

CONNECT + CONTROL



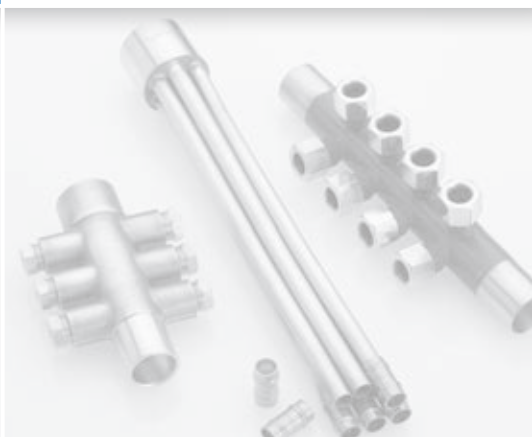
Pegler Yorkshire



# PRECISION MADE SOLDER RING FITTINGS

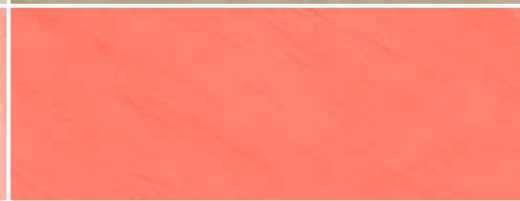
CONNECT WITH CONFIDENCE

**Yorkshire**





Pegler Yorkshire



# CONNECT WITH CONFIDENCE

With a wealth of expertise and the broadest range of solutions and systems on the market, Pegler Yorkshire's Connect products mean you'll complete your installation as seamlessly, efficiently and effectively as possible.

## TOTAL FUNCTIONALITY, COMPLETE EFFICIENCY

Pegler Yorkshire's range of **Connect** solutions offer innovatively designed, efficient and reliable products and systems that reduce installation time and cost without compromising quality, aesthetics or reliability.

Our **Tectite**, **Henco** and **XPress** product ranges are designed to perform faultlessly in a variety of applications and environments – so you can always be sure to connect with confidence whatever your challenge.

## 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 connection, control and support your project needs.

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





# Yorkshire

CONNECT + CONTROL

## CONTENTS

### 1.0 PRODUCT RANGE OVERVIEW

The Yorkshire range	4-8
Standards, approvals and guarantees	9

### 2.0 PRODUCT RANGE DETAILS

General range	10-29
Heating components	30-32
Waste fittings	33-34
Stopvalves	35
Gate valves	36
Plugcocks	37
Pipe clips and brackets	38
Yorkshire chrome plated fittings	39-42
Accessories and sundries	43-45
Yorkshire general high duty fittings	46-53

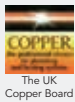
### 3.0 TECHNICAL DATA

Tube compatibility and applications	54
Working temperatures and pressures	55
Performance and equipotential bonding	56
System design considerations and tube expansion	57-59

### 4.0 INSTALLATION INSTRUCTIONS

Yorkshire general range installation instructions	60
Chrome plated installation instructions	61
General high duty installation instructions	62
Stopvalves and gate valves	63

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



**Brass**

The Brass Page for specifiers, designers, engineers and manufacturers



British Plumbing Employers Council



British Electrotechnical Allied Manufacturers Association



Construction Products Association



The Copper Development Association



Scottish and Northern Ireland Plumbing Employers Federation



Builders Merchants Federation



Institute of Plumbing



The UK District Energy Association



The Chartered Institution of Building Services Engineers





## THE PRINCIPLE OF THE YORKSHIRE FITTING

At Pegler Yorkshire we are constantly striving to develop jointing solutions that meet the changing needs of specifiers and installers alike. The Yorkshire potable suite of integral solder ring capillary fittings has the solid reputation of an established product range, and suits a broad spectrum of applications in the domestic, commercial and industrial sectors.

### THE YORKSHIRE INTEGRAL SOLDER RING JOINT

During the manufacture of these precision-made fittings, a ring of high quality lead-free solder is positioned in each capillary socket. When heat is applied, the solder is released into the gap between the tube and the fitting, resulting in a totally sound joint without the need to end feed additional solder.

### ADVANTAGES OF YORKSHIRE

The major advantage of the Yorkshire integral solder ring fitting is that the installer requires no additional solder. This removes any expensive solder waste and the need to estimate the quantity required for a secure, reliable joint. Once heated, the appearance of a complete ring of solder around the mouth of the socket makes it clearly apparent that the joint has been made.

The range is light and neat, with compact dimensions that are ideal for making use of limited space in ducts and other restricted areas. Providing that cleaning and fluxing is properly carried out, Yorkshire integral solder ring fittings can often be installed in locations inaccessible to other fitting types. In addition, the fittings' smooth lines minimise flow restrictions and are unobtrusive on exposed pipelines.



### DURABILITY

Yorkshire integral solder ring fittings are made from copper, gunmetal or a dezincification resistant alloy (DZR). Their impermeable nature gives excellent protection against contaminants that can threaten the domestic water supply. In addition, copper and its alloys are recognised as tried and tested plumbing materials on the grounds of corrosion resistance. Properly installed systems can be expected to outlast many of the buildings in which they are installed.

The product range is versatile, and results in a visually pleasing finish. Where both functionality and maximum aesthetic appeal are required, for example in bathrooms, a commercial chrome plate finish can be specified. In addition, a polished quality chrome plate finish can be manufactured to special order.

Users of Yorkshire integral solder ring fittings can be confident that they are purchasing an established product with a proven reputation for reliability and quality which spans more than eighty years. As a market leading company, Pegler Yorkshire was the first to incorporate lead-free solder into integral solder ring fittings as standard in 1985.

All products across the Yorkshire potable range are clearly branded with the imprinted YP logo so users have a visible assurance that no lead is present in the solder of a Yorkshire installation and that fittings comply with the requirements of The Water Supply (Water Fittings) Regulations/Byelaws (Scotland).



## PRODUCT OVERVIEW

CONNECT + CONTROL

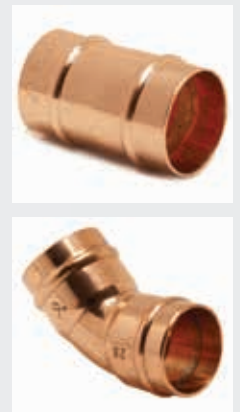
The Yorkshire integral solder ring range comprises over 700 different items. In addition to standard line fittings, the range includes an extensive selection of heating components and accessories. Products, such as general high duty have been developed for commercial, industrial and engineering applications.

### YORKSHIRE GENERAL FITTINGS

The Yorkshire general range of integral solder ring fittings is designed for jointing copper tubes to BS EN 1057 (R220, R250 and R290) in a wide range of applications.

#### FEATURES

- ✚ Available in sizes from 6mm to 67mm
- ✚ Manufactured from copper or copper alloy
- ✚ Suitable for use in hot and cold water services for potable water, in small bore and mini bore central heating systems, and in low pressure steam heating and pressurised unvented heating systems and in chilled water applications
- ✚ Also suitable for sanitation services, compressed air lines, gas distribution systems and engineering pipeline services that convey liquids, oils, air and gases at temperatures up to 110°C
- ✚ Each fitting contains a precise amount of lead-free solder for a perfect joint every time



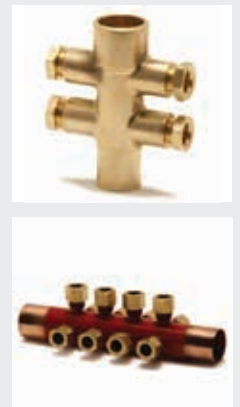
### YORKSHIRE HEATING COMPONENTS

The Yorkshire range incorporates a selection of components specifically for use in domestic and commercial heating systems. All are designed to make installations as quick and economical as possible.

Yorkshire manifolds are supplied as small basic units, which can be coupled together for larger systems. This provides improved system control, a simple layout and keeps circuit resistance low. If required, the heating system can be zoned, with a set of manifolds serving each sector.

#### FEATURES

- ✚ The Yorkshire range includes three different types of manifold, all of which are available in 22mm and 28mm sizes, with 8mm and 10mm outlets
- ✚ Option of linear, side entry and macrafold manifolds
- ✚ Manifolds enable the main flow and return in a minibore central heating system to be divided into smaller radiator circuits
- ✚ Linear flow manifolds have a low flow resistance due to their straight line design and their copper outlets can be easily connected to the radiator pipework using Yorkshire integral solder ring fittings
- ✚ Side entry manifolds enable installers to easily bank together any combination of units and can be directly connected to one another in various combinations
- ✚ Micrafold manifolds are similar to side entry manifolds, but also incorporate a central divider which gives flow and return in one component





## PRODUCT OVERVIEW

### YORKSHIRE WASTE FITTINGS

Copper, brass and gunmetal integral solder ring waste fittings are available for standard domestic and commercial waste water systems such as basins, baths, sinks and other sanitary appliances.

#### FEATURES

- ✚ Available in sizes from 28mm to 54mm
- ✚ Range includes shallow and deep seal traps as well as a selection of fittings with rodding eyes to enable inspection and maintenance of the pipework
- ✚ Bends, tees and crosses have been designed with built in fall, in line with good plumbing practice



### YORKSHIRE GENERAL HIGH DUTY FITTINGS

The Yorkshire General High Duty (GHD) range of capillary fittings is specially designed for jointing copper and copper alloy tubes that need to operate at higher temperatures or pressures than are permissible with soft solder joints.

#### FEATURES

- ✚ Available in sizes from 6mm to 54mm
- ✚ Manufactured from gunmetal and containing an integral cadmium-free silver brazing alloy, complying with the compositional requirements of BS EN 1044 alloy Ag103 (formerly BS 1845 alloy Ag14)
- ✚ Suitable for high temperature heating services such as steam and condensate pipelines
- ✚ Also suitable for use in air conditioning services, vacuum, refrigeration and cryogenic applications; vehicle braking systems; and nitrogen and oxygen gas lines
- ✚ The joint characteristics ensure GHD fittings can be used for hydraulic services where vibration and stresses are exerted, and for specialist services where high temperatures and pressures exist singly or in combination
- ✚ GHD fittings are available degreased and individually bagged







CONNECT + CONTROL

### YORKSHIRE CHROME PLATED FITTINGS

The Yorkshire range includes a selection of commercial quality chrome plated fittings which are ideal for use where products are on show, for example in kitchens and bathrooms.

#### FEATURES

- ✚ Available in sizes from 6mm to 54mm
- ✚ Manufactured from copper or copper alloy
- ✚ Suitable for use in hot and cold potable water services, in small bore and mini bore central heating systems, and in low pressure steam heating and pressurised unvented heating systems and in chilled water applications
- ✚ For maximum aesthetic appeal also available with a polished chrome plated finish to special order



### YORKSHIRE ACCESSORIES AND SUNDRIES

An extensive selection of sundries and accessories complements the Yorkshire range, providing the installer with the means to use Yorkshire integral solder ring fittings most effectively.

#### FEATURES

- ✚ Fluxes have been specially developed in three types – Traditional Craftsman's Flux, Yorkshire Flux and Degussa H
- ✚ Yorkshire cleaning pads are produced from highly abrasive synthetic materials for the effective cleaning of tube ends and fitting sockets prior to fluxing and are not electrically conductive
- ✚ Yorkshire steel wool, a more traditional material used for cleaning tubes and fittings, is available in bundles or in pad form
- ✚ Yorkshire heat resistant mats are made from asbestos-free woven ceramic fibres, and offer protection to skirtings, paintwork, flooring and decorations from solder splashes and hot flux





## PRODUCT OVERVIEW

### YORKSHIRE PIPE CLIPS AND BRACKETS

The Yorkshire range includes a comprehensive selection of pipe clips, stems and brackets for fixing copper tube to a variety of surfaces and provides the installer with a wide choice of options for a variety of installations.

#### FEATURES

- ✚ Available in sizes from 6mm to 108mm
- ✚ Saddle bands mount copper tube directly to a surface
- ✚ Pipe rings, in conjunction with single or two-piece spacing clips, can be used where tubing needs to be mounted away from a surface







# STANDARDS, APPROVALS AND GUARANTEES

CONNECT + CONTROL

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.

Yorkshire integral solder ring fittings and valves all comply with the relevant British, European and International standards. Whatever the latest developments, we guarantee that our products will always meet the latest and highest standards.

## GUARANTEES

Our policy of continuously and rigorously testing Yorkshire integral solder ring products means we are confident they will give you years of trouble free service. To demonstrate the total confidence we have in our products and our commitment to customer service, all Yorkshire integral solder ring fittings and valves are guaranteed against manufacturing defects for 25 years when installed in accordance with our instructions on specified tube materials and applications.



## QUALITY

Quality is of paramount importance to Pegler Yorkshire. Our products conform to current British, European and International standards where applicable and also meet our own rigorous internal quality approvals. The Company is at the forefront of standards development, and has members on a variety of relevant committees. Pegler Yorkshire operates a Quality Management System for the development, manufacture and supply of fittings, tube, valves and accessories which complies with the requirements of BS EN ISO 9001:2000.

## INTERNATIONAL STANDARDS ORGANISATION

International standards are conformed to where appropriate. Pegler Yorkshire is a British Standards Institution registered company.



## EVALUATED BY WRAS

**WRAS** The Yorkshire integral solder ring range has been certified by WRAS and is audited periodically.

### Yorkshire general range fittings

WRAS All Yorkshire integral solder ring general range fittings are listed and comply with the requirements of the United Kingdom Water Regulations/Byelaws (Scotland).

**BS EN 1254 Part 1** Specification for copper and copper alloy fittings with capillary ends for soldering and brazing for use with copper tubes.

**BS 1010 Part 2** Draw off taps and above ground stopvalves.

**BS EN ISO 228:2003** (formerly BS 2779/ ISO 228/1) Specification for tubes and fittings where pressure tight joints are not made on the threads (metric dimensions).

**BS 10** (obsolescent) Specification for flanges and bolting for pipes, valves and fittings.

**BS EN 1092-3:2003** (formerly BS 4504 Part 3.3) Specification for copper alloy circular flanges and their joints.

**BS EN ISO 9453:2006** Specification for soft solders.

### YORKSHIRE GENERAL HIGH DUTY FITTINGS

General High Duty fittings are manufactured to Pegler Yorkshire's own exacting internal quality standards, with designs based on Lloyds formula.

**ISO7/EN 10226-1** (formerly BS 21/ ISO 7) Specification for tubes and fittings where pressure-tight joints are made on the threads (metric dimensions).

### HEATING COMPONENTS - MANIFOLDS

BS EN 1254 Part 1 Specification for copper and copper alloy fittings with capillary ends for soldering and brazing for use with copper tubes.

### YORKSHIRE WASTE FITTINGS

**BS EN 29453** Refer to Yorkshire general range.

The materials used in Yorkshire integral solder ring fittings and valves are manufactured to the following specifications:

**BS EN 1982** Specification for copper and copper alloys, ingots and castings.

**BS EN 12163** Specification for copper and copper alloy rod for general purposes. Including testing for dezincification resistance of alloys CZ121 (CW614N), CZ122 (CW617N) and CZ132 (CW602N).

**BS EN 12164** Specification for copper and copper alloy rod for free machining purposes.

Including testing for dezincification resistance of alloys CZ121 (CW614N), CZ122 (CW617N) and CZ132 (CW602N).

**BS EN 12165** Specification for copper and copper alloys, wrought and unwrought forging stocks.

**BS EN 12168** Specification for hollow rod for free machining purposes.

## MARKINGS

### THE YP IMPRINT

The YP imprint provides visible assurance of a genuine Yorkshire potable fitting and that the solder is lead free.

### UNIVERSAL MARKING

All Yorkshire potable fittings manufactured from DZR alloy carry the distinctive mark.

### GUNMETAL

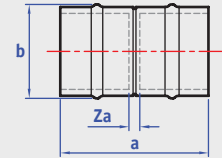
Some Yorkshire integral solder ring fittings and valves are manufactured from gunmetal, and can be identified by the mark on the body.

PRODUCT APPROVALS		
Product	WRAS	Kitemark
Yorkshire general	✓	✓
Yorkshire chrome plate	✓	✓
Yorkshire general high duty	✓	✓
Yorkshire manifolds	✓	✓



### YP1 Straight coupling

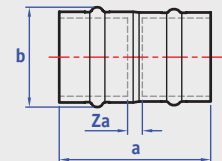
Copper x copper



Size	a	b	Za	Order code
6mm	19	9	2	08000
8mm	20	11	2	08001
10mm	22	13	2	08003
12mm	26	15	2	08005
<b>15mm•</b>	30	19	2	08010
<b>22mm•</b>	40	26	2	08020
28mm	47	33	3	08030
35mm	59	40	2	08032
42mm	65	47	2	08034
54mm	77	60	2	08035
67mm	79	73	2	08036

### YP1IM Slip adaptor coupling

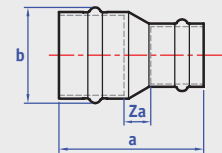
Imperial x metric  
Copper x copper  
To connect imperial tube to metric tube



Size	a	b	Za	Order code
1/2" x 15mm	29	19	1	08040
3/4" x 22mm	41	27	2	08050
1" x 28mm	47	33	1	08052
1 1/4" x 35mm	59	40	2	08054
1 1/2" x 42mm	66	48	3	08055

### YP1R Reducing coupling

Copper x copper



Size	a	b	Za	Order code
8 x 6mm	20	11	2	08056
10 x 8mm	24	13	4	08057
15 x 8mm	33	19	8	08058
15 x 10mm	32	19	6	08059
15 x 12mm	31	19	4	08060
22 x 10mm	43	26	13	08062
22 x 15mm	40	26	6	08063

•These items comprise the YPS range.



## FEATURES

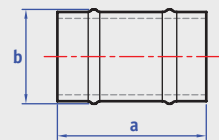
- ✚ Yorkshire Integral Solder Ring Fittings are precision made with a ring of high quality lead-free solder incorporated in the fitting
- ✚ No additional solder is required, removing any potential for solder waste
- ✚ Available in sizes from 6-67mm, ideal for use in hot and cold water services and for potable water

Size	a	b	Za	Order code
28 x 15mm	50	33	12	08065
28 x 22mm	48	33	7	08066
35 x 22mm	64	40	12	08067
35 x 28mm	58	40	8	08068
42 x 28mm	67	48	14	08069
42 x 35mm	69	48	9	08070
54 x 35mm	87	60	16	08071
54 x 42mm	84	60	14	08072

### YP1

#### Slip straight coupling, slip pattern

Copper x copper

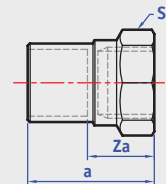


Size	a	b	Order code
15mm	30	19	08037
22mm	40	26	08038
28mm	47	33	08039

### YP2

#### Adaptor coupling

Straight female connector  
Copper x BSP parallel female thread

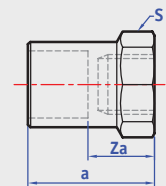


Size	a	Za	S	Order code
8mm x 1/4"	25	16	19	08087
15mm x 1/2"	38	20	26	08090
22mm x 3/4"	38	20	31	08092
28mm x 1"	48	26	39	08093
35mm x 1 1/4"	56	29	48	08094
42mm x 1 1/2"	60	29	55	08095
54mm x 2"	70	33	66	08096

### YP2LC

#### Female reducing connector

Straight female connector.  
As YP2 but with reduced BSP female end



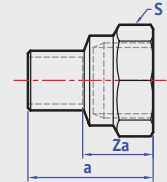
Size	a	Za	S	Order code
15mm x 1/4"	22	8	20	08101
15mm x 3/8"	30	16	23	08102
22mm x 1/2"	38	19	28	08103





### YP2LI Female reducing connector

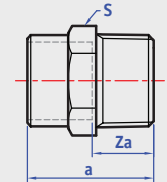
Straight female connector.  
As YP2 but with reduced copper end



Size	a	Za	S	Order code
15mm x 1/4"	35	21	32	08106

### YP3 Straight male connector

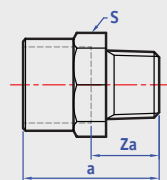
Copper x BSP taper male thread



Size	a	Za	S	Order code
8mm x 1/4"	24	14	15	08111
15mm x 1/2"	33	19	24	08114
22mm x 3/4"	37	18	29	08116
28mm x 1"	43	21	37	08118
35mm x 1 1/4"	51	25	45	08119
42mm x 1 1/2"	56	25	51	08120
54mm x 2"	68	32	68	08121
67mm x 2 1/2"	75	30	78	08123

### YP3LC Male reducing connector

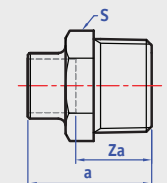
As YP3 but with reduced BSP taper male end



Size	a	Za	S	Order code
15mm x 1/4"	28	15	19	08129
15mm x 3/8"	29	15	19	08132
22mm x 1/2"	37	18	28	08133
28mm x 3/4"	41	19	34	08134

### YP3LI Male reducing connector

As YP3 but with reduced copper end

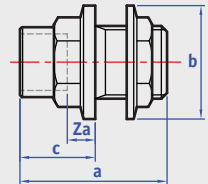


Size	a	Za	S	Order code
15mm x 3/4"	34	21	27	08143
22mm x 1"	38	19	35	08144



## YP5 Tank connector

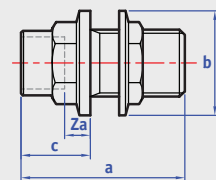
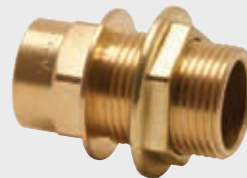
Copper x BSP parallel male thread with backnut



Size	a	b	c	Za	Order code
15mm x 1/2"	40	31	21	7	08160
22mm x 3/4"	42	45	22	3	08161
28mm x 1"	49	50	27	5	08162
35mm x 1 1/4"	59	56	32	6	08163
42mm x 1 1/2"	69	63	35	4	08164
54mm x 2"	82	77	42	5	08165

## YP5FC Tank connector

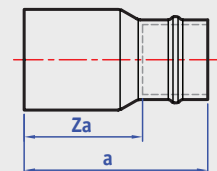
Copper x BSP parallel male thread with backnut



Size	a	b	c	Za	Order code
15mm x 1/2"	59	35	20	6	08180
22mm x 3/4"	58	37	20	1	08181
28mm x 1"	64	44	25	3	08182

## YP6 Reducer

Larger end male copper for insertion into fitting of female copper



Size	a	Za	Order code
8 x 6mm	21	14	08190
10 x 8mm	25	13	08191
12 x 6mm	21	13	08192
12 x 8mm	27	17	08193
15 x 8mm	31	21	08194
15 x 10mm	31	22	08196
15 x 12mm	30	20	08198
22 x 12mm	40	28	08199
<b>22 x 15mm•</b>	41	26	08200
28 x 15mm	48	33	08202
28 x 22mm	49	30	08204
35 x 15mm	54	42	08206
35 x 22mm	58	58	08207
35 x 28mm	54	33	08208
42 x 15mm	72	57	08209

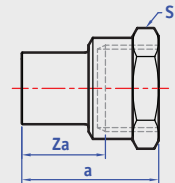
•These items comprise the YPS range.



Size	a	Za	Order code
42 x 22mm	70	48	08210
42 x 28mm	67	43	08211
42 x 35mm	66	38	08212
54 x 15mm	86	71	08213
54 x 22mm	75	55	08214
54 x 28mm	81	58	08215
54 x 35mm	81	52	08216
54 x 42mm	78	48	08217
67 x 28mm	83	61	08218
67 x 35mm	85	57	08219
67 x 42mm	89	55	08220
67 x 54mm	90	53	08221

### YP7 Female adaptor

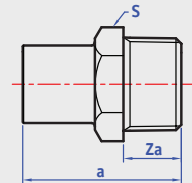
Male copper for insertion into fitting x BSP parallel female thread. There is no solder ring in this fitting



Size	a	Za	S	Order code
15mm x 1/2"	35	22	26	08223
22mm x 3/4"	43	27	32	08224
28mm x 1"	49	30	40	08225
35mm x 1 1/4"	58	36	50	08226
42mm x 1 1/2"	64	48	55	08227
54mm x 2"	73	49	66	08228

### YP8 Male adaptor

Male copper for insertion into fitting x BSP taper male thread. There is no solder ring in this fitting



Size	a	Za	S	Order code
15mm x 1/2"	15	37	24	08230
22mm x 3/4"	15	45	29	08231
28mm x 1"	18	50	35	08232
35mm x 1 1/4"	19	59	43	08233
42mm x 1 1/2"	20	64	49	08234
54mm x 2"	22	73	61	08235

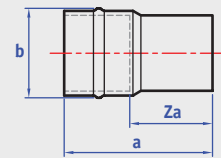




## YP9

### Imperial female copper x metric male copper

For making the adaptation from imperial size tube to metric

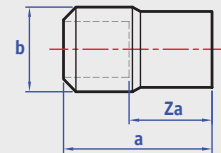


Size	a	b	Za	Order code
1/2" x 15mm	33	18	17	08238
3/4" x 22mm	43	20	24	08239
1" x 28mm	49	32	27	08240
1 1/4" x 35mm	61	38	34	08241
1 1/2" x 42mm	68	48	36	08242
2" x 54mm	79	59	45	08243

## YP9B

### Non-standard adaptor

Adapts imperial tube of older 17G standard to metric fittings

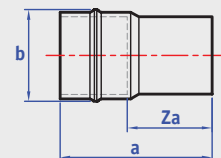


Size	a	b	Za	Order code
1/2" 17G x 15mm	34	19	19	08245

## YP99

### Adaptor

Metric/imperial female copper x male copper  
To adapt metric tube to imperial fittings

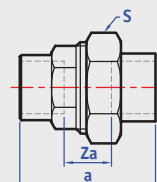


Size	a	b	Za	Order code
22mm x 3/4"	44	24	24	08921
28mm x 1"	53	32	31	08922
35mm x 1 1/4"	63	40	36	08923
42mm x 1 1/2"	71	48	38	08924

## YP11

### Union coupling

Copper x copper  
Cone joint to BS 1010



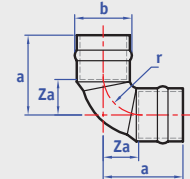
Size	a	Za	S	Order code
15mm	59	30	31	08251
22mm	69	29	37	08252
28mm	69	25	46	08253
35mm	69	23	53	08254
42mm	81	19	65	08255



Size	a	Za	S	Order code
54mm	97	23	82	08256
67mm	92	15	96	08257

### YP12 Elbow

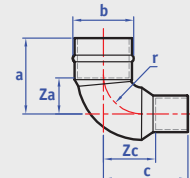
Copper x copper



Size	a	b	Za	r	Order code
6mm	13	10	5	-	08265
8mm	18	11	8	10	08266
10mm	21	12	10	12	08268
12mm	25	16	13	14	08270
<b>15mm•</b>	26	19	12	12	08280
<b>22mm•</b>	36	27	16	26	08290
28mm	41	32	19	34	08300
35mm	50	40	22	25	08302
42mm	58	48	27	49	08304
54mm	71	60	34	63	08306
67mm	84	74	45	78	08308

### YP12R Reducing elbow

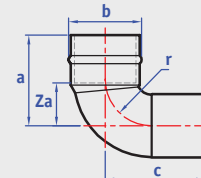
Copper x copper  
As YP12 but with one end reduced



Size	a	b	c	Za	Zc	Order code
22 x 15mm	30	27	28	11	13	08310
28 x 22mm	36	35	34	14	15	08311

### YP12S Street elbow

Female copper x male copper for insertion into fitting



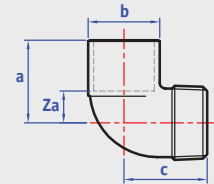
Size	a	b	c	Za	Order code
8mm	23	11	46	13	08315
10mm	30	13	50	19	08316
<b>15mm•</b>	29	19	35	14	08318
22mm	43	27	45	22	08320
28mm	40	32	44	19	08322
35mm	50	40	52	23	08324
42mm	58	49	65	26	08325

•These items comprise the NS range.



### YP13 Male elbow

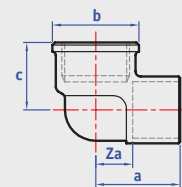
Copper x BSP taper male thread



Size	a	b	c	Za	Order code
15mm x 1/2"	24	21	34	9	08333
22mm x 3/4"	31	27	34	13	08334
28mm x 1"	38	34	46	16	08335
35mm x 1 1/4"	45	41	48	19	08336
42mm x 1 1/2"	51	48	52	20	08337

### YP14 Female elbow

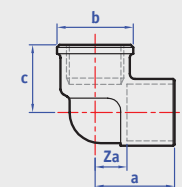
Copper x BSP parallel female thread



Size	a	b	c	Za	Order code
15mm x 1/2"	26	28	22	13	08351
22mm x 3/4"	33	35	27	14	08353
28mm x 1"	40	42	33	18	08354

### YP14LC Reducing female elbow

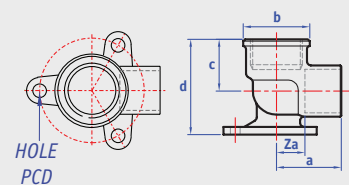
As YP14 but with reduced female end



Size	a	b	c	Za	Order code
22mm x 1/2"	30	28	28	11	08362

### YP15 Backplate elbow

Copper x BSP parallel female thread  
Triangular backplate three hole fixing



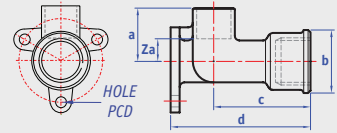
Size	a	b	c	d	PCD	Za	Order code
15mm x 1/2"	26	28	31	41	35	11	08365
22mm x 3/4"	33	34	27	49	41	15	08367





### YP15LN Backplate elbow

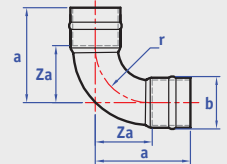
As YP15 but with extended nose and circular backplate



Size	a	b	c	d	PCD	Za	Order code
15mm x 1/2"	24	30	51	70	85	11	08377

### YP18 Slow bend

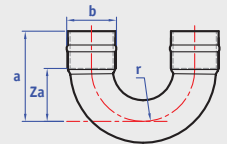
Copper x copper



Size	a	b	r	Za	Order code
15mm	31	19	32	17	08390
22mm	47	27	47	28	08391
28mm	56	32	59	34	08392

### YP20 Return bend

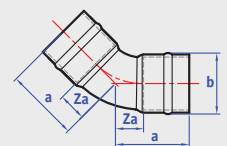
Copper x copper



Size	a	b	r	Za	Order code
15mm	35	20	19	21	08400
22mm	52	27	33	32	08401
28mm	59	33	32	37	08402

### YP21 Obtuse elbow

Copper x copper

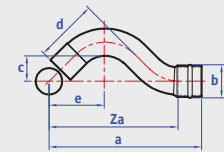


Size	a	b	Za	Order code
15mm	22	19	8	08410
22mm	29	26	10	08412
28mm	38	33	15	08414
35mm	42	40	14	08416
42mm	47	48	15	08417
54mm	56	60	19	08418
67mm	59	77	21	08419



## YP22 Partial crossover

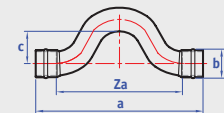
Female copper x male copper for insertion into fitting



Size	a	b	c	d	e	Za	Order code
15mm	115	19	18	40	40	86	08420
22mm	150	26	20	52	48	105	08422

## YP23 Full crossover

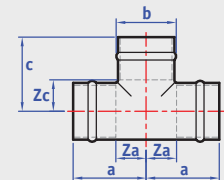
Copper x copper



Size	a	b	c	Za	Order code
15mm	120	19	20	91	08430
22mm	148	26	20	112	08432

## YP24 Equal tee

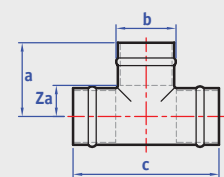
All ends for copper



Size	a	b	c	Za	Zc	Order code
6mm	13	10	13	5	5	08440
8mm	16	12	16	6	6	08441
10mm	18	14	18	7	7	08443
12mm	20	15	20	8	8	08445
<b>15mm•</b>	24	19	24	10	10	08450
<b>22mm•</b>	32	26	32	13	13	08460
28mm	38	33	38	16	16	08462
35mm	49	40	49	20	20	08464
42mm	56	48	56	25	25	08466
54mm	65	60	65	30	30	08467
67mm	77	73	77	37	37	08468

## YP24 Slip Equal tee, slip pattern

All ends for copper



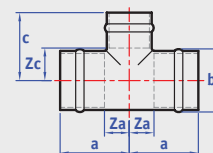
Size	a	b	c	Za	Order code
15mm	23	19	47	9	08475

•These items comprise the YPS range.



#### YP25 Tee, reduced branch

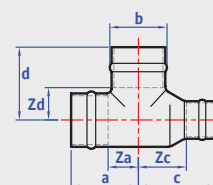
All ends for copper



Size	a	b	c	Za	Zc	Order code
22 x 22 x 10mm	28	26	30	9	19	08484
<b>22 x 22 x 15mm•</b>	28	26	27	9	13	08490
28 x 28 x 15mm	33	32	31	10	16	08492
28 x 28 x 22mm	36	33	37	14	17	08494
35 x 35 x 15mm	39	41	37	12	23	08496
35 x 35 x 22mm	43	41	41	16	22	08497
35 x 35 x 28mm	43	40	45	15	24	08498
42 x 42 x 15mm	47	48	47	15	33	08499
42 x 42 x 22mm	45	48	44	13	23	08500
42 x 42 x 28mm	47	48	46	15	24	08501
42 x 42 x 35mm	53	48	53	22	25	08502
54 x 54 x 15mm	48	61	48	9	34	08503
54 x 54 x 22mm	52	60	49	13	30	08504
54 x 54 x 28mm	54	59	52	17	30	08505
54 x 54 x 35mm	57	60	56	21	29	08506
54 x 54 x 42mm	61	60	64	24	32	08507
67 x 67 x 28mm	57	73	66	17	43	08508

#### YP26 Tee, one end reduced

All ends for copper



Size	a	b	c	d	Za	Zc	Zd	Order code
22 x 15 x 22mm	32	26	36	32	14	22	13	08510
28 x 15 x 28mm	38	32	43	39	15	29	16	08512
28 x 22 x 28mm	38	32	42	39	15	22	17	08514
35 x 15 x 35mm	48	40	55	48	20	41	20	08516
35 x 22 x 35mm	47	40	54	48	19	30	19	08517
35 x 28 x 35mm	46	40	50	47	18	28	20	08518
42 x 28 x 42mm	55	48	63	55	23	40	23	08519
42 x 35 x 42mm	55	48	60	55	23	28	23	08520
54 x 42 x 54mm	67	60	80	67	29	48	29	08521

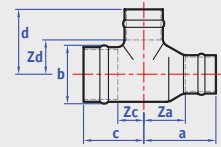
•These items comprise the YPS range.



## YP27

### Tee, one end and branch reduced

All ends for copper

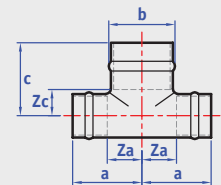


Size	a	b	c	d	Za	Zc	Zd	Order code
22 x 15 x 15mm	33	26	33	28	19	11	14	08530
28 x 15 x 15mm	36	33	32	32	22	10	17	08532
28 x 15 x 22mm	41	33	35	36	27	13	17	08534
28 x 22 x 15mm	38	33	33	32	19	12	17	08536
28 x 22 x 22mm	40	33	36	37	21	14	19	08538
35 x 22 x 22mm	48	40	42	39	29	15	21	08539
35 x 28 x 15mm	43	40	37	35	19	10	19	08540
35 x 28 x 22mm	45	40	41	35	23	13	16	08541
35 x 28 x 28mm	43	40	42	43	21	13	20	08542
42 x 28 x 28mm	54	47	47	46	21	15	23	08543
42 x 35 x 28mm	53	47	48	46	26	25	22	08544
42 x 35 x 35mm	52	47	47	51	21	15	23	08545
54 x 42 x 42mm	71	60	61	62	34	24	30	08546

## YP28

### Tee, both ends branch reduced

All ends for copper

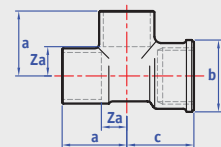


Size	a	b	c	Za	Zc	Order code
15 x 15 x 22mm	37	26	21	23	12	08551
15 x 15 x 28mm	44	33	40	30	17	08553
22 x 22 x 28mm	34	33	40	14	17	08555
22 x 22 x 35mm	51	40	49	32	22	08557
28 x 28 x 35mm	51	39	51	29	23	08558
35 x 35 x 42mm	60	47	57	32	9	08559

## YP29

### Female tee

Copper end and branch x BSP parallel female end

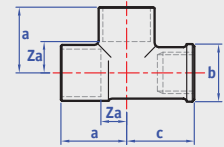


Size	a	b	c	Za	Order code
15mm x 1/2" x 15mm	25	28	23	11	08570
22mm x 3/4" x 22mm	32	35	28	13	08572



### YP29R Female tee

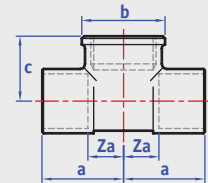
As YP29 but with reduced female BSP end



Size	a	b	c	Za	Order code
22mm x 1/2" x 22mm	31	28	27	12	08575
28mm x 1/2" x 28mm	41	28	38	19	08576
35mm x 1/2" x 35mm	46	28	34	21	08578

### YP30 Female tee

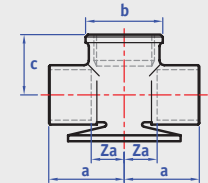
Copper ends x BSP parallel female branch



Size	a	b	c	Za	Order code
15mm x 15mm x 1/2"	25	28	22	11	08585
22mm x 22mm x 3/4"	33	34	27	14	08587
28mm x 28mm x 1"	41	42	30	18	08589

### YP30BP Backplate tee

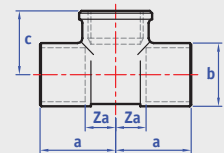
Copper ends x BSP parallel female branch with circular backplate



Size	a	b	c	Za	Order code
15mm x 15mm x 1/2"	28	29	26	15	08600

### YP30R Female tee

As YP30 but with reduced female BSP branch



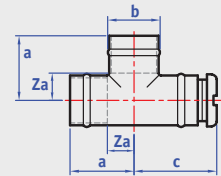
Size	a	b	c	Za	Order code
15mm x 15mm x 1/4"	22	20	21	8	08590
22mm x 22mm x 1/2"	30	27	25	12	08591
28mm x 28mm x 1/2"	34	34	28	12	08592
28mm x 28mm x 3/4"	38	34	23	15	08593
35mm x 35mm x 1/2"	38	41	32	11	08594
35mm x 35mm x 3/4"	41	41	36	15	08595
42mm x 42mm x 1/2"	44	49	32	13	08596





### YP35 Air vent tee

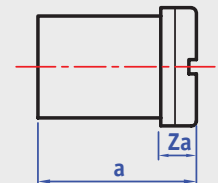
Composed of YP37 sweep tee and air-release valve RV35  
Supplied with Dowty seal which should be removed before soldering. This tee gives a round full bore flow



Size	a	b	c	Za	Order code
15mm	31	19	35	14	08615

### RV35 Air release valve

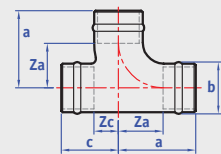
Male copper end suitable for use in any capillary socket



Size	a	b	Za	Order code
15mm	22	16	6	08620

### YP37 Sweep tee, 90°

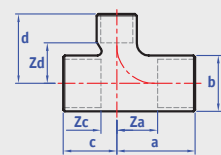
All ends for copper



Size	a	b	c	Za	Zc	Order code
15mm	30	18	26	14	12	08630
22mm	36	26	32	18	14	08631
28mm	56	34	41	33	19	08632

### YP37R Sweep tee, reduced branch

As YP37 but with reduced branch

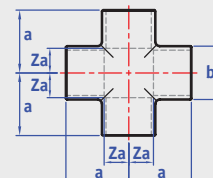


Size	a	b	c	d	Za	Zc	Zd	Order code
22 x 22 x 15mm	33	27	25	33	15	6	20	08640
28 x 28 x 15mm	45	34	33	44	23	11	31	08641



### YP50 Cross

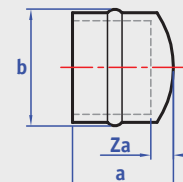
All ends for copper



Size	a	b	Za	Order code
15mm	23	22	11	08660
22mm	32	28	13	08661

### YP61 Stop end

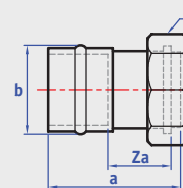
All ends for copper tube



Size	a	b	Za	Order code
8mm	14	11	5	08670
10mm	14	13	3	08672
12mm	15	15	3	08674
15mm	16	19	2	08680
22mm	21	26	2	08682
28mm	24	32	2	08684
35mm	32	40	2	08686
42mm	36	48	3	08688
54mm	41	60	2	08690

### YP62 Tap connector

Copper x BSP union nut  
Spigot and washer joint



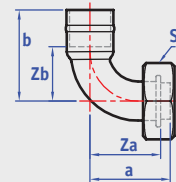
Size	a	b	Za	S	Order code
15mm x 1/2"•	37	19	16	24	08700
15mm x 3/4"	37	19	18	31	08702
22mm x 1/2"	43	26	21	24	08703
22mm x 3/4"	48	26	26	30	08710

•These items comprise the YPS range.



### YP63 Bent tap connector

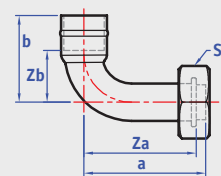
Copper x BSP union nut  
Spigot and washer joint



Size	a	b	Za	Zb	S	Order code
15mm x 1/2"	38	27	33	24	24	08720
22mm x 3/4"	51	46	45	27	31	08723

### YP63L Long bent tap connector

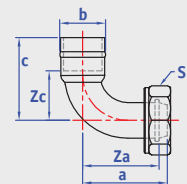
Copper x BSP union nut  
Spigot and washer joint



Size	a	b	Za	Zb	S	Order code
15mm x 1/2"	55	31	51	14	24	08724

### YP64 Bent union adaptor

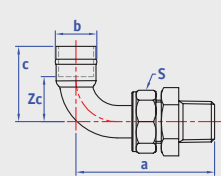
Copper x BSP union nut. Cone joint to BS 1010.  
in appropriate sizes suitable for copper cylinders  
with male bosses to BS 1010



Size	a	b	c	Za	Zc	S	Order code
22mm x 1"	63	26	52	55	33	37	08732
28mm x 1 1/4"	51	33	54	39	32	46	08734

### YP65 Bent male union connector

Copper x BSP taper male thread  
Cone joint to BS 1010

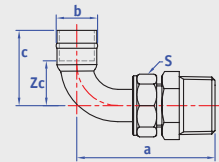


Size	a	b	c	Zc	S	Order code
15mm x 1/2"	82	19	41	26	30	08751
22mm x 3/4"	98	26	52	32	37	08752
28mm x 1"	91	33	53	30	46	08753
35mm x 1 1/4"	107	40	86	60	54	08754
42mm x 1 1/2"	128	47	77	47	65	08755



### YP65R Bent boiler union

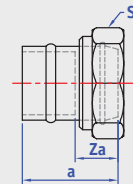
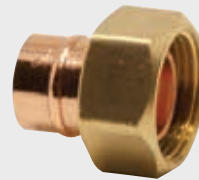
Copper x BSP taper male thread. Cone joint to BS 1010  
Reducing boiler union fitting for connecting primaries to  
boilers tapped 1" BSP.  
Built up using YP64 and YP71, supplied separately



Size	a	b	c	Zc	S	Order code
22mm x 1"	107	26	50	31	37	08780

### YP68 Union adaptor

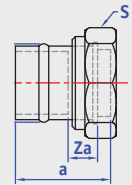
Copper x BSP union nut. Cone joint to BS 1010  
In appropriate sizes suitable for copper cylinders  
with male bosses to BS 1010



Size	a	Za	S	Order code
15mm x 3/4"	28	5	30	08783
22mm x 1"	35	13	37	08784
28mm x 1 1/4"	36	1	46	08786

### YP68CL Union adaptor

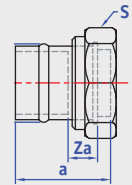
Copper x BSP union nut. Cone joint to BS 1010  
The 15mm x 3/4" size is suitable for connecting  
15mm tube to a 3/4" pillar tap



Size	a	Za	S	Order code
15mm x 3/4"	21	-	32	08800
22mm x 1"	25	7	37	08801
28mm x 1 1/4"	30	4	46	08802

### YP68CL Union adaptor (DZR Nut)

Copper x BSP union nut. Spigot and washer joint  
The 15mm x 3/4" size is suitable for connecting  
15mm tube to a 3/4" pillar tap

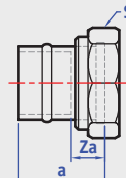


Size	a	Za	S	Order code
15mm x 3/4"	21	-	32	09035



### YP68FF Flat faced union adaptor

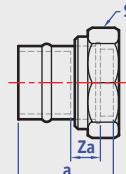
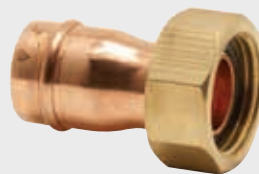
Copper x BSP union nut  
Cone joint to BS 1010  
Suitable for use with water meters



Size	a	Za	S	Order code
15mm x 3/4"	17	3	30	08796
22mm x 1"	21	2	37	08797

### YP68M Meter union connector

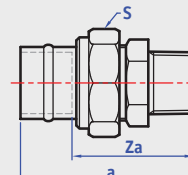
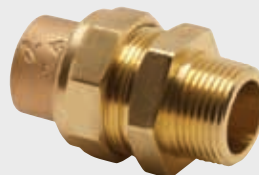
Copper x BSP union nut  
Suitable for use with gas meters



Size	a	Za	S	Order code
22mm x 3/4"	48	24	35	08795

### YP69 Straight male union connector

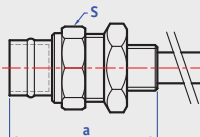
Copper x BSP taper male thread  
Cone joint to BS 1010



Size	a	Za	S	Order code
15mm x 1/2"	61	46	31	08813
22mm x 3/4"	70	48	37	08814
28mm x 1"	77	54	46	08816
35mm x 1 1/4"	73	46	53	08817
42mm x 1 1/2"	86	55	65	08818
54mm x 2"	107	70	82	08819

### YP69DP Straight male union connector with dip pipe

As YP69 but with 104mm dip pipe



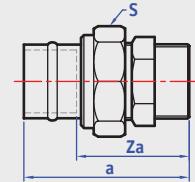
Size	a	Za	S	Order code
22mm x 3/4"	66	45	37	08825





### YP69F Straight female union connector

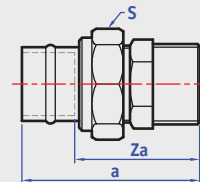
Copper x BSP parallel female thread  
Cone joint to BS 1010



Size	a	Za	S	Order code
15mm x 1/2"	54	35	30	08833
22mm x 3/4"	61	39	37	08834
28mm x 1"	66	44	46	08835
35mm x 1 1/4"	69	43	53	08836
42mm x 1 1/2"	78	47	66	08837
54mm x 2"	93	56	82	08838

### YP69P Straight male union connector

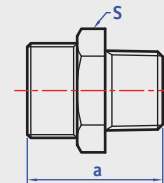
Copper x BSP parallel male thread  
Cone joint to BS 1010



Size	a	Za	S	Order code
15mm x 1/2"	56	33	30	08840
22mm x 3/4"	66	45	37	08841
28mm x 1"	72	36	46	08842
67mm x 2 1/2"	96	48	96	08850

### YP70 Male nipple

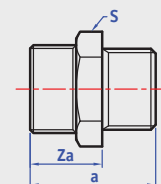
Union thread x BSP taper male thread  
Cone joint to BS 1010  
Enables YP64 and YP68 to be adapted to male union ends



Size	a	S	Order code
1/2" x 3/8"	31	23	08871
3/4" x 1/2"	39	28	08872
1" x 3/4"	41	33	08873
1 1/4" x 1"	46	44	08874

### YP70P Male nipple

Union thread x BSP parallel male thread  
Cone joint to BS 1010. For use with YP64 and YP68 in providing boiler union fittings suitable for connection to parallel thread cylinder bosses

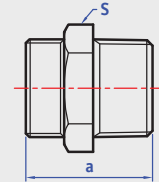


Size	a	Za	S	Order code
3/4" x 1/2"	30	20	26	08880
1" x 3/4"	34	23	34	08881



### YP71 Male nipple

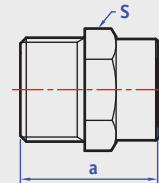
Union thread x BSP taper male thread, equal ends  
Cone joint to BS 1010



Size	a	S	Order code
1/2"	32	22	08885
3/4"	40	27	08886
1"	44	34	08887

### YP72 Female nipple

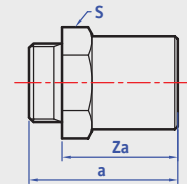
Union thread x BSP parallel female thread  
Cone joint to BS 1010. Enables YP64 and YP68 to be adapted to female union ends



Size	a	S	Order code
3/4" x 1/2"	31	28	08892
1" x 3/4"	33	34	08893
1 1/4" x 1"	36	44	08894
1 1/2" x 1 1/4"	43	50	08895
2" x 1 1/2"	45	62	08896
2 1/2" x 2"	48	77	08897

### YP115 Extension nipple

Used to give extra length to female ends on YP14, YP15, YP30 etc and to extend the tail of pillar taps to BS 1010

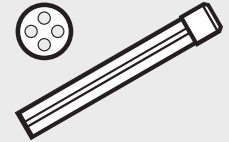


Size	a	Za	S	Order code
1/2"	28	16	25	08945
3/4"	33	21	33	08946



### 1481 Linear flow manifold

Capillary socket inlet x four soft copper tube outlets,  
Patent No. 1278951  
Supplied complete with 8mm Yorkshire couplings



**Size**

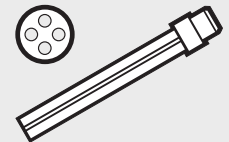
22 x 8mm

**Order code**

80050

### 1483 Linear flow manifold

Capillary socket inlet x four soft copper tube outlets,  
Patent No. 1278951  
Supplied complete with 10mm Yorkshire couplings



**Size**

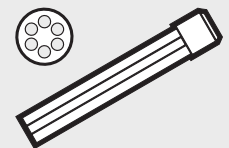
22 x 10mm

**Order code**

80053

### 1486 Linear flow manifold

Capillary socket inlet x six soft copper tube outlets,  
Patent No. 1278951  
Supplied complete with 8mm Yorkshire couplings



**Size**

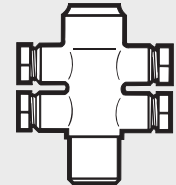
28 x 8mm

**Order code**

80060

### 1491 Side entry manifold

Capillary socket inlet x male end for insertion into fitting  
x four compression outlets. Side entry manifolds are  
supplied complete with nuts and rings



**Size**

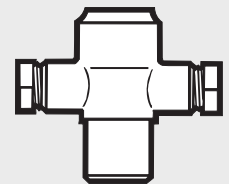
22 x 8mm

**Order code**

80070

### 1495 Side entry manifold

Capillary socket inlet x male end for insertion into fitting  
x two compression outlets. Side entry manifolds are  
supplied complete with nuts and rings



**Size**

22 x 10mm

**Order code**

80072

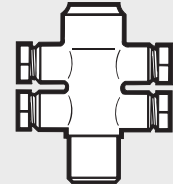


## FEATURES

- ✚ Manifolds for use in heating systems are compact and cover both linear flow and side entry options
- ✚ Initially supplied in small basic units which can be coupled together for larger systems

### 1496 Side entry manifold

Capillary socket inlet x male end for insertion into fitting x four compression outlets. Side entry manifolds are supplied complete with nuts and rings



Size	Order code
22 x 10mm	80073

### 1478A Compression nut

Side entry manifolds



Size	Order code
8mm	83002
10mm	83003

### 1478B Compression ring

Side entry manifolds



Size	Order code
8mm	83011
10mm	83012

### 1478C Blank nut

Blanking of outlets.  
Not required on side entry



Size	Order code
8mm	83020
10mm	83021

### WM8 Micrafold

Metric male copper ends x 10mm compression outlets 8 outlets. Internal disc soldered centrally provides flow and return chambers. Supplied with nut and rings

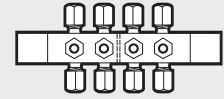


Size	Order code
22 x 10mm	87102



### WM12 Micrafold

Metric male copper ends x 10mm compression outlets  
12 outlets. Internal disc soldered centrally provides flow  
and return chambers. Supplied with nut and rings



#### Size

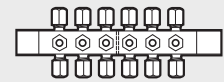
28 x 10mm

#### Order code

87101

### WM18 Micrafold

Metric male copper ends x 10mm compression outlets  
18 outlets. Internal disc soldered centrally provides flow  
and return chambers. Supplied with nut and rings



#### Size

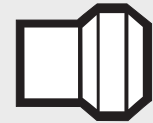
28 x 10mm

#### Order code

87100

### WM20 Blanking plug

Self sealing



#### Size

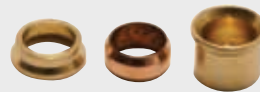
10mm

#### Order code

87155

### WM21 Reducing spacer with olive

Adapts 10mm compression fittings to 8mm tube



#### Size

10 x 8mm

#### Order code

87156



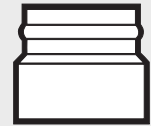


## 2.0 PRODUCT DETAILS

# WASTE FITTINGS

### YP6W Reducer

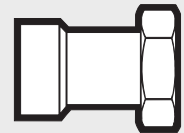
As YP6 but suitable for the shorter socket of waste fittings



Size	Order code
35 x 28mm	54001
42 x 35mm	54002
54 x 35mm	54003
54 x 42mm	54004

### YP62W Waste connector

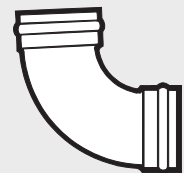
For connecting copper waste pipe to screwed outlet of hand basins, sinks etc where traps are not used



Size	Order code
35mm x 1/4"	54006

### YP323 Copper bend, 91.5°

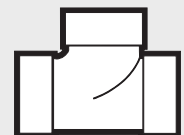
Copper x copper



Size	Order code
35mm	54033
42mm	54034
54mm	54035

### YP359 Pitcher tee, 88.5°

Equal ends  
Branch for connection to outlet of trap tee



Size	Order code
35mm	54055
42mm	54056
54mm	54057



### YP359R Pitcher tee, 88.5°

Equal ends  
Branch reduced, for connection to outlet of trap tee



Size	Order code
42 x 42 x 35mm	54058
54 x 54 x 35mm	54060
54 x 54 x 42mm	54059

### YP363 Pitcher tee, 88.5°

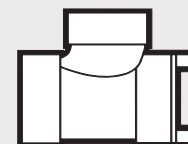
With screwed cleaning plug  
Branch for connection to outlet of trap tee



Size	Order code
35mm	54067
42mm	54068
54mm	54069

### YP363R Pitcher tee, 88.5°

Branch reduced, for connection to outlet of trap tee



Size	Order code
42 x 42 x 35mm	54070
54 x 54 x 35mm	54071
54 x 54 x 42mm	54072



## STOPVALVES

### YP501 Stopvalve

Copper x copper. BS 1010.  
With gunmetal body and brass headwork



Size	Order code
15mm	05269
22mm	05270
28mm	05271

### YP501DZR All DZR stopvalve

Copper x copper. BS 1010.  
The body and all parts in contact with water are made from material resistant to dezincification



Size	Order code
15mm	05302
22mm	05303
28mm	05304

### YP501GM Gunmetal stopvalve

Copper x copper. BS 1010.  
The body and all parts in contact with water are made from gunmetal



Size	Order code
35mm	05305
42mm	05306
54mm	05307

### YP508 Double union stopvalve

Copper x copper. BS 1010.  
With gunmetal body and brass headwork



Size	Order code
15mm	05441
22mm	05442



#### YP415GM

#### All gunmetal gate valve

Copper x copper  
The body and all parts in contact with water are made from gunmetal To BS 5154/B Yorkshire capillary ends 16 bar - 20°C, 6 bar - 110°C



Size	Order code
15mm	05934
22mm	05935
28mm	05936
35mm	05937
42mm	05938
54mm	05939

#### YP415GMLS

#### All gunmetal lockshield gate valve

Copper x copper  
The body and all parts in contact with water are made from gunmetal. To BS 5154/B Yorkshire capillary ends. As YP415GM but with lockshield



Size	Order code
15mm	05940
22mm	05941
28mm	05942
35mm	05943
42mm	05944
54mm	05945



## 2.0 PRODUCT DETAILS

# PLUGCOCKS

### YP202 Nited plugcock

Copper x copper  
Oblong bore suitable for low pressure gas services



**Size**

15mm

**Order code**

55201

### YP203 Nited plugcock with drophead

Copper x copper  
Oblong bore suitable for low pressure gas services



**Size**

15mm

**Order code**

55207

### YP205 Nited union plugcock

Copper x copper  
Oblong bore suitable for low pressure gas services



**Size**

15mm

**Order code**

55218





#### 101 Saddle band

Copper strip



Size	Order code
15mm	71004
22mm	71005

#### 107M Metric single pipe ring

Bright dipped finish. 67mm, 76mm and 108mm sizes are supplied as polished castings. Tapped 10mm and suitable for all ring sizes



Size	Order code
15mm tapped 10mm	72602
22mm tapped 10mm	72603

#### 110 Hospital bracket

Bright dipped finish



Size	Order code
15mm	72536
22mm	72537
28mm	72538

#### 110CP Hospital bracket

Polished Chrome Plate finish



Size	Order code
15mm	72536CP
22mm	72537CP
28mm	72538CP

#### 111M Metric male backplate

For use with pipe rings 107M and 107D. Tapped 10mm and suitable for all ring sizes



Size	Order code
12 - 108mm	72621

#### 111MCP Metric male backplate

For use with pipe rings 107M and 107DM. Tapped 10mm and suitable for all ring sizes. Polished Chrome Plate finish



Size	Order code
12 - 108mm	72621

#### 116M Metric female backplate

For use with pipe rings 107M and 107DM. Tapped 10mm and suitable for all ring sizes



Size	Order code
12 - 108mm	72622

#### SPJ Single pipe joist clip

Two-part clip, comprising a zintec plate and polypropylene body designed to protect pipework, reduce vibration and maintain joist strength



Size	Order code
15mm	72640
22mm	72641

#### DPJ Double pipe joist clip

Two-part clip, comprising a zintec plate and polypropylene body designed to protect pipework, reduce vibration and maintain joist strength



Size	Order code
15mm	72642
22mm	72643



## 2.0 PRODUCT DETAILS

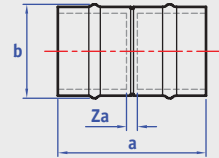
# CHROME PLATED

## FEATURES

- ✚ Aesthetic appeal or, for maximum effect, order with a polished finish to special order. Ideal for use where products are on show, including kitchens and bathrooms
- ✚ Available in size from 6-54mm
- ✚ Manufactured from Copper or Copper alloy

### YP1CP Straight coupling

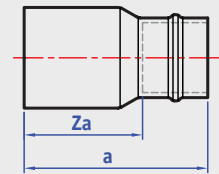
Copper x copper



Size	a	b	Za	Order code
22mm	40	26	2	08021

### YP6CP Reducer

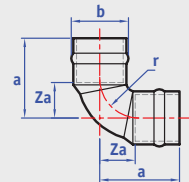
Larger male end for insertion into fitting x female copper



Size	a	Za	Order code
22 x 15mm	41	26	08201
28 x 15mm	48	33	08203
28 x 22mm	49	30	08205

### YP12CP Elbow

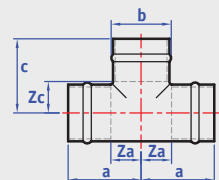
Copper x copper



Size	a	b	Za	r	Order code
15mm	26	19	12	12	08281
22mm	36	27	16	26	08291
28mm	41	32	19	34	08301

### YP24CP Equal tee

All ends for copper

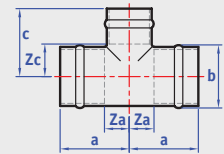


Size	a	b	c	Za	Zc	Order code
15mm	24	19	24	10	10	08451
22mm	32	26	32	13	13	08461
28mm	38	33	38	16	16	08463



#### YP25CP Tee, reduced branch

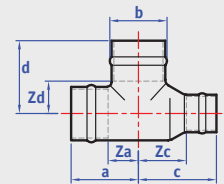
All ends for copper



Size	a	b	c	Za	Zc	Order code
22 x 22 x 15mm	28	26	27	9	13	08491

#### YP26CP Tee, one end reduced

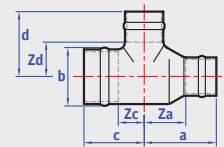
All ends for copper



Size	a	b	c	d	Za	Zc	Zd	Order code
22 x 15 x 22mm	32	26	36	32	14	22	13	08511

#### YP27CP Tee, one end and branch reduced

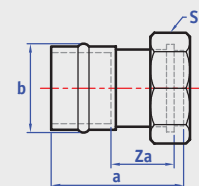
All ends for copper



Size	a	b	c	d	Za	Zc	Zd	Order code
22 x 15 x 15mm	33	26	33	28	19	11	14	08531

#### YP62CP Straight tap connector

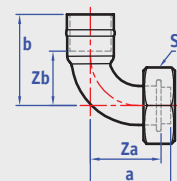
Copper x union nut  
Spigot and washer joint



Size	a	b	Za	S	Order code
15mm x 1/2"	37	19	16	24	08701

#### YP63CP Bent tap connector

Copper x union nut  
Spigot and washer joint



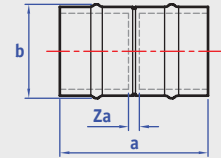
Size	a	b	Za	Zb	S	Order code
15mm x 1/2"	38	27	33	24	24	08721

# YP GENERAL RANGE - POLISHED CHROME



## YP1 Straight coupling

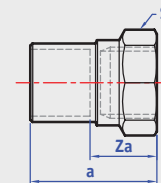
Copper x copper



Size	a	b	Za	Order code
28mm	47	33	3	08030CP

## YP2 Adaptor coupling

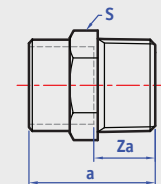
Straight female connector  
Copper x BSP parallel female thread



Size	a	b	Za	Order code
15mm x 1/2"	38	20	26	08090CP

## YP3 Straight male connector

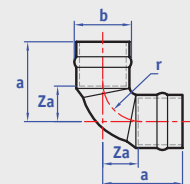
Copper x BSP taper male thread



Size	a	b	Za	Order code
28mm x 1"	43	21	37	08118CP

## YP12 Elbow

Copper x copper

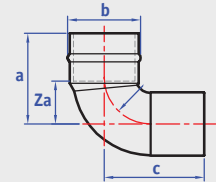


Size	a	b	Za	r	Order code
15mm	26	19	12	12	08280CP
22mm	36	27	16	26	08290CP
28mm	41	32	19	34	08300CP
35mm	50	40	22	25	08302CP
42mm	58	48	27	49	08304CP



#### YP12S Street elbow

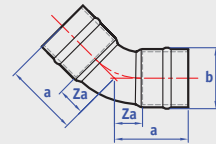
Female copper x male copper for insertion into fitting



Size	a	b	c	Za	Order code
15mm	29	19	35	14	08318CP

#### YP21 Obtuse elbow

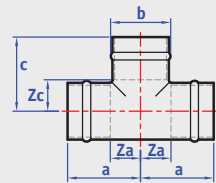
Copper x copper



Size	a	b	Za	Order code
35mm	42	40	14	08416CP

#### YP24 Equal tee

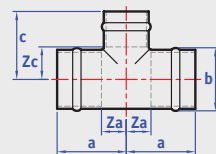
All ends for copper



Size	Order code
15mm	08450CP

#### YP25 Tee, reduced branch

All ends for copper



Size	Order code
22 x 22 x 15mm	08490CP
28 x 28 x 15mm	08492CP
28 x 28 x 22mm	08494CP



## 2.0 PRODUCT DETAILS

# ACCESSORIES

### FEATURES

- + An extensive selection of sundries and accessories complements the Yorkshire range, providing the installer with the means to use Yorkshire integral solder ring fittings most effectively

### 130 Yorkshire flux

Not for gas installations. Safety Data Sheet for this product is available on our website



Size	Order code
100g carton	70212
500g carton	70213

### 131 Traditional craftsman's flux

Suitable for gas installations. Safety Data Sheet for this product is available on our website



Size	Order code
100g carton	70214
500g carton	70215

### Easy flow flux

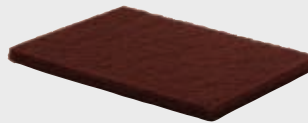
Grease based flux. Safety Data Sheet for this product is available on our website



Size	Order code
250g carton	21066

### 145 Cleaning pads

Highly abrasive synthetic cleaning pad for cleaning tube ends and bores of Yorkshire and Endex fittings



Size	Order code
Pack of 2	71070

### 146 Steel wool

Highly abrasive synthetic cleaning pad for cleaning tube ends and bores of Yorkshire and Endex fittings



Size	Order code
450g/1lb pack	21060
16 pad pack	71060





### CM4 Heat resistant mat

Ceramic fibre heat resistant mat



Size	Order code
300mm x 250mm	21063

### 3 Ended key

For lockshield stopvalves



	Size	Order code
SK2 (For LS stopvalves)	15 - 28mm	73190
SK3 (For LS stopvalves)	35 - 54mm	73191
VK3 (For LS gate valves)	15 - 54mm	71544

### FW1 Tap connector washers

Also suitable for Kuterlite and Endex tap connectors.  
Pack of 100



Size	Order code
3/8"	71220
1/2"	73050
3/4"	73051

### FW2 Union connector washers



Size	Order code
3/4"	71310
1"	71223
1 1/4"	71311

SUNDRIES

**450 Brass plug**

Hexagonal head. BSP parallel male thread



Size	Order code
1/8"	72625
1/4"	72626
3/8"	72627

**450DZR DZR plug**

Square head BSP parallel male thread



Size	Order code
1/2"	72628
3/4"	72629
1"	72630

**456DZR DZR backnut**

BSP thread with flange



Size	Order code
1/2"	70102
3/4"	70103

**464DZR Hexagonal DZR bush**

Screwed inside and outside, BSP taper male thread



Size	Order code
1/2" x 1/4"	72696
1/2" x 3/8"	72697
3/4" x 1/2"	72700
1" x 1/2"	72702
1" x 3/4"	72703
1 1/4" x 1"	72706

**470DZR Blank DZR hexagonal nut**

BSP thread. Supplied with a washer



Size	Order code
1/2"	70171
3/4"	70172
1"	70173

**472 Hexagonal brass nut**

BSP thread. Suitable for use on union fittings in place of standard octagonal nut in appropriate sizes

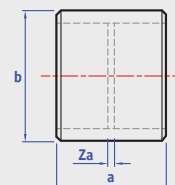


Size	Order code
3/4"	70013
1 1/2"	70016
2"	70017
2 1/2"	70018



#### 1GHD Straight coupling

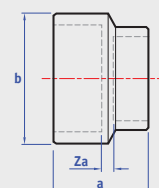
Copper x copper



Size	a	b	Za	Order code
8mm	16	12	2	56002
12mm	18	16	2	56004
15mm	15	19	2	56005
22mm	20	27	2	56007
28mm	23	34	2	56008
35mm	27	42	2	56009
42mm	31	50	2	56010
54mm	38	64	2	56011

#### 1RGHD Reducing coupling

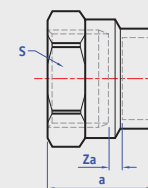
Copper x copper



Size	a	b	Za	Order code
15 x 8mm	18	19	3	56032
15 x 12mm	17	19	2	56034
22 x 15mm	19	27	3	56038
28 x 22mm	23	34	2	56042

#### 2GHD Straight female connector

Copper x BSP parallel female thread



Size	a	Za	S	Order code
8mm x 1/4"	25	2	19	56081
15mm x 1/2"	29	3	27	56084
22mm x 3/4"	31	2	32	56086
28mm x 1"	37	2	41	56087

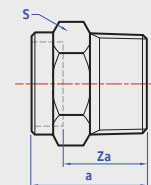


## FEATURES

- ✚ Range of capillary fittings are suitable for use on air conditioning services, vacuum, refrigeration and cryogenic applications; vehicle braking systems; and Nitrogen and Oxygen gas lines. Available in sizes from 6-54mm

### 3GHD Straight male connector

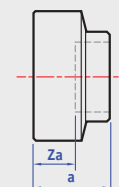
Copper x BSP taper male thread



Size	a	Za	S	Order code
8mm x 1/4"	24	17	17	56102
15mm x 1/2"	29	23	23	56105
22mm x 3/4"	34	25	28	56107
28mm x 1"	39	28	36	56108
42mm x 1 1/2"	50	35	55	56110
54mm x 2"	55	37	66	56111

### 6GHD Reducer

Larger end male copper for insertion into fitting x female copper

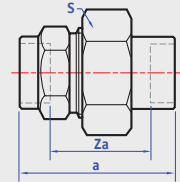


Size	a	b	Za	Order code
8 x 6mm	12	8	4	56134
12 x 8mm	10	12	3	56137
15 x 8mm	10	15	3	56140
15 x 12mm	10	15	2	56142
22 x 15mm	11	22	4	56147
28 x 15mm	20	28	13	56150
28 x 22mm	13	28	3	56152
35 x 28mm	14	35	3	56156
42 x 28mm	23	42	12	56160
42 x 35mm	17	42	4	56161
54 x 28mm	28	54	18	56163
54 x 42mm	20	54	5	56165



#### 11GHD Union coupling

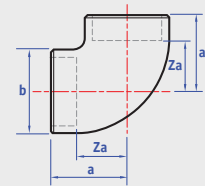
Copper x copper



Size	a	Za	S	Order code
8mm	40	25	22	56249
12mm	49	33	27	56251
15mm	51	37	32	56252
22mm	58	39	41	56254
28mm	63	41	48	56255
35mm	70	44	55	56256
42mm	75	45	65	56257

#### 12GHD Elbow

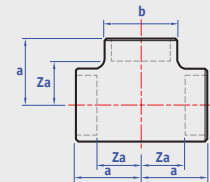
Copper x copper



Size	a	b	Za	Order code
8mm	15	12	8	56289
12mm	18	16	10	56291
15mm	20	20	13	56292
22mm	25	28	16	56294
28mm	32	35	21	56295
35mm	37	43	24	56296
42mm	41	51	26	56297
54mm	55	65	37	56298

#### 24GHD Equal tee

All ends for copper

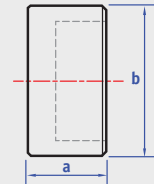


Size	a	b	Za	Order code
8mm	15	12	8	56336
12mm	18	17	10	56338
15mm	20	20	13	56339
22mm	26	28	16	56341
28mm	32	35	21	56342
35mm	37	43	25	56343
42mm	41	51	27	56344
54mm	55	66	37	56345



### 61GHD Stop end

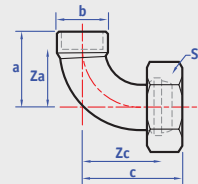
Use on copper tube



Size	a	b	Order code
15mm	12	19	56470

### 64GHD Bent union adaptor

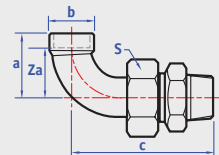
Copper x BSP union nut  
Round-nose to cone joint



Size	a	b	c	Za	Zc	S	Order code
8mm x 3/8"	26	12	32	19	23	22	56485
12mm x 1/2"	34	16	40	26	30	27	56487
15mm x 3/4"	33	20	48	26	41	31	56488
22mm x 1"	40	27	53	30	40	41	56490
28mm x 1 1/4"	48	35	66	38	54	48	56491

### 65GHD Bent male union connector

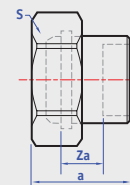
Copper x BSP taper male thread  
Round-nose to cone joint



Size	a	b	c	Za	S	Order code
15mm x 1/2"	34	20	74	27	32	56510
22mm x 3/4"	41	28	82	31	41	56512
28mm x 1"	48	35	102	38	48	56513

### 68GHD Straight union adaptor

Copper x BSP union nut  
Round-nose to cone joint



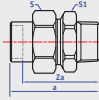
Size	a	Za	S	Order code
8mm x 3/8"	23	15	22	56536
12mm x 1/2"	30	22	27	56538
15mm x 3/4"	31	24	32	56539
22mm x 1"	36	26	41	56541
28mm x 1 1/4"	39	28	48	56542
35mm x 1 1/2"	43	29	55	56543





#### 69GHD Straight male union connector

Copper x BSP taper male thread  
Round-nose to cone joint



Size	a	Za	S	S1	Order code
8mm x 1/4"	44	37	22	19	56558
12mm x 3/8"	54	46	27	22	56560
15mm x 1/2"	59	52	32	27	56561
22mm x 3/4"	69	60	41	36	56563
28mm x 1"	76	65	48	46	56564
35mm x 1 1/4"	87	74	55	50	56565
42mm x 1 1/2"	93	78	66	60	56566

#### 70GHD Male hexagon nipple

BSP union thread x BSP taper male thread 60° cone



Size	a	Za	S	Order code
3/8" x 1/4"	27	16	19	56597
1/2" x 3/8"	31	19	22	56598
3/4" x 1/2"	35	20	27	56599
1" x 3/4"	42	27	37	56600
1 1/4" x 1"	46	27	46	56601

#### 70PGHD Male hexagon nipple

BSP union thread x BSP parallel male thread 60° cone



Size	a	Za	S	Order code
3/8" x 1/4"	23	15	19	56611
1/2" x 3/8"	29	19	22	56612
3/4" x 1/2"	30	20	27	56613
1" x 3/4"	37	26	36	56614
1 1/4" x 1"	40	27	46	56615

#### 130GHD High duty flux

Ready mix paste



Size	Order code
500g tub	21068

#### N166 Silver alloy brazing rods

To BS EN 1044 AG14 (formerly BS 1845)

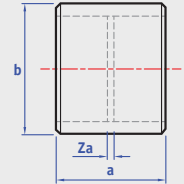


Size	Order code
3mm x 600mm	71175

# GENERAL HIGH DUTY FITTINGS DEGREASED

## 1GHD Straight coupling

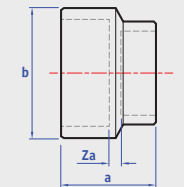
Copper x copper



Size	a	b	Za	Order code
15mm	15	19	2	56005DW
22mm	20	27	2	56007DW
28mm	23	34	2	56008DW
35mm	27	42	2	56009DW
42mm	31	50	2	56010DW

## 1RGHD Reducing coupling

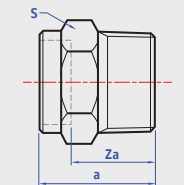
Copper x copper



Size	a	b	Za	Order code
22 x 15mm	19	27	3	56038DW

## 3GHD Straight male connector

Copper x BSP taper male thread

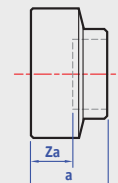


Size	a	Za	S	Order code
15mm x 1/2"	29	23	23	56105DW
42mm x 1 1/2"	50	35	55	56110DW



### 6GHD Reducer

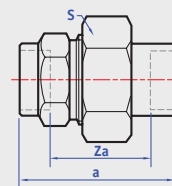
Larger end male copper for insertion into fitting x female copper



Size	a	Za	Order code
8 x 6mm	12	4	56134DW
15 x 8mm	10	3	56140DW
15 x 12mm	10	2	56142DW
22 x 15mm	11	4	56147DW
28 x 15mm	20	13	56150DW
28 x 22mm	13	3	56152DW
42 x 28mm	23	12	56160DW
42 x 35mm	17	4	56161DW
54 x 28mm	28	18	56163DW
54 x 42mm	20	5	56165DW

### 11GHD Union coupling

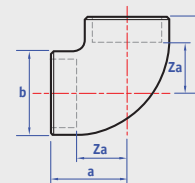
Copper x copper



Size	a	Za	S	Order code
15mm	51	37	32	56252DW
28mm	63	41	48	56255DW

### 12GHD Elbow

Copper x copper



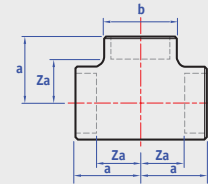
Size	a	b	Za	Order code
15mm	20	20	13	56292DW
22mm	25	28	16	56294DW
28mm	32	35	21	56295DW
42mm	41	51	26	56297DW
54mm	55	65	37	56298DW

# GENERAL HIGH DUTY FITTINGS DEGREASED



## 24GHD Equal tee

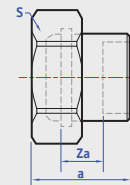
All ends for copper



Size	a	b	Za	Order code
15mm	20	20	13	56339DW
22mm	26	28	16	56341DW
28mm	32	35	21	56342DW
42mm	41	51	27	56344DW
54mm	55	66	37	56345DW

## 68GHD Straight union adaptor

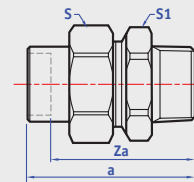
Copper x BSP union nut  
Round-nose to cone joint



Size	a	Za	S	Order code
15mm x 3/4"	31	24	32	56539DW

## 69GHD Straight male union connector

Copper x BSP taper male thread  
Round-nose to cone joint



Size	a	Za	S	S1	Order code
15mm x 1/2"	59	52	32	27	56561DW
28mm x 1"	76	65	48	46	56564DW
42mm x 1 1/2"	93	78	66	60	56566DW



## 3.0 TECHNICAL DATA

### TUBE COMPATIBILITY AND APPLICATIONS

Yorkshire integral solder ring capillary fittings are suitable for jointing copper tube, which must meet the requirements of BS EN 1057.

**BS EN 1057** Specification for copper and copper alloy - seamless round copper tubes for water (and gas) in sanitary and heating applications. BS EN 1057 includes specified temper conditions (material strength) expressed as an "R" number. Quite simply, the higher the number, the harder the material. As a result, tube diameter, wall thickness, length and the material temper must all be specified for full product designation.

**R220** Annealed condition with a tensile strength of 220N/mm<sup>2</sup> supplied in coils and suitable for connection by push-fit, capillary and compression fittings. Can be bent with suitable bending tools.

**R250** Half hard condition with a tensile strength of 250N/mm<sup>2</sup> supplied in straight lengths and suitable for connection by push-fit, press-fit, capillary and compression fittings. Can be bent with suitable bending tools.

**R290** Hard condition with a tensile strength of 290N/mm<sup>2</sup> supplied in straight lengths suitable for connection by push-fit, press-fit, capillary and non-manipulative compression fittings. Not suitable for bending. The specifications of copper tube compatible with Yorkshire integral solder ring fittings are detailed in Table 1. Yorkshire General High Duty fittings are also compatible with high

duty copper tubes, the use of which will enable maximum system temperature and pressure performance.

#### IMPERIAL COPPER TUBE

Yorkshire integral solder ring fittings with metric or BSP ends are not compatible with imperial copper tube. However, the Yorkshire range includes a number of imperial x metric adaptors, which are specifically designed for the purpose of connecting to imperial copper tube found in an existing installation.

#### STAINLESS STEEL TUBE

The use of Yorkshire integral/solder ring fittings with stainless steel tube is not recommended.

**BS EN 1057 COPPER TUBE COMPATIBLE WITH YORKSHIRE INTEGRAL SOLDER RING FITTINGS AND VALVES**

Outside diameter	Wall thickness							
	0.6mm	0.7mm	0.8mm	0.9mm	1.0mm	1.2mm	1.5mm	2.0mm
6mm	R220/R250		R220/R250					
8mm	R220/R250		R220/R250					
10mm	R250	R220	R220/R250					
12mm	R250		R220/R250					
15mm		R250			R220/R250			
22mm				R250		R220/R250		
28mm				R250		R220/R250		
35mm					R290	R250/R290	R250	
42mm					R290	R250/R290	R250	
54mm					R290	R250/R290		R250
64mm								
67mm						R250/R290		R250



### 3.0 TECHNICAL DATA

## WORKING TEMPERATURES AND PRESSURES

CONNECT + CONTROL

#### YORKSHIRE GENERAL RANGE FITTINGS

Yorkshire integral solder ring fittings contain a tin/copper lead-free solder (BS EN 29453 Alloy number 23 Sn99Cu1) with a melting range of 227- 235°C. Jointing temperatures can be easily reached using a conventional heat source such as a propane or butane torch. The Yorkshire general range is designed for sustained operation at the service temperatures and pressures shown in Table 1.

#### YORKSHIRE GENERAL HIGH DUTY FITTINGS

Yorkshire General High Duty fittings are designed to joint copper tubes to BS EN 1057. However, a GHD installation will achieve maximum performance (shown in Table 3) when used with high duty copper tube in applications not subject to classification society requirements.

When assembled with copper tube to BS EN 1057, the service temperatures and pressures of Yorkshire General High Duty fittings are limited by the specification of annealed tube used.

#### HEATING COMPONENTS - MANIFOLDS

Manifolds used in heating systems are suitable for use up to a maximum working pressure of 6 bar at 110°C. When used in applications other than heating systems, Yorkshire manifolds perform to the same temperature and pressure ratings as Yorkshire Potable general range fittings. Engineering Practice (S.E.P.) under the Pressure Equipment Directive (P.E.D.) 1999.

#### ACHIEVING LOW TEMPERATURES

For products used in water systems, working temperatures of less than 4°C can only be achieved if antifreeze is added to the system. Antifreeze must not be added to potable water systems.

TABLE 1

Yorkshire general range performance when correctly assembled with copper tube to BS EN 1057				
Size	Service temperature			
	Min			Max
	-40°C	30°C	65°C	110°C
6mm to 54mm	16bar	16bar	10bar	6bar
67mm	10bar	10bar	6bar	4bar

TABLE 2

Yorkshire general high duty performance when correctly assembled with high duty tube to the appropriate specification				
Size	Service temperature			
	Min			Max
	-196°C	150°C	175°C	200°C
6mm	242bar	242bar	151bar	61bar
8mm	202bar	202bar	128bar	51bar
10mm to 12mm	158bar	158bar	99bar	40bar
15mm to 54mm	69bar	69bar	43bar	17bar

#### PRESSURE EQUIPMENT DIRECTIVE (PED)

Since 30th May 2002 most pressure equipment and assemblies on the market in the United Kingdom must comply with the Pressure Equipment Directive (P.E.D.) 1999. Fittings are exempt from the P.E.D. unless they are incorporated into pressure equipment such as pressurised storage containers, heat exchangers, shell and water tube boilers. This means that all Yorkshire fittings are exempt.

For a detailed explanation please visit [www.pegleryorkshire.co.uk/technical.cfm](http://www.pegleryorkshire.co.uk/technical.cfm)

THERE ARE THREE GAS FAMILIES	
1st Family	Manufactured gas
2nd Family	Natural gas
3rd Family	LPG, compressed propane and butane





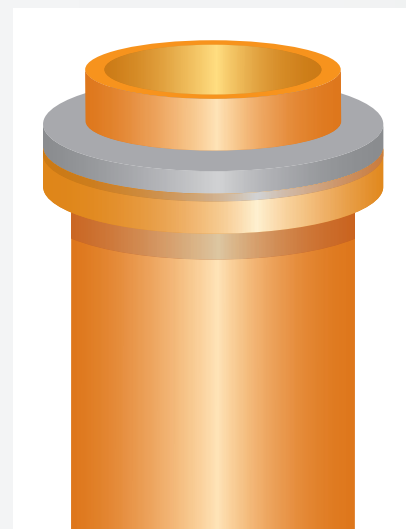
## 3.0 TECHNICAL DATA

# PERFORMANCE AND EQUIPOTENTIAL BONDING



### WASHERS

Where tap connectors or other fittings are assembled with washers, service temperatures must not exceed 100°C. Washers are not suitable for use on gas service pipelines.



### EQUIPOTENTIAL BONDING

Ensure all metallic pipework systems comply with the equipotential bonding requirements of the current edition of the IEE electrical wiring regulations (BS 7671:2001).

All Endex end feed fittings provide electrical continuity when the joint has been completed with copper tube.

After all plumbing work has been completed, always ensure continuity checks are conducted by a qualified electrician in accordance with regulations.





### 3.0 TECHNICAL DATA

## SYSTEM DESIGN CONSIDERATIONS AND TUBE EXPANSION

CONNECT + CONTROL

Here are details of some of the specific design considerations it is important to take account of when designing and installing pipework systems containing Yorkshire integral solder ring fittings.

#### THERMAL MOVEMENT

Thermal movement is a major consideration when designing and installing plumbing and heating systems and should be taken into account. Pipework systems expand and contract with changes in temperature. If they are fixed too rigidly and their movement restricted the installation will be subject to stress. Stress concentrations between "fixed points" - typically found at radiators, valves and other fittings - should be avoided wherever possible.

#### CORRECT ANCHORING

Always ensure the free length of tube between the branch of the tee and the first anchor point (bracket or radiator valve) is long enough to allow normal thermal movement. Not doing this can lead to installation failure.

#### EXPANSION OF COPPER TUBE

Copper has a coefficient of linear expansion of  $17 \times 10^{-6} \text{ } ^\circ\text{C}$ . For example, a 10 metre length of copper tube carrying hot water at  $60^\circ\text{C}$  will increase in length by almost 7mm when heated from  $20^\circ\text{C}$ . Assuming that temperature cycling of the system is  $20^\circ\text{C}$ , there will be a continuous cycle of expansion and contraction of 3.4mm.

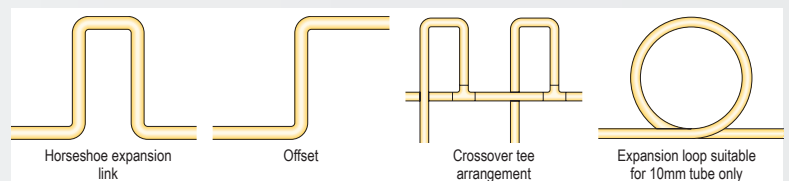
Refer to table (below).

#### PIPELINE SUPPORT

Pipelines should always be assembled so that the joints are under neutral or compressive stress. Clipping to support the assembled pipeline is essential and tube manufacturer's recommendations should be adhered to. Pegler Yorkshire offers a wide range of pipe clips and brackets to ensure safe and secure installations. Pipe joint clips are also available and are designed to protect pipework against accidental piercing when nailing or screwing down floorboards. For the maximum spacing of supporting brackets refer to the table (below).

Maximum spacing of support brackets for internal fixing of copper tube to BS EN 1057 R250 and R290			
Size	Wall thickness	Horizontal pitch	Vertical pitch
6mm	0.6mm	0.40m	0.60m
8mm	0.6mm	0.60m	0.90m
10mm	0.6mm	0.80m	1.20m
12mm	0.6mm	1.00m	1.50m
15mm	0.7mm	1.20m	1.80m
22mm, 28mm	0.9mm	1.80m	2.40m
35mm, 42mm	1.2mm	2.40m	3.00m
54mm	1.2mm	2.70m	3.00m
67mm	1.2mm	3.00m	3.60m

#### TECHNIQUES FOR EXPANSION STRESS RELIEF



COPPER TUBE EXPANSION										
Temperature change	Tube length									
	3m	4m	5m	6m	7m	8m	9m	10m	12m	25m
10°C	0.5mm	0.7mm	0.9mm	1.0mm	1.2mm	1.4mm	1.5mm	1.7mm	2.0mm	4.3mm
20°C	1.0mm	1.4mm	1.7mm	2.0mm	2.4mm	2.7mm	3.0mm	3.4mm	4.0mm	8.5mm
30°C	1.5mm	2.0mm	2.6mm	3.1mm	3.6mm	4.1mm	4.6mm	5.1mm	6.1mm	13.0mm
40°C	2.0mm	2.7mm	3.4mm	4.1mm	4.8mm	5.4mm	6.1mm	6.8mm	8.2mm	17.0mm
50°C	2.6mm	3.4mm	4.3mm	5.1mm	6.0mm	6.8mm	7.7mm	8.5mm	10.2mm	21.0mm
60°C	3.1mm	4.1mm	5.1mm	6.1mm	7.1mm	8.2mm	9.2mm	10.2mm	12.2mm	26.0mm
70°C	3.6mm	4.8mm	6.0mm	7.1mm	8.3mm	9.5mm	10.7mm	11.9mm	14.3mm	30.0mm
80°C	4.1mm	5.4mm	6.8mm	8.2mm	9.5mm	10.9mm	12.2mm	13.6mm	16.3mm	34.0mm
90°C	4.6mm	6.1mm	7.7mm	9.2mm	10.7mm	12.2mm	13.8mm	15.3mm	18.4mm	38.0mm
100°C	5.1mm	6.8mm	8.5mm	10.2mm	11.9mm	13.6mm	15.3mm	17.0mm	20.4mm	43.0mm



## 3.0 TECHNICAL DATA

# SYSTEM DESIGN CONSIDERATIONS AND TUBE EXPANSION

## INSULATION

For all Yorkshire installations, we recommend you adhere to the insulation requirements for copper tube as specified by The Water Supply (Water Fittings) Regulations 1999. These can be downloaded from [www.hms.gov.uk](http://www.hms.gov.uk).

### PHENOLIC FOAM

When using rigid phenolic foam (or other thermal insulation) to lag pipework, always remember to refer to the lagging manufacturer's fixing instructions. To avoid the risk of external corrosion of pipework, the European Phenolic Foam Association recommends that such insulation products be installed with a moisture barrier, such as Densopaste or a plastic covering applied by the tube manufacturer. If you need to add a barrier product, we recommend that all Yorkshire fittings are fully installed and are completely coated before these are applied.

### COVERED PIPEWORK

Making provision for thermal movement is vital where pipe-work is installed under screed or plaster, or passes through brick or blockwork. The preferred practice is to pass tubes and pipes through sleeves or conduits or to lay them in ducts surrounded by loose, non-rigid material such as vermiculite or glass wool. For further information, consult the standard BS 6700.

### PIPEWORK ACCESSIBILITY

It's wise to take advice from the local water authority when it comes to pipework accessibility.

### CHEMICALS

Some contracts may require the use of proprietary chemicals to cleanse and flush pipework before full commissioning. Yorkshire fittings are compatible with a selection of products – contact us for a list.

### FLUXES

Yorkshire Flux, Traditional Craftsman's Flux and Degussa H high duty flux are subject to the requirements of the Control of Substances Hazardous to Health (COSHH) regulations. COSHH sheets are available to download from our website, [www.pegleryorkshire.co.uk](http://www.pegleryorkshire.co.uk)

Soldering fluxes do not support microbiological growth in potable water supplies and their residues are non-corrosive. Fluxes prevent oxidation at the Copper tube during soldering. This allows the molten solder to 'wet' the parent metals, creating a true metallurgical bond. Efficient fluxes also ensure that the maximum strength of the joint can be achieved by adding the distribution of the solder over the whole jointing surface.

Traditional Craftsman's Flux maintains its consistency over a long period of time and can be used with all types and sizes of soft solder fittings for applications including gas, and is char-resistant to normal heating levels of 250°C.

Yorkshire Flux, like Traditional Craftsman's, Yorkshire Flux will maintain its consistency and can be used with all types and sizes of soft solder fittings. However, it must not be used for gas applications.

Degussa H ready-mixed paste is for brazing copper and copper alloys, such as Pegler Yorkshire General High Duty fittings.

### PLUGCOCKS

Plugcocks are designed for use with copper tube to BS EN 1057 to control the flow of gas in low pressure installations. Manufactured from brass, Yorkshire plugcocks are available in sizes 15mm and 22mm and incorporate an oblong bore. Variants with a drophead are available for use in restricted spaces or for union outlet connections.

BS 1552 Specification for manual shut-off valves for use with first and second family gases. Ends are in accordance with BS EN 1254 Part 1. Pegler Yorkshire plugcocks perform to the service temperatures and pressures indicated in the table.





Pegler Yorkshire plugcock performance for first and second family gases when correctly assembled with copper tube to BS EN 1057

Size	Service temperature - MOP 0.35	
	Minimum -10°C	Maximum 30°C
15mm to 22mm	0.35bar	0.35bar

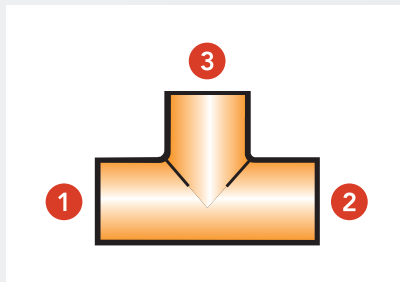
**CONNECTORS**



**MALE CONNECTORS**

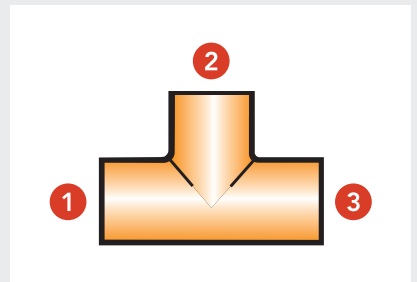
Yorkshire male connectors have threads to ISO 7/EN 10226-1. Inert jointing compounds or PTFE tape should be applied to taper threads and good quality jointing washers should be used with parallel threaded fittings. All Yorkshire male ended fittings should only be used with soldered joints.

**TEE SPECIFICATION**



**UK SPECIFICATION**

First quote the ends on the run (larger end first) and then the branch.



**EUROPEAN SPECIFICATION**

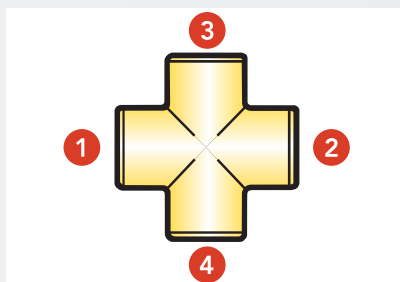
Quote the larger end first, then the branch, followed by the remaining end.



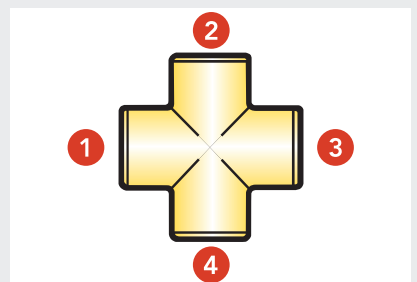
**FEMALE CONNECTORS**

Yorkshire female threaded connectors have internal parallel threads to ISO 7/EN 10226-1.

**CROSS SPECIFICATION  
UK SPECIFICATION**



**EUROPEAN SPECIFICATION**





## 4.0 TECHNICAL DATA

# YORKSHIRE GENERAL RANGE INSTALLATION INSTRUCTIONS

The following instructions illustrate just how easy it is to make a Yorkshire integral solder ring joint. The fittings use the principle of capillary action to allow solder to fill the gap between fitting and tube to form a completely reliable joint. These instructions cover Yorkshire general range fittings. Details of how to joint General High Duty fittings can be found on page 62.

### INSTALLATION TIPS

Best results are obtained when joints are heated as soon as possible after assembly. After heating and subsequent cooling, flush the system - preferably with hot water. Ensure adequate ventilation during heating.

Any joints not heated during the working day should be dismantled, cleaned and refluxed prior to reassembly.

### PRELIMINARIES

Select the correct size of tube and fitting for the job. Ensure that both are clean, in good condition and free from damage and imperfections. If the tube is oval or damaged use a re-rounding tool.

### PREPARATION

**1.** Cut the tube square using a rotary tube cutter wherever possible. If a hacksaw is used to cut the tube, a fine toothed blade should be used.



**2.** Remove any burr from the inside and outside of the tube ends using a fine toothed file or a S120 de-burring tool from the XPress accessories range.



**3.** Clean the inside of the fitting socket and the outside of the tube with a Yorkshire cleaning pad, fine sandpaper or steel wool.



### JOINTING

**1.** Using a suitable brush, apply adequate - but not excessive - flux to both the outside surface of the tube and the inside surface of the fitting socket. Do not use your finger.

The reliability of soldered joints is greatly influenced by the type of flux used. Yorkshire flux and Traditional Craftsman's flux are specially formulated for jointing copper tubes with Yorkshire integral solder ring fittings. All fluxes are, to some extent, corrosive, but special care should be taken with so-called self cleaning fluxes. Yorkshire flux is not suitable for gas applications.



**2.** Insert the tube into the fitting until it reaches the tube stop, then wipe off any excess flux. Heat the assembled joint until a complete ring of solder appears at the mouth of the fitting.



**3.** Allow the joint to cool without disturbance. Clean the joint generally, wiping off any external flux residues. This will prevent unsightly stains or (in extreme cases) corrosion of pipework. Flush out the pipework.



### THREADED CONNECTORS

A good quality jointing washer should be used when installing fittings with parallel connector threads. Male threaded connectors for jointing pipework to boilers, pumps or backplate elbows have taper male BSP threads and may require the use of jointing materials. A small quantity of inert jointing compound or PTFE tape should be applied to the male thread before installing the fittings.

Female threaded connectors have internal threads to BS EN ISO 228:2003 and should be used for general connections from male threaded fittings to copper pipework.

Jointing compounds should comply with BS 6956 Part 5 and be WRAS listed. PTFE tape for water and general applications should comply



#### 4.0 TECHNICAL DATA

## CHROME PLATED INSTALLATION INSTRUCTIONS

CONNECT + CONTROL

with BS 7786 and satisfy the requirements of BS 6920 Part 1. For gas applications, PTFE tape should comply with BS EN 751-3:1997 (formerly BS 6974).

#### STOPVALVES

During the soldering operation, stopvalves should be half open and a damp cloth wrapped around the headwork. The headwork of stopvalves are bonded and sealed to provide maximum reliability.

#### SLIP COUPLINGS AND TEES

If it is necessary to break into existing pipes for repairs or to fit new branches, slip couplings or tees which have no tube stops make the job easier and avoid disturbing the rest of the system.

#### ADAPTING IMPERIAL TO METRIC WITH YORKSHIRE

Occasionally a Yorkshire integral solder ring fitting may need to be connected to an older installation where imperial sized copper tube has been used. If this is the case, simply use a Yorkshire imperial to metric coupling adaptor, one end of which fits on to imperial pipe, and the other on to metric pipe. Adaptors are available in several combinations.

#### UNMADE ENDS

If an end of a Yorkshire general range fitting is to remain unmade, a short length of correctly sized, uncleaned tube should be inserted into the end(s) to be left unjointed. This section should be kept cool by wrapping a wet rag around it whilst heating the remaining ends.

#### TAKING APART AND REMAKING YORKSHIRE JOINTS

The re-use of Yorkshire integral solder ring fittings is generally not recommended, as the joints are difficult to disconnect owing to the intermetallic bonding between the solder and the copper of the fitting and tube. However, in some situations, joints can be remade by fluxing the tinned portion of the tube and reinserting this into the fitting.

The joint can then be heated and lead-free solder end-fed. If a new tube is to be used, clean and flux the tube before assembly. End feed lead-free solder at the mouth of the socket after reheating.

#### USING YORKSHIRE GENERAL RANGE FITTINGS WITH CHROME PLATED COPPER TUBE

Solder will not bond to chrome plate, meaning the plating needs to be removed from copper tube before a joint is made. The same preliminaries and preparation guidelines apply.

**1.** For the distance the tube goes into the fitting, remove the chrome plating using a coarse emery cloth, followed by fine sandpaper or Yorkshire cleaning pad.



**2.** After applying flux, heat the joint in the usual manner.

**3.** Remove any discolouration of the chromium by washing the fitting with soap and warm water immediately after the joint has cooled.



#### LOCAL WATER AUTHORITY

It's wise to take the advice of the Local Water Authority into account when it comes to pipework accessibility.

#### UNION FITTINGS

Yorkshire union fittings have metal-to-metal cone joints. To avoid leaks, care should be taken to protect the jointing faces from damage. Use a WRAS listed jointing compound or apply a sufficient amount of PTFE tape to obtain completely satisfactory results. Tighten the joint with a spanner.

#### SYSTEM TESTING

We recommend all systems are thoroughly tested upon completion. In hydraulic based installations the system may be tested to 1.5 times the working pressure of the system (see tables on page 55 for data). If higher test pressures are required advice should be sought from Pegler Yorkshire.

On completion, compressed air pipeline systems must be properly tested. The system designer and installation contractor must ensure safe methods are selected for system testing which will comply with all current Health and Safety regulations.

This may include testing compressed air lines with fluids or compressed air at a limited pressure, or a combination. In any event we do not recommend the maximum working pressure of the product be exceeded during this procedure.

N.B. The maximum temperature and pressure range in any system is dictated by the component with the lowest performance rating.





## 4.0 TECHNICAL DATA

# GENERAL HIGH DUTY INSTALLATION INSTRUCTIONS

### MAKING A YORKSHIRE GENERAL HIGH DUTY JOINT

The same preliminaries apply as for Yorkshire general range fittings.

#### PREPARATION

The preparation of Yorkshire General High Duty fittings differs only slightly to those for Yorkshire general range fittings. Details of these differences are as follows:

1. A hacksaw should be used to cut the tube – a rotary cutter must not be used for this application as it can reduce the diameter of the tube ends.
2. An alumina based paper or cloth can also be used to clean the fitting socket as an alternative to a Yorkshire cleaning pad or fine sandpaper. Steel wool should not be used.
3. General High Duty fittings require the use of the correct flux. We recommend Degussa "H" ready mixed paste, although satisfactory joints can be made using other suitable silver brazing alloy fluxes.

Silver brazing alloy fluxes must be used with care and always in a well ventilated area.

If powder flux is used, this should be mixed with clean water and blended into a creamy paste. Mix the required amount of flux and keep the powder in the container dry, replacing the lid immediately after use. Any excess mixed flux should be discarded.

#### JOINTING

1. Using a suitable brush, apply adequate – but not excessive – flux to both the outside surface of the tube to a length slightly greater than the socket depth and the inside surface of the fitting socket. Do not use your finger.



2. Insert the tube into the fitting until it reaches the tube stop, using a twisting action to ensure the spread of flux. Ensure the tubes are correctly lined up and adequately supported – otherwise distortion or cracking may occur when at brazing temperature.
3. Heat the socket and tube gently using an oxy/gas, oxy/acetylene or oxy/propane torch to approximately 700°C – a visible red heat in poor daylight. Use a large, soft, neutral or slightly reducing flame, keep the torch moving, and continue heating until a complete ring of solder appears around the socket mouth - this is proof of a sound joint. Continue to heat generally for a few seconds. Repeat this method for each joint in turn.



If the complete ring of solder does not appear on heating, apply additional flux to the mouth of the socket and end feed the joint with our N165 (Copper coloured) or N166 (Brass coloured) cadmium-free silver brazing alloy, or an equivalent to the compositional requirements of BS EN 1044 AG103 (formerly BS 1845 AG14).

4. Allow the joint to cool without disturbance. Clean the joint generally, wiping off any external flux residues. Flush out the pipework.



### PERMANENCE OF GHD JOINTS

Joints made with Yorkshire General High Duty fittings should be regarded as permanent. If the system has to be broken into, fittings such as the 11GHD union coupling should be installed at appropriate points. An alternative is the use of bi-metal Endbrazed flanges, in sizes 42mm and 54mm, which will require the end-feeding of solder.

### DISCONNECTING GHD FITTINGS

The use of disconnecting fittings allows sections of the installation to be completed on the workbench, avoiding the need to make joints in difficult places. This prefabrication technique is particularly recommended in sizes from 22mm to 54mm.

### GHD UNION FITTINGS

Union type fittings such as 11GHD, 65GHD and 69GHD have round nose-to-seal joints.

### IMPERIAL TO METRIC

Where the layout permits, the most economical way of adapting from imperial to metric is to use the 9GHD.



#### 4.0 TECHNICAL DATA

## STOPVALVES AND GATE VALVES

CONNECT + CONTROL

Yorkshire recognises that different service environments place a variety of demands on pipeline systems. With this in mind, a comprehensive selection of valves to suit both domestic and commercial requirements, from central heating and hot and cold water services to oil lines, steam and gas installations, have been developed. Valves have either solder ring or threaded ends, with the former assembled with the same jointing procedure as the Yorkshire integral solder ring fittings.

### STOPVALVES

Stopvalves are designed for use wherever the flow of hot or cold water services needs to be controlled or regulated. Yorkshire stopvalves are available in sizes from 15mm to 54mm, and are suitable for use with copper tube to BS EN 1057.

All have gunmetal bodies, with gunmetal, DZR or duplex brass headworks, and are available with combined draincocks and alternative headworks, including Lockshield and easy clean covers.

Lockshield stopvalves can be used where operational access needs to be restricted, for instance on exposed pipe runs. Stopvalves with easy clean covers should be used where the stopvalve is highly visible, particularly where hygiene is important. The combined stopvalve and draining tap enables easy isolation with a draining facility.

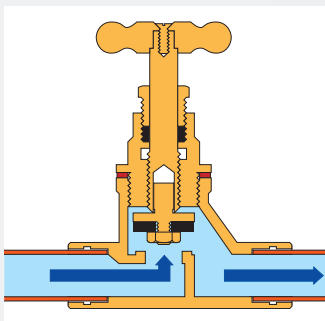
The Pegler Yorkshire stopvalve range is available with union ends allowing easy removal of the valve without the need to disturb fixed pipework. All stopvalves have bonded and sealed headworks to provide maximum reliability.

BS 1010 Part 2 Draw off taps, above ground stopvalves and union ends. BS 1010 stopvalves ends are in accordance with BS EN 1254 Part 1.

BS 2879 Specification for draining taps (screw down pattern).

BS 5433 Specification for underground stopvalves for water services.

When correctly assembled with copper tube to BS EN 1057, stopvalves perform to a maximum service temperature of 30°C at 16 bar.



The stopvalve design incorporates a rubber washer that is screwed down onto a gunmetal seat to provide a seal against mains pressure water.

### GATE VALVES

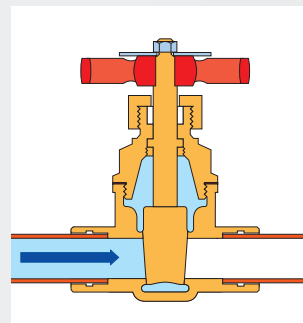
Gate valves are available in wheelhead and lockshield varieties and are manufactured from corrosion resistant materials including gunmetal. Available in sizes from 15mm to 54mm, the gate valves incorporate high quality PTFE packing, which has hardwearing properties to withstand the effects of harsh service conditions.

A precision made wedge positioned at right angles to the flow direction provides the sealing mechanism and the easy regulation of hot or cold water services with minimal flow restriction.

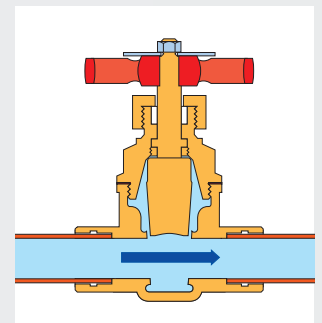
Pegler Yorkshire gate valves are designed for use with copper tube to BS EN 1057 in hot and cold water services, central heating systems, oil lines, steam installations, compressed air lines and certain chemical supply lines, particularly where a low pressure drop is required.

BS 5154 Specification for copper alloy globe, globe stop and check, check and gate valves. Ends are in accordance with BS EN 1254 Part 1.

Gate valves perform to a maximum service temperature of 110°C at 6 bar when correctly assembled with copper tube to BS EN 1057. Pegler Yorkshire gate valves also comply with Sound Engineering Practice (S.E.P.) under the Pressure Equipment Directive (P.E.D.) 1999.



In Yorkshire gate valves the primary sealing surfaces are in gunmetal. Flow is controlled by screwing the gate into the valve body.



When the valve is fully open the gate moves up into the headwork to leave the flow unhindered.



# Pegler Yorkshire

Follow us on



CONNECT + CONTROL

## UK ENQUIRIES

### UK SALES

Free Phone: 0800 156 0010

Free Fax: 0808 156 1011

Email: [uk.sales@pegler-yorkshire.co.uk](mailto:uk.sales@pegler-yorkshire.co.uk)

### TECHNICAL HELP

Free Phone: 0800 156 0050

Free Fax: 0808 156 1012

Email: [tech.help@pegler-yorkshire.co.uk](mailto:tech.help@pegler-yorkshire.co.uk)

### BROCHURE HOTLINE

Free Phone: 0800 156 0020

Free Fax: 0808 156 1011

Email: [info@pegler-yorkshire.co.uk](mailto:info@pegler-yorkshire.co.uk)

## INTERNATIONAL ENQUIRIES

### EXPORT

Tel: +44 (0) 1302 855 656

Fax: +44 (0) 1302 730 513

Email: [export@pegler-yorkshire.co.uk](mailto:export@pegler-yorkshire.co.uk)

**Tectite**

**XPress**

**Henco**

**Terrier**

**Meibes**

**Ballorex**

**Pegler**

**Prestex**

**Yorkshire**

**Endex**

**Kuterlite**

**Francis Pegler**

**Performa**



## HEAD OFFICE

### Pegler Yorkshire Group Limited

St. Catherine's Avenue, Doncaster,  
South Yorkshire DN4 8DF, England

Tel: +44 (0) 844 243 4400

Fax: +44 (0) 844 243 9870

Email: [info@pegler-yorkshire.co.uk](mailto:info@pegler-yorkshire.co.uk)

[www.pegler-yorkshire.co.uk](http://www.pegler-yorkshire.co.uk)

Registered in England Company No. 00401507

Registered Office: Haigh Park Road, Stourton,  
Leeds, West Yorkshire, LS10 1RT England

All brand names and logo styles are registered  
trademarks. Maintaining a policy of continual  
product development, Pegler Yorkshire reserves  
the right to change specifications, design and  
materials of products listed in this publication  
without prior notice

LIT.REF: 880189 07.14