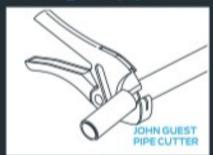


# Making a connection

# Connecting push-fit

#### **Cutting the pipe**



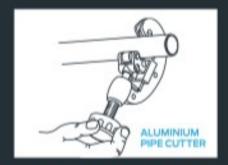
Cut the pipe square.
Ideally use a John Guest
pipe cutter for rigid nylon
pipe and aluminium pipe
cutters for aluminium pipe.
To avoid damage to the
O-Ring remove any burrs
and sharp edges.

# Demounting push-fit

#### **Demounting push-fit fittings**



To disconnect, ensure the system is depressurised. Push the collet towards the fitting and remove the pipe. Fittings are reusable.



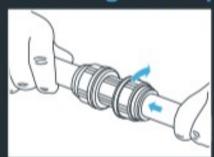
#### Making the push-fit connection



Push the pipe up to the pipe stop.

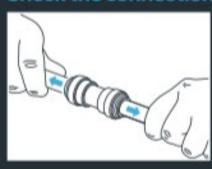
# Connecting and demounting screw cap

#### Connecting screw cap fittings



After inserting the pipe, a ¼ turn of the screw cap locks the collet in place and reduces lateral and sideway movement of the pipe.

#### Check the connection is secure



Pull to check a secure connection is made. Test the system before use.

### **Demounting screw cap fittings**



To disconnect, ¼ turn the screw cap, push the collet and remove the pipe. Fittings are reusable.

# Air ring main

# **Fittings**

# Straight Adaptor (BSP thread)





Part number	Pipe		Thread BSP	Bag	Box
PM011213E	12	х	3/8	10	150
PM011214E	12	х	1/2	10	150
PM011513E	15	х	3/8	10	150
PM011514E	15	х	1/2	10	150
PM011516E*	15	х	3/4	10	50
PM011814E	18	х	1/2		70
PM012216E	22	х	3/4		50
PM012818E	28	х	1		30

<sup>\*</sup>No thread seal.

# **Equal Elbow**



Part number	Pipe OD	Bag qty	Box qty
PM0312E	12	10	100
PM0315E	15	10	50
PM0318E	18	5	50
PM0322E	22	5	30
PM0328E	28		20

# **Straight Connector**



Part number	Pipe OD	Bag qty	Box
PM0412E	12	10	100
PM0415E	15	10	100
PM0418E	18	10	50
PM0422E	22	10	50
PM0428E	28		25

# **Equal Tee**



Part number	Pipe OD	Bag qty	Box
PM0212E	12	10	50
PM0215E	15	5	50
PM0218E	18	5	30
PM0222E	22	5	20
PM0228E	28		10

# **Reducing Tee**



Part number	Pipe OD Ends	Pipe OD Branch	Bag qty	Box qty
PM3018AE	18	15	5	30
PM3022AE	22	15	5	20

# Stem Adaptor (BSP thread)



Part number	Sten	n	Thread BSP	Bag	Box
PM051213E	12	х	3/8	10	200
PM051214E	12	х	1/2	10	150
PM051513E	15	х	3/8	10	150
PM051514E	15	х	1/2	10	100
PM051814E	18	х	1/2	10	100
PM052214E	22	х	1/2	10	100
PM052216E	22	х	3/4	10	50

Converts push-fit ends to male thread.

# Two-Way Divider



Part number	Pipe OD	Bag qty	Box
PM2315E	15	5	50

## Reducer



Part number	Sten	n	Pipe OD	Bag qty	Box
PM061510E	15	-	10	10	200
PM061512E	15	- 1	12	10	100
PM061815E	18	+1	15	10	100
PM062215E	22	-1	15	10	50
PM062218E	22	-	18	10	50
PM062815E	28	-	15	10	50
PM062822E	28	-	22		50

# Stem Elbow



OD		Stem	Bag	Box
12	-	12	10	100
15	-	15	10	100
18	-	18	5	50
22	-	22		50
	12 15 18	12 - 15 - 18 -	OD OD  12 - 12  15 - 15  18 - 18	OD         Qty           12         -         12         10           15         -         15         10           18         -         18         5

# Water Trap Tee



Part number	Pipe OD Ends	Bag qty	Box
PMTT22E	22	5	20

The easy alternative to installing a 'Swan Neck'.

# U-Bend



Part number	Pipe	Bag	Box
	OD	qty	qty
PMUB15E	15	10	50

### **Technical Specification**

#### **Working Pressure and Temperature Range**

Super Speedfit fittings are suitable for the following pressures and temperatures.

Temp.	Pressure		
	5/32" - 5/16" 4mm - 8mm	3/8" -1/2" 10mm - 22mm	
Air			
- 20°C	16 Bar	10 Bar	
Potable Liquids and Air			
+1°C	16 Bar	10 Bar	
+20°C	16 Bar	10 Bar	
+65°C	10 Bar	7 Bar	

#### Also suitable for vacuum

Depending on the tube used, under certain conditions fittings may be used at higher pressures and temperatures, Please refer to our Customer Services Department for guidance. Note 1 Bar = 14.5 PSIG.

#### **Tube Types**

**Plastic Tube -** Polyethylene, nylon and polyurethane conforming to the tolerances shown below. For soft tubing or thin wall tube we recommend the use of tube inserts.

**Braided Tube** - Use of Tube to Hose Stems listed on pages 11, 16, 18, 21 and 26 is essential when using tube. Use of clamps to retain braided tube on barbs is recommended.

Metal Tube (soft) - Brass, copper or mild steel conforming to the tolerances below

**Metal Tube (hard) -** We do not recommend Super Speedfit fittings for hard metal or chromium plated tubes.

For stainless steel and other polished metal tubes we recommend the use of Superseal fittings. These are shown on page 9 of this brochure. It is essential that outside diameters be free from score marks and that the tube be deburred before inserting the fitting.

#### **Tube Tolerances**

Super Speedfit fittings are offered for tubes with outside diameters to the following tolerances.

Size (inches)	5/32 <b>-</b> 3/16	1/4 - 1/2	
Tolerance (inches)	+0.001 / -0.003	+0.001 / -0.004	
Size (mm)	4mm <b>-</b> 5mm	6mm - 22mm	
Tolerance (mm)	+0.05 / <b>-</b> 0.07	+0.05 / <b>-</b> 0.10	

#### **Installation and System Testing**

#### Fittings and tube should be kept clean and undamaged before use.

All tube and fittings installations must be pressure tested after installation to ensure system integrity before handing over to the final user. See also "How to make a connection".

#### 1/4 Turn Valves

These valves have been designed to allow temporary servicing of downstream equipment and must only be used in the fully open or fully closed position. **DO NOT USE THESE VALVES:** In a partially open position to control flow; to provide a permanent termination; without tubing assembled or plugged (or threaded connections sealed, or as a tap or "faucet".

#### Chemicals

For use with chemicals or other potentially aggressive liquids, please refer to our Customer Services Department. In general, use only water or oil based paint. DO NOT ALLOW CONTACT WITH Cellulose based paint, paint thinners or strippers, solder flux or aggressive cleaners (see Cleaners and Sanitising). Keep away from ozone generators such as electric motors, mercury vapour lamps and high voltage electrical equipment.

Super Speedfit fittings are not recommended for use with explosive gases, petroleum spirits, and other fuels or for central heating systems.

#### **Collet Covers**

Are available as additional security against removal of the tube or to provide a simple means of colour coding. The cover is offered in a range of six colours. Please see page 26 of this brochure.

#### **Food Quality**

NSF standard 51 listed fittings in this brochure are produced in Food and Drug Administration (FDA) compliant materials and are therefore recommended for food quality applications. The majority of fitting in this catalogue are also supported by a John Guest declaration of compliance to European Regulation (EC) no.1935/2004

# Maximum Torque Values for Plastic Threads BSP, BSPT & NPT.

Plastic threads are not generally as strong as brass threads. Customers and end users should be aware of this when choosing products for their applications. Overtightening of plastic threads will cause undue stress and eventual cracking and leakage. The maximum torque figures for BSP and BSPT threads used on John Guest fittings in mating threads conforming to the relevant BS or International thread standards are shown below.

	Threads		
	1/8 - 1/4	3/8 - 1/2	3/4
Max. Torque	1.5Nm	3.0Nm	4.0Nm

John Guest recommend OEM customers to consider replacing threaded ports with the more modern Cartridge Systems.

It is recommended that all installations are checked prior to use to determine that a seal has been made.

#### **Maintenance and Replacement Intervals**

John Guest products generally require little maintenance but as a minimum we recommend routine visual inspection. Frequency of visual inspection will depend on severity of application and risk of failure. If after visual inspection John Guest products appear damaged, cracked, charred, discoloured, heat distorted or corroded they should be replaced. Any product that is or appears to be leaking should be replaced.

Product life is affected by the severity of the application, the hostility of the working environment and contact with aggressive chemicals or liquids. It is therefore important that specific replacement intervals be considered by specifiers/users/customers based on previous service life or when failure could result in unacceptable downtime, damage or injury risk.

#### **Cleaners and Sanitising of Fittings**

The external surfaces of John Guest products must not come into contact with oxidising or acidic cleaners and sanitising agents, for example (but not limited to) those below pH 4, high in sodium hypochlorite level (bleach) or containing hydrogen peroxide. Our plastic material suppliers recommend ECOLAB Oasis 133 as a suitable cleaner for the external surfaces of products manufactured by John Guest.

Several different methods exist for sanitising the internal surfaces of fluid systems, including sodium hypochlorite, hydrogen peroxide, chlorine dioxide or ozone. It is entirely the responsibility of the end user to determine if the chosen method is suitable for use with John Guest products over the planned working life of the system. However, to avoid unnecessary early failure, John Guest requires that the disinfection solution must be immediately flushed out at all draw off points with fresh, wholesome water at the end of the disinfection period. The solution must not be left in the system. Disinfection solutions must only come into contact with einternal (fluid carrying) surfaces of the system. If any other surfaces of a fitting come into contact with disinfection solution the whole fitting must be replaced immediately. Polypropylene fittings offer greater resistance to aggressive chemicals than Acetal fittings but do not have the same mechanical properties. John Guest polypropylene fittings are generally designated by the part number prefix PP or PPM.

#### Side Loads

John Guest products are not designed to be used whilst under side load as this may adversely affect their ability to function long-term. Always ensure tubes have good alignment with the fitting. They must also not be subjected to any form of impact or other damage, such as being hit or dropped, even accidently. If fittings have damaged or suffered an impact, they should be replaced immediately. John Guest warranty does not cover loss caused by any form of damage.

#### Warranty

Whilst we give a warranty against defects in manufacture or materials, it is the responsibility of the specifier to ensure that fittings and related products are suitable for their application. The installation must be carried out correctly in accordance with our recommendations, complying with recognised codes of practice and relevant national standards, and be properly maintained. Please refer to our terms and conditions of sale.

