU is defined as the amount of heat needed to raise the temperature of 1 pound of liquid water by 1 degree Fahrenheit; approximately 251.9 calories or 1055 joules.

If you know a unit's heating output in Watts, you can multiply by 3.412 to get the output in BTU.

### Should I install a thermostat or can I leave the Heated Towel Rail on constantly?

A heated towel rail can be left on without it suffering any permanent damage; however this would be very expensive and we would strongly recommend you use some kind of timer for your heated towel rail.

Using this you can set the rail to come on at a time when the family is still asleep, giving it 30 minutes to get to work. By the time you're ready for your morning showers, the towels will all be deliciously warm and dry.

Then when everyone has left the house for school or work, the rail will switch itself off again, saving you money on your heating bill. There's no point in wasting heat on an empty room.

### Why does only the top part of my Heated Towel Rail actually heat up?

This is a very common problem among centrally heated and dual fuel towel rails with a very simple solution. All you need to do is bleed the towel rail in the same way you would a radiator.

You'll want some rags to hand to mop up any drips. Turn your boiler off and let the system go cold. Make sure there is at least 1 bar of pressure in the system. Then using a bleed key, turn the bleed valve very slowly; any air trapped in the towel rail will start to escape.

The Aladdin Fully Automatic Airvent makes bleeding your towel rail child's play



Convection currents in radiators work just the same way as they do in towel rails



When air begins to be replaced by water, the towel rail has been successfully bled and you can close the bleed valve again. Then it's just a matter of re-pressurizing your boiler to at least 1 bar again and switching it back on again, and the towel rail should now work properly.

However this problem can be completely averted with an Aladdin HV30C Airvent; an automatic bleed valve. When the rail is full of water, a seal inside the valve gets damp, expands and blocks the airvents. When air trapped inside the rail starts to replace water, the seal dries out, shrinks and the airvents are unblocked again, allowing the trapped air to escape.

### Can I turn the Heated Towel Rail upside-down and have the heating element at the top instead?

We strongly advise against taking this action.

The heat the element generates rises up the rail by the process of convection, heating the water or conducting fluid as it travels. If the element is already at the top of the rail, the heat will have nowhere left to go and will simply increase the temperature of just that one corner of the rail, while the rest of the rail remains stone cold.

If left unchecked this temperature imbalance could reach the point where the slightest brush of bare skin against the heated surface of the rail would result in a painful burn.

### How much heat is lost if I have damp towels sitting on the Heated Towel Rail?

Remember that this is actually the main purpose of a heated towel rail, and that heating the room is a side benefit at best. Your towel rail does not lose heat but is using that heat for the purpose it was designed for.

Wet towels are a favourite breeding ground for bacteria



A heated towel rail will help to prevent accidents in the bathroom



You could even say that the extra heat being circulated around the room is the “lost” heat!

### Are there any health or safety concerns I should be aware of with my Heated Towel Rail?

As long as it is installed correctly by a qualified professional, a heated towel rail is just as safe as any other household appliance.

In fact a heated towel rail can actually be a positive factor in the prevention of sickness or accidents in the bathroom.

Many dangerous illnesses are caused by germs and bacteria, and there’s nothing that spreads the welcome mat for these unwanted visitors quite like a damp, clammy towel, left carelessly on the floor or hung up on a hook to drip dry. By opening a damp towel up and leaving it on a heated towel rail to be dried by deliciously warm air, you’ll be denying those bacteria a place to breed.

Even if disease carrying microbes don’t decide to set up shop on your damp towel, you’re still looking at one of the prime causes of trips and slips in the bathroom.

A heated towel rail gives you somewhere safe to put a towel out of harms way and will leave the towel smelling wonderfully fresh. You can even double up on safety by laying down a slip resistant bath mat on the floor.

## A Heated Towel Rail – A Bathroom Necessity

A heated towel rail is one of the most versatile products you could possibly install in your bathroom.

They are economical to purchase and run, contribute to the continued good health of your family, provide a genuine talking point when guests come to stay and enhance every aspect of your bathing experience.



A heated towel rail is the one item no bathroom, whether modern or classic should ever be without.

## Our Vision

TradePlumbing is committed to providing quality knowledge and free access to basic resources & tools for people interested in improving their homes and for plumbing and heating professionals, while continuously updating its product portfolio with stylish, high quality products, perfectly fitted for every bathroom, kitchen or any other room in the house.

## About Us

TradePlumbing.co.uk is a trading name of Clayton Horsnell LTD, a privately held company with headquarters in Colchester, UK, providing a wide variety of plumbing products including bathroom suites, baths, showers, towel rails, furniture, sinks, heating systems, radiators, taps and water treatment products.

### TradePlumbing.co.uk

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