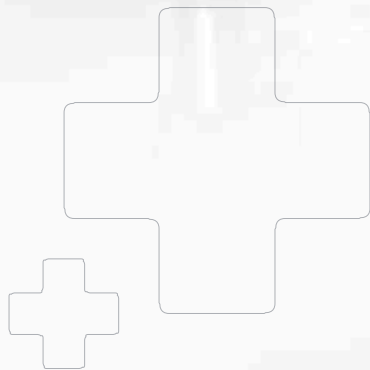


CONNECT + CONTROL



Pegler Yorkshire



# HEATING SOLUTIONS

PUTTING YOU IN CONTROL

***Terrier***





Pegler Yorkshire



# PUTTING YOU IN CONTROL

Diverse industry expertise combined with cutting-edge technological innovation mean Pegler Yorkshire's Control solutions help you overcome unique challenges and meet the highest standards in both performance and system aesthetics.

## PERFORMANCE WITH PRECISION

Pegler Yorkshire's **Control** products enable you to balance precision flow control, energy efficiency and comfort through innovative products and systems that ensure building performance criteria are met and the resulting installation is easy, efficient and economical to operate.

Our comprehensive **Terrier, Meibes and Ballorex** product ranges offer proven energy saving solutions, exceptional accuracy and optimised system performance – so, whatever your project or challenge, you can be sure you'll always be in control

## GLOBAL EXPERIENCE, COMBINED EXPERTISE

With over 100 years of manufacturing and innovation combined with extensive industry knowledge and worldwide market experience, Pegler Yorkshire offers the most advanced and complete **Connect & Control** systems on a global scale.

As one of Britain's largest and most respected manufacturers and suppliers of products for the plumbing and heating industries, Pegler Yorkshire is confident we can provide you with all the controls, connections and support your project requires.

*For more information visit*  
[www.pegleryorkshire.co.uk](http://www.pegleryorkshire.co.uk)





# Terrier

CONNECT + CONTROL

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Pegler Yorkshire is pleased to be associated with several influential industry organisations:



Association of  
Plumbing and  
Heating Contractors



The Bathroom  
Manufacturers  
Association



The UK  
Copper Board



Heating and Ventilating  
Contractors Association

**Brass**

The Brass Page for  
specifiers, designers,  
engineers and manufacturers



British Plumbing  
Employers Council



Thermostatic Mixing Valve  
Manufacturers Association



Construction  
Products  
Association



The Copper  
Development  
Association



Scottish and Northern Ireland  
Plumbing Employers  
Federation



Builders Merchants  
Federation



Institute of  
Plumbing



# Terrier



## INTRODUCTION

The Terrier range from Pegler Yorkshire, is where you will find unrivalled radiator control.

Renowned for quality manufacturing, precision control and optimum efficiency Terrier is the most specified radiator valve range in the UK.

The everlasting legacy of a brand lies in its ability to deliver and Terrier has been delivering on quality and cost-efficiency for over 50 years. Evolution of Terrier technology is very much part of our manufacturing scene, where breakthroughs like reverse flow technology and programmable radiator controls were first introduced. And, through our team of highly skilled experts the brand is continually evolving and setting new standards.

### RELIABILITY

A reliable TRV is key to ensuring a system is enhanced and savings made, so by choosing one that carries industry standards such as Kitemark and EN215 you are guaranteed a quality product. The Terrier TRV range not only carries these exacting standards but also benefits from an A rating in the European TELL classification giving both the installer and customer peace of mind in terms of performance, reliability and cost savings.

The Terrier heating range includes manual, thermostatic and programmable smart radiator valves, all designed to meet the needs of applications focusing on decor, energy saving and security for both domestic and commercial markets.





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## BENEFITS

- ✚ **'A' Rating** - High accuracy within temperature settings leading to high efficiency allowing savings to be made in fuel consumption and reduction in associated costs. Ideal for consumers and housing stock where ineffective controls are in use.
- ✚ **Quality** - UK heating is within the Terrier fabric, our development and manufacturing strives to deliver quality that will last and lead technology, such as Programmable, Bi-directional flow and maintenance solutions.
- ✚ **Confidence** - Quality UK manufacture eradicates maintenance concerns. A full comprehensive range of configurations for radiators in any location which are easy to install and offer silent operation.
- ✚ **Clear Markings** - Terrier TRV includes clear control markings with a user friendly colour coded strip which easily identifies high, low and economical settings. Plus an mechanism to aid visually impaired further enhancing the interaction
- ✚ **Certification** - The Terrier range of Radiator controls exceeds all European approvals and performance standards, meeting Part L of Building Regulations and provide opportunity within Product Character database enabling SAP.

## Evolution of the radiator control



**TELL**  
Thermostatic Efficiency Label

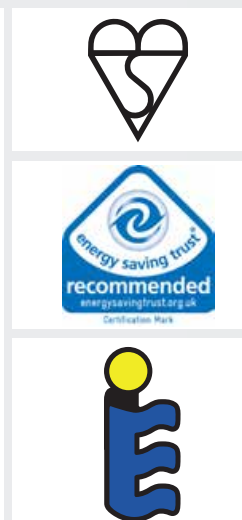
Manufacturer: Pegler Yorkshire  
Model: Terrier TRV

A  
B  
C  
D  
E  
F

A

Information: [www.tell-online.eu](http://www.tell-online.eu)

A Label of EUnted Valves  
European Valve Manufacturers Association







## INTRODUCTION

### TERRIER QUALITY

The Terrier heating range has long been the most trusted and respected in the industry for quality, design and most of all reliability. Each product has been designed with efficiency in mind in both its installation and functionality.

- ✚ Robust construction under the most stringent quality control conditions assures a long working life
- ✚ Pegler Yorkshire investment in advanced manufacturing techniques to complement the traditional skills of the workforce
- ✚ Where appropriate this is compliance with Kitemark British Standards or the European norm (BS 2767-10, EN215) with independent testing and certification
- ✚ Every Terrier product is made to perform better and to last longer – by any standards, the one true measure of value for money



### TERRIER SERVICE

With an unparalleled level of experience in the heating control market, we share our knowledge with customers via our highly efficient products, solutions and services. Pegler Yorkshire's no-compromise standards of quality, reliability and value for money naturally go hand in hand with our principle of delivering the best in product development and customer service. Our outstanding customer support service also includes a dedicated helpline direct to our technical team.





## WHY TERRIER LEADS THE WAY!

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20 MILLION TERRIER VALVES HAVE BEEN INSTALLED THROUGHOUT THE UK  
AND HERE'S WHY

### REFURBISHMENT

- + High value products for long life installations
- + Reliability, less risk of down time saving on maintenance costs
- + Innovations to save energy and money for the household
- + Terrier Trust



### SPECIFICATION

- + UK system understanding
- + Performances to surpass Building regulations
- + Innovations to gain higher SAP results
- + Approved to EU specification standards
- + Design and Aesthetics suiting modern decor



### PLUMBING OPPORTUNITIES

- + Over 11 million homes don't have suitable heating controls
- + Servicing and system drain down support the simple step to upgrade from manual to TRV
- + Retrofitting controls provides the end user with comfort and financial benefits
- + Benefit for end user and additional business for installers





## PRODUCT OVERVIEW

### TERRIER THERMOSTATIC RADIATOR VALVES

#### 'A' Energy Rating

Terrier thermostatic radiator valves are manufactured to exacting standards by Pegler Yorkshire to ensure reliability.

Terrier TRVs are an immediate step towards making heating systems more energy efficient. With its accuracy in temperature setting and response Terrier TRV will close when heat is not required.

\*Independent test carried out at the University of Salford Energy House facility. Results of TRVs and a room thermostat. Test results @ [www.beama.org.uk](http://www.beama.org.uk)

### FEATURES

- ✚ 'A' rated TELL approved, the first choice for thermostatic energy efficiency
- ✚ Proven to deliver annual cost savings of up to 40% through improved temperature control and without compromising on comfort\*
- ✚ Bi-directional flow for installation flexibility
- ✚ Double 'O' ring seal for enhanced reliability
- ✚ Clear temperature settings for the visually impaired
- ✚ Available in compression, adaptor and integral push-fit to suit a variety of pipe
- ✚ Approved to EN 215
- ✚ Temperature flexibility from 0°C - 28°C settings
- ✚ Low hysteresis, ensuring rapid response to temperatures
- ✚ Economy settings for maximum energy efficiency
- ✚ Improved nominal flow rates for both bi-direction applications

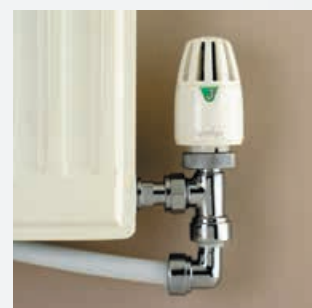


### TERRIER PUSH-FIT THERMOSTATIC RADIATOR VALVES

Speed of installation has been a key consideration and push-fit technology means many fitting complications are removed, greatly saving installation time on site and resulting in significant cost savings. The "Tectite push" element of jointing new Terrier Push-fit is instantaneous and the simple, tool-free jointing action requires no secondary operations in awkward areas, which means there is much less chance of damaging chrome pipe as a result.

### FEATURES

- ✚ Bi-directional flow capability
- ✚ Frost protection 7°C
- ✚ Setting range 7°C - 28°C
- ✚ Approved to EN 215
- ✚ Suitable for 2 pipe systems
- ✚ Polished chrome plate finish
- ✚ Double 'O' ring seal
- ✚ Low hysteresis wax sensor
- ✚ '0' setting for positive shut off
- ✚ Improved nominal flow rate for both forward and reverse applications







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## TERRIER MANUAL RADIATOR VALVES

Manual radiator valves for small bore and micro bore heating systems, including combis. Available in wheel handle for manual flow adjustment, lockshield for system balancing purposes and drain off version for convenience when draining down your radiator. Connection flexibility is available with compression, compression push-fit adaptors and integral push-fit options.

### FEATURES

- ✚ Long life gland packing with rising spindle for extended reliability
- ✚ Available in compression, push-fit adaptor and integral push-fit, suiting a variety of pipe
- ✚ Screw down handles for anti-tamper and safety
- ✚ Approved to BS 2767-10, ensuring water working pressure up to 10bar (non shock)
- ✚ Push-fit straight and elbow connectors available

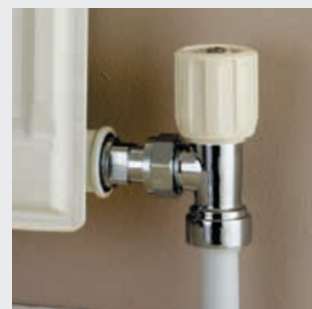


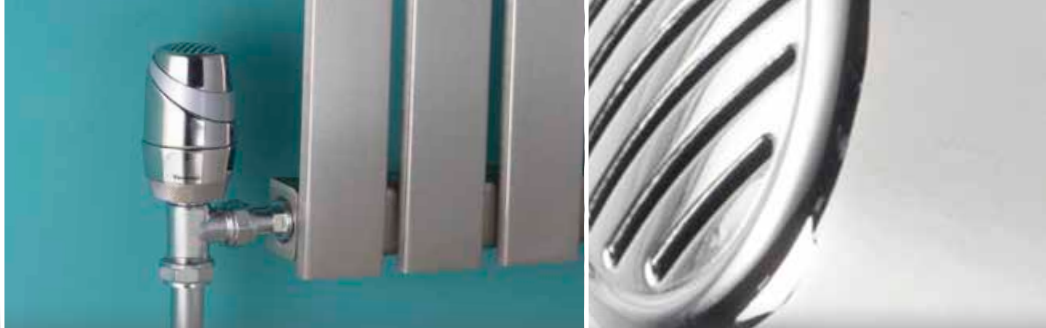
## TERRIER PUSH-FIT MANUAL RADIATOR VALVES

The new Terrier Push-fit range has been developed using the wealth of knowledge of push-fit fittings and heating controls technology Pegler Yorkshire has built up over many years to deliver an integrated push-fit radiator product that truly offers the best of both worlds. Designed to meet the requirements of the new build sector, Terrier Push-fit successfully combines product quality and speed of installation, whilst being competitively priced.

### FEATURES

- ✚ Suitable for sealed systems
- ✚ Water working pressure up to 10bar (non-shock)
- ✚ Approved to BS 2767-10
- ✚ White handles as standard
- ✚ Screw down lockshield
- ✚ Superior grip characteristics on wheel handle
- ✚ Comprehensive range of WH, LS and DLS
- ✚ Long life gland packing with rising spindle
- ✚ Gland removal without draining down





## PRODUCT OVERVIEW

### TERRIER DECOR THERMOSTATIC RADIATOR VALVES

With a smoothness of operation and a high quality feel, the Decor range is compatible with both 10mm and 15mm pipe sizes. A durable easy fit sculptured thermal ring connection.

The range of 3 complimentary finishes mixed chrome, anthracite and white/chrome ideally suited to all applications. For added assurance, all come with Pegler Yorkshire's five year guarantee of quality.

### FEATURES

- ✚ 'A' rated TELL approved, the first choice for thermostatic energy efficiency
- ✚ Quick and easy to install, enabling cost effective upgrades
- ✚ Thermal heads also available for instant upgrade
- ✚ High quality contemporary design aesthetics in line with current trends for feature radiators and towel rails
- ✚ A stylish and versatile finishing touch that combines optimum heating efficiency and a quality that is tried and trusted



### TERRIER DECORATIVE MANUAL RADIATOR VALVES

The latest offering from Terrier combines quality and a choice of styles to suit a range of traditional and modern radiator types.

The Terrier manual radiator valve selection includes all chrome and decorative radiator valves. All Terrier manual radiator valves are available in angle and straight pattern bodies allowing complete flexibility when aligning against pipe or radiator.

### FEATURES

- ✚ Styles include ultra modern, minimalist, cross top modern and traditional
- ✚ Approved to BS 2767-10, ensuring durability and endurance
- ✚ Angle and straight pattern bodies available for alignment options
- ✚ Identical WH and operating LS
- ✚ Comprehensive range of WH and LS
- ✚ Approved to BS 2767-10, ensuring durability and endurance
- ✚ Push-fit straight and elbow connectors available
- ✚ Double 'O' ring seal for long life
- ✚ Designed to complement decorative TRVs





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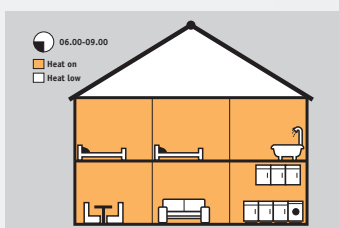
## TERRIER I-TEMP

Terrier i-temp is a revolutionary programmable radiator thermostat that **controls time and temperature per individual radiator**. With the unique ability to Zone areas with complicated isolation of pipe work. Intelligent technology that cuts fuel costs and CO<sub>2</sub> in a cost-effective way by heating only areas at the times required.

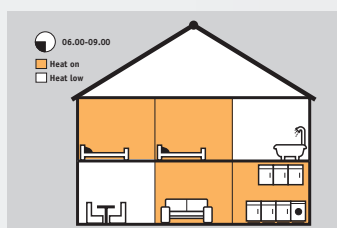
**Accessories also available**

## FEATURES

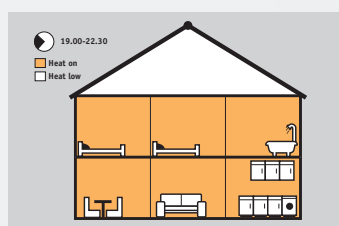
- + Create independent time and temperature areas
- + Programme flexibility
- + Temperature limit and lock down
- + Anti tamper and security options
- + Save on fuel cost by reducing heating demand
- + Automates and reverts to energy saving modes



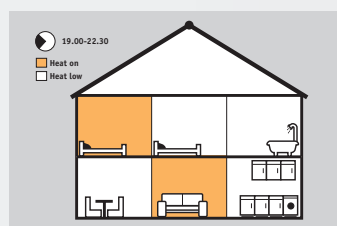
Before fitting **Terrier i-temp**



After fitting **Terrier i-temp**

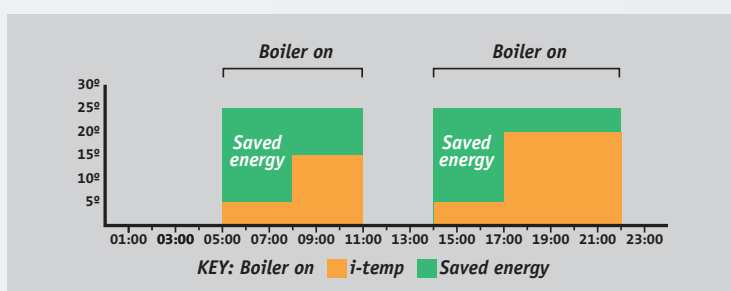


Before fitting **Terrier i-temp**



After fitting **Terrier i-temp**

How the Terrier i-temp gives you room by room heating control



Energy saved in a typical sitting room

The chart above illustrates the typical energy savings when using the Terrier i-temp in comparison with a standard TRV. The orange area represents the Terrier i-temp program with the green indicating the potential energy savings.





## STANDARDS, APPROVALS AND GUARANTEES

It is Pegler Yorkshire's policy to provide a range of products and services which meet, or exceed, the requirements of our customers, in respect of quality, cost and delivery.

### STANDARDS AND APPROVALS

Terrier products are manufactured under quality systems in accordance with EN 29002/ISO 9002 and meet the following British and European standards.

#### BS 2767-10

Specification for manually operated copper alloy valves for radiators.

#### BS EN 215:2004

Thermostatic radiator valves. Requirements and test methods.

#### BS EN 1254-2:1998

Copper and copper alloys. Plumbing fittings. Fittings with compression ends for use with copper tube.

#### BS EN 1254-3:1998

Copper and copper alloys. Plumbing fittings. Fittings with compression ends for use with plastic pipes.

#### EN 1254-6 - 2012

Copper and copper alloys. Plumbing fittings – Part 6: Fittings with push-fit ends.

ISO is achieved through the continuous improvement of our Quality Management System in line with the requirements of BS EN ISO 9001: 2000.



### GUARANTEES

Where Terrier products are installed and used in accordance with the installation instructions the following guarantees will apply:

#### GUARANTEES

Guarantee period (years)	5
Manual radiator valves	✓
Thermostatic radiator valves	✓

### STANDARDS AND APPROVALS

Product	Standard	Approvals	Compliant
All manual radiator valves	BS 2767-10 <ul style="list-style-type: none"> <li>Cover pressure testing</li> <li>Size, strength</li> <li>Pressure rating</li> <li>ISO 228 ISO 7 thread standards</li> <li>Up to 10bar pressure</li> </ul>	<ul style="list-style-type: none"> <li>Official BSI (British Standard Institute)</li> <li>Product marked</li> </ul>	
All thermostatic radiator valves	BS EN215: 2004 - Thermostatic <ul style="list-style-type: none"> <li>Performance (hysteresis)</li> <li>Dimensions, strength</li> <li>Pressure rating</li> <li>ISO 288 ISO 7 thread standards</li> <li>Up to 10bar pressure</li> </ul>	<ul style="list-style-type: none"> <li>BSI, audited by independent testing body</li> <li>CEN mark fully approved, marking on product</li> </ul>	Building Regulations Part L
All compression ends	BS 1254 compression ends <ul style="list-style-type: none"> <li>Strength</li> <li>Pressure testing</li> </ul>	<ul style="list-style-type: none"> <li>Kitemark product</li> </ul>	
All push-fit ends	pr EN 1254-6 - 2012 <ul style="list-style-type: none"> <li>Strength</li> <li>Pressure testing</li> </ul>		



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## RECOMMENDED APPLICATIONS

Product	Domestic	Office	Hotels	Hotel public areas	Energy saving	Temper proof	Social housing	New build	DIY	Time adjustment	Flow adjustment
Terrier TRV	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓
Terrier TRV & push-fit	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓
Terrier TRV with integral push-fit	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓
Terrier manual radiator valves	✓	✓	✓	✓			✓	✓	✓		
Terrier manual radiator valves & push-fit	✓	✓	✓	✓			✓	✓	✓		
Terrier manual radiator valves with integral push-fit	✓	✓	✓	✓			✓	✓	✓		
Terrier chrome plated DECOR TRV	✓	✓	✓	✓	✓			✓	✓		✓
Terrier chrome plated DECOR TRV & push-fit	✓	✓	✓	✓	✓			✓	✓		✓
Terrier chrome plated manual radiator valves	✓	✓	✓	✓	✓			✓	✓		✓
Terrier chrome plated decorative manual radiator valves	✓	✓	✓	✓				✓	✓		
Terrier i-temp programmable horizontal / vertical radiator control head/ valve	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	

### COMPRESSION, ADAPTED PUSH FIT, RADIATOR VALVES



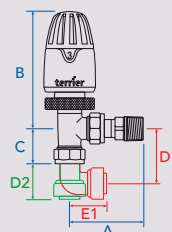
#### Thermostatic Radiator valve

Angle Pattern Compression  
for Copper, Vertical or  
Horizontal Mounting

Push-fit adaptor

Straight

Elbow



Size	Push-fit adaptor	Finish	A	B	C	D1	D2	E1	Code
8mm x 1/2"	No	Chrome Plate	61	104	26	-	-	-	632001
10mm x 1/2"	No	Chrome Plate	61	104	26	-	-	-	632002
15mm x 1/2"	No	Chrome Plate	61	104	26	-	-	-	632003
10mm x 1/2"	Straight	Chrome Plate	61	104	26	-	29	-	662003
15mm x 1/2"	Straight	Chrome Plate	61	104	26	-	37	-	662004
10mm x 1/2"	Elbow	Chrome Plate	61	104	26	50	-	28	662001
15mm x 1/2"	Elbow	Chrome Plate	61	104	26	52	-	30	662002

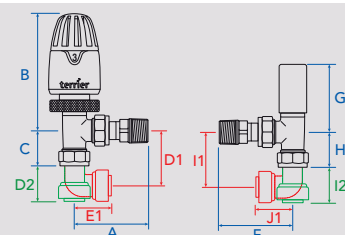
#### Thermostatic Radiator valve & 367 CP Lockshield

Angle Pattern Compression  
for Copper, Vertical or  
Horizontal Mounting

Push-fit adaptor

Straight

Elbow



Size	Push-fit adaptor	Finish	A	B	C	D1	D2	E1	F	G	H	I1	I2	J1	Code
8mm x 1/2"	No	Chrome Plate	61	104	26	-	-	-	61	52	26	-	-	-	632011
10mm x 1/2"	No	Chrome Plate	61	104	26	-	-	-	61	52	29	-	-	-	632012
15mm x 1/2"	No	Chrome Plate	61	104	26	-	-	-	61	52	29	-	-	-	632013
15mm x 1/2" (Irish Cone)	No	Chrome Plate	61	104	26	-	-	-	61	52	29	-	-	-	632063
10mm x 1/2"	Straight	Chrome Plate	61	104	26	-	29	-	61	52	29	-	29	-	662007
15mm x 1/2"	Straight	Chrome Plate	61	104	26	-	37	-	61	52	29	-	37	-	662008
10mm x 1/2"	Elbow	Chrome Plate	61	104	26	50	-	28	61	52	29	50	-	28	662005
15mm x 1/2"	Elbow	Chrome Plate	61	104	26	52	-	30	61	52	29	52	-	30	662006

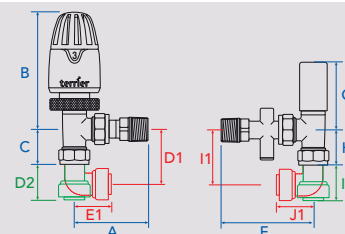
#### Thermostatic Radiator valve & 367 CP Drain off Lockshield

Angle Pattern Compression  
for Copper, Vertical or  
Horizontal Mounting

Push-fit adaptor

Straight

Elbow



Size	Push-fit adaptor	Finish	A	B	C	D1	D2	E1	F	G	H	I1	I2	J1	Code
8mm x 1/2"	No	Chrome Plate	61	104	26	-	-	-	77	52	26	-	-	-	632021
10mm x 1/2"	No	Chrome Plate	61	104	26	-	-	-	77	52	29	-	-	-	632022
15mm x 1/2"	No	Chrome Plate	61	104	26	-	-	-	77	52	29	-	-	-	632023
10mm x 1/2"	Straight	Chrome Plate	61	104	26	-	29	-	77	52	29	-	29	-	662011
15mm x 1/2"	Straight	Chrome Plate	61	104	26	-	37	-	77	52	29	-	37	-	662012
10mm x 1/2"	Elbow	Chrome Plate	61	104	26	50	-	28	77	52	29	50	-	28	662009
15mm x 1/2"	Elbow	Chrome Plate	61	104	26	52	-	30	77	52	29	52	-	30	662010





### Thermostatic Radiator valve

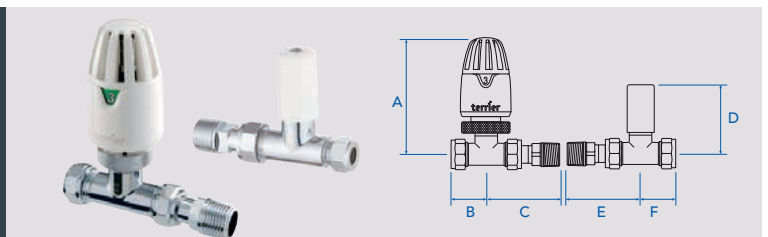
Straight Pattern Compression  
for Copper, Vertical or  
Horizontal Mounting



Size	Finish	A	B	C	Code
8/10 mm x 1/2"	Chrome Plate	109	34	69	632102
15mm x 1/2"	Chrome Plate	109	34	69	632103

### Thermostatic Radiator valve & 368T CP Lockshield

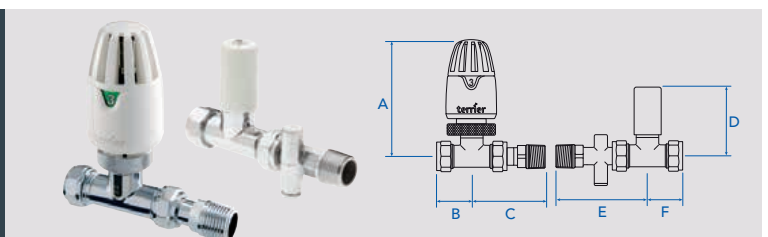
Straight Pattern Compression  
for Copper, Vertical or  
Horizontal Mounting



Size	Finish	A	B	C	D	E	F	Code
8/10 mm x 1/2"	Chrome Plate	109	34	69	61	69	34	632112
15mm x 1/2"	Chrome Plate	109	36	69	61	69	36	632113

### Thermostatic Radiator valve & 368T CP Drain off Lockshield

Straight Pattern Compression  
for Copper, Vertical or  
Horizontal Mounting



Size	Finish	A	B	C	D	E	F	Code
8/10mm x 1/2"	Chrome Plate	109	34	69	61	84	34	632122
15mm x 1/2"	Chrome Plate	109	36	69	61	84	36	632123

### COMPRESSION, ADAPTED PUSH FIT, RADIATOR VALVES



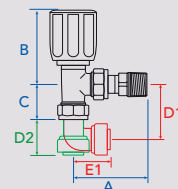
#### Manual Radiator valve 367 WH Wheel Head

Angle Pattern Compression  
for Copper

Push-fit adaptor

Straight

Elbow



Size	Push-fit adaptor	Finish	A	B	C	D1	D2	E1	Code
8mm x 1/2"	No	Plain	61	52	26	-	-	-	601002
10mm x 1/2"	No	Plain	61	52	29	-	-	-	601006
15mm x 1/2"	No	Plain	61	52	29	-	-	-	601008
8mm x 1/2"	No	Chrome Plate	61	52	26	-	-	-	601022
10mm x 1/2"	No	Chrome Plate	61	52	29	-	-	-	601026
15mm x 1/2"	No	Chrome Plate	61	52	29	-	-	-	601028
15mm x 1/2" (Irish Cone)	No	Chrome Plate	61	52	29	-	-	-	601118
10mm x 1/2" (15mm fitting)	Straight	Chrome Plate	61	52	29	-	37	-	661003
15mm x 1/2"	Straight	Chrome Plate	61	52	29	-	37	-	661004
10mm x 1/2" (15mm fitting)	Elbow	Chrome Plate	61	52	29	52	-	28	661001
15mm x 1/2"	Elbow	Chrome Plate	61	52	29	52	-	30	661002

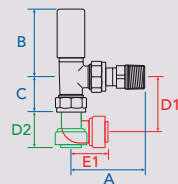
#### Manual Radiator valve 367 LS Lockshield

Angle Pattern Compression  
for Copper

Push-fit adaptor

Straight

Elbow



Size	Push-fit adaptor	Finish	A	B	C	D1	D2	E1	Code
8mm x 1/2"	No	Plain	61	52	26	-	-	-	601012
10mm x 1/2"	No	Plain	61	52	29	-	-	-	601016
15mm x 1/2"	No	Plain	61	52	29	-	-	-	601018
8mm x 1/2"	No	Chrome Plate	61	52	26	-	-	-	601032
10mm x 1/2"	No	Chrome plate	61	52	29	-	-	-	601036
15mm x 1/2"	No	Chrome plate	61	52	29	-	-	-	601038
15mm x 1/2" (Irish Cone)	No	Chrome Plate	61	52	29	-	-	-	601128
10mm x 1/2" (15mm fitting)	Straight	Chrome Plate	61	52	29	-	37	-	661007
15mm x 1/2"	Straight	Chrome plate	61	52	29	-	37	-	661008
10mm x 1/2" (15mm fitting)	Elbow	Chrome Plate	61	52	29	52	-	28	661005
15mm x 1/2"	Elbow	Chrome Plate	61	52	29	52	-	30	661006



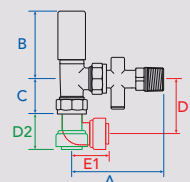
### Manual Radiator valve 367 DLS Drain off Lockshield

Angle Pattern Compression  
for Copper

Push-fit adaptor

Straight

Elbow



Size	Push-fit adaptor	Finish	A	B	C	D1	D2	E1	Code
	No	Plain	77	52	26	-	-	-	601042
10mm x 1/2"	No	Plain	77	52	29	-	-	-	601046
15mm x 1/2"	No	Plain	77	52	29	-	-	-	601048
8mm x 1/2"	No	Chrome Plate	77	52	26	-	-	-	601052
10mm x 1/2"	No	Chrome plate	77	52	29	-	-	-	601056
15mm x 1/2"	No	Chrome plate	77	52	29	-	-	-	601058
10mm x 1/2" (15mm fitting)	Straight	Chrome Plate	77	52	29	-	37	-	661011
15mm x 1/2"	Straight	Chrome plate	77	52	29	-	37	-	661012
10mm x 1/2" (15mm fitting)	Elbow	Chrome Plate	77	52	29	52	-	28	661009
15mm x 1/2"	Elbow	Chrome Plate	77	52	29	52	-	30	661010

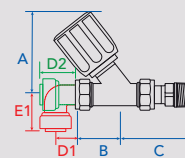
### Manual Radiator valve 368 WH Wheel Head

Straight Pattern Compression  
for Copper

Push-fit adaptor

Straight

Elbow



Size	Push-fit adaptor	Finish	A	B	C	D1	D2	E1	Code
15mm x 1/2"	No	Plain	64	32	66	-	-	-	602028
10 x 1/2" (15mm Fitting)	Straight	Plain	64	32	66	-	37	-	661015
15mm x 1/2"	Straight	Plain	64	32	66	-	37	-	661016
10mm x 1/2" (15 mm Fitting)	Elbow	Chrome Plate	64	32	66	20	-	28	661013
15mm x 1/2"	Elbow	Chrome plate	64	32	66	29	-	30	661014

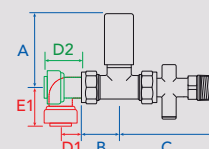
### Manual Radiator valve 368 DLS Drain off Lockshield

Straight Pattern Compression  
for Copper

Push-fit adaptor

Straight

Elbow



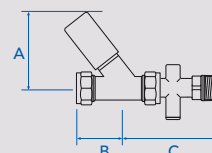
Size	Push-fit adaptor	Finish	A	B	C	D1	D2	E1	Code
15mm x 1/2"	No	Plain	60	32	66	-	-	-	602038
10 x 1/2" (15mm Fitting)	Straight	Plain	60	32	66	-	37	-	661019
15mm x 1/2"	Straight	Plain	60	32	66	-	37	-	661020
10mm x 1/2" (15 mm Fitting)	Elbow	Chrome Plate	60	32	66	20	-	28	661017
15mm x 1/2"	Elbow	Chrome plate	60	32	66	29	-	30	661018



### COMPRESSION & IRON END RADIATOR VALVES

#### Manual Radiator valve 368 DLS Drain off Lockshield

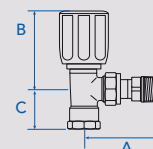
Straight Pattern Compression for Copper



Size	Push-fit adaptor	Finish	A	B	C	Code
15mm x 1/2"	No	Chrome Plate	60	32	81	602048

#### Manual Radiator valve 369 Wheel Head

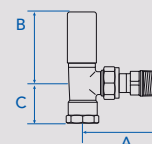
Angle Pattern Screwed connection for Iron



Size	Push-fit adaptor	Finish	A	B	C	Code
1/2" x 1/2"	No	Chrome Plate	65	54	25	603028

#### Manual Radiator valve 369 LS Lockshield

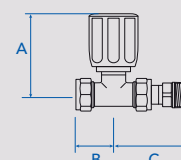
Angle Pattern Screwed connection for Iron



Size	Push-fit adaptor	Finish	A	B	C	Code
1/2" x 1/2"	No	Chrome Plate	65	52	25	603038

#### Manual Radiator valve 368T WH Wheel Head

Straight Pattern Compression for Copper

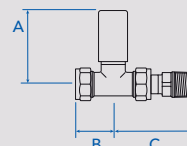


Size	Push-fit adaptor	Finish	A	B	C	Code
8/10mm x 1/2"	No	Chrome Plate	61	34	69	602127
15mm x 1/2"	No	Chrome Plate	61	36	69	602128



### Manual Radiator valve 368T LS Lockshield

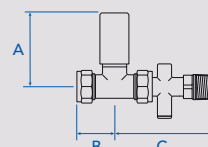
Straight Pattern Compression for Copper



Size	Push-fit adaptor	Finish	A	B	C	Code
8/10mm x 1/2"	No	Chrome Plate	61	34	69	602137
15mm X 1/2"	No	Chrome Plate	61	36	69	602138

### Manual Radiator valve 368T DLS Drain off Lockshield

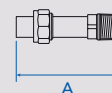
Straight Pattern Compression for Copper



Size	Push-fit adaptor	Finish	A	B	C	Code
8/10mm x 1/2"	No	Chrome Plate	61	34	84	602147
15mm x 1/2"	No	Chrome Plate	61	36	84	602148

### Extension Tail Piece

Complete with Nut and Olive



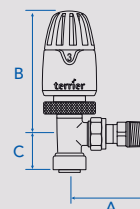
Size	Push-fit adaptor	Finish	A	Code
15mm x 1/2"	Plain	Chrome Plate	40	634005
15mm x 1/2"	Chrome plate	Chrome Plate	40	634006

### INTEGRAL PUSH FIT RADIATOR VALVES



#### Thermostatic Radiator valve

Angle Pattern Push Fit for Copper, PEX, MLCP  
Vertical or Horizontal Mounting



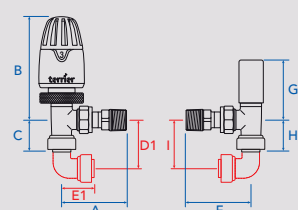
Size	Push-fit adaptor	Finish	A	B	C	Code
10mm x 1/2"	No	Chrome Plate	60	98	35	662203
10mm x 1/2"	No	Chrome Plate	60	98	35	662204

#### Thermostatic Radiator valve & 367PF CP Lockshield

Angle Pattern Push Fit for Copper, PEX, MLCP  
Vertical or Horizontal Mounting

Push-fit adaptor

Elbow



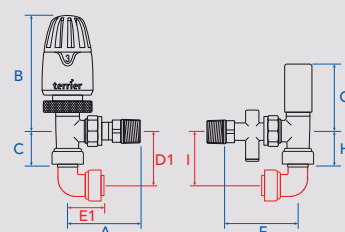
Size	Push-fit adaptor	Finish	A	B	C	D1	E1	F	G	H	I	Code
10mm x 1/2" (15mm fitting)	Elbow	Chrome Plate	60	98	35	50	28	27	52	35	50	662206
10mm x 1/2"	No	Chrome Plate	60	98	35	-	-	60	52	35	-	662205

#### Thermostatic Radiator valve & 367PF CP Drain off Lockshield

Angle Pattern Push Fit for Copper, PEX, MLCP  
Vertical or Horizontal Mounting

Push-fit adaptor

Elbow



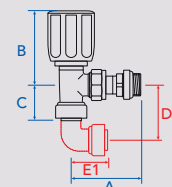
Size	Push-fit adaptor	Finish	A	B	C	D1	E1	F	G	H	I	Code
10mm x 1/2" (15mm fitting)	Elbow	Chrome Plate	77	87	35	50	27	27	52	35	50	662207

#### Manual Radiator Valve 367PF WH Wheel Head

Angle Pattern Push Fit for Copper, PEX, MLCP

Push-fit adaptor

Elbow



Size	Push-fit adaptor	Finish	A	B	C	D1	E1	Code
10mm x 1/2" (15 mm fitting)	No	Chrome Plate	60	52	34	-	-	661203
15mm x 1/2"	No	Chrome Plate	60	52	34	-	-	661204
10mm x 1/2" (15 mm fitting)	Elbow	Chrome Plate	60	52	34	50	28	661201
15mm x 1/2"	Elbow	Chrome Plate	60	52	34	53	30	661202



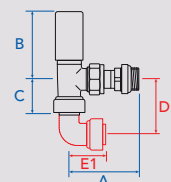


### Manual Radiator Valve 367PF LS Lockshield

Angle Pattern Push Fit for  
Copper, PEX, MLCP

Push-fit adaptor

Elbow



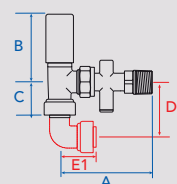
Size	Push-fit adaptor	Finish	A	B	C	D1	E1	Code
10mm x 1/2"	No	Chrome Plate	60	52	35	50	28	661207
15mm x 1/2"	No	Chrome Plate	60	52	35	53	30	661208
10mm x 1/2" (15mm fitting)	Elbow	Chrome Plate	60	52	35	50	27	661205
15mm x 1/2"	Elbow	Chrome Plate	60	52	35	53	33	661206

### Manual Radiator Valve 367PF DLS Drain Off Lockshield

Angle Pattern Push Fit for  
Copper, PEX, MLCP

Push-fit adaptor

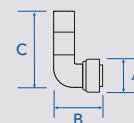
Elbow



Size	Push-fit adaptor	Finish	A	B	C	D1	E1	Code
15mm x 1/2"	No	Chrome Plate	77	52	35	-	-	661210
10mm x 1/2" (15mm fitting)	Elbow	Chrome Plate	77	52	35	50	28	661209

### Elbow Connector Push Fit

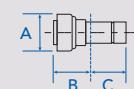
Push Fit for Copper, PEX, MLCP



Size	Finish	A	B	C	Code
15mm x 10mm	Chrome Plate	23	25	40	7P1010
15mm x 1/2"	Chrome Plate	28	26	42	7P1012

### Straight Connector Push Fit

Push Fit for Copper, PEX, MLCP

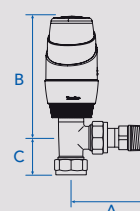


Size	Finish	A	B	C	Code
15mm x 10mm	Chrome Plate	22.5	23	23	7P1011
15mm	Chrome Plate	27.5	30	23	7P1013



### Decor Thermostatic Radiator Valve

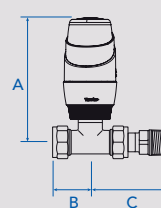
Angle Pattern Compression for Copper, Vertical or Horizontal Mounting



Size	Push-fit adaptor	Finish	Packaging	A	B	C	Code
15mm	No	Anthracite/Chrome	-	61	96	26	632320
15mm	No	Mixed/Chrome	-	61	96	26	632327
15mm	No	Anthracite/Chrome	Clam	61	96	26	632340
15mm	No	Mixed/ Chrome	Clam	61	96	26	632343
15mm	No	White/ Chrome	Clam	61	96	26	632346

### Decor Thermostatic Radiator Valve

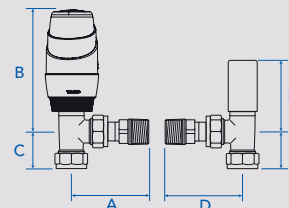
Straight Pattern Compression for Copper, Vertical or Horizontal Mounting



Size	Finish	A	B	C	Code
15mm	Anthracite/Chrome	101	34	69	632321
15mm	Mixed/Chrome	101	36	69	632328

### Decor Thermostatic Radiator Valve & 367 CP Lockshield

Angle Pattern Compression for Copper, Vertical or Horizontal Mounting

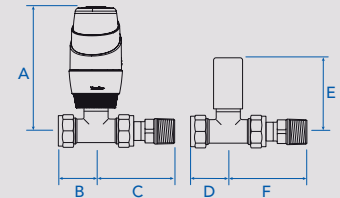


Size	Push-fit adaptor	Finish	Packaging	A	B	C	D	E	F	Code
15mm	No	Anthracite/ Chrome	-	61	101	26	61	52	26	632322
15mm	No	Mixed/ Chrome	-	61	101	26	61	52	29	632329
15mm	No	White/ Chrome	-	61	101	26	61	52	29	632334
15mm	No	Anthracite/ Chrome	Clam	61	101	26	61	52	29	632341
15mm	No	Mixed/ Chrome	Clam	61	101	26	61	52	29	632344
15mm	No	White/ Chrome	Clam	61	101	26	61	52	29	632347



## Decor Thermostatic Radiator Valve & 368T CP Lockshield

Straight Pattern Compression for Copper, Vertical or Horizontal Mounting



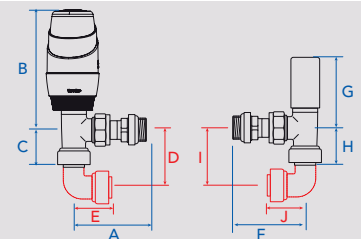
Size	Push-fit adaptor	Finish	Packaging	A	B	C	D	E	F	Code
15mm	No	Anthracite/ Chrome	-	103	36	69	61	56	36	632323
10mm	No	Anthracite/ Chrome	-	103	34	69	61	56	34	632324
15mm	No	Mixed/ Chrome	-	103	36	69	61	56	36	632330
10mm	No	Mixed/ Chrome	-	103	34	69	61	56	34	632331
15mm	No	White/Chrome	-	103	36	69	61	56	36	632335
15mm	No	Anthracite/Chrome	Clam	103	36	69	61	56	36	632342
15mm	No	Mixed/Chrome	Clam	103	36	69	61	56	36	632345
15mm	No	White/Chrome	Clam	103	36	69	61	56	36	632348

## Decor Thermostatic Radiator Valve & 367PF CP Lockshield

Angle Pattern Push Fit for Copper, PEX, MLCP Vertical or Horizontal Mounting

Push-fit adaptor

Elbow



Size	Push-fit adaptor	Finish	Packaging	A	B	C	D	E	F	G	H	I	J	Code
10mm	No	Anthracite/Chrome	-	60	96	35	50	28	27	52	35	-	-	632325
10mm	No	Mixed/Chrome	-	60	96	35	-	-	60	52	35	-	-	632332
10mm	No	White/Chrome	-	60	96	35	-	-	60	52	35	-	-	632336
10mm	Elbow	Anthracite/Chrome	-	60	96	35	50	28	27	52	35	50	28	632326
10mm	Elbow	Mixed/Chrome	-	60	96	35	50	28	60	52	35	50	28	632333
10mm	Elbow	White/Chrome	-	60	96	35	50	28	60	52	35	50	28	632337

## Packaging Key



Clam Packaging



Standard Packaging

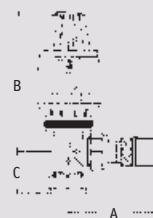


### THERMOSTATIC DECORATIVE RADIATOR VALVES



#### Decor Thermostatic Radiator Valve

Angle Pattern compression for Copper, Vertical or horizontal mounting



Size	Finish	A	B	C	Code
15mm x 1/2"	Chrome Plate	62	100	30	632220
10mm x 1/2"	Chrome Plate	62	100	30	632221

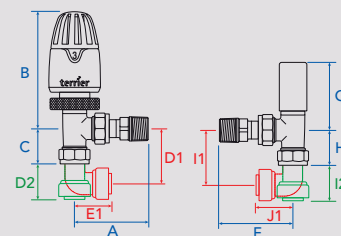
#### Decor Thermostatic Radiator Valve & LS Lockshield

Angle Pattern compression for Copper, Vertical or horizontal mounting

Push-fit adaptor

Straight

Elbow



Size	Finish	Push-fit adaptor	A	B	C	D1	D2	E1	F	G	H	I1	I2	J1	Code
10mm x 1/2"	Chrome Plate	-	61	104	26	-	-	-	61	52	26	-	-	-	632230
15mm x 1/2"	Chrome Plate	-	61	104	26	-	-	-	61	52	29	-	-	-	632231
15mm x 1/2"	Chrome Plate	Straight	61	104	26	-	29	-	61	52	29	-	29	-	662090
10mm x 1/2"	Chrome Plate	Elbow	61	104	26	50	-	28	61	52	29	50	-	28	662091

#### Decor Thermostatic Radiator Valve

Straight Pattern compression for Copper, Vertical or horizontal mounting



Size	Finish	A	B	C	Code
15mm x 1/2"	Chrome Plate	69	109	36	632225
10mm x 1/2"	Chrome Plate	69	109	34	632226



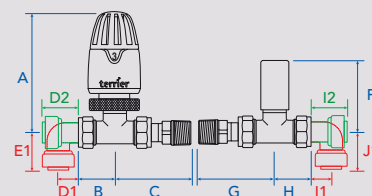
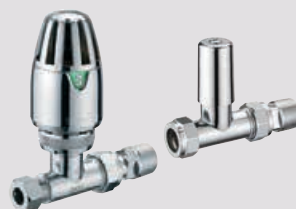
## Decor Thermostatic Radiator Valve & LS Lockshield

Straight Pattern compression for Copper, Vertical or horizontal mounting

Push-fit adaptor

Straight

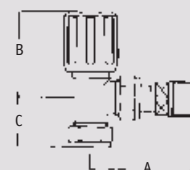
Elbow



Size	Finish	Push-fit adaptor	A	B	C	D1	D2	E1	F	G	H	I1	I2	J1	Code
15mm x 1/2"	Chrome Plate	-	109	69	36	-	-	-	61	69	36	-	-	-	632235
10mm x 1/3"	Chrome Plate	-	109	69	34	-	-	-	61	69	34	-	-	-	632236
10mm x 1/2"	Chrome Plate	Straight	109	69	34	-	29	-	61	69	34	-	29	-	662100
10mm x 1/2"	Chrome Plate	Elbow	109	69	34	24	-	28	61	69	34	24	-	28	662101

## Decor Manual Radiator Valve Wheel Handle

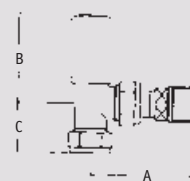
Angle compression for Copper



Size	Finish	A	B	C	Code
15mm x 1/2"	Chrome Plate	61	52	29	632201
10mm x 1/2"	Chrome Plate	61	52	29	632202

## Decor Manual Radiator Valve Lockshield

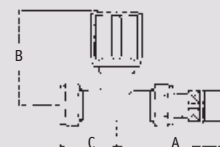
Angle compression for Copper



Size	Finish	A	B	C	Code
15mm x 1/2"	Chrome Plate	61	52	29	632205
10mm x 1/2"	Chrome Plate	61	52	29	632206

## Decor Manual Radiator Valve Wheel Head & Lockshield

Straight compression for Copper



Size	Finish	A	B	C	Code
15mm x 1/2"	Chrome Plate	69	62	36	632210
10mm x 1/2"	Chrome Plate	69	62	34	632211



### Decor Manual Radiator Valve Wheel Handle

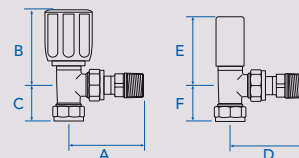
Straight Pair, compression for Copper



Size	Finish	A	B	C	Code
15mm x 1/2"	Chrome Plate	69	61	36	632215
10mm x 1/2"	Chrome Plate	69	61	34	632216
15mm x 1/2"	Chrome Plate	69	61	36	632210
10mm x 1/2"	Chrome Plate	69	61	34	632211

### Decor Manual Radiator Valve Wheel Handle & Lockshield

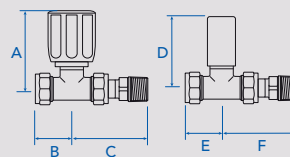
Angle Pair, compression for Copper



Size	Finish	A	B	C	D	E	F	Code
15mm x 1/2"	Chrome Plate	62	54	30	62	52	30	601200
10mm x 1/2"	Chrome Plate	62	54	29	62	52	29	601201

### Decor Manual Radiator Valve Wheel Handle & Lockshield

Straight Pair, compression for Copper



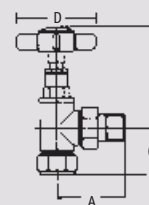
Size	Finish	A	B	C	D	E	F	Code
15mm x 1/2"	Chrome Plate	62	36	69	61	36	69	602200
10mm x 1/2"	Chrome Plate	62	34	69	61	34	69	602201





### Decor X Top Traditional Manual Radiator Valve

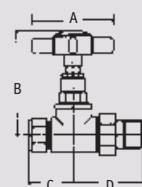
Angle Pair, compression for Copper



Size	Finish	A	B	C	D	Code
15mm x 1/2"	Chrome Plate	53	78	36	62	632300

### Decor X Top Traditional Manual Radiator Valve

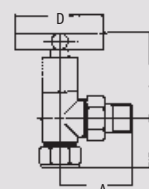
Straight Pair, compression for Copper



Size	Finish	A	B	C	D	Code
15mm x 1/2"	Chrome Plate	62	78	35	50	632301

### Decor X Modern Manual Radiator Valve

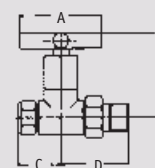
Angle Pair, compression for Copper



Size	Finish	A	B	C	D	Code
15mm x 1/2"	Chrome Plate	53	62	36	64	632302

### Decor X Top Modern Manual Radiator Valve

Straight Pair, compression for Copper



Size	Finish	A	B	C	D	Code
15mm x 1/2"	Chrome Plate	65	65	35	50	632303



### Decor Minimalist Manual Radiator Valve

Angle Pair, compression for Copper



Size	Finish	A	B	C	D	Code
15mm x 1/2"	Chrome	53	57	36	31	632304
15mm x 1/2"	Satin Nickel	53	57	36	31	632305

### Decor Minimalist Manual Radiator Valve

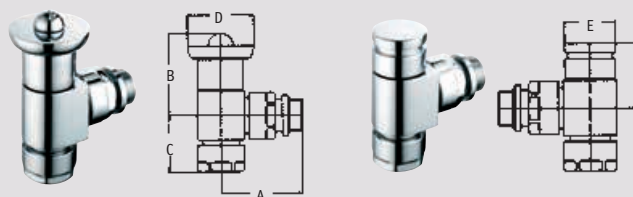
Straight Pair, compression for Copper



Size	Finish	A	B	C	D	Code
15mm x 1/2"	Chrome	31	60	35	50	632306
15mm x 1/2"	Satin Nickel	31	60	35	50	632307

### Decor Ultra Modern Manual Radiator Valve

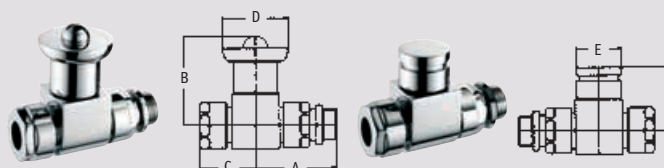
Angle Pair, compression for Copper



Size	Finish	A	B	C	D	E	F	Code
15mm x 1/2"	Chrome Plate	53	55	38	44	30	38	632308

### Decor Ultra Modern Manual Radiator Valve

Straight Pair, compression for Copper



Size	Finish	A	B	C	D	E	F	Code
15mm x 1/2"	Chrome Plate	53	60	38	44	30	43	632309



## PRODUCT DETAILS

# I-TEMP PROGRAMMABLE RADIATOR VALVES



### iTemp Programmable Radiator Valve

Angle Pattern compression for Copper,  
Vertical or horizontal mounting



Size	Finish	A	B	C	Code
15mm x 1/2"	Chrome Plate	119	130	26	635003
M30 x 1.5mm	Chrome Plate	Head sold without valve			635001

### iTemp Programmable Radiator Valve

Straight Pattern compression for Copper,  
Vertical or horizontal mounting



Size	Finish	A	B	C	Code
15mm x 1/2"	Chrome Plate	70	119	60	635013
M30 x 1.5mm	Chrome Plate	Head sold without valve			635011





### Push-fit Elbow



Size	Code
15mm x 10mm	7P1010
15mm	7P1012

### Push-fit Straight Connector



Size	Code
15mm x 10mm	7P1011
15mm	7P1013

### Release Tool



Size	Code
10mm	7P1014
15mm	7P1015

### Terrier i-temp Remote Control



Size	Code
n/a	635100

### Terrier i-temp Window Open Sensor



Size	Code
n/a	635101

### AD2 TRV3 Adapter



Size	Code
n/a	635110

### AD1 Danfoss Adapter



Size	Code
n/a	635112

### Myson Spacer 2001-2004



Size	Code
n/a	635113

### AD3 M28 Adapter



Size	Code
n/a	635111



## PRODUCT DETAILS

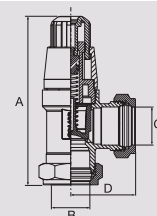
## OTHER PRODUCTS



### USV22

#### Differential pressure valve

Copper x copper

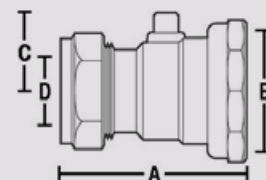


Size	A	B	C	D	Code
22mm	101	22	22	37.5	678021

### PB300P

#### Bulldog pump isolating valve

Copper x BSP union nut

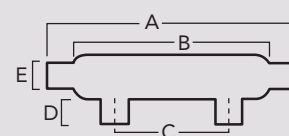


Size	A	B	C	D	Code
22mm	63	1 1/2" BSP	30	22	553002
28mm	65	1 1/2" BSP	30	28	553003
22mm PAIR	63	1 1/2" BSP	30	22	553008
28mm PAIR	65	1 1/2" BSP	30	28	553009

### VEN 1201 / 1401

#### Ventair separator

All ends for copper



Size	A	B	C	D	Code
22mm	213	150	84	35	636008
28mm	220	150	80	35	637009



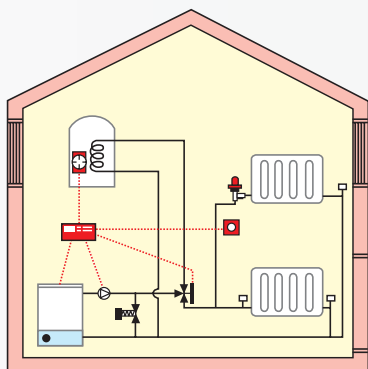
## SYSTEM DESIGN CONSIDERATIONS







### INTRODUCTION

In line with the Government's Good Practice Guide GPG302, Pegler Yorkshire explains the importance of system design and best practice.

Installation of effective controls has a major impact on the energy consumption of heating and hot water systems and can lead to improved energy efficiency, reduced running cost and lower carbon dioxide (CO<sub>2</sub>) emissions.

- ✚ Using controls increases operating efficiency when updating older systems, and provides the user to minimise energy consumption by reducing comfort temperatures
- ✚ Heating and hot water accounts for over 80% of the energy consumption in a home
- ✚ The installation of a minimum standard of controls in a wet system (which previously had no controls) can reduce fuel consumption and CO<sub>2</sub> emissions by 17%
- ✚ Reducing the heating "on" time by two hours a day can reduce consumption by 6%.



- System controls**
-  Room thermostat
  -  Time switch/programmer
  -  Cylinder thermostat
  -  Motorised valve
  -  Thermostatic radiator valve (TRV)
  -  Automatic bypass valve



**Francis Pegler**



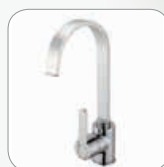
**Francis Pegler**



**Terrier**



**Tectite**



**Francis Pegler**



**Terrier**  
Differential  
Pressure Valve

Products from Pegler Yorkshire provide a connect + control solution

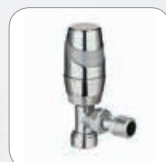




CONNECT + CONTROL



**Terrier**



**TerrierDecor**



**Terrier i-temp**



**Pegler**

## NEW SYSTEMS AND UPGRADING SYSTEMS

In order to adhere to the Building Regulations there are two levels of compliance: a minimum set level and a best practice. As a respected manufacturers, Pegler Yorkshire is responsible to promote a best practice approach.

## SYSTEM CONSIDERATIONS

Product	System Design Considerations
Thermostatic radiator valves	<ul style="list-style-type: none"> <li>Thermostatic radiator valves should be installed in association with a room thermostat to provide boiler interlock. If more than 50% of the location is fitted with TRVs then an automatic bypass valve will be required. (Terrier TRV, ABV).</li> </ul>
Manual radiator valves	<ul style="list-style-type: none"> <li>Radiators in rooms with a controlling room thermostat should be fitted with manual valves on connections. (Terrier manual radiator valves).</li> </ul>
Controls	<ul style="list-style-type: none"> <li>Systems with regular boilers must have separately controlled circuits to hot water cylinder and radiators, and both circuits must have pumped circulation.</li> <li>Room thermostats, programmable room thermostats, cylinder thermostats, programmers and time switches must be wired so they are interlocked with the boiler and pump i.e. they prevent the boiler from firing when there is no demand for heat (Terrier i-temp).</li> </ul>
Frost protection	<ul style="list-style-type: none"> <li>Frost protection must be provided where necessary to protect the appliance, system and dwelling, (Terrier TRV)</li> <li>A bypass circuit must be installed if the boiler manufacturer specifies that a minimum flow rate has to be maintained while the boiler is firing. The installed bypass circuit must then include an automatic bypass valve. (Terrier ABV).</li> </ul>

## MINIMUM SET LEVEL AND PEGLER YORKSHIRE BEST PRACTICE

Product	Minimum Set	Best Practice
Combi Boilers	<ul style="list-style-type: none"> <li>Time switch</li> <li>Room thermostat</li> <li>TRVs on all radiators except rooms with a room thermostat</li> <li>Automatic bypass valve</li> </ul>	<ul style="list-style-type: none"> <li>Programmable room thermostats</li> <li>TRVs on all radiators except rooms with a room thermostat</li> <li>Automatic bypass valve</li> </ul>
Regular Boilers	<ul style="list-style-type: none"> <li>Room thermostats</li> <li>Fully programmer</li> <li>Cylinder thermostat</li> <li>TRVs on all radiators except rooms with a room thermostat</li> <li>Automatic bypass valve</li> </ul>	<ul style="list-style-type: none"> <li>Programmable room thermostats with additional hot water timing capability</li> <li>Cylinder thermostat</li> <li>TRVs on all radiators except rooms with a room thermostat</li> <li>Automatic bypass valve</li> </ul>





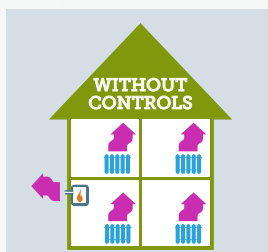
## BEAMA USING CONTROL TO MAKE A DIFFERENCE

Home heating accounts for 23% of UK energy demand and has increased by nearly a quarter since 1970, with over 95% of UK homes heated by a gas or oil boiler. If we are to meet our carbon targets it is essential that we do everything possible in the short to medium term to reduce wasted energy from these boilers, which we must remember are the biggest single energy consuming appliance within the home.

### THE ISSUES

Heating systems are not being controlled to deliver both comfort and efficiency. Without proper control they waste energy.

- ✚ **Householders want a warm, comfortable home.**  
Recent research<sup>2</sup> shows very clearly that everyone wants to be comfortable in their home, and warmth delivered by their heating system is central to this. Money savings are welcomed **only** if comfort is not compromised.
- ✚ **Around 11 million UK homes don't have suitable heating controls.** Research from 2008 showed that 70% of UK homes don't have the minimum level of controls defined within the Building Regulations for new systems<sup>3</sup>. Even allowing for heating improvements since the research took place it is likely that there remain 11 million homes with the potential for improved controls.
- ✚ **People tinker and play with their heating system to achieve comfort.**  
Heating systems without suitable controls cannot achieve desirable comfort levels. Most people appear to be using their systems in ways that achieve 'acceptable' comfort, but their system will not be operating in the most efficient manner. Where money is tight this inefficiency leads to comfort being compromised.
- ✚ **Current policies fail to promote opportunities to improve controls in UK homes.**  
The role of heating controls needs to be far more prominent within current policies to reduce energy use in UK homes, particularly to ensure that they are installed as a part of every retrofit.



### THE SOLUTIONS

- ✚ **The installation of a room thermostat and TRVs can reduce energy bills by over 40%.**  
Tests carried out at the University of Salford in their Energy House facility showed that the costs of running a heating system with a full set of temperature controls was 40% less than the same system operated with a timer only. The tests also showed that individual room temperature controls (TRVs) were necessary for the system to maintain balanced temperatures around the house.
- ✚ **Room thermostats & TRVs are readily available, familiar to installers and simple to install.**  
Increasing the rate at which these controls are installed could be accelerated with changes to policy. Both room thermostats and TRVs are a cost effective upgrade to existing homes with a payback of 18 months or less<sup>4</sup>. They can be supplied by UK manufacturers and existing local installers.
- ✚ **Better control systems will deliver comfort with lower fuel bills.**  
This message will be received more positively by householders, who research has shown can negatively interpret messages on reducing heating costs as a request to sacrifice comfort<sup>5</sup>. Also the savings will be permanent, unlike the short term saving from switching supplier.
- ✚ **Industry can promote the benefits of controls.**  
Heating controls have spent too long 'under the radar' of consumers. Industry must communicate the benefits of controls to generate demand from consumers, and we need to ensure that heating installers also act as advocates and deliverers of better controlled systems.



1 DECC (2013). The Future of Heating: Meeting the challenge  
2 Fell D., King G. (2012). Domestic energy use study: to understand why comparable households use different amounts of energy A report to DECC.  
3 Research carried out by BEAMA with the Energy Saving Trust in 2008  
4 Payback estimates shown in appendix 1.  
5 Deccc heating research



## APPENDIX – TEST RESULTS FROM THE UNIVERSITY OF SALFORD

The BEAMA heating controls group, TACMA, represents UK manufacturers of and suppliers of heating systems and general purpose applications. TACMA is dedicated to advancing heating controls for domestic installations to ensure a comfortable environment at the least cost.

The association commissioned the University of Salford to carry out some independent tests. This facility consists of a full size house built within an environmental chamber, designed to assess the effectiveness of new and existing technologies in reducing energy use and waste.

The top line results from the tests are shown in the table below. We have also used these to estimate the potential annual savings, and therefore the cost effectiveness of installing heating controls where they are not currently present:





Test results		
Tests carried out	24 hr heating cost <sup>2</sup>	Reduced cost from controls
1 – No temperature control	£5.31	0%
2 – Control by room thermostat only	£4.68	12.0%
3 – Control by room thermostat + TRVs	£3.15	40.7%

## CHANGING POLICY

TACMA are working towards challenging the current policy to ensure the best opportunity to reduce carbon and provide better comfort and control.

### The Benefits of heating controls: Improved comfort; increased efficiency

Over 50% of household energy is used for heating so significant benefits are possible:

-  Householders can reduce their energy bills without compromising comfort.
-  Those in fuel poverty or with fixed heating budgets can have more comfortable homes.
-  Bringing all homes up to standards could save 5 MtCO<sub>2</sub> by 2020 – 12% of the total target in the DECC Energy Efficiency Strategy.
-  Supporting UK manufacturing and supply chains will help deliver economic growth.

Estimated cost effectiveness of controls <sup>8</sup>		
Type of upgrade	Potential annual saving <sup>9</sup>	Estimated payback
Install a room thermostat	£120.49	18 months
Install a room thermostat and TRVs	£409.86	15 months
Install TRVs to a system with an existing room thermostat	£289.37	14 months
Install TRVs when replacing boiler (in addition to a room thermostat)	£289.37	9 months

[www.controlyourhome.org.uk](http://www.controlyourhome.org.uk)

<sup>7</sup> Based on British Gas Clear & Simple cash / card payment (4.274p per kWh gas, 12.797p per kWh electric) not including standing charge (24.439p per day gas, 15.979p per day electric) – Prices taken on 07/05/2013 from: <http://www.britishgas.co.uk/products-and-services/gas-and-electricity/our-energy-tariffs/clear-and-simple/clear-and-simple-rates.html>

<sup>8</sup> Based on savings in the test house and cost of measures if installed into a similar house.

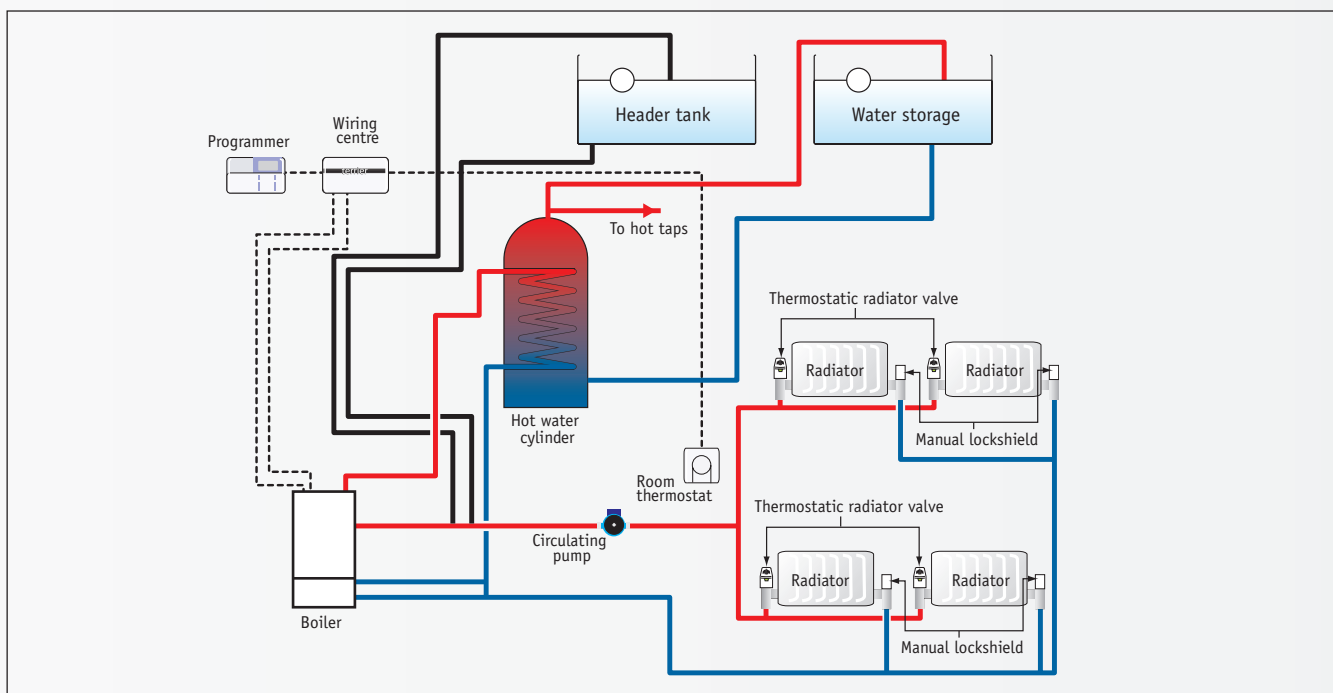
<sup>9</sup> Figures are based on a heating season of 243 days, with 75% of the savings in March, April, November and 50% in October and September. Paybacks are calculated using installation costs calculated by TACMA for the Green deal call for evidence in March 2011. The measure 'TRVs at time of boiler replacement' assumes that the system is already drained down.



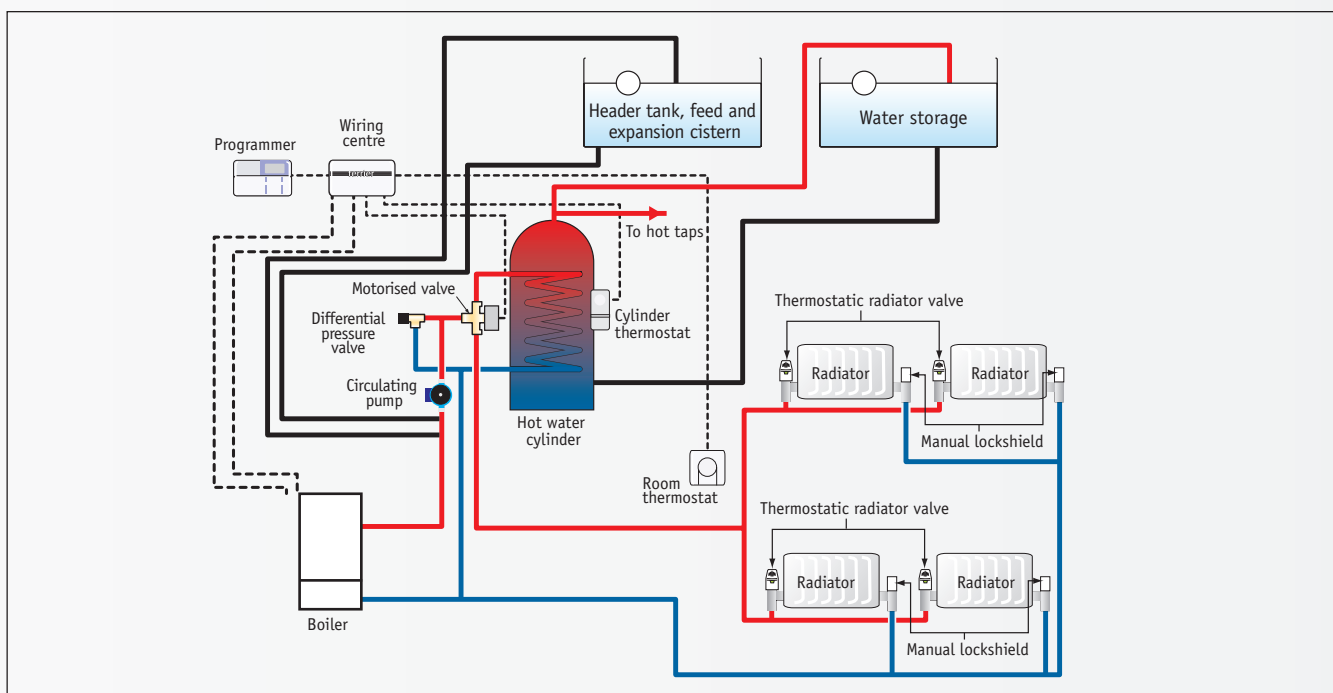
## TECHNICAL DATA APPLICATIONS

### TYPES OF SYSTEM

All system drawings are representation of various systems.



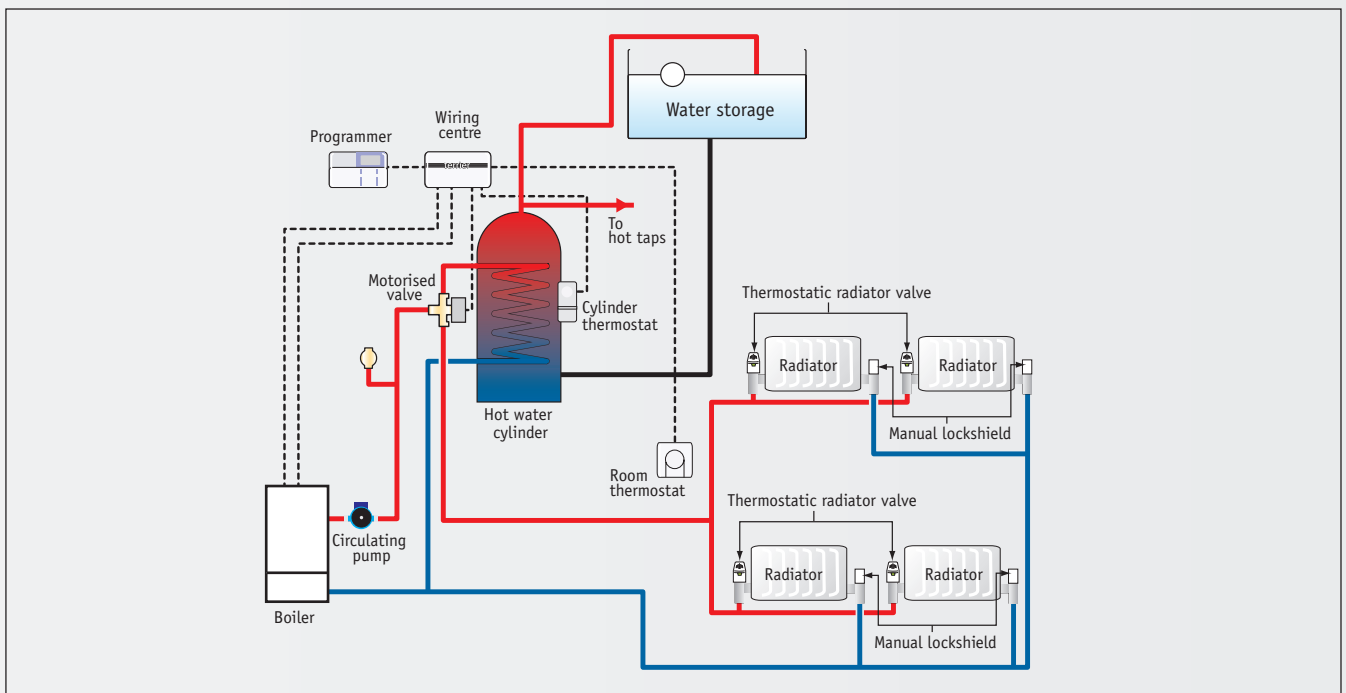
Gravity hot water system (open vented)



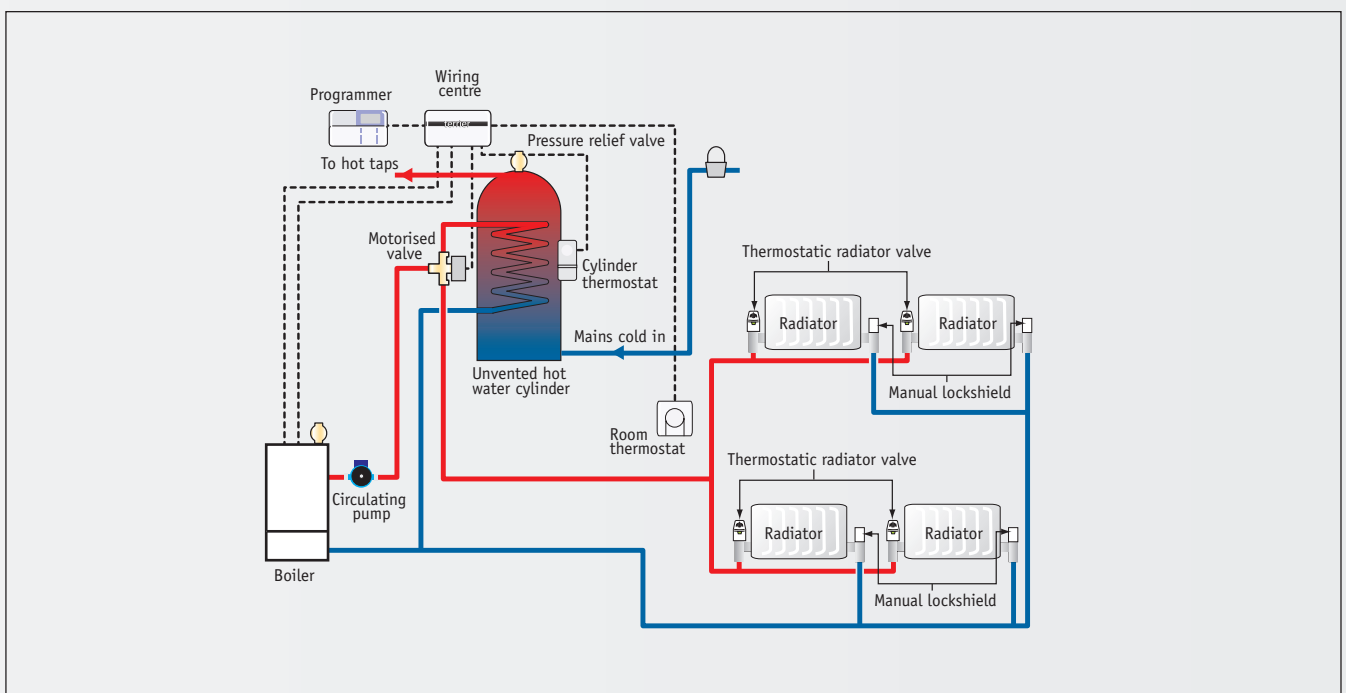
Fully pumped system (open vented)



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Sealed system vented DHW

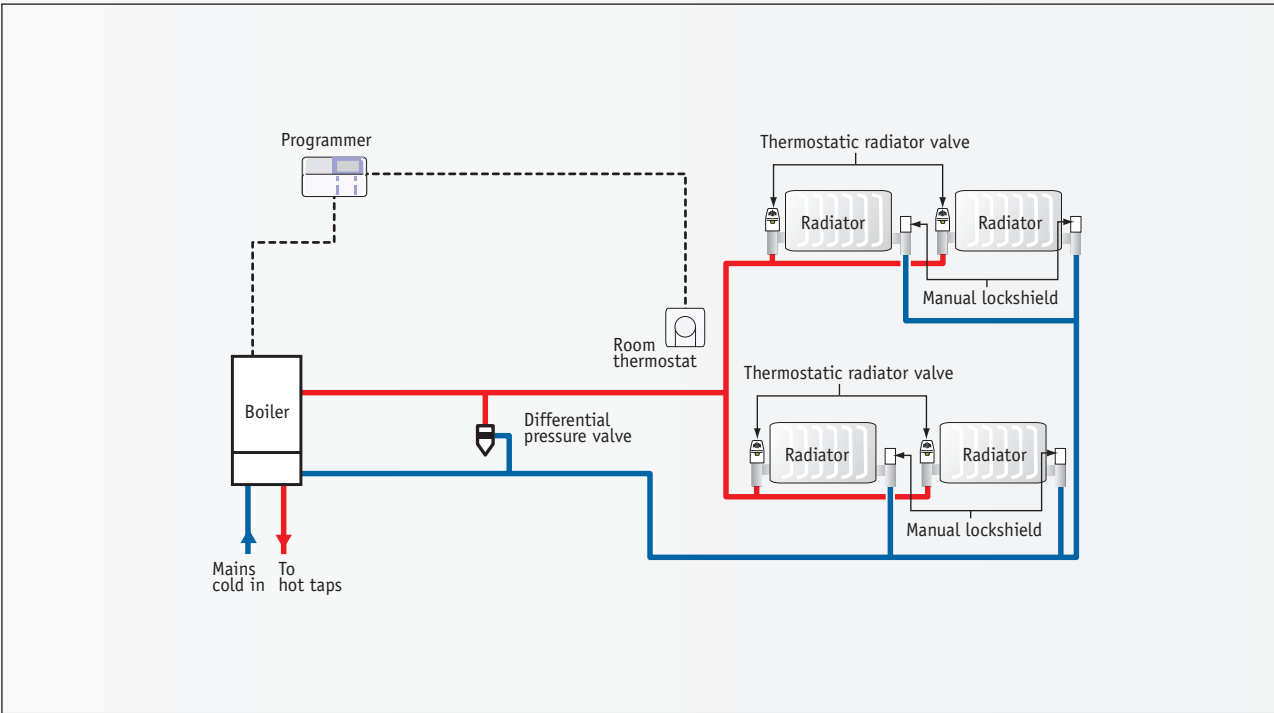


Sealed system unvented DHW





PRODUCT AND TUBE COMPATIBILITY  
AND APPLICATIONS



Combination boiler

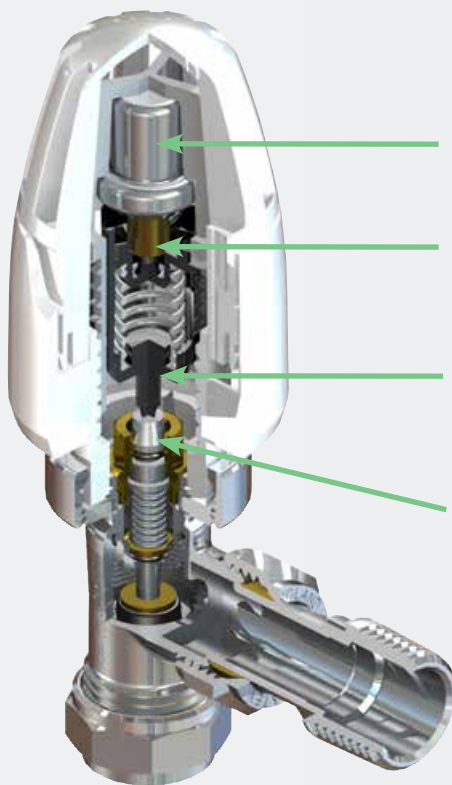
TYPE OF SYSTEM						
Product remommended	Gravity hot water system (1)	Fully pumped system (2)	Sealed system vented DHW (3)	Sealed system unvented DHW (4)	Combination boiler (5)	Commercial system example (6)
Thermostatic radiator valves	✓	✓	✓	✓	✓	✓
Manual radiator valves	✓	✓	✓	✓	✓	✓
Programmable radiator control	✓	✓	✓	✓	✓	✓
TUBE COMPATIBILITY						
	Copper	Chrome	PEX/PB	Iron	Carbon	
Terrier compression	✓	✓	✗	✗	✗	
Terrier push-fit	✓	✓	✓	✗	✗	



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## THERMOSTATIC RADIATOR VALVE

### Terrier



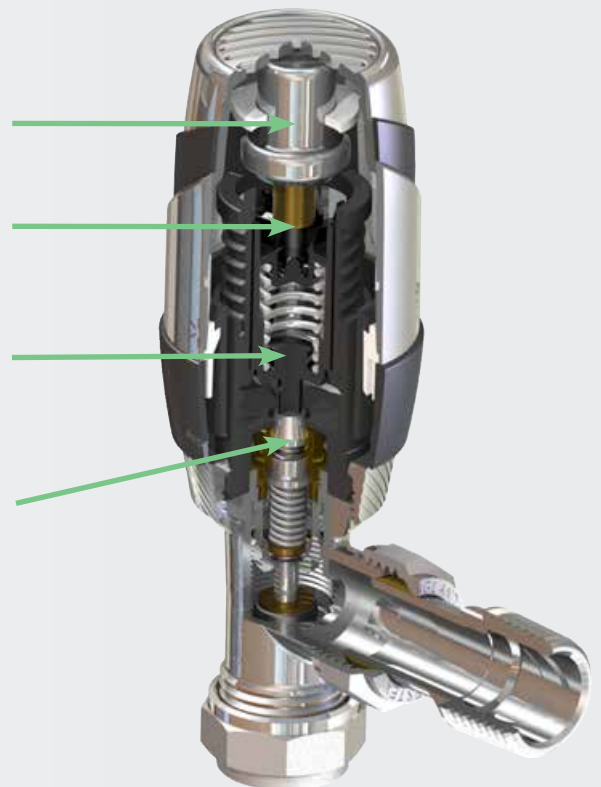
Element

Pin moves downwards with temperature increase and drives the transmission assembly

Spring loaded transmission assembly moves downward and drives the valve spindle

Valve spindle driven downwards against spring and hydraulic pressures to close the valve

### Terrier DECOR



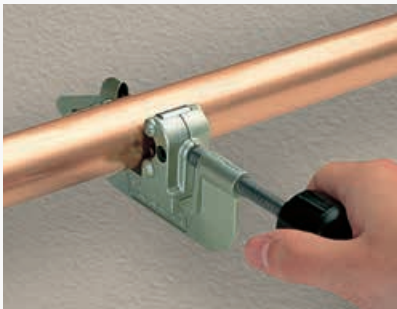
TEMPERATURE SETTINGS						
Additional Heating Settings	Economy Settings			Safety Settings		
<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>	<b>*</b>	<b>0</b>
27 - 29°C	23 - 25°C	19 - 21°C	15 - 17°C	11 - 13°C	7°C	Shut Off

TEMPERATURE SETTINGS			
Additional Heating Settings	Economy Settings	Safety Settings	
MAX	ECO	★	OFF
27 - 29°C	19 - 21°C	7°C	Shut Off



## INSTALLATION INSTRUCTIONS

### Push fit & compression pipe work preparation



**1.** Select the right size of tube or pipe to be connected to the valve. Ensure ends are clean and free from damage, scores and imperfections. Do not use any additional lubricant or sealing compounds. For copper tube, cut the tube square using a rotary tube cutter wherever possible, and for plastic pipe or Tectite flexible metal pipe use pipe shears. Ensure the tube end is round and cut square.



**2a.** Remove any burrs or sharp edges from the external tube end using a T111 Multipurpose tool from the Tectite accessories range. Also ensure the internal bore is deburred and the tube is wiped clean and free of debris.

**2b.** For Tectite flexible metal tube use the calibration tool T153 to chamfer and reround the pipe.



**3a.** Where using Tectite-PEX barrier pipe that has been used on a previous installation, cut the tube marks, ensuring there are no score marks on the pipe. Insert the correctly sized T66 pipe support liner\* from the Tectite accessories range fully into the pipe.

**3b.** If 10mm annealed copper tube (R220) is being used, ensure a T67 support liner is fully inserted into the tube.

**3c.** If using Tectite flexible metal tube, insert a TectSEAL™ 3PS liner

\* Use the support liner specified by the pipe manufacture for all 3rd party PEX and PB pipes to BS 7291 Parts 2 and 3



#### PUSH FIT ONLY

**4.** Mark the tube/pipe with the correct socket depth using a marker/pencil and the T111 Multipurpose tool or with a ruler to 23mm for both 10mm and 15mm valves.



#### PUSH FIT ONLY

**5.** When using chrome plated copper tube you must scribe the tube using the T111 tool. Fully insert tube into the T111 and rotate twice whilst firmly pressing the button; check that the tube has been scribed.





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## Installing the thermostatic radiator valve



**1.** Drain down existing system, connecting a hosepipe to the lowest drain off point available.



**2.** Apply a suitable PTFE based compound or PTFE tape to the threaded end of the tail. Screw  $\frac{1}{2}$ " BSP tail into radiator and tighten using a high quality open ended or adjustable spanner.



**3.** Connect the valve body to the tail, ensuring that the compression ring is seated centrally and that the tube makes firm contact with the tube stop in the valve body. Tighten nut, first using your fingers and then finish it by giving it a  $\frac{3}{4}$  to 1 turn with a high quality open ended or adjustable spanner.



### COMPRESSION & PUSH FIT

**4.** Remove manual shut off cap and store safely. With the sensor head set to the maximum setting (number 5) position the head so that the setting window can be viewed. Hand tighten the securing ring to fix the head in position.



### COMPRESSION

**5.** Insert the pipe into the fitting without removing the capnut and cone, ensuring that the cone is in the correct position and that the pipe makes firm contact with the stop in the body of the fitting. In both cases, tighten the capnut onto the fitting until the pipe cannot be rotated by hand.

A drop of light machine oil on the threads will facilitate (particularly on larger sizes). Tighten the capnut with a good, well-fitting spanner, using the table below as a guideline taking into consideration conditions.



### PUSH FIT

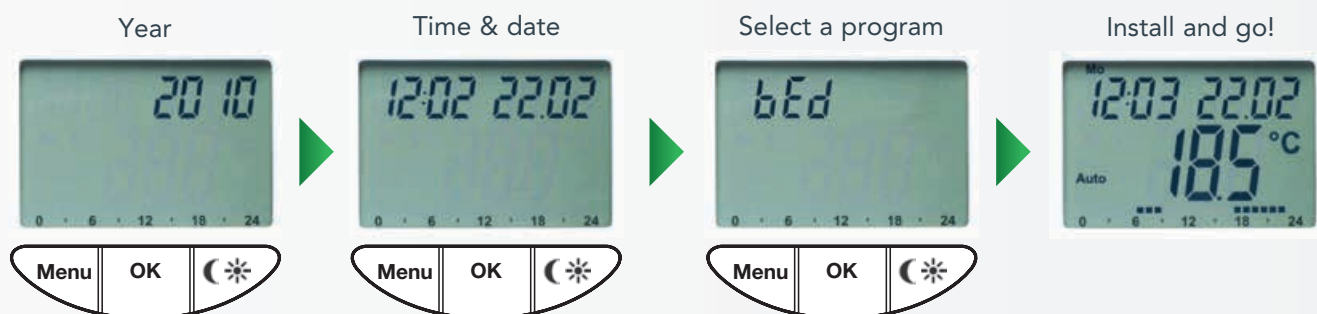
**6.** Push the tube/pipe firmly with a slight twisting action until it reaches the tube stop with a positive "click". Ensure the depth insertion mark corresponds with the mouth of the inlet, then pull firmly on the tube/pipe to ensure the valve is secure.



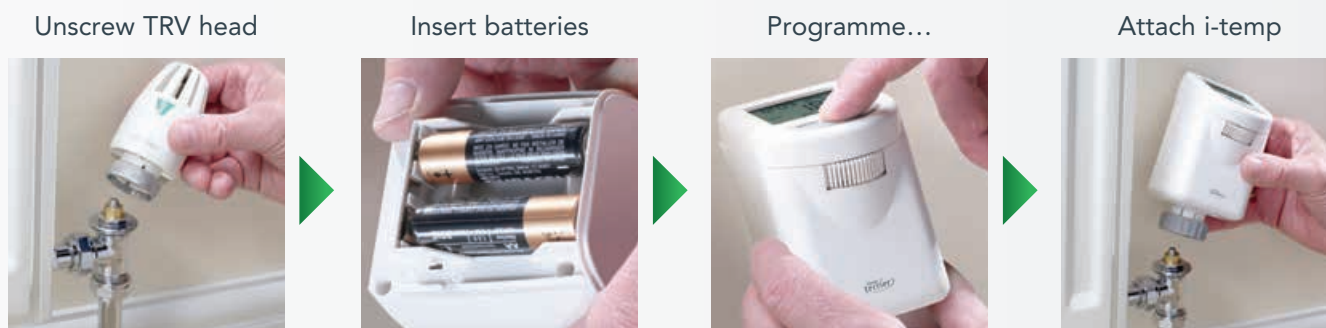


## INSTALLATION

### Easy to programme



### Easy to install!



### Vertical and horizontal PRC. Also available with valve bodies



i30



i30v



i35



i35v



# FLOW RATES

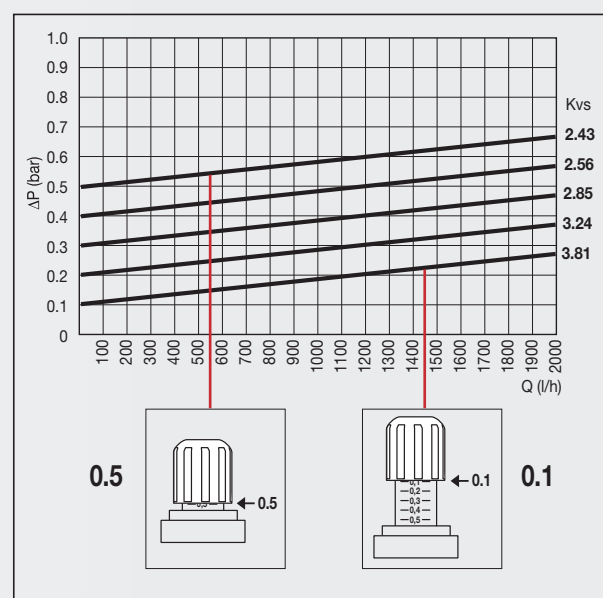
CONNECT + CONTROL

## Performance - pressure/temperature ratings and flow rates

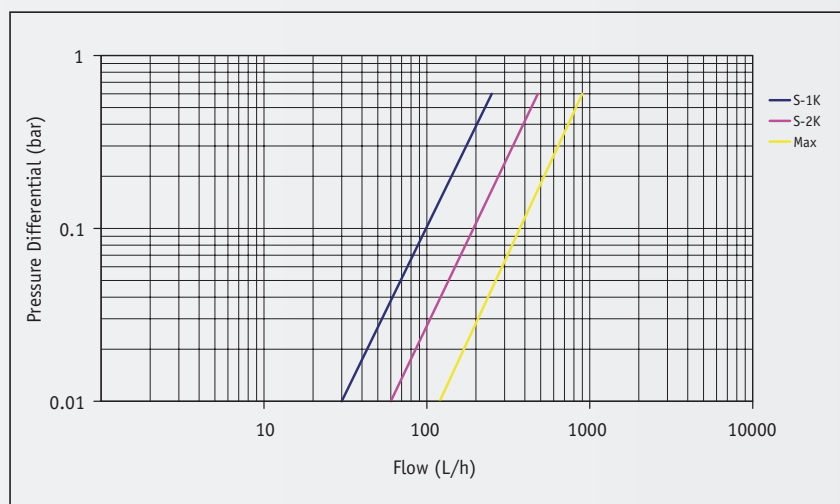
### Terrier thermostatic radiator valves

NOMINAL FLOW RATES	
1/2" x 15mm angle forward and reverse flow 1/2" x 15mm straight forward and reverse flow	190kg/h 190kg/h
Maximum static pressure	10 bar at 120°C
Maximum differential pressure	0.6 bar
Hysteresis All thermal heads	0.8k
Differential pressure influence All thermal heads	0.15k
Water temperature influence All thermal heads	0.9k
Water temperature influence All thermal heads	20 minutes

### Settings and flows for automatic bypass valve 22mm



### Straight and angle pattern 15mm forward and reverse flow



Nominal flow	Seat authority a
190kg/h	0.72
Position	kv
S-1K	0.32
S-2K	0.60
Max	1.08



## Pegler Yorkshire

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CONNECT  CONTROL

### UK ENQUIRIES

#### UK SALES

Free Phone: 0800 156 0010

Free Fax: 0808 156 1011

Email: [uk.sales@pegleryorkshire.co.uk](mailto:uk.sales@pegleryorkshire.co.uk)

#### TECHNICAL HELP

Free Phone: 0800 156 0050

Free Fax: 0808 156 1012

Email: [tech.help@pegleryorkshire.co.uk](mailto:tech.help@pegleryorkshire.co.uk)

#### BROCHURE HOTLINE

Free Phone: 0800 156 0020

Free Fax: 0808 156 1011

Email: [info@pegleryorkshire.co.uk](mailto:info@pegleryorkshire.co.uk)

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#### EXPORT

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Fax: +44 (0) 1302 730 513

Email: [export@pegleryorkshire.co.uk](mailto:export@pegleryorkshire.co.uk)

**Tectite**

**XPress**

**Henco**

**Terrier**

**Meibes**

**Ballorex**

**Pegler**

**Prestex**

**Yorkshire**

**Endex**

**Kuterlite**

**Francis Pegler**

**Performa**

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