



**Philmac**<sup>®</sup>

The connection you can trust

**PRICE LIST JANUARY 2012**

including new products

## Total Management Policy Statement

The total Management System of Philmac ensures that the Company's products and activities meet the quality expected by our customers and are generated in a safe and healthy workplace with proper regard to environmental considerations.

The policy is founded on a philosophy of continuous improvement in every aspect of the business, always with the aim to enhance customer satisfaction.

Continuous improvement initiatives are the responsibility of all employees and the policies and procedures that guide their actions and support this aim. The Company's Total Management System conforms to statutory health and safety requirements and international quality standards.

The commitment to the Total Management philosophy stated in this policy is essential for the long term benefit of our customers, employees and business and is totally supported by company management.










### Graham Issitt

GENERAL MANAGER EUROPE



## Philmac 3G Metric/Imperial™ compression fittings

### The UK's number one choice.

-  **Market focussed.** 3G Metric/Imperial™ was designed for the UK market providing an insert free system
-  **Approved.** Fully WRAS approved for above and below ground use.
-  **Innovative.** A modern, versatile fitting for today's market.
-  **High performance.** Manufactured from high-performance thermoplastic materials with outstanding impact, UV and corrosion resistance. Rated to 16 Bar (230psi).
-  **Flexibility not complexity.** One range, removing the need for dedicated fittings and inserts.
-  **Problem solving.** Old black pipes are difficult to identify. 3G Metric/Imperial™ connects to all classes without inserts. Normal Gauge requires a connection kit.
-  **Simple to use.** No need to push the pipe past the seal, with Philmac's Slide & Tighten™ technology installation couldn't be simpler. Simply insert the pipe fully into the fitting and tighten the nut.
-  **Compact design.** An ideal fitting for use in confined spaces. The design and size of the fittings means that in installations taking place between fixed points, the manipulation of the pipe into the fitting becomes easy.
-  **No loose components.** If the nut is removed there is no danger of losing components, as the collet and seal ring are retained in the body.

**Philmac 3G metric/Imperial™ - The complete solution.**

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## 3G Metric/Imperial™ - The complete solution

Patent protected the Metric/Imperial™ plastic compression fitting is the product of the company's unrelenting commitment to continuous improvement and a culture based on innovation and ingenuity.

### Seven into one will go

Connects

Blue MDPE BS 6572

Black MDPE BS 6730

Low Density Class C BS 1972

Low Density Class D BS 1972

High Density Class C BS 3284

High Density Class D BS 3284

IRS 135 Heavy Gauge BS 1972/61

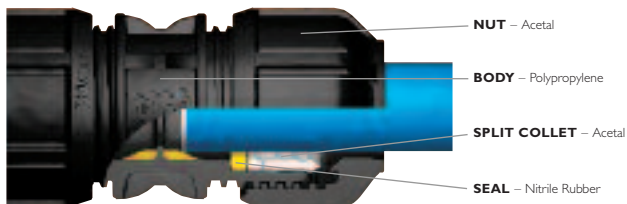


No need for inserts or dedicated fittings.

Liners must be used with metric pipe sizes 20, 25, 32, 50 & 63mm

No pipe preparation is needed and no force is required to push the pipe past the seal, so installation could not be faster or easier. Simply insert the pipe fully into the fitting and then tighten the nut. Assembly is so easy that you can even do it under live conditions. No special tools are required and there is no need to disassemble the fitting before use because the Metric/Imperial™ compression fitting is supplied pre-assembled and ready to use.


### MATERIALS & COMPONENTS




DESCRIPTION	REF. NO.	SIZES	PACKS	PRICE EACH £
<b>METRIC/IMPERIAL JOINER</b> <b>POL X POL</b>	9122	20mm/1/2"	10	3.80
	9133	25mm/3/4"	10	4.00
	9144	32mm/1"	5	9.49
	9155	40mm/1 1/4"	1	20.91
	9166	50mm/1 1/2"	1	21.84
	9177	63mm/2"	1	32.87
				
<b>METRIC/IMPERIAL SLIP JOINER</b> <b>POL X POL</b>	90122	20mm/1/2"	1	5.48
	90133	25mm/3/4"	1	6.13
	90144	32mm/1"	1	12.64
	90155	40mm/1 1/4"	1	23.04
	90166	50mm/1 1/2"	1	29.21
	90177	63mm/2"	1	43.97
<b>METRIC/IMPERIAL REDUCING JOINER</b> <b>POL X POL</b>	9132	25mm/3/4" x 20mm/1/2"	10	7.83
	9142	32mm/1" x 20mm/1/2"	5	12.64
	9143	32mm/1" x 25mm/3/4"	5	12.64
	9153	40mm/1 1/4" x 25mm/3/4"	1	23.82
	9154	40mm/1 1/4" x 32mm/1"	1	23.82
	9163	50mm/1 1/2" x 25mm/3/4"	1	35.03
	9164	50mm/1 1/2" x 32mm/1"	1	35.03
	9165	50mm/1 1/2" x 40mm/1 1/4"	1	36.41
	9174	63mm/2" x 32mm/1"	1	47.09
	9175	63mm/2" x 40mm/1 1/4"	1	48.88
	9176	63mm/2" x 50mm/1 1/2"	1	48.88
				

**WRAS**  
APPROVED  
PRODUCT

UK WATER REGULATIONS  
ADVISORY SCHEME APPROVED

DESCRIPTION	REF. NO.	SIZES	PACKS	PRICE EACH £
<b>METRIC/IMPERIAL END CONNECTOR POL X M.I. BSP</b>  	9221	20mm/1/2" x 1/2" BSP	10	3.44
	9222	20mm/1/2" x 3/4" BSP	10	4.17
	9223	20mm/1/2" x 1" BSP	10	6.61
	9231	25mm/3/4" x 1/2" BSP	10	4.49
	9232	25mm/3/4" x 3/4" BSP	10	4.37
	9233	25mm/3/4" x 1" BSP	10	6.99
	9242	32mm/1" x 3/4" BSP	5	6.36
	9243	32mm/1" x 1" BSP	5	6.36
	9244	32mm/1" x 1 1/4" BSP	5	13.30
	9245	32mm/1" x 1 1/2" BSP	5	13.30
	9253	40mm/1 1/4" x 1" BSP	1	14.97
	9254	40mm/1 1/4" x 1 1/4" BSP	1	14.97
	9255	40mm/1 1/4" x 1 1/2" BSP	1	16.65
	9256	40mm/1 1/4" x 2" BSP	1	19.02
	9265	50mm/1 1/2" x 1 1/2" BSP	1	16.26
	9266	50mm/1 1/2" x 2" BSP	1	18.71
	9275	63mm/2" x 1 1/2" BSP	1	22.90
9276	63mm/2" x 2" BSP	1	22.90	


<b>METRIC/IMPERIAL END CONNECTOR POL X F.I. BSP</b>  	9821	20mm/1/2" x 1/2" BSP	10	4.65
	9822	20mm/1/2" x 3/4" BSP	10	4.88
	9823	20mm/1/2" x 1" BSP	10	6.46
	9831	25mm/3/4" x 1/2" BSP	10	5.15
	9832	25mm/3/4" x 3/4" BSP	10	5.02
	9833	25mm/3/4" x 1" BSP	10	5.98
	9842	32mm/1" x 3/4" BSP	5	5.98
	9843	32mm/1" x 1" BSP	5	6.01
	9844	32mm/1" x 1 1/4" BSP	5	17.70
	9854	40mm/1 1/4" x 1 1/4" BSP	1	17.61
	9855	40mm/1 1/4" x 1 1/2" BSP	1	18.56
	9865	50mm/1 1/2" x 1 1/2" BSP	1	19.08
	9866	50mm/1 1/2" x 2" BSP	1	26.74
	9876	63/2" x 2" BSP	1	26.74


DESCRIPTION	REF. NO.	SIZES	PACKS	PRICE EACH £
<b>METRIC/IMPERIAL TEE - Equal</b> <b>POL X POL</b> 	9322	20mm/1/2"	10	6.83
	9333	25mm/3/4"	5	10.68
	9344	32mm/1"	5	13.38
	9355	40mm/1 1/4"	1	31.91
	9366	50mm/1 1/2"	1	31.22
	9377	63/2"	1	48.37
	<b>METRIC/IMPERIAL SLIP TEE</b> <b>POL X POL</b>	90322	20mm/1/2"	1
90333		25mm/3/4"	1	14.74
90344		32mm/1"	1	18.22
90366		50mm/1 1/2"	1	40.54
90377		63mm/2"	1	62.19
<b>METRIC/IMPERIAL TEE - Unequal</b> <b>POL X POL</b> 	9332	25mm/3/4" x 25mm/3/4" x 20mm/1/2"	5	10.99
	9334	25mm/3/4" x 25mm/3/4" x 32mm/1"	5	16.05
	9343	32mm/1" x 32mm/1" x 25mm/3/4"	5	16.05
	9363	50mm/1 1/2" x 50mm/1 1/2" x 25mm/3/4"	1	39.23
	9364	50mm/1 1/2" x 50mm/1 1/2" x 32mm/1"	1	39.23
	9365	50mm/1 1/2" x 50mm/1 1/2" x 40mm/1 1/4"	1	33.13
	9373	63mm/2" x 63mm/2" x 25mm/3/4"	1	49.51
	9374	63mm/2" x 63mm/2" x 32mm/1"	1	49.51
	9376	63mm/2" x 63mm/2" x 50mm/1 1/2"	1	48.37
<b>METRIC/IMPERIAL TEE</b> <b>POL X M.I. BSP</b> 	9931	25mm/3/4" x 1/2" BSP	5	8.56
	9932	25mm/3/4" x 3/4" BSP	5	10.35

DESCRIPTION	REF. NO.	SIZES	PACKS	PRICE EACH £
<b>METRIC/IMPERIAL TEE</b> <b>POL X F.I. BSP</b> 	9421	20mm/1/2" x 1/2" BSP	10	6.62
	9422	20mm/1/2" x 3/4" BSP	10	10.02
	9431	25mm/3/4" x 1/2" BSP	5	10.55
	9432	25mm/3/4" x 3/4" BSP	5	10.55
	9433	25mm/3/4" x 1" BSP	5	12.75
	9441	32mm/1" x 1/2" BSP	5	12.83
	9442	32mm/1" x 3/4" BSP	5	12.83
	9443	32mm/1" x 1" BSP	5	12.83
	9444	32mm/1" x 1 1/4" BSP	5	25.84
	9454	40mm/1 1/4" x 1 1/4" BSP	1	25.72
	9455	40mm/1 1/4" x 1 1/2" BSP	1	28.89
	9461	50mm/1 1/2" x 1/2" BSP	1	29.57
	9462	50mm/1 1/2" x 3/4" BSP	1	29.57
	9465	50mm/1 1/2" x 1 1/2" BSP	1	29.57
	9466	50mm/1 1/2" x 2" BSP	1	38.40
	9476	63mm/2" x 2" BSP	1	41.51
<b>METRIC/IMPERIAL ELBOW</b> <b>POL X POL</b> 	9522	20mm/1/2"	10	5.08
	9533	25mm/3/4"	10	7.50
	9544	32mm/1"	5	10.93
	9555	40mm/1 1/4"	1	23.40
	9566	50mm/1 1/2"	1	25.38
	9577	63mm/2"	1	34.50
<b>METRIC/IMPERIAL REDUCING ELBOW</b> <b>POL X POL</b> 	9532	25mm/3/4" x 20mm/1/2"	10	7.50

DESCRIPTION	REF. NO.	SIZES	PACKS	PRICE EACH £
<b>METRIC/IMPERIAL ELBOW</b> <b>POL X F.I. BSP</b> 	9621	20mm/1/2" x 1/2" BSP	10	4.61
	9622	20mm/1/2" x 3/4" BSP	10	5.82
	9631	25mm/3/4" x 1/2" BSP	10	6.45
	9632	25mm/3/4" x 3/4" BSP	10	6.28
	9633	25mm/3/4" x 1" BSP	10	9.36
	9643	32mm/1" x 1" BSP	5	9.40
	9644	32mm/1" x 1 1/4" BSP	5	20.75
	9654	40mm/1 1/4" x 1 1/4" BSP	1	20.65
	9655	40mm/1 1/4" x 1 1/2" BSP	1	22.50
	9665	50mm/1 1/2" x 1 1/2" BSP	1	22.34
	9666	50mm/1 1/2" x 2" BSP	1	29.19
	9676	63mm/2" x 2" BSP	1	29.29
<b>METRIC/IMPERIAL ELBOW</b> <b>POL X M.I. BSP</b> 	9721	20mm/1/2" x 1/2" BSP	10	4.61
	9732	25mm/3/4" x 3/4" BSP	10	6.45
	9743	32mm/1" x 1" BSP	5	10.92
<b>METRIC/IMPERIAL TANK CONNECTOR ASSEMBLY</b> <b>c/w Seal Washers</b> 	9780	25mm/3/4" x 3/4" BSP	10	9.68
	9781	32mm/1" x 1" BSP	5	11.67
<b>NOTE: FOR LARGER TANK INLETS SEE PAGE 40.</b>				
<b>METRIC/IMPERIAL END CAP</b> 	9029	20mm/1/2"	10	4.13
	9039	25mm/3/4"	10	5.55
	9049	32mm/1"	5	7.40
	9059	40mm/1 1/4"	1	14.63
	9069	50mm/1 1/2"	1	17.90
	9079	63mm/2"	1	25.35


DESCRIPTION	REF. NO.	SIZES	PACKS	PRICE EACH £
<b>METRIC/IMPERIAL WALL PLATE ELBOW PLASTIC</b> 	9022	20mm/1/2" x 1/2" BSP	10	9.41
	9031	25mm/3/4" x 1/2" BSP	10	11.01
	9032	25mm/3/4" x 3/4" BSP	5	12.04
<b>METRIC/IMPERIAL WALL PLATE ELBOW METAL</b> 	9228	20mm/1/2" x 1/2" BSP	1	20.82
	9229	25mm/3/4" x 3/4" BSP	1	25.81
<b>HOSE UNION BIB TAP</b> 	3022	DZR 1/2" c/w double check valve	1	16.26
	3033	DZR 3/4" c/w double check valve	1	24.50
<b>HOSE UNION BIB TAP</b> 	8021	1/2" BSP	1	13.30
	8022	3/4" BSP	1	18.65
<b>HOSE UNION SNAP CONNECTOR</b> 	HOSCON 21	1/2"	1	1.40
	HOSCON 22	3/4" (to suit 8022 only)	1	1.60

DESCRIPTION	REF. NO.	SIZES	PACKS	PRICE EACH £
<b>METRIC SADDLE</b>	90635	50mm x 25mm <sup>3/4"</sup>	1	21.83
	90735	63mm x 25mm <sup>3/4"</sup>	1	22.47
 <p><b>NEW</b></p> <p><i>SUITABLE FOR USE WITH ANY METRIC O.D. PIPE</i></p> <p><i>(STAINLESS NUTS &amp; BOLTS)</i></p>				

<b>FLANGE ADAPTOR</b> Flange to BS 4504	87766	50mm/1 <sup>1/2"</sup> x 2"	1	90.28
	87776	63mm/2" x 2"	1	90.28
				

### PE x Copper/PEX Push Fit (above ground)

DESCRIPTION	REF. NO.	SIZES	PACKS	PRICE EACH £
<b>JOINER</b>	1321	20mm/1 <sup>1/2"</sup> x 15mm	1	8.40
	1331	25mm <sup>3/4"</sup> x 15mm	1	10.25
	1332	25mm <sup>3/4"</sup> x 22mm	1	10.25
	1342	32mm/1" x 22mm	1	14.12
	1343	32mm/1" x 28mm	1	15.40
 <p><b>NEW</b></p>				

<b>ELBOW</b>	1521	20mm/1 <sup>1/2"</sup> x 15mm	1	8.40
	1531	25mm <sup>3/4"</sup> x 15mm	1	10.25
	1532	25mm <sup>3/4"</sup> x 22mm	1	10.25
	2543	32mm/1" x 28mm	1	17.42
 <p><i>FOR CONNECTIONS TO PEX PIPE PLEASE REFER TO PIPE MANUFACTURERS INSTALLATION INSTRUCTIONS AND ONLY USE PEX LINERS COMPATIBLE WITH THE PIPE BEING USED</i></p>				

## Stopcock

DESCRIPTION	REF. NO.	SIZES	PACKS	PRICE EACH £
<b>METRIC/IMPERIAL STOPCOCK POL X POL</b>	2822	20mm/1/2"	5	21.92
	2833	25mm/3/4"	5	32.40
	2844	32mm/1"	2	49.47
<b>METRIC/IMPERIAL STOPCOCK POL x FI</b>	2831	25mm/3/4" x 1/2"	5	31.33
	2832	25mm/3/4" x 3/4"	5	31.33
	2842	32mm/1" x 3/4"	2	47.83
	2843	32mm/1" x 1"	2	47.83



12 BAR RATED

## Ball valve

<b>METRIC/IMPERIAL BALL VALVE POL X POL</b>	95272	20mm/1/2" (20mm Nominal Bore)	1	29.13
	95372	25mm/3/4" (20mm Nominal Bore)	1	30.44
	95273	25mm/3/4" (25mm Nominal Bore)	1	36.76
	95373	32mm/1" (25mm Nominal Bore)	1	40.02





DESCRIPTION	REF. NO.	SIZES	PACKS	PRICE EACH £
<b>MDPE LINERS</b>	78002	20mm	100	0.29
BS 6572 (below ground)	78003	25mm	100	0.31
BS 6730 (above ground)	78004	32mm	50	0.53
	78006	50mm		1.02
	78007	63mm		1.26
<b>METRIC/IMPERIAL CONNECTION KIT</b>	999002	20mm/1/2"	20	1.00
	999003	25mm/3/4"	20	1.10
	999004	32mm/1"	10	1.59
	999005	40mm/1 1/4"	5	2.05
	999006	50mm/1 1/2"	5	3.58
	999007	63mm/2"	5	4.79
<b>METRIC/IMPERIAL REDUCING SETS</b>	98032	25mm/3/4" x 20mm/1/2"	20	2.65
BS 6572/6730 Metric	98042	32mm/1" x 20mm/1/2"	10	3.79
BS 1972/3284 & IRS 135	98043	32mm/1" x 25mm/3/4"	10	3.79
-Imperial	98063	50mm/1 1/2" x 25mm/3/4"	5	7.85
	98064	50mm/1 1/2" x 32mm/1"	5	7.85
	98073	63mm/2" x 25mm/3/4"	5	11.84
	98074	63mm/2" x 32mm/1"	5	11.84
	98076	63mm/2" x 50mm/1 1/2"	5	11.84
<b>METRIC/IMPERIAL NORMAL GAUGE CONNECTION KIT</b>	93002	1/2"*	10	0.91
BS 1972 IRS 134	93003	3/4"	10	1.09
	93004	1"	10	1.30
	93005	1 1/4"	5	2.82
	93006	1 1/2"	5	3.49
	93007	2"	5	5.30
		<b>*fits 3/8" LD and HD</b>		

Connection Kit for copper pipe for above and below ground use

DESCRIPTION	REF. NO.	SIZES	PACKS	PRICE EACH £
<b>METRIC/IMPERIAL NORMAL GAUGE REDUCING SETS</b>	93132	3/4" x 1/2"	10	3.48
	93142	1" x 1/2"	10	4.82
	93143	1 x 3/4"	10	4.13
				
<b>METRIC/IMPERIAL COPPER CONNECTION KIT Table X &amp; Y</b>	96002	20mm/1/2" x 15mm	10	3.30
	96003	25mm/3/4" x 22mm	10	4.07
	96004	32mm/1" x 28mm	10	5.71
	96032	25mm/3/4" x 15mm	10	4.07
		<i>NOT SUITABLE FOR PB OR PEX PIPE</i>		
				
<b>METRIC/IMPERIAL BLANKING PLUG</b>	9128	20mm/1/2"	10	1.36
	9138	25mm/3/4"	10	1.87
	9148	32mm/1"	5	2.00
	9158	40mm/1 1/4"	5	3.27
	9168	50mm/1 1/2"	5	3.70
	9178	63mm/2"	5	6.19
				

### Connection Kit for Metric and Imperial PVC or ABS

DESCRIPTION	REF. NO.	SIZES	PACKS	PRICE EACH £
<b>METRIC PVC/ABS CONNECTION KIT</b> 	94202	20mm	10	3.00
	94203	25mm	10	3.08
	94204	32mm	10	3.18
	94205	40mm	1	5.61
	94206	50mm	1	7.21
	94207	63mm	1	8.98
	<b>IMPERIAL PVC/ABS CONNECTION KIT</b> 	94402	1/2" (20mm/1/2" body)	10
94403		3/4" (25mm/3/4" body)	10	3.08
94404		1" (32mm/1" body)	10	3.18
94405		1 1/4" (40mm/1 1/4" body)	1	5.61
944061		1 1/2" (50mm/1 1/2" body)*	1	14.16
944071		2" (63mm/2" body)*	1	17.74
			*Complete with nut and seal	

END LOAD RESISTANT TO 20 BAR

## INSTALLATION INSTRUCTIONS - METRIC/IMPERIAL™



### 1. Cut the pipe square

No need to prepare pipe end. Chamfering or lubrication is not required.



### 2. Insert liner in MDPE pipe

With MDPE pipe a liner must be used to ensure conformance with WRAS.



### 3. No liner or insert required for imperial pipe

For IRS 134 use connection kit.



### 4. Ready to use position

The fitting is pre-assembled and ready to use. Always ensure the nut is fully relaxed and 2 threads are showing before inserting the pipe.



### 5. Pipe insertion

Slide the pipe fully into the fitting to the point where the stop is felt



### 6. Nut tightening

Tighten the nut by hand and then firmly with a wrench.



### 7. Fully installed

Fitting is now fully installed.



### 8. Imperial fully installed

For connections to Imperial PE pipe (BS1972/3284 and IRS 135 Heavy Gauge) steps 5 and 6 instructions are the same as for MDPE connections.



### 9. Disassembly

Simply loosen the nut until 2 threads are showing. Pipe will be released and can simply be pulled out of the fitting.

## REDUCING KIT INSTALLATION INSTRUCTIONS



Two styles – one for **small size reductions** (left) and for **large size reductions** (right)



### 1. Disassembly

Take the Metric-Imperial™ fitting and remove the nut. Retain this Metric-Imperial nut for reinstallation later



### 2. Disassembly

The white split collet and seal ring must then be removed.



### 3a Install Reducing Kit

**Small diameter change kit is illustrated**  
Take the appropriate connection kit and place it in the body of the fitting with the tapered end pointing outward.



### 4a Install Nut

Reinstall the Metric-Imperial Nut

**Wind the nut onto body, leaving two threads visible**

Pipe is installed as per pipe installation instructions



### 3b Install the Reducing Kit

**Large diameter change kit is illustrated**  
Take the appropriate connection kit and place it in the body of the fitting as per the image above.



### 4b Install Nut

Reinstall the Metric-Imperial Nut

**Wind the nut onto body, leaving two threads visible**

Pipe is installed as per pipe installation instructions

## INSTALLATION INSTRUCTIONS - METRIC/IMPERIAL™ NORMAL GAUGE



93002	93003	93004	93005	93006	93007
1/2"*	3/4"	1"	1-1/4"	1-1/2"	2"
1 part	2 part	3 part	4 part	4 part	2 part
	Seal & collet	Seal, collet & cap	Body liner, seal, collet & cap	Body liner, seal, collet & cap	Seal & collet

### 3/4" and 2" Instructions



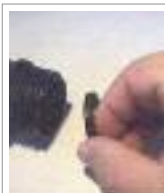
1. Remove nut and retain.



2. Remove collet. This is no longer required.



3. Remove seal. This is no longer required.



4. Insert NG seal. Marked with red dot for identification.



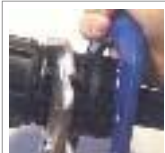
5. Fit collet into body of fitting. For 1/2", 1", 1-1/4" and 1-1/2" fit cap on the collet.



6. Replace nut. Leave two threads showing.



7. Insert pipe. Insert the pipe into the fitting to where the stop is felt.



8. Tighten by hand and then firmly with a wrench.

\* can also be used on 3/8" Low and High Density pipe

#### Other sizes

1/2" Insert one piece adaptor with cap facing out.

1" seal first followed by collet and cap.

1-1/4" & 1-1/2" Body liner first followed by seal, collet and cap.

## COPPER CONVERSION KIT INSTALLATION INSTRUCTIONS



Copper Adapter is supplied fully assembled.

To reassemble - clip pieces together



### 1 Disassembly

Remove the 3G Nut and keep for reinstallation later



### 2 Disassembly

Remove the White 3G Collet.  
Remove the Black rubber seal.



### 3 Assembly

Before installing the Copper Adapter check the rubber seal and adaptor are assembled correctly.



### 4 Install the Copper Adapter



### 5 Assembly

Install 3G Metric-Imperial Nut



### 6 Cut the Pipe Square

Cut the pipe square. There is no need to prepare the pipe end. Ensure the nut is fully relaxed and there are two threads showing prior to inserting the pipe



### 7 Witness Mark the Pipe

To ensure the correct insertion depth witness mark the pipe by lining up the pipe against the fitting, using the flange of the body as an indicator.



### 8 Pipe Insertion

Insert the pipe fully into the fitting up to the witness mark.



### 9 Nut Tightening

The nut should be tightened firmly with multi-grips or similar plumbing tools until the nut just touches the flange on the body of the fitting.

## PVC CONNECTION KIT INSTALLATION INSTRUCTIONS

### Metric and Imperial kits – excluding 1 1/2" & 2"



#### 1. Disassembly

Take the fitting and seal out of the PVC/ABS pipe. The fitting and seal must then be removed and discarded. Ensure the seal remains in the body of the fitting.



#### 2. Position the new seal

Take the PVC/ABS cut and place it in one hole of the fitting with the segment and pointing upwards.



#### 3. Push the pipe

Expel the air with the fitting back which is now ready for use. Connections kit installation instructions now apply.



#### 1. Disassembly

Take the fitting and seal out of the PVC/ABS pipe and seal and discard.



#### 2. Position the new seal and pipe

Take the PVC/ABS cut and place the seal in the body of the fitting following the advice with the segment and pointing upwards.



#### 3. Push the pipe

Expel the air with the fitting back which is now ready for use. Connections kit installation instructions now apply.

## PVC/ABS KIT INSTALLATION INSTRUCTIONS



#### 1. Cut the pipe square

Cut the pipe square and remove any burrs.



#### 2. Mark the pipe position

Mark the pipe position to ensure the seal is fully inserted into the fitting (shown above).



#### 3. Warnings Mark the Pipe

To ensure the correct installation depth, without a marking tool, slip the pipe over the fitting using the flange of the seal or an indicator.



#### 4. Pipe is correct

Insert the pipe fully into the hole up to the external mark.



#### 5. Nut Tightening

The nut should be tightened by hand and then finely with a wrench.



### FI, MI Ball Valves and Air Release Valve

DESCRIPTION	REF. NO.	SIZES	NOM. BORE	PACKS	PRICE EACH £
<b>BALL VALVE</b> <b>F.I. X F.I. BSP</b> 	55002	3/4" F.I. x 3/4" F.I.	20	1	24.36
	55003	1" F.I. x 1" F.I.	25	1	33.93
	55004	1 1/4" F.I. x 1 1/4" F.I.	32	1	44.06
	55005	1 1/2" F.I. x 1 1/2" F.I.	40	1	51.91
	55006	2" F.I. x 2" F.I.	50	1	66.48
<b>BALL VALVE</b> <b>M.I. X M.I. BSP</b> 	55402	3/4" M.I. x 3/4" M.I.	20	1	22.45
	55403	1" M.I. x 1" M.I.	25	1	28.95
<b>AIR RELEASE VALVE</b> <b>F.I. BSP</b> 	55033	1" BSP	25	1	39.88

## Back flow prevention

DESCRIPTION	REF. NO.	SIZES	NOM. BORE	PACKS	PRICE EACH £
<b>FOOT VALVE</b> <b>F.I. BSP</b> 	55012	3/4" BSP	20	1	37.23
	55013	1" BSP	25	1	40.05
	55014	1 1/4" BSP	32	1	49.21
	55015	1 1/2" BSP	40	1	59.60
	55016	2" BSP	50	1	79.85
	<b>SINGLE CHECK</b> <b>NON RETURN</b> <b>VALVE</b> <b>F.I. BSP X F.I. BSP</b> 	55022	3/4" F.I. x 3/4" F.I.	20	1
55023		1" F.I. x 1" F.I.	25	1	36.60
55024		1 1/4" F.I. x 1 1/4" F.I.	32	1	45.57
55025		1 1/2" F.I. x 1 1/2" F.I.	40	1	54.12
55026		2" F.I. x 2" F.I.	50	1	73.80
<b>DZR DOUBLE</b> <b>CHECK VALVE</b> <b>F.I. BSP X F.I. BSP</b> <b>to BS 6282</b> 		11101	1/2" F.I. x 1/2" F.I.		1
	11202	3/4" F.I. x 3/4" F.I.		1	42.40
	11303	1" F.I. x 1" F.I.		1	53.42

## Metal stopcocks

DESCRIPTION	REF. NO.	SIZES	PACKS	PRICE EACH £
<b>F.I. X F.I. — G.M. (BS.5433 Type)</b>	2511	1/2" x 1/2" F.I.	1	39.57
	2522	3/4" x 3/4" F.I.	1	53.35
	2533	1" x 1" F.I.	1	98.59
	2055	1 1/2" x 1 1/2" F.I.	1	251.19
	2066	2" x 2" F.I.	1	350.96



*ADAPT TO PE USING THE METRIC/IMPERIAL M.I. END CONNECTOR*

**METRIC/IMPERIAL  
END CONNECTOR  
POL X M.I. BSP**


9221	20mm/1/2" x 1/2" BSP	10	3.44
9222	20mm/1/2" x 3/4" BSP	10	4.17
9223	20mm/1/2" x 1" BSP	10	6.61
9231	25mm/3/4" x 1/2" BSP	10	4.49
9232	25mm/3/4" x 3/4" BSP	10	4.37
9233	25mm/3/4" x 1" BSP	10	6.99
9242	32mm/1" x 3/4" BSP	5	6.36
9243	32mm/1" x 1" BSP	5	6.36
9244	32mm/1" x 1 1/4" BSP	5	13.30
9245	32mm/1" x 1 1/2" BSP	5	13.30
9253	40mm/1 1/4" x 1" BSP	1	14.97
9254	40mm/1 1/4" x 1 1/4" BSP	1	14.97
9255	40mm/1 1/4" x 1 1/2" BSP	1	16.65
9256	40mm/1 1/4" x 2" BSP	1	19.02
9265	50mm/1 1/2" x 1 1/2" BSP	1	16.26
9266	50mm/1 1/2" x 2" BSP	1	18.71
9275	63mm/2" x 1 1/2" BSP	1	22.90
9276	63mm/2" x 2" BSP	1	22.90

# LARGE BORE METRIC FITTINGS



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**Philmac**<sup>®</sup>

The connection you can trust.

an *OAliaxis* company

## Plastic compression fittings for MDPE pipe.

DESCRIPTION	REF. NO.	SIZES	PACKS	PRICE EACH £
<b>JOINER</b> <b>POL X POL</b> 	7188	75mm	1	52.42
	7199	90mm	1	64.24
	7100	110mm	1	103.37
<b>REDUCING JOINER</b> <b>POL X POL</b> 	7187	75mm x 63mm	1	51.69
	7198	90mm x 75mm	1	67.94
	7109	110mm x 90mm	1	99.88
<b>END CONNECTOR</b> <b>POL X M.I. BSP</b> 	7286	75mm x 2" BSP	1	34.70
	7288	75mm x 3" BSP	1	36.93
	7298	90mm x 3" BSP	1	39.88
	7209	110mm x 4" BSP	1	67.06
<b>END CONNECTOR</b> <b>POL X F.I. BSP</b> 	7886	75mm x 2" BSP	1	33.97
	7898	90mm x 3" BSP	1	39.88
	7809	110mm x 4" BSP	1	88.61

16 BAR RATED

DESCRIPTION	REF. NO.	SIZES	PACKS	PRICE EACH £
<b>TEE – Equal</b> <b>POL X POL</b> 	7388	75mm	1	74.75
	7399	90mm	1	104.16
	7300	110mm	1	206.89
<b>TEE</b> <b>POL X F.I. BSP</b> 	7486	75mm x 2" BSP	1	71.34
	7498	90mm x 3" BSP	1	81.33
	7409	110mm x 4" BSP	1	149.82
<b>ELBOW</b> <b>POL X POL</b> 	7588	75mm	1	82.76
	7599	90mm	1	99.88
	7500	110mm	1	169.79

DESCRIPTION	REF. NO.	SIZES	PACKS	PRICE EACH £
<b>ELBOW</b> <b>POL X F.I. BSP</b> 	7686	75mm x 2" BSP	1	51.69
	7698	90mm x 3" BSP	1	51.69
	7609	110mm x 4" BSP	1	88.61
<b>END CAP</b> 	7089	75mm	1	35.67
	7099	90mm	1	48.51
	7009	110mm	1	57.07
<b>FLANGE ADAPTOR</b> <b>Flange to BS 4504</b> 	77798	90mm x 3"	1	123.16
	77709	110mm x 4"	1	154.31

# The Universal Connection



## Universal Transition Couplings

The generation of mechanical couplings, designed to make a simple task of joining metric polyethylene pipes to pipes of a different material. They provide the ultimate in pipe connection flexibility, enabling fast, easy, effective connections between polyethylene pipe and most other recognised pipe materials.

Universal transition couplings can join Metric PE pipe to Copper, Alkathene, PVC, ABS, Stainless, Galvanised Iron and even Lead.

Universal transition couplings also offer effective burst repair to most recognised pipe materials with ease of installation via a slip facility.



- one fitting covers a wide range of joints
- no time-consuming pipe preparation required
- superior end-load resistance
- flexibility in both pipe material and size
- proven history with sales of over three million units
- pressure rated to 12.5 Bar at 20°C

For connection from Metric PE pipe to Copper, Alkathene, PVC, ABS, Stainless, Galvanised Iron and even Lead

DESCRIPTION	REF. NO.	SIZES	PACKS	PRICE EACH £
<b>UNIVERSAL TRANSITION JOINER UTC X POL c/w Metric MDPE Liner</b> 	1032	15-21mm x 20mm/1/2"	1	15.74
	1033	15-21mm x 25mm/3/4"	1	15.74
	1042	21-27mm x 20mm/1/2"	1	15.74
	1043	21-27mm x 25mm/3/4"	1	15.74
	1052	27-34mm x 20mm/1/2"	1	18.70
	1053	27-34mm x 25mm/3/4"	1	18.70
	1054	27-34mm x 32mm/1"	1	21.68
	1055	27-34mm x 40mm/1 1/4"	1	21.68
	1074	34-39mm x 32mm/1"	1	22.34
	1075	34-39mm x 40mm/1 1/4"	1	22.34
	1064	39-43mm x 32mm/1"	1	24.98
	1065	39-43mm x 40mm/1 1/4"	1	24.98
	1086	47-49mm x 50mm/1 1/2"	1	28.47
	1087	47-49mm x 63mm/2"	1	28.47
1097	59-61mm x 63mm/2"	1	33.88	
<b>UNIVERSAL TRANSITION ELBOW UTC X POL c/w Metric MDPE Liner</b> 	1533	15-21mm x 25mm/3/4"	1	15.74
	1543	21-27mm x 25mm/3/4"	1	15.74
	1544	21-27mm x 32mm/1"	1	18.70
	1553	27-34mm x 25mm/3/4"	1	18.70
	1653	27-34mm x 32mm/1"	1	18.70

For connection repairs of Copper, Alkathene, PVC, ABS, Stainless, Galvanised Iron and even Lead

DESCRIPTION	REF. NO.	SIZES	PACKS	PRICE EACH £
<b>UNIVERSAL TRANSITION DOUBLE ENDED REPAIR JOINER</b> 	1133	15-21mm x 15-21mm	1	15.74
	1144	21-27mm x 21-27mm	1	15.74
	1155	27-34mm x 27-34mm	1	18.70
	1177	34-39mm x 34-39mm	1	24.98
	1166	39-43mm x 39-43mm	1	24.98
	1188	47-49mm x 47-49mm	1	28.47
	1199	59-61mm x 59-61mm	1	33.88
<b>UNIVERSAL TRANSITION REDUCED REPAIR JOINER</b> 	1143	21-27mm x 15-21mm	1	15.74
	1154	27-34mm x 21-27mm	1	18.70
	1153	27-34mm x 15-21mm	1	18.70
	1165	39-43mm x 27-34mm	1	24.98

For connection from BSP pipe to Copper, Alkathene, PVC, ABS, Stainless, Galvanised Iron and even Lead

DESCRIPTION	REF. NO.	SIZES	PACKS	PRICE EACH £	
<b>UNIVERSAL TRANSITION M.I. END CONNECTOR UTC X M.I. BSP</b> 	1231	15-21mm x 1/2" BSP	1	11.08	
	1232	15-21mm x 3/4" BSP	1	11.08	
	1233	15-21mm x 1" BSP	1	11.08	
	1242	21-27mm x 3/4" BSP	1	11.08	
	1243	21-27mm x 1" BSP	1	11.08	
	1244	21-27mm x 1 1/4" BSP	1	11.08	
	1252	27-34mm x 3/4" BSP	1	14.02	
	1253	27-34mm x 1" BSP	1	14.02	
	1254	27-34mm x 1 1/4" BSP	1	14.02	
	1255	27-34mm x 1 1/2" BSP	1	14.02	
	<b>PIPE GAUGE for use with Universal Transition Coupling</b>	1135	15-34mm	1	P.O.A.
		1136	34-43mm	1	P.O.A.
1137		43-63 mm	1	P.O.A.	

## INSTALLATION INSTRUCTIONS - UTC

(Joins MDPE, PE, copper, stainless steel, ABS, PVC, galvanised iron and lead pipes)



### 1. Cut pipe to length

Cut pipe square and to length using flange on the central body as a guide. Ensure end of connecting pipe is undamaged and clean.



### 2. Ready to use position

The fitting is pre-assembled and ready to use, however always ensure the nut is backed off and 3 threads are showing. Pipes at the top of the tolerance may require 5 threads showing.



### 3. Pipe insertion

To ensure adequate insertion depth, witness mark the pipe to the flange on the fitting. Then insert pipe to the correct depth.



### 4. Nut tightening

Tighten nut firmly with a wrench. Nut will not butt against the body flange when the pipe size is at the top end of the fitting tolerance.



### 5. Fully installed

The fitting is fully installed when the nut cannot be tightened any further with reasonable force.



### 6. Disassembly

Unscrew the nut with a wrench. Pipe will be released and can be pulled out of the fitting.

- Use a pipe measuring gauge if there are doubts on pipe outside diameter (OD) size.
- Installation instructions are also applicable and available to the MDPE/PE end.



## UTC - GUIDE

Guide only. Actual size dependant on pipe condition.

UTC RANGE	15-21	21-27	27-34	34-39	39-43	47-49	59-61
Alkathene	3/8"	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
Normal Gauge IRS 134	1/2"	3/4"	1"	1-1/4"			
Heavy Gauge IRS 135	1/2"	1/2"	3/4"	1"			
Copper	15mm	22mm	28mm	35mm	42mm		
Galvanised Iron	3/8"	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
Stainless Steel	3/8"	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
Metric ABS/PVC	16mm & 20mm	25mm	32mm		40mm		
Imperial ABS/PVC	3/8"	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
Lead	3/8"	1/2"	3/4"	1-1/4"	1"	1-1/2"	
	5lb (20mm OD)	6lb (21.6mm OD)	9lb (30.6mm OD)	7lb (37.6mm OD)	16lb (41.1mm OD)	12lb (48mm OD)	
		7lb (23.2mm OD)	11lb (32.8mm OD)				
		9lb (25.4mm OD)					
	1/2"	3/4"	1"		1-1/4"		
	2lb (16mm OD)	4lb (25.2mm OD)	6lb (31.1mm OD)		9lb (39.2mm OD)		
	4lb (19.2mm OD)	5lb (26.4mm OD)	7lb (31.6mm OD)				

Fitting selection can be made easier with use of the Philmac Pipe Gauge

### Copper

If user does not want to use a UTC the copper needs to be M.I. or F.I. ended so that we can offer a Met/Imp fitting to suit. Same rule applies for 54mm O.D. copper. Use copper compression fitting to adapt to M.I. or F.I. and then use Met/Imp fitting.

### Lead

The general condition of lead pipe can make sizing difficult at top and bottom tolerance. If the recommended UTC is not successful the next size, up or down, depending on fit should be offered.

# PHILMAC THREADED FITTINGS



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...a tough, corrosion resistant range of fittings to suit **BSP** thread standards

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**Philmac**<sup>®</sup>

The connection you can trust.

an *OAlaxis* company




**A comprehensive range of corrosion resistant, reinforced Polypropylene fittings**

DESCRIPTION	REF. NO.	SIZES	PACKS	PRICE EACH £
<b>TEE FEMALE</b> 	4511	1/2" BSP	10	3.33
	4522	3/4" BSP	10	3.97
	4533	1" BSP	10	4.97
	4544	1 1/4" BSP	5	7.79
	4555	1 1/2" BSP	5	8.47
	4566	2" BSP	2	11.83
<b>ELBOW FEMALE</b> 	4611	1/2" BSP	10	2.82
	4622	3/4" BSP	10	3.04
	4633	1" BSP	10	3.51
	4644	1 1/4" BSP	5	5.00
	4655	1 1/2" BSP	5	5.98
	4666	2" BSP	2	7.93
<b>ELBOW MALE X FEMALE</b> 	4691	1/2" x 1/2" BSP	10	2.75
	4692	3/4" x 3/4" BSP	10	3.07
	4693	1" x 1" BSP	10	3.60
	4694	1 1/4" x 1 1/4" BSP	5	5.00
	4695	1 1/2" x 1 1/2" BSP	5	5.77
	4696	2" x 2" BSP	2	7.85
<b>PLUG</b> 	4011	1/2" BSP	10	1.42
	4022	3/4" BSP	10	1.69
	4033	1" BSP	10	1.97
	4044	1 1/4" BSP	10	2.70
	4055	1 1/2" BSP	10	3.01
	4066	2" BSP	10	3.90

*N.B. All threads are BSP tapered. Use PTFE Tape on threads for lubrication purposes. Do not overtighten.*

DESCRIPTION	REF. NO.	SIZES	PACKS	PRICE EACH £
<b>BUSH – REDUCING</b> 	4121	3/4" x 1/2" BSP	10	1.84
	4131	1" x 1/2" BSP	10	2.00
	4132	1" x 3/4" BSP	10	2.00
	4141	1 1/4" x 1/2" BSP	10	2.84
	4142	1 1/4" x 3/4" BSP	10	2.94
	4143	1 1/4" x 1" BSP	10	2.94
	4151	1 1/2" x 1/2" BSP	10	3.39
	4152	1 1/2" x 3/4" BSP	10	3.51
	4153	1 1/2" x 1" BSP	10	3.51
	4154	1 1/2" x 1 1/4" BSP	10	3.51
	4161	2" x 1/2" BSP	10	5.48
	4162	2" x 3/4" BSP	10	5.66
	4163	2" x 1" BSP	10	5.66
	4164	2" x 1 1/4" BSP	10	5.66
	4165	2" x 1 1/2" BSP	10	5.66
	4186	3" x 2" BSP (PVC)	2	16.87
	4198	4" x 3" BSP (PVC)	1	32.79
	<b>NIPPLE</b> 	4211	1/2" BSP	10
4222		3/4" BSP	10	1.64
4233		1" BSP	10	2.07
4244		1 1/4" BSP	5	2.58
4255		1 1/2" BSP	5	3.06
4266		2" BSP	5	4.06
<b>NIPPLE – REDUCING</b> 		4221	3/4" x 1/2" BSP	10
	4231	1" x 1/2" BSP	10	2.43
	4232	1" x 3/4" BSP	10	2.52
	4241	1 1/4" x 1/2" BSP	5	2.98
	4242	1 1/4" x 3/4" BSP	5	2.98
	4243	1 1/4" x 1" BSP	5	3.08
	4251	1 1/2" x 1/2" BSP	5	3.71
	4252	1 1/2" x 3/4" BSP	5	3.71
	4253	1 1/2" x 1" BSP	5	3.71

continued




DESCRIPTION	REF. NO.	SIZES	PACKS	PRICE EACH £
<b>NIPPLE – REDUCING CONTINUED</b>	4254	1½" x 1¼" BSP	5	3.66
	4261	2" x 1½" BSP	5	4.92
	4262	2" x ¾" BSP	5	4.92
	4263	2" x 1" BSP	5	4.92
	4264	2" x 1¼" BSP	5	4.92
	4265	2" x 1½" BSP	5	4.86
<b>SOCKET</b> 	4311	½" BSP	10	2.97
	4322	¾" BSP	10	3.43
	4333	1" BSP	10	4.25
	4344	1¼" BSP	5	6.93
	4355	1½" BSP	5	7.57
	4366	2" BSP	5	10.71
<b>REDUCING SOCKET</b> 	4321	¾" x ½"	10	3.31
	4331	1" x ½"	10	4.11
	4332	1" x ¾"	5	6.71
	4343	1¼" x 1"	5	6.71
	4352	1½" x ¾"	5	7.33
	4353	1½" x 1"	5	7.33
	4362	2" x ¾"	5	10.35
	4363	2" x 1"	5	10.35
	4365	2" x 1½"	5	10.35
<b>CAP</b> 	4901	½" BSP	10	2.82
	4902	¾" BSP	10	3.51
	4903	1" BSP	10	3.97
	4904	1¼" BSP	5	4.47
	4905	1½" BSP	5	5.71
	4906	2" BSP	5	7.13

*N.B. All threads are BSP tapered. Use PTFE Tape on threads for lubrication purposes. Do not overtighten.*

DESCRIPTION	REF. NO.	SIZES	PACKS	PRICE EACH £
<b>HOSE TAILS</b>  	RXHT15	1/2"	10	2.73
	RXHT20	3/4"	10	2.85
	RXHT25	1"	10	3.09
	RXHT32	1 1/4"	10	3.43
	RXHT40	1 1/2"	10	3.67
	RXHT50	2"	5	4.41
<b>TANK INLET MALE</b> 	RXTTI15	1/2"	1	5.56
	RXTTI20	3/4"	1	5.78
	RXTTI25	1"	1	6.53
	RXTTI32	1 1/4"	1	8.13
	RXTTI40	1 1/2"	1	10.91
	RXTTI50	2"	1	13.27
<b>HIGH FLOW BALLCOCK</b>  	RXPTV20	3/4" standard thread 25mm tail	1	23.93
	RXPTV20L	3/4" long thread 45mm tail c/w nut	1	25.25
	RXPTV20B	3/4" long thread 45mm tail bent arm	1	24.61
<b>STOCK PROOF TROUGH VALVE</b> 	AQ400P	3/4"		28.19

*Works as a side, bottom or overhead inlet to suit most types of troughs.*

## Sundry equipment

DESCRIPTION	REF. NO.	SIZES	PACKS	PRICE EACH £
<b>PIPE CUTTER</b> 	1769	Up to 32mm (Medium)	1	38.35
	1770	Up to 63mm (Large)	1	112.54
<b>SPANNER</b>  <b>NEW</b>	7024	20 - 32mm 'Y' spanner (plastic)	1	5.89
	7057	40 - 63mm 'Y' spanner	1	36.93
	7050	50 - 110mm 'C' spanner	1	51.05
<b>PIPE CLIPS</b> Suitable for MDPE pipe 	4305	16mm	10	0.75
	4306	20mm	10	0.89
	4307	25mm	10	0.94
	4308	32mm	10	1.04
	4309	40mm	10	1.40
	4310	50mm	10	1.54
	4312	63mm	10	1.93
	4313	90mm	10	4.51
4314	110mm	10	6.25	

## PIPE STANDARDS

### MEDIUM DENSITY PIPE TO WATER INDUSTRY BS 6572 & BS 6730

NOMINAL SIZE	OUTSIDE DIAMETER		WALL THICKNESS	
	MIN	MAX	MIN	MAX
INCH	MM	MM	MM	MM
20	20	20.3	2.3	2.6
25	25	25.3	2.3	2.6
32	32	32.3	3.0	3.4
50	50	50.4	4.6	5.2
63	63	63.4	5.8	6.5

### CLASS C LOW DENSITY (TYPE 32) POLYETHYLENE PIPES TO BS1972/67

NOMINAL SIZE	MIN		MAX	
	MM	MM	MM	MM
INCH	MM	MM	MM	MM
3/8	17	17.3	2.2	2.5
1/2	21.2	21.5	2.7	3.0
3/4	26.6	26.9	3.4	3.7
1	33.4	33.7	4.2	4.6
1 1/4	42.1	42.5	5.3	5.8
1 1/2	48.1	48.5	6.1	6.7
2	60.1	60.6	7.6	8.4
3	88.6	89.3	11.2	12.3

### CLASS D LOW DENSITY (TYPE 32) POLYETHYLENE PIPES TO BS1972/67

NOMINAL SIZE	MIN		MAX	
	MM	MM	MM	MM
INCH	MM	MM	MM	MM
3/8	17	17.3	2.8	3.1
1/2	21.2	21.5	3.4	3.7
3/4	26.6	26.9	4.3	4.7
1	33.4	33.7	5.4	5.9
1 1/4	42.1	42.5	6.8	7.5
1 1/2	48.1	48.5	7.8	8.6

**CLASS C HIGH DENSITY (TYPE 50) POLYETHYLENE PIPES TO BS3284/67**

NOMINAL SIZE	OUTSIDE DIAMETER		WALL THICKNESS	
	MIN	MAX	MIN	MAX
INCH	MM	MM	MM	MM
1/2	21.2	21.5	1.8	2.0
3/4	26.6	26.9	2.3	2.6
1	33.4	33.7	2.8	3.1
1 1/4	42.1	42.5	3.6	4.0
1 1/2	48.1	48.5	4.1	4.5
2	60.1	60.6	5.1	5.6
3	88.6	89.3	7.5	8.2
4	113.9	114.7	9.6	10.6

**CLASS D HIGH DENSITY (TYPE 50) POLYETHYLENE PIPES TO BS3284/67**

NOMINAL SIZE	MIN	MAX	MIN	MAX
INCH	MM	MM	MM	MM
3/8	17	17.3	1.9	2.1
1/2	21.2	21.5	2.3	2.6
3/4	26.6	26.9	2.9	3.2
1	33.4	33.7	3.7	4.1
1 1/4	42.1	42.5	4.6	5.1
1 1/2	48.1	48.5	5.3	5.8
2	60.1	60.6	6.6	7.3
3	88.6	89.3	9.7	10.7

**NORMAL GAUGE BS1972/61 IRS 134**

NOMINAL SIZE	MIN	MAX	MIN	MAX
INCH	MM	MM	MM	MM
1/2	16.95	17.30	2.30	2.60
3/4	24.95	25.40	3.10	3.50
1	31.25	31.75	3.10	3.50
1 1/4	37.50	38.10	3.10	3.50
1 1/2	43.80	44.45	3.50	3.90
2	60.00	60.85	4.65	5.20

**HEAVY GAUGE BS1972/61 IRS 135**

NOMINAL SIZE	MIN	MAX	MIN	MAX
INCH	MM	MM	MM	MM
1/2	20.70	21.10	4.30	4.85
3/4	27.05	27.45	4.30	4.85
1	33.85	34.10	4.30	4.85
1 1/4	42.00	42.65	5.05	5.60
1 1/2	47.95	48.65	5.35	5.90

## 3G Metric/Imperial™



- **Dynamic sealing method:** The mechanical advantage of the nut thread compresses the seal into position, eliminating resistance when inserting the pipe into the fitting so there is no risk of seal distortion or displacement.

- **No loose components:** If the nut is removed there is no danger of losing components, as the collet and seal ring are retained in the body of the fitting. Losing components in the trench becomes a thing of the past.

- **Designed to minimise pipe twist:** The fitting has been designed to minimise pipe twist as the nut is tightened. Maximum pipe twist is approximately a quarter turn compared to one and a half turns with many other fittings. Pipe twist can impact on not only the connection you have just made but also on the connection at the other end of the line.

- **Approvals:** Philmac fittings are WRAS approved for above and below ground use.

### High performance

- **Made from advanced thermoplastic materials:** 3G Metric/Imperial™ is manufactured from lightweight high performance thermoplastic materials with outstanding impact, UV, chemical and corrosion resistance. The material is non-toxic and taint-free.

- **Rated to 1600 kpa:** Metric/Imperial™ is pressure rated to 16 Bar (230psi) to meet the needs of high pressure systems.

- **50 year+ design life:** Built to withstand the toughest conditions to ensure longevity and durability, Metric/Imperial™ has a 50 year+ design life.

### Complete coverage

- **Wide range:** The new Philmac 3G Metric/Imperial™ range is comprehensive: straight and reducing joiners, tees, elbows, end connectors and caps ranging from 20mm to 63mm. Also available are copper connection kits, normal gauge (IRS 134) connection kits, reducing kits and blanking plugs, ball valves, stopcocks, wall plate elbows and tank connectors.

- **Copper connection Kits:** Philmac's all new carborundum gripper design has been introduced into the 3G Metric/Imperial™ copper connection kit. With no steel components in the gripping mechanism, there is absolutely no risk of electrolysis.

**Effect on Water**

Philmac does not impart to water any odour, taste, colour, or any constituents in concentrations that could be injurious to health.

**Philmac complies with:**

BS 6920

‘Suitability of non metallic products for use in contact with potable water intended for human consumption with regard to their effect on the water’.

**Operating Temperatures**

**-10° C to +25° C**

**Not suitable for hot water applications.**

**Fluids other than Water**

Pipes connected by Philmac may convey a wide variety of fluids. For resistance to common chemicals consider the following table a guide only.

**For specific applications please contact our Customer Service Support Centre for advice and information.**

Telephone 01323 847323  
 Facsimile 0800 590028

Chemical Resistance Chart		
Chemical	Satisfactory	Not Satisfactory
Air		•
Ammonium Hydroxide	•	
Alcohol	•	
Acetone		•
Auto Transmission Fluid	•	
Antifreeze	•	
Benzene		•
Butane	•	
Calcium Salts	•	
Caustic Soda (40% aqueous)	•	
Cresol		•
Citric Acid	•	
Copper Salts	•	
Ethylene Alcohol	•	
Ethyl Glycol	•	
Diesel	•	
Formic Acid		•
Gasoline		•
Hydrochloric Acid		•
Kerosene		•
Mineral Oils	•	
Methane	•	
Methylene Chloride		•
Nitric Acid		•
Petroleum Oils	•	
Sewerage	•	
Sodium Cyanide	•	
Sulphuric Acid		•
Toluene		•
Turpentine		•
Transformer Oil	•	
Zinc Salt Solution	•	

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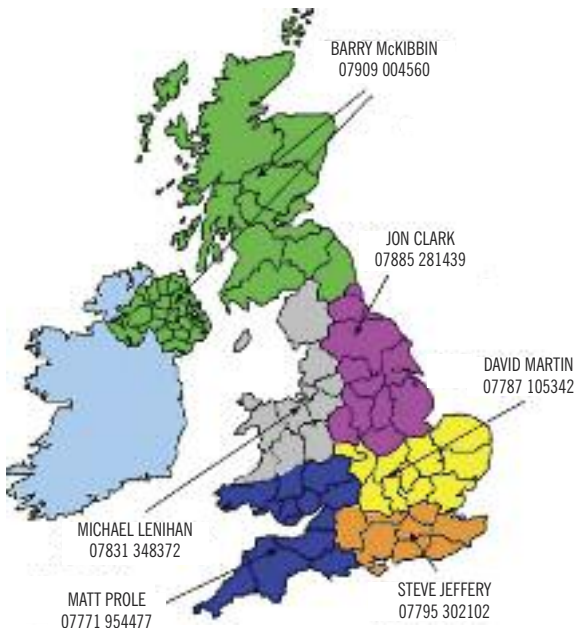
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For support and technical information  
contact our Sales Area Managers



To contact your local Philmac Sales Manager  
please refer to page 47

For further information on all Philmac  
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contact our Internal Sales Department as  
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