


**Philmac**<sup>®</sup>

The connection you can trust.

# Product Guide





**Philmac is a global leader in the design and manufacture of specialist pipe fittings and valves, providing cost-effective solutions for the transfer, control and application of water. With a commitment of providing the very best in customer service and technical know how, Philmac is the connection you can trust.**



**THE ENVIRONMENT** We actively and consistently strive to reduce our impact on the environment and operate an environmental management system accredited to ISO 14001:2015.



**QUALITY** Philmac operates an accredited Quality Management System to BS EN ISO 9001:2015 to ensure peace of mind for our customers.

For further information visit  
[www.philmac.co.uk](http://www.philmac.co.uk)



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## 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

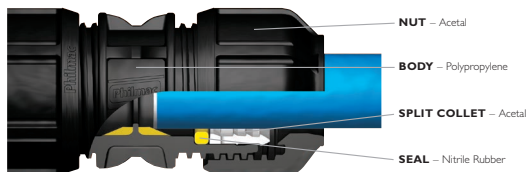
### No need for inserts or dedicated fittings

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



Long-lasting, corrosion resistant and easy to install, Philmac fittings have proven themselves in irrigation and commercial applications all over the world. They are the fitting choice for both contractors and installers.



### Fast and Easy Installation

**Slide & Tighten™ technology:** 3G® compression fittings incorporate all the benefits of Philmac's unique Slide & Tighten™ technology. No pipe preparation is needed, no force is required to push the pipe past the seal. This means faster and easier installation because the fitting seals on the outside of the pipe. Simply insert the pipe into the fitting until the first point of resistance is felt, and then tighten the nut.

**Compact design:** The size of the Philmac 3G® compression fitting has been kept to a minimum, making the fitting ideal for use in confined areas.

**Easy disassembly:** The fitting has been designed so the grip ring is released as soon as the nut is backed off, making disassembly easy.



### Complete Security

**Visual stop:** With Metric Pipe, the body flange on the 3G® compression fitting acts as a visual stop to indicate when the nut is tightened. There is no benefit in further tightening of the nut.

**No loose components:** If the nut is removed there is no danger of losing components, as the grip ring and seal ring are retained in the body of the fitting.

**Dynamic sealing method:** As the nut is tightened, the seal is compressed between the pipe and the fitting body.

**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 with one and a half turns with many other fittings.

**Approvals:** Philmac 3G® compression fittings are WRAS approved for potable water use.



### Lead Free

**The Philmac range of 3G® compression fittings is completely free of lead.**



### High Performance Materials

**Manufactured from Engineered Materials:** 3G® compression fittings are manufactured from lightweight high performance thermoplastic materials that, unlike metal fittings, resist corrosion, significantly minimizing maintenance, repairs and long-term costs. The materials are non-toxic and taint-free.

**Pressure rated:** Philmac 3G® is pressure rated to 16 bar at 20°C.









### Complete Coverage

**Wide range:** The 3G® compression fittings range is comprehensive: straight and reducing couplers, tees, elbows, male and female adapters and caps ranging from ½" to 2".

	Description	Part No.	Sizes	Pks
	<b>METRIC/ IMPERIAL JOINER POL X POL</b>	9122	20mm/1/2"	10
		9133	25mm/3/4"	10
		9144	32mm/1"	5
		9155	40mm/1 1/4"	1
		9166	50mm/1 1/2"	1
		9177	63mm/2"	1
			<b>SLIP JOINER METRIC/ IMPERIAL POL X POL</b> No internal pipe stop, ideal flexibility for repair or retrofit	90122
90133	25mm/3/4"			1
90144	32mm/1"			1
90155	40mm/1 1/4"			1
90166	50mm/1 1/2"			1
90177	63mm/2"			1
	<b>METRIC/ IMPERIAL REDUCING JOINER POL X POL</b>			9132
		9142	32mm/1" x 20mm/1/2"	5
		9143	32mm/1" x 25mm/3/4"	5
		9153	40mm/1 1/4" x 25mm/3/4"	1
		9154	40mm/1 1/4" x 32mm/1"	1
		9163	50mm/1 1/2" x 25mm/3/4"	1
		9164	50mm/1 1/2" x 32mm/1"	1
		9165	50mm/1 1/2" x 40mm/1 1/4"	1
		9174	63mm/2" x 32mm/1"	1
		9175	63mm/2" x 40mm/1 1/4"	1
		9176	63mm/2" x 50mm/1 1/2"	1
			<b>METRIC/ IMPERIAL END CONNECTOR POL X M.I. BSP</b>	9221
9222	20mm/1/2" x 3/4" BSP			10
9223	20mm/1/2" x 1" BSP			10
9231	25mm/3/4" x 1/2" BSP			10
9232	25mm/3/4" x 3/4" BSP			10
9233	25mm/3/4" x 1" BSP			10
9242	32mm/1" x 3/4" BSP			5
9243	32mm/1" x 1" BSP			5
9244	32mm/1" x 1 1/4" BSP			5
9245	32mm/1" x 1 1/2" BSP			5
9253	40mm/1 1/4" x 1" BSP			1
9254	40mm/1 1/4" x 1 1/4" BSP			1
9255	40mm/1 1/4" x 1 1/2" BSP			1
9256	40mm/1 1/4" x 2" BSP			1
9265	50mm/1 1/2" x 1 1/2" BSP			1
9266	50mm/1 1/2" x 2" BSP			1
9275	63mm/2" x 1 1/2" BSP			1
9276	63mm/2" x 2" BSP			1

 Liners to suit PE pipe are required for WRAS requirements,  
 please see page 11 for these items


	Description	Part No.	Sizes	Pks
	<b>METRIC/ IMPERIAL END CONNECTOR POL X F.I. BSP</b>	9821	20mm/1/2" x 1/2" BSP	10
		9822	20mm/1/2" x 3/4" BSP	10
		9823	20mm/1/2" x 1" BSP	10
		9831	25mm/3/4" x 1/2" BSP	10
		9832	25mm/3/4" x 3/4" BSP	10
		9833	25mm/3/4" x 1" BSP	10
		9842	32mm/1" x 3/4" BSP	5
		9843	32mm/1" x 1" BSP	5
		9844	32mm/1" x 1 1/4" BSP	5
		9854	40mm/1 1/4" x 1 1/4" BSP	1
		9855	40mm/1 1/4" x 1 1/2" BSP	1
		9865	50mm/1 1/2" x 1 1/2" BSP	1
		9866	50mm/1 1/2" x 2" BSP	1
		9876	63mm/2" x 2" BSP	1
	<b>METRIC/ IMPERIAL TEE - Equal POL X POL</b>	9322	20mm/1/2"	10
		9333	25mm/3/4"	5
		9344	32mm/1"	5
		9355	40mm/1 1/4"	1
		9366	50mm/1 1/2"	1
		9377	63mm/2"	1
	<b>SLIP TEE METRIC/ IMPERIAL</b> No internal pipe stop, ideal flexibility for repair or retrofit	90322	20mm/1/2"	1
		90333	25mm/3/4"	1
		90344	32mm/1"	1
		90366	50mm/1 1/2"	1
		90377	63mm/2"	1
	<b>METRIC/ IMPERIAL TEE - Reducing POL X POL</b>	9332	25mm/3/4" x 25mm/3/4" x 20mm/1/2"	5
		9334	25mm/3/4" x 25mm/3/4" x 32mm/1"	5
		9343	32mm/1" x 32mm/1" x 25mm/3/4"	5
		9363	50mm/1 1/2" x 50mm/1 1/2" x 25mm/3/4"	1
		9364	50mm/1 1/2" x 50mm/1 1/2" x 32mm/1"	1
		9365	50mm/1 1/2" x 50mm/1 1/2" x 40mm/1 1/4"	1
		9373	63mm/2" x 63mm/2" x 25mm/3/4"	1
		9374	63mm/2" x 63mm/2" x 32mm/1"	1
		9376	63mm/2" x 63mm/2" x 50mm/1 1/2"	1
			<b>METRIC/ IMPERIAL TEE POL X M.I. BSP</b>	9931
9932	25mm/3/4" x 3/4" BSP			5
	<b>PIPE REPAIR KITS</b>	PRK20	PIPE REPAIR KIT 20MM	3
		PRK25	PIPE REPAIR KIT 25MM	3
		PRK32	PIPE REPAIR KIT 32MM	3

For use  
in confined  
spaces



See our installation videos on  
YouTube at Philmac UK



Description	Part No.	Sizes	Pks
<b>METRIC/ IMPERIAL TEE POL X F.I. BSP</b>	9421	20mm/1/2" x 1/2" BSP	10
	9422	20mm/1/2" x 3/4" BSP	10
	9431	25mm/3/4" x 1/2" BSP	5
	9432	25mm/3/4" x 3/4" BSP	5
	9433	25mm/3/4" x 1" BSP	5
	9441	32mm/1" x 1/2" BSP	5
	9442	32mm/1" x 3/4" BSP	5
	9443	32mm/1" x 1" BSP	5
	9444	32mm/1" x 1 1/4" BSP	5
	9454	40mm/1 1/4" x 1 1/4" BSP	1
	9455	40mm/1 1/4" x 1 1/2" BSP	1
	9461	50mm/1 1/2" x 1 1/2" BSP	1
	9462	50mm/1 1/2" x 3/4" BSP	1
	9465	50mm/1 1/2" x 1 1/2" BSP	1
9466	50mm/1 1/2" x 2" BSP	1	
9476	63mm/2" x 2" BSP	1	



<b>METRIC/IMPERIAL ELBOW POL X POL</b>	9522	20mm/1/2"	10
	9533	25mm/3/4"	10
	9544	32mm/1"	5
	9555	40mm/1 1/4"	1
	9566	50mm/1 1/2"	1
	9577	63mm/2"	1



<b>METRIC/IMPERIAL REDUCING ELBOW POL X POL</b>	9532	25mm/3/4" x 20mm/1/2"	10
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<b>METRIC/IMPERIAL ELBOW POL X F.I. BSP</b>	9621	20mm/1/2" x 1/2" BSP	10
	9622	20mm/1/2" x 3/4" BSP	10
	9631	25mm/3/4" x 1/2" BSP	10
	9632	25mm/3/4" x 3/4" BSP	10
	9633	25mm/3/4" x 1" BSP	10
	9642	32mm/1" x 3/4" BSP	5
	9643	32mm/1" x 1" BSP	5
	9644	32mm/1" x 1 1/4" BSP	5
	9654	40mm/1 1/4" x 1 1/4" BSP	1
	9655	40mm/1 1/4" x 1 1/2" BSP	1
	9665	50mm/1 1/2" x 1 1/2" BSP	1
	9666	50mm/1 1/2" x 2" BSP	1
	9676	63mm/2" x 2" BSP	1











<b>METRIC/IMPERIAL ELBOW POL X M.I. BSP</b>	9721	20mm/1/2" x 1/2" BSP	10
	9732	25mm/3/4" x 3/4" BSP	10
	9743	32mm/1" x 1" BSP	5
	9744	32mm/1" x 1 1/4" BSP	5
	9753	40mm/1 1/4" x 1" BSP	1
	9754	40mm/1 1/4" x 1 1/4" BSP	1
	9755	40mm/1 1/4" x 1 1/2" BSP	1
	9765	50mm/1 1/2" x 1 1/2" BSP	1
	9776	63mm/2" x 2" BSP	1



<b>METRIC/IMPERIAL 45 DEG ELBOW POL X POL</b>	9028	20mm/1/2"	1
	9038	25mm/3/4"	1
	9048	32mm/1"	1
	9058	40mm/1 1/4"	1
	9068	50mm 1 1/2"	1
	9078	63mm 2"	1



	Description	Part No.	Sizes	Pks
	<b>METRIC/ IMPERIAL TANK CONNECTOR ASSEMBLY c/w Seal Washers</b>	9780 9781	25mm/3/4" x 3/4" BSP 32mm/1" x 1" BSP Other tank connector options available on page 39-40	10 5
	<b>METRIC/ IMPERIAL END CAP</b>	9029 9039 9049 9059 9069 9079	20mm/1/2" 25mm/3/4" 32mm/1" 40mm/1 1/4" 50mm/1 1/2" 63mm/2"	10 10 5 1 1 1
	<b>METRIC/ IMPERIAL WALL PLATE ELBOW PLASTIC</b>	9022 9031 9032	20mm/1/2" x 1/2" BSP 25mm/3/4" x 1/2" BSP 25mm/3/4" x 3/4" BSP	5 5 5
	<b>METRIC/ IMPERIAL WALL PLATE ELBOW METAL</b>	9228 9229	20mm/1/2" x 1/2" BSP 25mm/3/4" x 3/4" BSP	5 5
	<b>HOSE UNION BIB TAP BS2682 CV</b>	3022 3033	DZR 1/2" c/w double check valve DZR 3/4" c/w double check valve	1 1
	<b>ARCTIC ICE RESISTANT BIB TAP</b>	8021 8022 8023	1/2" BSP 3/4" BSP 1" BSP *Water: -20°C For Arctic Resistance Ball Valves, see page 34	1 1 1
	<b>HOSE UNION TAP CONNECTOR</b>	HOSCON 21 HOSCON 22	1/2" 3/4" (to suit 8022 only)	1 1
	<b>METRIC SADDLE</b>	90635 90735	50mm x 25mm/3/4" 63mm x 25mm/3/4"	1 1
	<b>FLANGE ADAPTOR Flange to BS 4504</b>	87766 87776	50mm/1 1/2" x 2" 63mm/2" x 2"	1 1



Description	Part No.	Sizes	Pks
<b>PE x Copper/PEX Push Fit (above ground)</b>			
TWO PART ASSEMBLED TO CORRECT TORQUE. DO NOT TIGHTEN FURTHER			
<b>JOINER</b>	1321	20mm/1/2" x 15mm	1
	1331	25mm/3/4" x 15mm	1
	1332	25mm/3/4" x 22mm	1
	1342	32mm/1" x 22mm	1
	1343	32mm/1" x 28mm	1
<b>ELBOW</b>	1521	20mm/1/2" x 15mm	1
	1531	25mm/3/4" x 15mm	1
	1532	25mm/3/4" x 22mm	1
	2543	32mm/ 1" x 28mm	1
FOR CONNECTIONS TO PEX PIPE PLEASE REFER TO PIPE MANUFACTURERS INSTALLATION INSTRUCTIONS AND ONLY USE PEX LINERS COMPATIBLE WITH THE PIPE BEING USED			








<b>Stopcock</b>			
<b>METRIC/ IMPERIAL STOPCOCK POL X POL</b>	2822	20mm/1/2"	5
	2833	25mm/3/4"	5
	2844	32mm/1"	2
<b>METRIC/ IMPERIAL STOPCOCK POL x FI</b>	2831	25mm/3/4" x 1/2"	5
	2832	25mm/3/4" x 3/4"	5
	2842	32mm/1" x 3/4"	2
	2843	32mm/1" x 1"	2








<b>Ball Valve</b>			
		Body Size	
<b>METRIC/ IMPERIAL 1/4 Turn BALL VALVE POL X POL</b>	95272	20mm/1/2" (16mm Nominal Bore)	1
	95372	25mm/3/4" (16mm Nominal Bore)	1
	95273	25mm/3/4" (19.5mm Nominal Bore)	1
	95373	32mm/1" (19.5mm Nominal Bore)	1

Liners to suit PE pipe are required for WRAS requirements,  
please see page 11 for these items



	Description	Part No.	Sizes	Pks
	<b>PE LINERS</b> <b>EN12201/</b> <b>BS 6572</b> (below ground) <b>EN12201/</b> <b>BS 6730</b> (above ground)	78002	20mm	100
		78003	25mm	100
		78004	32mm	50
		78006	50mm	25
		78007	63mm	20
	<b>METRIC/</b> <b>IMPERIAL</b> <b>CONNECTION</b> <b>KIT</b>	999002	20mm/½"	20
		999003	25mm/¾"	20
		999004	32mm/1"	10
		999005	40mm/1¼"	5
		999006	50mm/1½"	5
		999007	63mm/2"	5
	<b>METRIC/</b> <b>IMPERIAL</b> <b>REDUCING</b> <b>SETS</b> <b>BS 6572/</b> <b>6730 Metric</b> <b>BS 1972/</b> <b>3284 &amp;</b> <b>IRS 135</b> <b>Imperial</b>	98032	25mm/¾" x 20mm/½"	10
		98042	32mm/1" x 20mm/½"	10
		98043	32mm/1" x 25mm/¾"	10
		98063	50mm/1½" x 25mm/¾"	5
		98064	50mm/1½" x 32mm/1"	5
		98073	63mm/2" x 25mm/¾"	5
		98074	63mm/2" x 32mm/1"	5
		98076	63mm/2" x 50mm/1½"	5
	<b>METRIC/</b> <b>IMPERIAL</b> <b>NORMAL</b> <b>GAUGE</b> <b>CONNECTION</b> <b>KIT</b> <b>BS 1972</b> <b>IRS 134</b>	93012	½" (fits ⅜" LD and HD)	10
		93003	¾"	10
		93004	1"	10
		93005	1¼"	5
		93006	1½"	5
		93007	2"	5
	<b>METRIC/</b> <b>IMPERIAL</b> <b>NORMAL</b> <b>GAUGE</b> <b>REDUCING</b> <b>SETS</b>	93132	¾" x ½"	10
		93142	1" x ½"	10
		93143	1 x ¾"	10



	Description	Part No.	Sizes	Pks
	<b>METRIC/ IMPERIAL COPPER CONNECTION KIT BS EN 1057</b>	86002 86003 86004 86032	20mm/1/2" x 15mm 25mm/3/4" x 22mm 32mm/1" x 28mm 25mm/3/4" x 15mm	10 10 10 10
<p>Connection Kit for copper pipe for above and below ground use</p>	<p>  See our installation videos on YouTube at Philmac UK           </p> <p>Suitable for single use only Not suitable for PB or PEX pipe</p>			
	<b>METRIC/ IMPERIAL BLANKING PLUG</b>	9128 9138 9148 9158 9168 9178	20mm/1/2" 25mm/3/4" 32mm/1" 40mm/1 1/4" 50mm/1 1/2" 63mm/2"	10 10 5 5 5 5
	<b>METRIC PVC/ABS CONNECTION KIT</b>	94202 94203 94204 94205 94206 94207	20mm 25mm 32mm 40mm 50mm 63mm	10 10 10 1 1 1
	<b>IMPERIAL PVC/ABS CONNECTION KIT</b>	94402 94403 94404 94405 944061 944071	1/2" (20mm/1/2" body) 3/4" (25mm/3/4" body) 1" (32mm/1" body) 1 1/4" (40mm/1 1/4" body) 1 1/2" (50mm/1 1/2" body)* 2" (63mm/2" body)*	10 10 10 1 1 1
	<p>*Complete with nut and seal</p>			

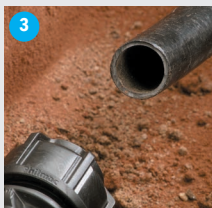
**IDENTIFY THE DAMAGED SECTION AND CUT AWAY WHAT IS NEEDED TO BE REPAIRED TO THE APPROPRIATE LENGTH.**



**1. Cut the Pipe Square**  
Cut the pipe square. There is no need to prepare the pipe end. Chamfering or lubrication is not required.



**2. Insert Liner in PE pipe**  
With PE pipe a liner must be used to ensure conformance with WRAS.



**3. No Liner or Insert Required for Imperial Pipe**  
For connections to imperial PE pipe (BS1972/3284 and IRS 135 Heavy Gauge) a liner or insert is not required.



**4. Ready to Use Position**  
The fitting is pre-assembled and ready to use, however always ensure the nut is fully relaxed and 2 threads are showing before inserting the pipe.



**5. Pipe Insertion**  
Insert the pipe fully into the fitting to the point where the stop is felt.



**6. Nut Tightening**  
The nut should be tightened 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 to 8 are the same as for PE connections.



**1.** Back off nuts on the fitting body until 3 threads are showing.



**2.** Lay fitting against pipe with damaged section in the middle of the fitting body. Witness mark against outer edge of nut.



**3.** Witness mark against the other outer edge of nut without moving fitting.



**4.** Push the fitting on to the pipe.



**5.** Push the fitting fully on to the pipe until the pipe goes right through the fitting.



**6.** Bring the fitting back up the pipe and over the damaged section.



**7.** Move fitting until it meets the witness mark on both pipes.



**8.** Tighten both nuts by hand.



**9.** Tighten both nuts fully with a wrench or multi-grips until the nuts meet the flange of the body.



**10.** Fitting is fully assembled and damage is repaired.



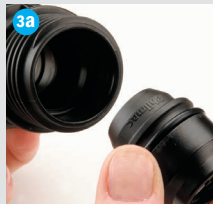
Two styles – one for small size reductions (left) and for large size reductions (right)



**1. Disassembly**  
Take the Metric/Imperial<sup>MT</sup> 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. These are no longer required.



**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.

Pipe is installed as per pipe installation instructions



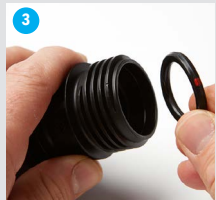
93012	93003	93004	93005	93006	93007
1/2"*	3/4"	1"	1-1/4"	1-1/2"	2"
3 part	2 part	3 part	4 part	4 part	2 part
Seal, collet and cap	Seal & collet	Seal, collet and cap	Bodyliner, seal, collet and cap	Bodyliner, seal, collet and cap	Seal & collet



**1. Remove nut and retain.**



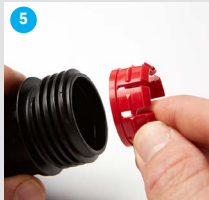
**2. Remove collet.**  
This is no longer required.



**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.



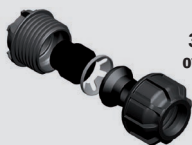
**8. Tighten by hand and then firmly with a wrench.**

\* 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.



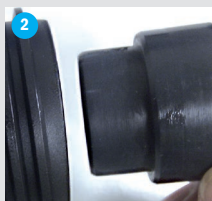


**3G PE to copper connections incorporates all the benefits of the innovative 3G Metric/Imperial™ range, including the patented Slide & Tighten™ technology. Installation is easier and faster.**



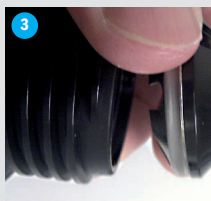
**1. Disassembly**

Remove the 3G nut (and keep for reinstallation later), remove the White 3G Collet and the black rubber seal.



**2. Assembly**

Check all components are available. Insert the seal into the body, ensuring orientation is correct.



**3. Assembly**

Orientate the stainless steel gripper and plastic backing ring.



**4. Assembly**

Install the 3G Metric®/Imperial Nut.



**5. Pipe Installation**

Cut copper pipe square. Mark the depth of copper insertion using 'pipe stop' marking or body flange as visual indicator. Remove any scale or burrs from the copper pipe.



**6. Pipe Installation**

Insert the copper pipe and push into the rubber seal up to the mark indicated.



**7. Pipe Installation**

Tighten the nut by hand and finish using a wrench. Remember to check that the nut is tight against the body flange.



**8. Pipe Installation**

Remember to replace the stainless steel grip ring if re-using the copper connection.

**METRIC AND IMPERIAL KITS (EXCLUDING 1½" & 2")****1. Dissassemble**

Take the fitting and remove the nut. The white split collet must then be removed and discarded. Ensure the seal remains in the body of the fitting.

**2. Position the new collet**

Take the PVC/ABS collet and place it in the body of the fitting with tapered end pointing outwards.

**3. Ready to use**

Replace the nut on the fitting body which is now ready to use. Connection kit installation instructions now apply.

**IMPERIAL KITS 1½" & 2"****1. Dissassemble**

Take the fitting and remove the nut, collet and seal and discard.

**2. Position the new seal and collet**

Take the PVC/ABS collet kit and place the seal in the body of the fitting followed by the collet with the tapered end pointing outward.

**3. Ready to use**

Replace the nut on the fitting body which is now ready to use. Connection kit installation instructions now apply.

PVC/ABS KITS



**1. Cut the pipe square**  
Cut the pipe square and remove any burrs.



**2. Ready to use position**  
Prior to pipe insertion ensure the nut is fully relaxed with three threads showing.



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



**5. Pipe insertion**  
Insert the pipe fully into the fitting upto the witness mark.



**5. Nut tightening**  
The nut should be tightened by hand.



**6. Nut tightening**  
The nut should then be tightened with a wrench.

NOMINAL SIZE	Outside Diameter		Wall Thickness	
	MIN	MAX	MIN	MAX
	MM	MM	MM	MM
INCH				
<b>MDPE TO WATER INDUSTRY STANDARD EN 12201, BS 6572 &amp; BS 6730</b>				
½	20	20.3	2.3	2.6
¾	25	25.3	2.3	2.6
1	32	32.3	3.0	3.4
1½	50	50.3	4.6	5.2
2	63	63.3	5.8	6.5

<b>CLASS C LOW DENSITY (TYPE 32) POLYETHYLENE PIPES TO BS1972/67</b>				
¾	17	17.3	2.2	2.5
½	21.2	21.5	2.7	3
¾	26.6	26.9	3.4	3.7
1	33.4	33.7	4.2	4.6
1¼	42.1	42.5	5.3	5.8
1½	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

<b>CLASS D LOW DENSITY (TYPE 32) POLYETHYLENE PIPES TO BS1972/67</b>				
¾	17	17.3	2.8	3.1
½	21.2	21.5	3.4	3.7
¾	26.6	26.9	4.3	4.7
1	33.4	33.7	5.4	5.9
1¼	42.1	42.5	6.8	7.5
1½	48.1	48.5	7.8	8.6

<b>CLASS C HIGH DENSITY (TYPE 50) POLYETHYLENE PIPES TO BS3284/67</b>				
½	21.2	21.5	1.8	2.0
¾	26.6	26.9	2.3	2.6
1	33.4	33.7	2.8	3.1
1¼	42.1	42.5	3.6	4.0
1½	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

NOMINAL SIZE	Outside Diameter		Wall Thickness	
	MIN	MAX	MIN	MAX
	INCH	MM	MM	MM
<b>CLASS D HIGH DENSITY (TYPE 50) POLYETHYLENE PIPES TO BS3284/67</b>				
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

<b>NORMAL GAUGE BS1972/61 IRS 134 USE RED INSERT, SEE PG ** (TBA)</b>				
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

<b>HEAVY GAUGE BS1972/61 IRS 135</b>				
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

# The Problem Solver

UTC - Universal Transition Coupling

Providing over 20 years experience in the market  
**20 YEARS**

- **Fast and Easy Installation** - Slide & Tighten technology
- **Complete Security** - pre assembled and no risk of damage to pipes when fitting
- **High Performance Materials** - manufactured from advanced thermoplastic engineered materials
- **Complete Coverage** - connecting a wide variety of pipes together including Copper, Stainless Steel, ABS, Galvanised Iron and Lead.



**The UTC is a unique range of mechanical compression fittings that provide the ultimate in pipe connection flexibility.**

Our Slide & Tighten™ technology means no pipe preparation is needed, no force is required to push the pipe past the seal. This means faster installation because the fitting seals on the outside of the pipe.

**For more information visit [www.philmac.co.uk](http://www.philmac.co.uk) or contact us on 0844 335 0016**

## THE PROBLEM SOLVER

Providing complete pipe connection flexibility, the UTC is the first choice for connecting dissimilar pipe materials including PE, PVC, ABS, Copper, Stainless Steel, Galvanised Iron and Lead.



### Fast and Easy Installation

**Slide & Tighten™** The Philmac UTC® incorporates all the benefits of Philmac's Slide & Tighten™ technology. Simply witness mark the pipe against the flange on the fitting, and then insert the pipe to the correct depth. The nut can then be tightened using a wrench. The UTC® is fully installed when the nut can no longer be tightened with reasonable force. No special tools are required and the Philmac UTC® is supplied ready to use.

\*Pipes at the top end of the fitting tolerance may incur minimum resistance.

**Easy disassembly:** The design of the UTC® means that once the nut is backed off, the pipe can easily be removed from the fitting.



### Complete Security

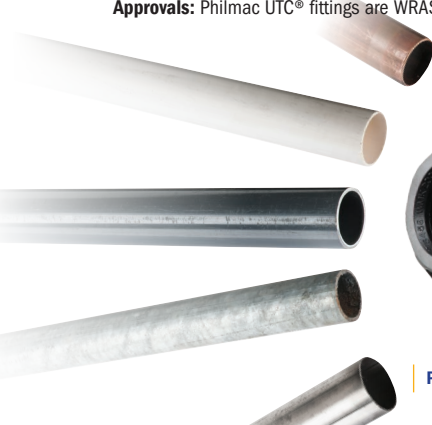
**Visual stop:** The mechanical advantage of the nut thread compresses the seal into position, eliminating resistance when inserting the pipe into the fitting, so there is no risk of seal distortion or displacement.

**No loose components:** The Philmac UTC® is pre-assembled and ready to use, there are no loose components. There is no need for individual assembly of a grip ring, sealing ring or nut. All that is required is the insertion of the pipe and tightening of the nut.

**Dielectric (insulating) fitting:** UTC® fittings are insulating and are a dielectric fitting for use between dis-similar metals.

**End load resistant:** UTC® fittings are fully end load resistant and do not require the use of thrust blocks.

**Approvals:** Philmac UTC® fittings are WRAS approved for potable water use.



## High Performance Materials

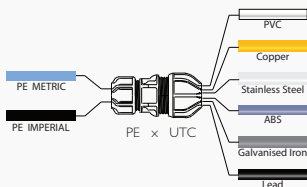
**Manufactured from Advanced Thermoplastic Engineered Materials:** The Philmac UTC® is manufactured from lightweight high performance thermoplastic materials with outstanding impact, UV, chemical and corrosion resistance. The UTC® end contains hard stainless steel grippers which provide superior end load resistance.

**The Philmac UTC®** is pressure rated to 12.5 Bar at 20°C to meet the needs of high pressure systems.

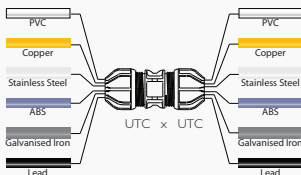
## Complete Coverage

**Wide range:** The Philmac UTC® range is comprehensive: Straight and reducing couplers, elbows and male adaptors, in both transition (PE to UTC®) and double ended versions (UTC® to UTC®) ranging from 15 mm to 61 mm.

**CONNECTS PE TO A WIDE VARIETY OF PIPES**  
PVC, copper, galvanised iron, ABS, lead, stainless steel, steel, polyethylene and PEX



**CONNECTS A WIDE VARIETY OF PIPES TOGETHER**  
PVC, copper, galvanised iron, ABS, lead, stainless steel, steel, polyethylene and PEX\*



\* Cold Water Only



FULLY OPEN – 3G™ PE END

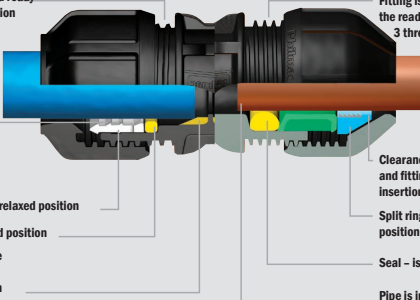
Fitting is pre-assembled ready to use in the open position with 2 threads showing

Clearance between the pipe and fitting allows for easy insertion of the pipe

Split collet, which is in relaxed position

Seal, which is in relaxed position

The pipe sits against the tapered wedges which minimises pipe rotation



FULLY OPEN – UTC® END

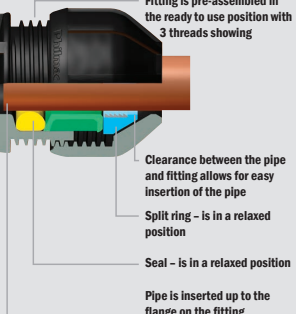
Fitting is pre-assembled in the ready to use position with 3 threads showing

Clearance between the pipe and fitting allows for easy insertion of the pipe

Split ring – is in a relaxed position

Seal – is in a relaxed position

Pipe is inserted up to the flange on the fitting



FULLY CLOSED – 3G™ PE END

Split collet bites into the pipe providing end load resistance.

Positive internal stop when nut meets flange of the body.

Nut and then split collet has fully compressed the seal. Seal ring compression is achieved by exploiting the mechanical advantage of the nut thread.

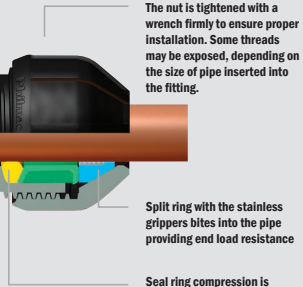


FULLY CLOSED – UTC® END

The nut is tightened with a wrench firmly to ensure proper installation. Some threads may be exposed, depending on the size of pipe inserted into the fitting.

Split ring with the stainless grippers bites into the pipe providing end load resistance

Seal ring compression is achieved by exploiting the mechanical advantage of the thread.



**NB:-** For the PE 3G end, a liner is required for PE pipe



**UNIVERSAL  
TRANSITION  
JOINER  
UTC X POL**  
c/w Metric  
PE Liner

Description	Part No.	Sizes	Pks
	1032	15-21mm x 20mm/½"	1
	1033	15-21mm x 25mm/¾"	1
	1042	21-27mm x 20mm/½"	1
	1043	21-27mm x 25mm/¾"	1
	1052	27-34mm x 20mm/½"	1
	1053	27-34mm x 25mm/¾"	1
	1054	27-34mm x 32mm/1"	1
	1055	27-34mm x 40mm/1¼"	1
	1074	34-39mm x 32mm/1"	1
	1075	34-39mm x 40mm/1¼"	1
	1064	39-43mm x 32mm/1"	1
	1065	39-43mm x 40mm/1¼"	1
	1086	47-49mm x 50mm/1½"	1
	1087	47-49mm x 63mm/2"	1
	1097	59-61mm x 63mm/2"	1



**UNIVERSAL  
TRANSITION  
ELBOW UTC X POL**  
c/w Metric  
PE Liner

	1533	15-21mm x 25mm/¾"	1
	1543	21-27mm x 25mm/¾"	1
	1544	21-27mm x 32mm/1"	1
	1553	27-34mm x 25mm/¾"	1
	1653	27-34mm x 32mm/1"	1



**UNIVERSAL  
TRANSITION  
DOUBLE ENDED  
REPAIR JOINER**

	1133	15-21mm x 15-21mm	1
	1144	21-27mm x 21-27mm	1
	1155	27-34mm x 27-34mm	1
	1177	34-39mm x 34-39mm	1
	1166	39-43mm x 39-43mm	1
	1188	47-49mm x 47-49mm	1
	1199	59-61mm x 59-61mm	1



**UNIVERSAL  
TRANSITION  
REDUCED REPAIR  
JOINER**

	1143	21-27mm x 15-21mm	1
	1154	27-34mm x 21-27mm	1
	1153	27-34mm x 15-21mm	1
	1165	39-43mm x 27-34mm	1





Description	Part No.	Sizes	Pks
<b>UNIVERSAL TRANSITION M.I. END CONNECTOR UTC X M.I. BSP</b>	1231	15-21mm x ½" BSP	1
	1232	15-21mm x ¾" BSP	1
	1233	15-21mm x 1" BSP	1
	1242	21-27mm x ¾" BSP	1
	1243	21-27mm x 1" BSP	1
	1244	21-27mm x 1¼" BSP	1
	1252	27-34mm x ¾" BSP	1
	1253	27-34mm x 1" BSP	1
	1254	27-34mm x 1¼" BSP	1
	1255	27-34mm x 1½" BSP	1
	<b>PIPE GAUGE*</b> for use with Universal Transition Coupling	1135	15-34mm
1136		27-43mm	POA
1137		43-63mm	POA



\*Please contact customer service or your local area sales manager for this item

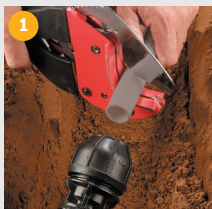


See our installation videos on YouTube at Philmac UK

**USE A PIPE MEASURING GAUGE IF THERE ARE DOUBTS ON PIPE OUTSIDE DIAMETER (OD) SIZE.**

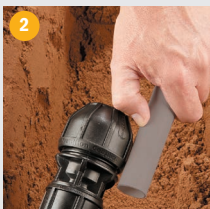


**INSTALLATION INSTRUCTIONS ARE ALSO APPLICABLE AND AVAILABLE TO THE PE END.**



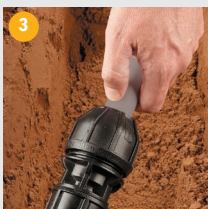
#### **1. Cut pipe to length**

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



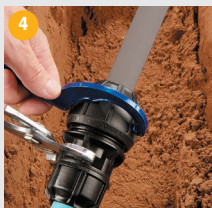
#### **2. Ready to use position**

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.



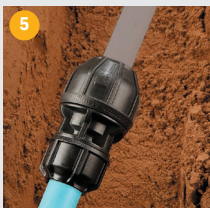
#### **3. Pipe insertion**

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.

**Guide only**

**Actual size dependant on pipe condition.**

UTC RANGE	15-21mm	21-27mm	27-34mm	34-39mm	39-43mm	47-49mm	59-61mm
PIPE CIRCUMFERENCE	47-66mm	68-85mm	85-107mm	107-122mm	122-135mm	148-154mm	185-192mm
<b>Alkathene</b>	3/8"	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
<b>Normal Gauge IRS 134</b>	1/2"	3/4"	1"	1-1/4"			
<b>Heavy Gauge IRS 135</b>	1/2"	1/2"	3/4"	1"			
<b>Copper</b>	15mm	22mm	28mm	35mm	42mm		
<b>Galvanised Iron</b>	3/8"	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
<b>Stainless Steel</b>	3/8"	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
<b>Metric ABS/PVC</b>	16mm & 20mm	25mm	32mm		40mm		
<b>Imperial ABS/PVC</b>	3/8"	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
<b>Lead</b>	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 (41mm 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 (31mm 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.



## Fast and Easy Installation

**Fast and easy Installation:** no pipe preparation is required. Simply insert the pipe into the fitting until the first point of resistance is felt, and then tighten the nut.

**Dynamic sealing method:** the mechanical advantage of the nut is used to push the O-ring into the compressed position, eliminating the need to push past a seal when inserting the pipe.

**No loose components:** if the nut should be removed for any reason there is no danger of losing the O-ring, spacer or grip ring as they are retained in the nut. Rated to 16 Bar – ensures the fittings meet the requirements of high pressure systems.



**Lead-free:** the fittings are made from materials that are lead free.

## Installation Instructions



### 1. Cut pipe to length

Cut the pipe square, there is no need to chamfer or lubricate.



### 2. Insert pipe

Ensure 3 threads are showing and simply slide the pipe in until the point of first resistance is felt



### 3. Tighten

Tighten the nut by hand, and then with a wrench to the point where the nut is touching the flange on the body of the fitting. Do not tighten beyond this point.

\* Philmac Spanners available



	Description	Part No.	Sizes	Pks
	<b>JOINER POL X POL</b>	8188 8199 8100	75mm 90mm 110mm	1 1 1
	<b>REDUCING JOINER POL X POL</b>	8187 8198 8109	75mm x 63mm 90mm x 75mm 110mm x 90mm	1 1 1
	<b>END CONNECTOR POL X M.I. BSP</b>	8286 8288 8298 8209	75mm x 2" BSP 75mm x 3" BSP 90mm x 3" BSP 110mm x 4" BSP	1 1 1 1
	<b>END CONNECTOR</b>	8886 8898 8809	75mm x 2" BSP 90mm x 3" BSP 110mm x 4" BSP	1 1 1
	<b>TEE - Equal POL X POL</b>	8388 8399 8300	75mm 90mm 110mm	1 1 1
	<b>TEE POL X F.I. BSP</b>	8486 8498 8409	75mm x 2" BSP 90mm x 3" BSP 110mm x 4" BSP	1 1 1
	<b>ELBOW POL X POL</b>	8588 8599 8500	75mm 90mm 110mm	1 1 1
	<b>ELBOW POL X F.I. BSP</b>	8686 8698 8609	75mm x 2" BSP 90mm x 3" BSP 110mm x 4" BSP	1 1 1
	<b>END CAP</b>	8089 8099 8009	75mm 90mm 110mm	1 1 1
	<b>FLANGE ADAPTOR</b> Flange to BS 4504	78798 78709	90mm x 3" 110mm x 4"	1 1

## VALVES KEY ADVANTAGES



### Fast and Easy Installation

**Threaded or Compression Inlet/Outlet:** The different options allow compatibility with existing installations and keeps installation time to a minimum.

**Slide and Tighten™ Technology:** Compression ends incorporate all the benefits of Philmac's unique technology, which means no force is required to push the pipe past the seal. Simply insert the pipe fully into the fitting and tighten the nut.

**Bi-directional flow:** The Ball Valves have been designed to work in either direction to ensure easy installation and eliminate the need to look for identification marks.

**Multi-position Installation:** The valves can be installed in any orientation to assist with all types of installations.



### Complete Security

**Reliable Operation:** High-quality injection moulded components and polypropylene ball means years of reliable operation.

**Corrosion Resistant:** With a plastic body and components, plus rubber O-rings and a stainless steel handle screw, the components used have a high degree of corrosion resistance.

**Positive Open-Close:** Rotate through 90° between fully open and fully closed to ensure there is no guesswork required as to whether it is open or closed.



### Lead Free

The Philmac range of Ball Valves is completely free from lead.



Long-lasting, corrosion resistant and easy to install, Philmac fittings have proven themselves in irrigation and commercial applications all over the world. They are the fitting choice for both contractors and installers.



## High Performance Materials

**Manufactured from Engineered Materials:** Philmac valves are manufactured from lightweight, high performance thermoplastic materials that have excellent impact, UV and corrosion resistance. The materials are non-toxic and taint free.

## Complete Coverage

- Pressure rated 14 bar
- Can be installed above or below ground
- Complete range Agriculture, Municipal,
- Corrosion resistance, long life performance
- Manufactured with thermoplastic materials U/V resistant qualities
- ¼ Turn for visual on/off control



## Installation Instructions



### 1. Preparation

Apply PTFE tape or approved sealant to the male thread. Sufficient tape needs to be applied to ensure a watertight seal.











### 2. Assembly




Screw on to a male or female thread by hand until firm.




### 3. Tighten

Using a pipe wrench or multigrips on the end caps only, further screw the ball valve tight. Where necessary, ensure the thread is held stationary to avoid it from moving. Do not use pipe wrench or multigrips on the body of the valve.

	Description	Part No.	Sizes	Nominal Bore	Pks
<b>Stopcock</b> 	<b>METRIC/ IMPERIAL STOPCOCK POL X POL</b>	2822	20mm/½"		5
		2833	25mm/¾"		5
		2844	32mm/1"		2
	<b>METRIC/ IMPERIAL STOPCOCK POL X FI</b>	2831	25mm/¾" x ½"		5
		2832	25mm/¾" x ¾"		5
		2842	32mm/1" x ¾"		2
		2843	32mm/1" x 1"		2
<b>Ball Valve</b> 	<b>METRIC/ IMPERIAL ¼ TURN BALL VALVE POL X POL</b>	95272	20mm/½"	16	1
		95372	25mm/¾"	16	1
		95273	25mm/¾"	19.5	1
		95373	32mm/1"	19.5	1
	<b>ARCTIC ICE RESISTANT BALL VALVE</b>	8031	½"	15	1
		8032	¾"	20	1
		8033	1"	25	1
	<b>BALL VALVE F.I. X F.I. BSP</b>	55002	¾" F.I. x ¾" F.I.	16	1
		55003	1" F.I. x 1" F.I.	19.5	1
		55004	1¼" F.I. x 1¼" F.I.	26	1
		55005	1½" F.I. x 1½" F.I.	32	1
		55006	2" F.I. x 2" F.I.	40	1
	<b>BALL VALVE M.I. X M.I. BSP</b>	55402	¾" M.I. x ¾" M.I.	16	1
		55403	1" M.I. x 1" M.I.	19.5	1
	<b>AIR RELEASE VALVE F.I. BSP</b>	55033	1" BSP	25	1
	<b>FOOT VALVE F.I. BSP</b>	55012	¾" BSP	22	1
		55013	1" BSP	27	1
		55014	1¼" BSP	32	1
		55015	1½" BSP	38	1
		55016	2" BSP	50	1

	Description	Part No.	Sizes	Nominal Bore	Pks
	<b>SINGLE CHECK NON RETURN VALVE F.I. BSP X F.I. BSP</b>	55022	¾" F.I. x ¾" F.I.	22	1
		55023	1" F.I. x 1" F.I.	27	1
		55024	1¼" F.I. x 1¼" F.I.	32	1
		55025	1½" F.I. x 1½" F.I.	38	1
		55026	2" F.I. x 2" F.I.	50	1
	<b>DZR DOUBLE CHECK VALVE F.I. BSP X F.I. BSP TO BS 6282</b> Back Flow Prevention Category 3	11101	½" F.I. x ½" F.I.	15	1
		11202	¾" F.I. x ¾" F.I.	20	1
		11303	1" F.I. x 1" F.I.	25	1
	<b>GM FI X FI STOPCOCK (BS.5433 TYPE20)</b>	2511	½" x ½" F.I.		1
		2522	¾" x ¾" F.I.		1
		2533	1" x 1" F.I.		1
		2055	1½" x 1½" F.I.		1
		2066	2" x 2" F.I.		1

### Metric/Imperial BSP End Connectors (for above Valves)

	Description	Part No.	Sizes	Pks
	<b>METRIC/ IMPERIAL END CONNECTOR POL X M.I. BSP</b>	9221	20mm/½" x ½" BSP	10
		9222	20mm/½" x ¾" BSP	10
		9223	20mm/½" x 1" BSP	10
		9231	25mm/¾" x ½" BSP	10
		9232	25mm/¾" x ¾" BSP	10
		9233	25mm/¾" x 1" BSP	10
		9242	32mm/1" x ¾" BSP	5
		9243	32mm/1" x 1" BSP	5
		9244	32mm/1" x 1¼" BSP	5
		9245	32mm/1" x 1½" BSP	5
		9253	40mm/1¼" x 1" BSP	1
		9254	40mm/1¼" x 1¼" BSP	1
		9255	40mm/1¼" x 1½" BSP	1
		9256	40mm/1¼" x 2" BSP	1
		9265	50mm/1½" x 1½" BSP	1
		9266	50mm/1½" x 2" BSP	1
		9275	63mm/2" x 1½" BSP	1
9276	63mm/2" x 2" BSP	1		

Liners to suit PE pipe are required for WRAS requirements, please see page 11 for these items



**A TOUGH,  
CORROSION  
RESISTANT RANGE  
OF FITTINGS TO  
MEET BSP  
THREAD  
STANDARDS**



### Complete Coverage

- BSP tapered threads
- Fully Comprehensive range
- Complements plastic pipelines
- Robust threaded fittings
- Precision BSP tapered threads
- Maximises sealing performance
- Corrosion resistant
- Versatile range
- High performance UV resistant materials (Polypropylene)
- Quick and simple to install
- Reliable installation
- ½" to 2" products are able to operate at 16 Bar



### Lead Free

The Philmac range of Threaded Fittings is completely free from lead.





Description	Part No.	Sizes	Pks
<b>TEE FEMALE</b>	4511	½" BSP	10
	4522	¾" BSP	10
	4533	1" BSP	10
	4544	1¼" BSP	5
	4555	1½" BSP	5
	4566	2" BSP	2



<b>ELBOW FEMALE</b>	4611	½" BSP	10
	4622	¾" BSP	10
	4633	1" BSP	10
	4644	1¼" BSP	5
	4655	1½" BSP	5
	4666	2" BSP	2



<b>ELBOW MALE X FEMALE</b>	4691	½" x ½" BSP	10
	4692	¾" x ¾" BSP	10
	4693	1" x 1" BSP	10
	4694	1¼" x 1¼" BSP	5
	4695	1½" x 1½" BSP	5
	4696	2" x 2" BSP	2









<b>PLUG</b>	4011	½" BSP	10
	4022	¾" BSP	10
	4033	1" BSP	10
	4044	1¼" BSP	10
	4055	1½" BSP	10
	4066	2" BSP	10



<b>BUSH - REDUCING</b>	4121	¾" x ½" BSP	10
	4131	1" x ½" BSP	10
	4132	1" x ¾" BSP	10
	4141	1¼" x ½" BSP	10
	4142	1¼" x ¾" BSP	10
	4143	1¼" x 1" BSP	10
	4151	1½" x ½" BSP	10
	4152	1½" x ¾" BSP	10
	4153	1½" x 1" BSP	10
	4154	1½" x 1¼" BSP	10
	4161	2" x ½" BSP	10
	4162	2" x ¾" BSP	10
	4163	2" x 1" BSP	10
	4164	2" x 1¼" BSP	10
	4165	2" x 1½" BSP	10
	4186	3" x 2" BSP	1
	4198	4" x 3" BSP	1



<b>NIPPLE</b>	4211	½" BSP	10
	4222	¾" BSP	10
	4233	1" BSP	10
	4244	1¼" BSP	5
	4255	1½" BSP	5
	4266	2" BSP	5

	Description	Part No.	Sizes	Pks
	<b>NIPPLE - REDUCING</b>	4221	¾" x ½" BSP	10
		4231	1" x ½" BSP	10
		4232	1" x ¾" BSP	10
		4241	1¼" x ½" BSP	5
		4242	1¼" x ¾" BSP	5
		4243	1¼" x 1" BSP	5
		4251	1½" x ½" BSP	5
		4252	1½" x ¾" BSP	5
		4253	1½" x 1" BSP	5
		4254	1½" x 1¼" BSP	5
		4261	2" x ½" BSP	5
		4262	2" x ¾" BSP	5
		4263	2" x 1" BSP	5
		4264	2" x 1¼" BSP	5
		4265	2" x 1½" BSP	5
	<b>SOCKET</b>	4311	½" BSP	10
		4322	¾" BSP	10
		4333	1" BSP	10
		4344	1¼" BSP	5
		4355	1½" BSP	5
		4366	2" BSP	5
	<b>REDUCING SOCKET</b>	4321	¾" x ½" BSP	10
		4331	1" x ½" BSP	10
		4332	1" x ¾" BSP	5
		4343	1¼" x 1" BSP	5
		4352	1½" x ¾" BSP	5
		4353	1½" x 1" BSP	5
		4354	1½" x 1¼" BSP	5
		4362	2" x ¾" BSP	5
		4363	2" x 1" BSP	5
		4365	2" x 1½" BSP	5
	<b>CAP</b>	4901	½" BSP	10
		4902	¾" BSP	10
		4903	1" BSP	10
		4904	1¼" BSP	5
		4905	1½" BSP	5
		4906	2" BSP	5
	<b>M.I. BSP HOSE TAILS</b>	RXHT15	½" BSP	10
		RXHT20	¾" BSP	10
		RXHT25	1" BSP	10
		RXHT32	1¼" BSP	10
		RXHT40	1½" BSP	10
		RXHT50	2" BSP	5
	<b>IBC SWIVEL-IT ADAPTORS</b>	60UD075B	2" x ¾" F.I. BSP	1
		60UD10B	2" x 1" F.I. BSP	1
		60UD20B	2" x 2" F.I. BSP	1

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



**MALE  
THREADED TANK  
CONNECTOR WITH  
FEMALE INLET**

Part No.	Sizes
RXTT115	½" BSP
RXTT120	¾" BSP
RXTT125	1" BSP
RXTT132	1¼" BSP
RXTT140	1½" BSP
RXTT150	2" BSP

Pks
1
1
1
1
1
1



**CUT TO SIZE TANK  
CONNECTOR KITS  
(PVC)**








Containing long  
thread (1 ft long),  
backnuts (2) and a  
washer

Part No.	Sizes
TCK050	½" BSP
TCK075	¾" BSP
TCK100	1" BSP

Pks
1
1
1





	Description	Part No.	Sizes	Pks
	<b>HIGH FLOW BALLCOCK -</b>	RXPTV20	¾" standard thread 25mm tail	1
		RXPTV20L	¾" long thread 45mm tail c/w nut	1
		RXPTV20B	¾" long thread 45mm tail bent arm	1
	<b>PIPE CUTTER</b>	1769	Up to 32mm (Medium)	1
		1770	Up to 63mm (Large)	1
	<b>SPANNER</b>	702431	20 - 32mm 'Y' spanner (plastic)	1
		7057	40 - 63mm 'Y' spanner	1
		7050	50 - 110mm 'C' spanner	1
	<b>PIPE CLIPS</b> Suitable for PE pipe	4305	16mm <sup>(oc)</sup>	10
		4306	20mm <sup>(oc)</sup>	10
		4307	25mm <sup>(oc)</sup>	10
		4308	32mm <sup>(oc)</sup>	10
		4309	40mm <sup>(cc)</sup>	10
		4310	50mm <sup>(cc)</sup>	10
		4312	63mm <sup>(cc)</sup>	10
		4313	90mm <sup>(cc)</sup>	10
		4314	110mm <sup>(cc)</sup>	10
				(oc)openclip (cc)closedclip
	<b>SQUEEZE OFF TOOLS</b>	MINI2032	20-32mm	POA
		MIDI2063	20-63mm	POA
	<b>PIPE REPAIR KITS</b>	PRK20	PIPE REPAIR KIT 20MM	3
		PRK25	PIPE REPAIR KIT 25MM	3
		PRK32	PIPE REPAIR KIT 32MM	3



### **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 not only the connection you have just made but also on the connection at the other end of the line.

## **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 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.

### **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 as a guide only.

### **For specific applications:-**


please contact our Customer Service Support Centre for advice and information.


**Telephone:** 0844 335 0016

**Facsimile:** 0800 590 028

CHEMICAL RESISTANCE CHART		
CHEMICAL	SATISFACTORY	NOT SATISFACTORY
Acetone	●	
Alcohol	●	
Ammonium Hydroxide	●	
Antifreeze	●	
Benzene		●
Butane		●
Calcium Salts	●	
Caustic Soda (40% Aqueous)	●	
Chlorine	●	
Citric Acid		●
Copper Salts	●	
Cresol		●
Ethylene Alcohol	●	
Ethyl Glycol	●	
Diesel		●
Formic Acid		●
Gasoline		●
Hydrochloric Acid		●
Kerosene		●
Methane		●
Methylene Chloride		●
Mineral Oils		●
Nitric Acid		●
Petroleum Oil		●
Sewerage	●	
Sodium Cyanide	●	
Sulphuric Acid		●
Toluene		●
Turpentine	●	
Transformer Oil		●
Zinc Salt Solution	●	

**Get in touch with our customer service and enquiry team by phone, fax or email:**

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The connection you can trust.