# John Guest®

# Drinks Dispense And Pure Water

Super Speedfit Fittings, Valves and Tubing



October 2014



The John Guest Group has a long established reputation as a world leading manufacturer of push-fit fittings, tube and other fluid control products. A reputation built on producing consistently high quality products with an ongoing commitment to value engineering and product development.



# Quality Manufacture

#### A commitment to quality is at the heart of the John Guest philosophy.

The strictest control is maintained by virtue of the fact that design and manufacture is carried out in modern purpose built manufacturing centres in West London and at Maidenhead in Berkshire.

Maintaining control over the whole process from initial tool design and tool making through to final assembly and testing ensuring that only products of the highest quality are produced.

The company believe it is this commitment to quality that has led to it receiving prestigious awards from many of the world's leading testing and approvals organisations.

John Guest is a preferred supplier to many international companies.

## **John Guest**®

### Polypropylene Shut-Off Valve

The PP Range of shut-off valves are produced in polypropylene and fitted with EPDM seals. Polypropylene has the advantage of being more chemically resistant than acetal.

The valves are for use with potable water. For use with other potable liquids please refer to our Customer Services Department for guidance.

The valves are not to be used with compressed air, explosive gases, petroleum spirits and other fuels or for heating systems.

#### **Working Pressures and Temperatures**

Water 10 Bar at 20°C

4 Bar at 60°C

Minimum Temperature 1°0

For advice on the use of 1/4 turn valves see Technical Specification on page 34.



# White polypropylene for Potable Water

#### **SPEEDFIT TO SPEEDFIT** •



PART NO.	TUBE OD
PPSV040808W	1/4
PPSV041212W	3/8
PPMSV040606W	6mm
PPMSV040808W	8mm
PPMSV041010W	10mm
PPMSV041212W	12mm

8mm also available with mounting clip supplied unassembled **PPMSV04KIT** 

#### **SPEEDFIT TO FEMALE** •



PART NO.	TUBE OD	THREAD NPTF
PPSV500822W	1/4	1/4
PPSV501222W	3/8	1/4

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:

- $\bullet\,$  In a partially open position to control flow.
- · To provide a permanent termination.
- Without tubing assembled or plugged (or threaded connections sealed).
- · As a tap or "faucet".

1/4 Turn Valves are indicated by this marker '•'

#### **MOUNTING CLIP**



PART NO.

SVMC-06 For 6mm and 1/4" For 10mm and 3/8"

The mounting clip is designed to give a very firm grip. A twisting action is needed to remove the valve. The clip can be used with either shut off valve. When used with the short handle version, valves can be banked together.

# PART NO. TUBE THREAD OD NPTF

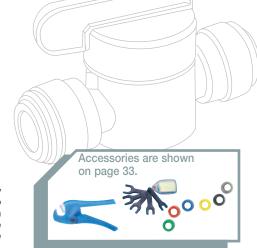
1/4

3/8

1/4

PPSV010822W

PPSV011223W



#### **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 5 and 12 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 - 3/16	1/4 - 1/2
Tolerance (inches)	+0.001 / -0.003	+0.001 / -0.004
Size (mm)	4mm - 5mm	6mm - 22mm
Tolerance (mm)	+0.05 / -0.07	+0.05 / -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 🕎

All the fittings in the brochure are produced in Food and Drug Administration (FDA) approved materials and are therefore recommended for food quality applications.

## 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 the internal (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.

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#### Product Selection and Installation

John Guest fittings and related products are specifically designed and manufactured by John Guest to the Technical Specifications set out in the John Guest Product Catalogues. All John Guest fittings and related products should be selected, installed, used and maintained in accordance with these Technical Specifications. It is the customer's / user's responsibility to ensure that John Guest fittings and related products are suitable for their intended applications, and are properly installed and maintained and are used in accordance with the Technical Specifications. It is also the customer's / user's responsibility to provide it's customers with any relevant technical information about John Guest products it supplies them.

The company has a policy of continuous research and development and reserves the right to amend without notice the specification and design of all products illustrated in this catalogue. John Guest reserve the right to change the colour and shape of products. Photographs are for illustration purposes only.

Subject to our Terms and Conditions of Sale available on request.

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