# 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 offer the widest range of push-fit fittings, tube and other fluid control products for drinks dispense and pure water applications.

The world's first food quality push in fitting, the John Guest range is now over 800 items strong and provides the quickest and most effective of installations. Pushing the tube into the fitting is all that is needed to produce an instant but permanent leakproof connection.

The fittings are just as easy to disconnect and re use without the need for replacement parts.

The products in this catalogue are produced in FDA compliant materials making them especially suitable for potable liquids. Selected items can also be used for inert gases such as CO<sup>2</sup>.



FAST INSTALLATION TIME 'RIGHT FIRST TIME EVERY TIME' SUITABLE FOR SOFT METAL OR PLASTIC TUBES **NO TOOLS NEEDED** QUICK DISCONNECTION **RE-USABLE** 

#### SUPERIOR FLOW CHARACTERISTICS

Accepted by almost all the world's beer and beverage producers and by the manufacturers of drinks dispense equipment, John Guest products have quality and performance approvals from leading esting and acceptance authorities.



NSF 51 NSF 61





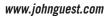








Since 1989





#### White Acetal Fittings

CI inch size fittings are manufactured in white acetal. With a food grade EPDM 'O' ring, they have been developed for the water industry but are equally suitable for other potable liquids. They are also recommended for intermittent hot water applications.

Selected items are available with red or blue collets.

The CI Range is NOT suitable for compressed air and vacuum applications. For these situations we recommend the PI Range on pages 07 - 12.

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

Water 10 BAR at 20°C 7 BAR at 65°C intermittent hot water

Other technical information is shown on page 34.

#### EQUAL STRAIGHT CONNECTOR

STRAIGHT ADAPTOR NPTF Thread

TUBE OD THREAD

NPTF

1/4 x 1/8

1/4 x 1/4

1/4 x 3/8

3/8 x 1/4

PART NO.	TUBE OD
CI0408W CI0412W	1/4 3/8

#### STEM ELBOW

5				
PART NO.	STEM OD		TUBE OD	
CI220808W	1/4	-	1/4	
CI221208W	3/8	-	1/4	
CI221212W	3/8	-	3/8	
CI220808WB	1/4	-	1/4	Blue Collet
CI221212WB	3/8	-	3/8	Blue Collet
CI220808WR	1/4	-	1/4	Red Collet
CI221212WR	3/8	-	3/8	Red Collet

PART NO. TUBE THREAD

PART NO.	OD		NPTF	
CI480821W	1/4	х	1/8	
CI480822W	1/4	х	1/4	
CI480823W	1/4	х	3/8	
CI481222W	3/8	х	1/4	
CI480821WB	1/4	x	1/8	Blue Collet

#### EQUAL ELBOW

PART NO.

CI010821W

CI010822W

CI010823W

CI011222W

		,•	
PART NO.	TUBE OD		
CI0308W	1/4		
CI0312W	3/8		
CI0308WB	1/4	Blue Collet	
CI0312WB	3/8	Blue Collet	
CI0312WR	3/8	Red Collet	







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PART NO.	TUBE OD	TUBE OD	TUBE OD
CI580808W	1/4 -	1/4	- 1/4

#### **BRANCH STEM TEE**

PART NO.	TUBE	TUBE	TUBE
	OD	OD	OD
CI530808W	1/4 -	1/4	- 1/4

#### **BULKHEAD CONNECTOR**





for pure water and potable liquids

# *Sure water* & potable liquids

STEM ADAPTOR			NP	TF Thread	
-(					
PART NO.	STEM OD		THREAD NPTF		
CI050821W	1/4	x	1/8		
CI050822W	1/4	х	1/4		
CI051222W	3/8	X	1/4		
CI051223W	3/8	х	3/8		

#### **TAP ADAPTOR**



#### REDUCER

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PART NO.	STEM OD	TUBE OD				
CI061208W	3/8 ·	· 1/4				

#### **BARB CONNECTOR** Superseal X Barb

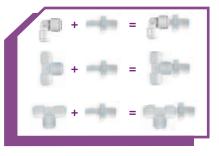


#### **TUBE TO HOSE ELBOW**



John Guest Adaptability Standard Super Speedfit products can be

coupled together to form integral new fittings.





#### **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 solutions 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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