



John Guest®

Fluid System Products

Fittings, Valves, Tubing

Industrial Products Catalog



JG John Guest USA, Inc.
September, 2006



*Fast, Reliable Tubing Connections
with No Tools!*

How Super Speedfit Works

To make a connection, the tube is simply pushed in by hand; the unique patented John Guest collet locking system then holds the tube firmly in place without deforming it or restricting flow.

Materials of construction

Super Speedfit fittings are made up of three components:

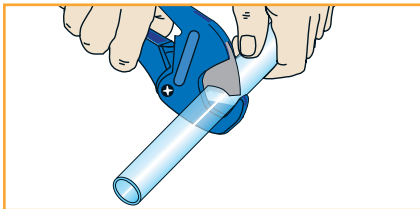
Bodies are produced in an acetal copolymer or polypropylene.

O-rings are nitrile rubber or EPDM.

Collets are produced in acetal copolymer or polypropylene with stainless steel teeth.

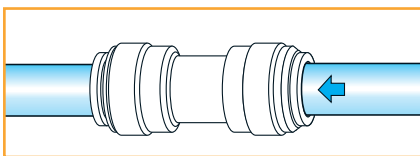
How to make a connection

Cut the tube square



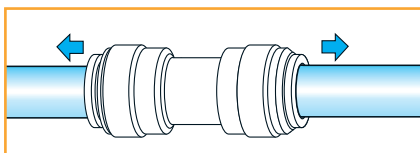
Cut the tube square and remove burrs and sharp edges. Ensure that the outside diameter is free of score marks. For soft or thin-walled plastic tubing we recommend the use of a tube insert.

Push up to tube stop



Push the tube into the fitting, to the tube stop.

Pull to check secure



Pull on the tube to check it is secure. Test the system before use.

Grips before it seals

O-ring provides a leakproof seal

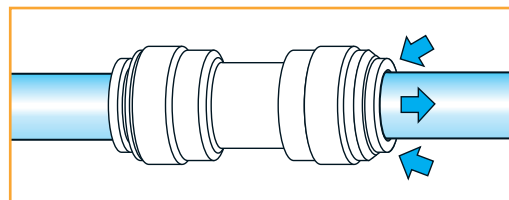
The Collet (gripper) has stainless steel teeth which hold the tube firmly in position while the O-ring provides a permanent leakproof seal.

Collet

Stainless steel teeth grip the pipe

To disconnect

Push in collet and remove tube



To disconnect, ensure that the system is depressurized, push the collet square against the fitting. With the collet held in this position the tube can be removed.

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Polypropylene Fittings

The PP Range of inch-size push-in fittings is offered for tube sizes 1/4" O.D. to 1/2" O.D. The fittings are manufactured in white polypropylene with food grade EPDM O-rings. They have been developed to satisfy the compatibility needs for a wide range of applications.

Working Pressures and Temperatures

Water	Max.	150 psi at 70°F	(Max. 10 Bar at 20°C)
	Max.	60 psi at 140°F	(Max. 4 Bar at 60°C)
	Min.	33°F/1°C	

Detailed technical information is shown on page 21.



MALE CONNECTOR NPTF THREAD



PART NO.	TUBE OD	THREAD NPTF
PP010821W	1/4	- 1/8
PP010822W	1/4	- 1/4
PP010823W	1/4	- 3/8
PP011222W	3/8	- 1/4
PP011223W	3/8	- 3/8
PP011224W	3/8	- 1/2
PP011623W	1/2	- 3/8
PP011624W	1/2	- 1/2

UNION CONNECTOR



PART NO.	TUBE OD
PP0408W	1/4
PPM0408W	5/16
PP0412W	3/8
PP0416W	1/2

SWIVEL ELBOW NPTF THREAD



PART NO.	TUBE OD	THREAD NPTF
PP090821W	1/4	x 1/8
PP090822W	1/4	x 1/4
PP091222W	3/8	x 1/4
PP091223W	3/8	x 3/8

UNION TEE



PART NO.	TUBE OD
PP0208W	1/4
PPM0208W	5/16
PP0212W	3/8
PP0216W	1/2

STEM ADAPTER NPTF THREAD



PART NO.	STEM OD	THREAD NPTF
PP050821W	1/4	x 1/8
PP050822W	1/4	x 1/4
PP051222W	3/8	x 1/4
PP051223W	3/8	x 3/8
PP051623W	1/2	x 3/8
PP051624W	1/2	x 1/2

SWIVEL BRANCH TEE CENTER LEG NPTF THREAD



PART NO.	TUBE OD	THREAD NPTF
PP100821W	1/4	x 1/8
PP100822W	1/4	x 1/4
PP101222W	3/8	x 1/4
PP101223W	3/8	x 3/8

REDUCER



PART NO.	STEM OD	TUBE OD
PP061208W	3/8	- 1/4
PP061612W	1/2	- 3/8
PP062012W*	5/8	- 3/8
PP062016W*	5/8	- 1/2

* New

UNION ELBOW



PART NO.	TUBE OD
PP0308W	1/4
PPM0308W	5/16
PP0312W	3/8
PP0316W	1/2

PLUG



PART NO.	STEM OD
PP0808W	1/4
PPM0808W	5/16
PP0812W	3/8
PP0816W	1/2

SWIVEL MALE RUN TEE NPTF THREAD



PART NO.	TUBE OD	THREAD NPTF
PP110821W	1/4	x 1/8
PP110822W	1/4	x 1/4
PP111222W	3/8	x 1/4
PP111223W	3/8	x 3/8

BULKHEAD UNION



PART NO.	TUBE OD
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PP1208W	1/4
PP1212W	3/8
PP1216W	1/2

Polypropylene Bulkhead Unions are not intended for submerged use.

PLUG IN ELBOW



PART NO.	STEM OD	TUBE OD
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PP220808W	1/4	- 1/4
PPM220808W	5/16	- 5/16
PP221208W	3/8	- 1/4
PP221212W	3/8	- 3/8
PP221616W	1/2	- 1/2

FAUCET CONNECTOR UNS THREAD



PART NO.	TUBE OD	THREAD UNS
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PP3208U7W	1/4	x 7/16 - 24
PP3212U7W	3/8	x 7/16 - 24

REDUCING BULKHEAD UNION



PART NO.	TUBE OD	TUBE OD
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PP121208W*	3/8	- 1/4
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* New

TWO WAY DIVIDER



PART NO.	TUBE OD
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PP2312W*	3/8
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* New

FEMALE ADAPTER NPTF THREAD



PART NO.	TUBE OD	THREAD NPTF
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PP450821W*	1/4	x 1/8
PP450822W*	1/4	x 1/4
PP451222W*	3/8	x 1/4
PP451223W*	3/8	x 3/8

* New

REDUCING UNION CONNECTOR



PART NO.	TUBE OD	TUBE OD
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PP201208W*	3/8	- 1/4
PP201612W	1/2	- 3/8

* New

TUBE TO HOSE STEM



PART NO.	STEM OD	HOSE ID
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PP251212W	3/8	- 3/8
PP251216W	3/8	- 1/2
PP251612W	1/2	- 3/8
PP251616W	1/2	- 1/2

FIXED ELBOW NPTF THREAD



PART NO.	TUBE OD	THREAD NPTF
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PP480821W	1/4	x 1/8
PP480822W	1/4	x 1/4
PP480823W	1/4	x 3/8
PP481222W	3/8	x 1/4
PP481223W	3/8	x 3/8

REDUCING ELBOW



PART NO.	TUBE OD	TUBE OD
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PP211008W*	5/16	- 1/4
PP211208W*	3/8	- 1/4
PP211612W*	1/2	- 3/8

* New

REDUCING TEE



PART NO.	TUBE OD END	TUBE OD END	TUBE OD BRANCH
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PP30120812W	3/8	x 1/4	x 3/8
PP30121208W	3/8	x 3/8	x 1/4
PP301612W	1/2	x 1/2	x 3/8

Accessories for PP Fittings are shown on page 15.



Gray Acetal Fittings

The PI Range of inch-size push-in fittings is offered for tube sizes 5/32" O.D. to 5/8" O.D. The fittings are manufactured in gray acetal copolymer with food grade nitrile O-ring, making them especially suitable for applications involving foodstuff and potable liquids. They are especially suitable for air and inert gases and can therefore be used on CO₂ lines, pneumatic applications and vacuum.

Detailed technical information is shown on page 21.



MALE CONNECTOR NPTF THREAD



PART NO.	TUBE OD	THREAD NPTF
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PM010421S	5/32	x 1/8
PM010422S	5/32	x 1/4
PI010621S	3/16	x 1/8
PI010821S	1/4	x 1/8
PI010822S	1/4	x 1/4
PI010823S	1/4	x 3/8
PM010821S	5/16	x 1/8
PM010822S	5/16	x 1/4
PM010823S	5/16	x 3/8
PI011221S	3/8	x 1/8
PI011222S	3/8	x 1/4
PI011223S	3/8	x 3/8
PI011224S	3/8	x 1/2
PI011623S	1/2	x 3/8
PI011624S	1/2	x 1/2
PI012026S	5/8	x 3/4

MALE CONNECTOR BSPT THREAD



PART NO.	TUBE OD	THREAD BSPT
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PM010401S	5/32	x 1/8
PM010402S	5/32	x 1/4
PI010601S	3/16	x 1/8
PI010602S	3/16	x 1/4
PI010801S	1/4	x 1/8
PI010802S	1/4	x 1/4
PM010801S	5/16	x 1/8
PM010802S	5/16	x 1/4
PM010803S	5/16	x 3/8
PI011202S	3/8	x 1/4
PI011203S	3/8	x 3/8
PI011603S	1/2	x 3/8
PI011604S	1/2	x 1/2

MALE CONNECTOR BSPP THREAD



PART NO.	TUBE OD	THREAD BSPP
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PI010812S	1/4	x 1/4
PI011212S	3/8	x 1/4

MALE CONNECTOR BSPP THREAD



PART NO.	TUBE OD	THREAD BSPP
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NCPI011211S	3/8	x 1/8
NCPI011212S	3/8	x 1/4

3/8" x 1/4" has special large seal for use with chamfered face ports.

No thread seal on 3/8" x 1/8".

FLARE MALE CONNECTOR MFL THREAD



45° FLARE

PART NO.	TUBE OD	THREAD MFL
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PI0108F4S	1/4	x 1/4
PM0108F5S	5/16	x 5/16
PI0112F4S	3/8	x 1/4
PI0112F5S	3/8	x 5/16
PI0112F6S	3/8	x 3/8
PI0112F8S	3/8	x 1/2
PI0116F8S	1/2	x 1/2
PM0108C5S	5/16	x 1/2 - 16UN
PI0112C5S	3/8	x 1/2 - 16UN

1/4" (MFL) corresponds to a 7/16-20 UNF

5/16" (MFL) corresponds to a 1/2-20 UNF

3/8" (MFL) corresponds to a 5/8-18 UNF

1/2" (MFL) corresponds to a 3/4-16 UNF

UNION TEE



PART NO.	TUBE OD
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PM0204S	5/32
PI0206S	3/16
PI0208S	1/4
PM0208S	5/16
PI0212S	3/8
PI0216S	1/2

UNION ELBOW



PART NO.	TUBE OD
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PM0304S	5/32
PI0306S	3/16
PI0308S	1/4
PM0308S	5/16
PI0312S	3/8
PI0316S	1/2

UNION CONNECTOR



PART NO.	TUBE OD
----------	---------

PM0404S	5/32
PI0406S	3/16
PI0408S	1/4
PM0408S	5/16
PI0412S	3/8
PI0416S	1/2

STEM ADAPTER NPTF THREAD



PART NO.	STEM OD	THREAD NPTF
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PM050421S	5/32	x 1/8
PM050422S	5/32	x 1/4
PI050621S	3/16	x 1/8
PI050821S	1/4	x 1/8
PI050822S	1/4	x 1/4
PI050823S	1/4	x 3/8
PM050821S	5/16	x 1/8
PM050822S	5/16	x 1/4
PM050823S	5/16	x 3/8
PI051222S	3/8	x 1/4
PI051223S	3/8	x 3/8
PI051623S	1/2	x 3/8
PI051624S	1/2	x 1/2

STEM ADAPTER

BSPT THREAD



PART NO.	STEM OD	THREAD BSPT
----------	---------	-------------

PM050401S	5/32	x 1/8
PM050402S	5/32	x 1/4
PI050601S	3/16	x 1/8
PI050801S	1/4	x 1/8
PI050802S	1/4	x 1/4
PM050801S	5/16	x 1/8
PM050802S	5/16	x 1/4
PM050803S	5/16	x 3/8
PI051202S	3/8	x 1/4
PI051203S	3/8	x 3/8
PI051603S	1/2	x 3/8
PI051604S	1/2	x 1/2

STEM ADAPTER

BSPP THREAD



PART NO.	STEM OD	THREAD BSPP
----------	---------	-------------

PM050812S	5/16	x 1/4
PI051212S	3/8	x 1/4
PI051213S	3/8	x 3/8

REDUCER



PART NO.	STEM OD	TUBE OD
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PI060605S	3/16	- 5/32
PI061006S	5/16	- 3/16
PI061008S	5/16	- 1/4
PI061206S	3/8	- 3/16
PI061208S	3/8	- 1/4
PI061210S	3/8	- 5/16
PI061610S	1/2	- 5/16
PI061612S	1/2	- 3/8

PLUG



PART NO.	STEM OD
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PM0804S	5/32
PI0806S	3/16
PI0808S	1/4
PM0808S	5/16
PI0812S	3/8
PI0816S	1/2

SWIVEL ELBOW

NPTF THREAD



PART NO.	TUBE OD	THREAD NPTF
----------	---------	-------------

PM090421S	5/32	x 1/8
PM090422S	5/32	x 1/4
PI090621S	3/16	x 1/8
PI090821S	1/4	x 1/8
PI090822S	1/4	x 1/4
PM090821S	5/16	x 1/8
PM090822S	5/16	x 1/4
PM090823S	5/16	x 3/8
PI091221S	3/8	x 1/8
PI091222S	3/8	x 1/4
PI091223S	3/8	x 3/8
PI091622S	1/2	x 1/4
PI091623S	1/2	x 3/8
PI091624S	1/2	x 1/2

SWIVEL ELBOW

BSPT THREAD



PART NO.	TUBE OD	THREAD BSPT
----------	---------	-------------

PI090601S	3/16	x 1/8
PI090801S	1/4	x 1/8
PI090802S	1/4	x 1/4
PM090801S	5/16	x 1/8
PM090802S	5/16	x 1/4
PM090803S	5/16	x 3/8
PI091202S	3/8	x 1/4
PI091203S	3/8	x 3/8
PI091603S	1/2	x 3/8
PI091604S	1/2	x 1/2

SWIVEL BRANCH TEE

CENTER LEG
NPTF THREAD



PART NO.	TUBE OD	THREAD NPTF
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PM100421S	5/32	x 1/8
PM100422S	5/32	x 1/4
PI100621S	3/16	x 1/8
PI100821S	1/4	x 1/8
PI100822S	1/4	x 1/4
PM100821S	5/16	x 1/8
PM100822S	5/16	x 1/4
PM100823S	5/16	x 3/8
PI101222S	3/8	x 1/4
PI101223S	3/8	x 3/8
PI101623S	1/2	x 3/8
PI101624S	1/2	x 1/2

SWIVEL BRANCH TEE

CENTER LEG
BSPT THREAD



PART NO.	TUBE OD	THREAD BSPT
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PI100601S	3/16	x 1/8
PI100801S	1/4	x 1/8
PI100802S	1/4	x 1/4
PM100801S	5/16	x 1/8
PM100802S	5/16	x 1/4
PM100803S	5/16	x 3/8
PI101202S	3/8	x 1/4
PI101203S	3/8	x 3/8
PI101603S	1/2	x 3/8
PI101604S	1/2	x 1/2

SWIVEL MALE RUN TEE

NPTF THREAD



PART NO.	TUBE OD	THREAD NPTF
----------	---------	-------------

PM110421S	5/32	x 1/8
PM110422S	5/32	x 1/4
PI110621S	3/16	x 1/8
PI110821S	1/4	x 1/8
PI110822S	1/4	x 1/4
PM110821S	5/16	x 1/8
PM110822S	5/16	x 1/4
PM110823S	5/16	x 3/8
PI111222S	3/8	x 1/4
PI111223S	3/8	x 3/8
PI111623S	1/2	x 3/8
PI111624S	1/2	x 1/2

SWIVEL MALE RUN TEE

BSPT THREAD

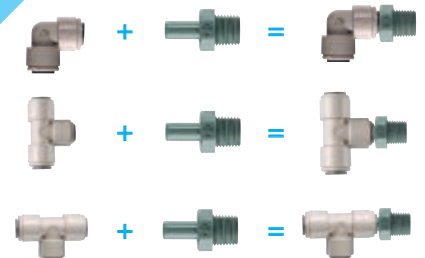


PART NO.	TUBE OD	THREAD BSPT
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PI110601S	3/16	x 1/8
PI110801S	1/4	x 1/8
PI110802S	1/4	x 1/4
PM110801S	5/16	x 1/8
PM110802S	5/16	x 1/4
PM110803S	5/16	x 3/8
PI111202S	3/8	x 1/4
PI111203S	3/8	x 3/8
PI111603S	1/2	x 3/8
PI111604S	1/2	x 1/2

John Guest Adaptability

Standard *Super Speedfit* products can be coupled together to form integral new fittings.



BULKHEAD UNION



PART NO.	TUBE OD	MOUNTING HOLE DIA. (INCH)
PM1204S	5/32	0.67
PI1206S	3/16	0.67
PI1208S	1/4	0.67
PM1208S	5/16	0.83
PI1212S	3/8	0.83
PI1216S	1/2	1.06

REDUCING BULKHEAD UNION



PART NO.	TUBE OD	TUBE OD	MOUNTING HOLE DIA. (INCH)
NC392-02	1/2	1/4	0.83
PI121208S	3/8	1/4	0.83

ENLARGER



PART NO.	STEM OD	TUBE OD
PI131012S	5/16	3/8
PI131216S	3/8	1/2

REDUCING UNION CONNECTOR



PART NO.	TUBE OD	TUBE OD
PI200806S	1/4	3/16
PM200804S	5/16	5/32
PI201006S	5/16	3/16
PI201008S	5/16	1/4
PI201206S	3/8	3/16
PI201208S	3/8	1/4
PI201210S	3/8	5/16
PI201610S	1/2	5/16
PI201612S	1/2	3/8

REDUCING ELBOW



PART NO.	TUBE OD	TUBE OD
PM210804S	5/16	5/32
PI211006S	5/16	3/16
PI211008S	5/16	1/4
PI211206S	3/8	3/16
PI211208S	3/8	1/4
PI211210S	3/8	5/16
PI211610S	1/2	5/16
PI211612S	1/2	3/8

PLUG IN ELBOW



PART NO.	STEM OD	TUBE OD
PM220404S	5/32	5/32
PI220606S	3/16	3/16
PI220808S	1/4	1/4
PM220808S	5/16	5/16
PI221206S	3/8	3/16
PI221208S	3/8	1/4
PI221210S	3/8	5/16
PI221212S	3/8	3/8
PI221616S	1/2	1/2

TWO-WAY DIVIDER



PART NO.	TUBE OD
PI2308S	1/4
PM2308S	5/16
PI2312S	3/8
PI2316S	1/2

UNEQUAL TWO-WAY DIVIDER



PART NO.	TUBE OD INLET	TUBE OD OUTLET
PI241210S	3/8	5/16

TUBE TO HOSE STEM



PART NO.	STEM OD	HOSE ID
PI250806S	1/4	3/16
PI250808S	1/4	1/4
PI250810S	1/4	5/16
PI251006S	5/16	3/16
PI251008S	5/16	1/4
PM250808S	5/16	5/16
PI251012S	5/16	3/8
PI251208S	3/8	1/4
PI251210S	3/8	5/16
PI251212S	3/8	3/8
PI251216S	3/8	1/2
PI251612S	1/2	3/8
PI251616S	1/2	1/2

TUBE TO HOSE STEM LONG VERSION



PART NO.	STEM OD	HOSE ID
PI251012SL	5/16	3/8
PI251212SL	3/8	3/8

TUBE TO HOSE ELBOW



PART NO.	STEM OD	HOSE ID
PI290808S	1/4	1/4
PI290810S	1/4	5/16
PI291008S	5/16	1/4
PM290808S	5/16	5/16
PI291208S	3/8	1/4
PI291210S	3/8	5/16

REDUCING TEE

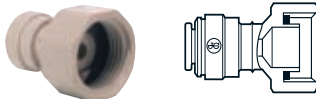


PART NO.	TUBE OD ENDS	TUBE OD BRANCH
PI301208S	3/8	1/4
PI301612S	1/2	3/8

Accessories for PI Fittings are shown on page 15.

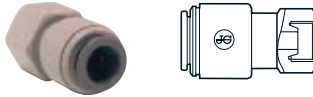


FAUCET CONNECTOR BSPP THREAD



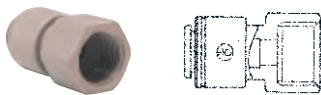
PART NO.	TUBE OD	THREAD BSPP
CI320814S	1/4	x 1/2
CI321214S	3/8	x 1/2

FAUCET CONNECTOR UNS THREAD



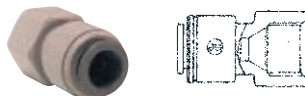
PART NO.	TUBE OD	THREAD UNS
CI3208U7S	1/4	x 7/16 - 24
CI3210U7S	5/16	x 7/16 - 24
CI3212U7S	3/8	x 7/16 - 24

FEMALE CONNECTOR NPTF THREAD



PART NO.	TUBE OD	THREAD NPTF
PI450822S	1/4	x 1/4
PI451222S	3/8	x 1/4

FEMALE CONNECTOR UN THREAD



PART NO.	TUBE OD	THREAD UN
PM4508C5S	5/16	x 1/2 - 16
PI4512C5S	3/8	x 1/2 - 16
PI4516C5S	1/2	x 1/2 - 16

FEMALE FLARE CONNECTOR FFL THREAD



PART NO.	TUBE OD	THREAD FFL
PM4508F4S	5/16	x 1/4
PI4512F4S	3/8	x 1/4
PI4512F6S	3/8	x 3/8

1/4 (FFL) corresponds to a 7/16 - 20 UNF
 3/8 (FFL) corresponds to a 5/8 - 18 UNF

FEMALE CONNECTOR BSPP THREAD - CONE END



PART NO.	TUBE OD	THREAD BSPP
PI451014CS	5/16	x 1/2
PI451015CS	5/16	x 5/8
PI451214CS	3/8	x 1/2
PI451215CS	3/8	x 5/8
PI451614CS	1/2	x 1/2
PI451615CS	1/2	x 5/8

FEMALE CONNECTOR BSPP THREAD - FLAT END



PART NO.	TUBE OD	THREAD BSPP
PI451014FS	5/16	x 1/2
PI451015FS	5/16	x 5/8
PI451213S	3/8	x 3/8
PI451214FS	3/8	x 1/2
PI451215FS	3/8	x 5/8
PI451613S	1/2	x 3/8
PI451615FS	1/2	x 5/8

END STOP



PART NO.	TUBE OD
PI4608S	1/4
PI4612S	3/8

CROSS



PART NO.	TUBE OD
PI4712S	3/8

FIXED ELBOW NPTF THREAD



PART NO.	TUBE OD	THREAD NPTF
PI480821S	1/4	x 1/8
PI480822S	1/4	x 1/4
PI480823S	1/4	x 3/8
PI481222S	3/8	x 1/4
PI481223S	3/8	x 3/8
PI482024S	5/8	x 1/2

THREE WAY DIVIDER



PART NO.	TUBE OD INLET	TUBE OD OUTLET
PI491612S	1/2	- 3/8

DISPENSING VALVE ELBOW



PART NO.	TUBE OD	STEM OD
NC356-02	3/8	- 3/8

DISPENSING VALVE STEM



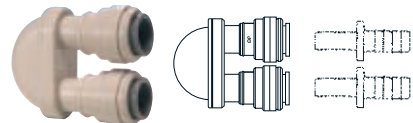
PART NO.	STEM OD
NC730-02	3/8

OFFSET CONNECTOR



PART NO.	TUBE OD	TUBE OD
NC641	1/2	- 5/16

U-BEND



PART NO.	TUBE OD
PIUB12S*	3/8
PIUB16S	1/2

* New

The U-Bend is offered for 1/2 inch OD tube sizes. Existing 1/2 inch ID lines can be accommodated by using a standard Tube to Hose Stem.

CHECK VALVE



Super Speedfit Single Check Valves allow flow in one direction.

For liquids only

PART NO.	TUBE OD
1/4SCV	1/4
5/16SCV	5/16
3/8SCV	3/8



MI Fittings

Designed for use in coffee brewing equipment, dispensing and vending machine applications. The fittings are manufactured in brass with a polypropylene collet and a food grade EPDM O-ring.

Working Pressures and Temperatures

Water	Max.	150 psi at 70°F	(Max. 10 Bar at 20°C)
	Max.	60 psi at 140°F	(Max. 4 Bar at 60°C)
	Min.	33°F / 1°C	

Detailed technical information is shown on page 21.



BRASS FEMALE CONNECTOR FFL THREAD



PART NO.	TUBE OD	THREAD FFL
----------	------------	---------------

MI4508F4S	1/4	x 1/4
MI4512F4S	3/8	x 1/4
MI4512F6S	3/8	x 3/8

1/4 (FFL) corresponds to a 7/16 - 20 UNF
3/8 (FFL) corresponds to a 5/8 - 18 UNF

BRASS POLYPROPYLENE FEMALE BSPP GARDEN HOSE CONNECTOR BSPP THREAD



PART NO.	TUBE OD	THREAD BSPP
----------	------------	----------------

NC2258*	3/8	x 3/4
---------	-----	-------

* New

BRASS FEMALE CONNECTOR NH THREAD (National Hose)



PART NO.	TUBE OD	THREAD NH
----------	------------	--------------

NC2098	1/4	x 3/4
--------	-----	-------

A plug in elbow shown on page 3 will provide a neat 90° installation. The tube can be orientated in any direction.

BRASS POLYPROPYLENE BSPP FEMALE CONNECTOR BSPP THREAD



PART NO.	TUBE OD	THREAD BSPP
----------	------------	----------------

NC2145	1/4	x 3/4
NC2249	3/8	x 3/4

White Acetal Fittings

The CI range of inch-size fittings is offered for tube sizes 1/4" O.D. and 3/8" O.D. The 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 5 - 7.

Working Pressures and Temperatures

Water Max. 150 psi at 70°F (Max. 10 bar at 20°C)
 Max. 100 psi at 150°F (Max. 7 bar at 65°C)
 Min. 33°F/1°C

Detailed technical information is shown on page 21.



MALE CONNECTOR NPTF THREAD



PART NO.	TUBE OD	THREAD NPTF
CI010821W	1/4 x	1/8
CI010822W	1/4 x	1/4
CI010823W	1/4 x	3/8
CI011222W	3/8 x	1/4

STEM ADAPTER NPTF THREAD



PART NO.	STEM OD	THREAD NPTF
CI050821W	1/4 x	1/8
CI050822W	1/4 x	1/4
CI051222W	3/8 x	1/4
CI051223W	3/8 x	3/8

PLUG IN ELBOW



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

UNION TEE



PART NO.	TUBE OD	
CI0208W	1/4	
CI0212W	3/8	
CI0208WB	1/4	Blue Collet

REDUCER



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

BARB CONNECTOR SUPERSEAL X BARB



PART NO.	SUPERSEAL OD	HOSE ID
CI270808W	1/4 -	1/4

UNION ELBOW



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

BULKHEAD UNION



PART NO.	TUBE OD	MOUNTING HOLE DIA. (INCH)
CI1208W	1/4	0.67

TUBE TO HOSE ELBOW



PART NO.	STEM OD	HOSE ID
CI291208W*	3/8 -	1/4

* New

FEMALE ADAPTER NPTF THREAD



PART NO.	TUBE OD	THREAD NPTF
CI451222W	3/8 x	1/4

UNION CONNECTOR



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

REDUCING ELBOW



PART NO.	TUBE OD	TUBE OD
CI211206W	3/8 -	3/16

FIXED ELBOW NPTF THREAD



PART NO.	TUBE OD	THREAD NPTF
CI480821W	1/4 x	1/8
CI480822W	1/4 x	1/4
CI480823W	1/4 x	3/8
CI481222W	3/8 x	1/4

Superseal Fittings

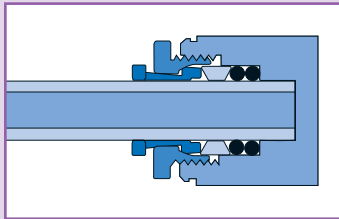
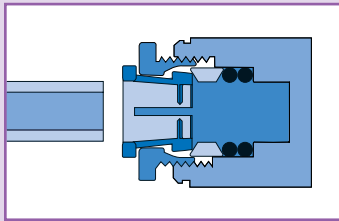
For use with Stainless Steel Tubing

The SI Range of inch-size push-in fittings is offered for tube sizes 1/4" O.D. and 3/8" O.D. Superseal is a special fitting designed to provide extra grip on stainless steel tubes.

The Superseal design features a collet with integrally molded stainless steel teeth similar to the standard Super Speedfit design, but incorporating an additional hand-operated nut and wedge shaped plastic washer to apply extra pressure to the collet and the double O-ring seals. This ensures that the collet teeth bite thoroughly into the tube to provide grip while at the same time, compressing the O-rings to further enhance sealing.

Like other John Guest Fittings, Superseal is suitable for potable liquids and other food quality applications.

Detailed technical information is shown on page 21.



MALE CONNECTOR BSPT THREAD



PART NO.	SUPERSEAL OD	THREAD BSPT
SM010802S	5/16	x 1/4

MALE CONNECTOR BSPP THREAD



PART NO.	SUPERSEAL OD	THREAD BSPP
SM010812S	5/16	x 1/4

FLARE MALE CONNECTOR MFL THREAD



PART NO.	SUPERSEAL OD	THREAD MFL
SM0108F4S	5/16	x 1/4
SM0108F6S	5/16	x 3/8

UNION ELBOW SUPERSEAL - SPEEDFIT



PART NO.	SUPERSEAL OD	SPEEDFIT OD
SI030812S	1/4	- 3/8
SM030808S	5/16	- 5/16
SI031012S	5/16	- 3/8
SI031210S	3/8	- 5/16
SI031212S	3/8	- 3/8

UNION CONNECTOR SUPERSEAL - SPEEDFIT



PART NO.	SUPERSEAL OD	SPEEDFIT OD
SM040808S	5/16	- 5/16
SI041012S	5/16	- 3/8
SI041210S	3/8	- 5/16
SI041212S	3/8	- 3/8

BARB CONNECTOR



PART NO.	SUPERSEAL OD	HOSE ID
SI270808S	1/4	- 1/4
SI271008S	5/16	- 1/4
SI271208S	3/8	- 1/4

UNION ELBOW SUPERSEAL - SUPERSEAL



PART NO.	SUPERSEAL OD	SUPERSEAL OD
SM400808S	5/16	- 5/16
SI401210S	3/8	- 5/16
SI401212S	3/8	- 3/8

UNION CONNECTOR SUPERSEAL - SUPERSEAL



PART NO.	SUPERSEAL OD
SM410808E	5/16

FLOW BEND CONNECTOR SUPERSEAL – SPEEDFIT



PART NO.	SUPERSEAL OD	SPEEDFIT OD
SM420808S	5/16	5/16
SI421012S	5/16	3/8
SI421210S	3/8	5/16
SI421212S	3/8	3/8

Accessories for Superseal Fittings are shown on page 15.



John Guest Adaptability

Standard *Super Speedfit* products can be coupled together to form integral new fittings.

SPANNER



PART NO.	SIZE
SPAN1	5/16 & 3/8



Metric to Imperial Fittings

UNION CONNECTOR



PART NO.	TUBE OD	TUBE OD
NC462	15mm	1/2"

TUBE TO HOSE STEM



PART NO.	STEM OD	HOSE ID
NC932	15mm	1/2"

TEE ADAPTER



PART NO.	TUBE OD ENDS	TUBE OD BRANCH
NC869	15mm	3/8"

STEM TO TUBE ADAPTER



PART NO.	STEM OD	TUBE OD
NC2164	15mm	3/8"
NC2173	1/2"	15mm
NC908	1/2"	18mm

BARB CONNECTOR



PART NO.	STEM OD	HOSE ID
NC448	15mm	1/2"

STEM TO STEM ADAPTER



PART NO.	STEM OD	STEM OD
NC478	15mm	3/8"

Black Acetal Fittings

The PM Range of metric-size push-in fittings is offered for tube sizes 4mm O.D. to 12mm O.D. The fittings are manufactured in black acetal copolymer with food grade nitrile O-rings. Especially produced for foodstuff and potable liquids, they are equally suitable for air and inert gases and can therefore be used on CO₂ lines, pneumatics applications and vacuum.

Detailed technical information is shown on page 21.



MALE CONNECTOR

BSPT THREAD



PART NO.	TUBE OD (MM)	THREAD BSPT (IN)
PM010401E	4	x 1/8
PM010402E	4	x 1/4
PM010501E	5	x 1/8
PM010502E	5	x 1/4
PM010601E	6	x 1/8
PM010602E	6	x 1/4
PM010801E	8	x 1/8
PM010802E	8	x 1/4
PM010803E	8	x 3/8
PM011002E	10	x 1/4
PM011003E	10	x 3/8
PM011004E	10	x 1/2
PM011203E	12	x 3/8
PM011204E	12	x 1/2

MALE CONNECTOR

BSPP THREAD



PART NO.	TUBE OD (MM)	THREAD BSPP (IN)
PM010411E	4	x 1/8
PM010412E	4	x 1/4
PM010511E	5	x 1/8
PM010512E	5	x 1/4
PM010611E	6	x 1/8
PM010612E	6	x 1/4
PM010811E	8	x 1/8
PM010812E	8	x 1/4
PM010813E	8	x 3/8
PM011012E	10	x 1/4
PM011013E	10	x 3/8
PM011014E	10	x 1/2
PM011213E	12	x 3/8
PM011214E	12	x 1/2

PART NO.	TUBE OD (MM)	THREAD NPTF (IN)
PM010622E	6	x 1/4

UNION TEE



PART NO.	TUBE OD (MM)
PM0204E	4
PM0205E	5
PM0206E	6
PM0208E	8
PM0210E	10
PM0212E	12

UNION ELBOW



PART NO.	TUBE OD (MM)
PM0304E	4
PM0305E	5
PM0306E	6
PM0308E	8
PM0310E	10
PM0312E	12

UNION CONNECTOR



PART NO.	TUBE OD (MM)
PM0404E	4
PM0405E	5
PM0406E	6
PM0408E	8
PM0410E	10
PM0412E	12

STEM ADAPTER

BSPT THREAD



PART NO.	STEM OD (MM)	THREAD BSPT (IN)
PM050401E	4	x 1/8
PM050402E	4	x 1/4
PM050501E	5	x 1/8
PM050502E	5	x 1/4
PM050601E	6	x 1/8
PM050602E	6	x 1/4
PM050801E	8	x 1/8
PM050802E	8	x 1/4
PM050803E	8	x 3/8
PM051002E	10	x 1/4
PM051003E	10	x 3/8
PM051004E	10	x 1/2
PM051203E	12	x 3/8
PM051204E	12	x 1/2

STEM ADAPTER

BSPP THREAD



PART NO.	STEM OD (MM)	THREAD BSPP (IN)
PM050411E	4	x 1/8
PM050412E	4	x 1/4
PM050511E	5	x 1/8
PM050512E	5	x 1/4
PM050611E	6	x 1/8
PM050612E	6	x 1/4
PM050811E	8	x 1/8
PM050812E	8	x 1/4
PM050813E	8	x 3/8
PM051012E	10	x 1/4
PM051013E	10	x 3/8
PM051014E	10	x 1/2
PM051213E	12	x 3/8
PM051214E	12	x 1/2

REDUCER



PART NO.	STEM OD (MM)	TUBE OD (MM)
PM060504E	5	4
PM060604E	6	4
PM060605E	6	5
PM060804E	8	4
PM060805E	8	5
PM060806E	8	6
PM061006E	10	6
PM061008E	10	8
PM061208E	12	8
PM061210E	12	10
PM061510E	15	10

PLUG



PART NO.	STEM OD (MM)
PM0804R	4
PM0805R	5
PM0806R	6
PM0808R	8
PM0810R	10
PM0812R	12

R-Denotes Red Color Plug.

SWIVEL ELBOW

BSPT THREAD



PART NO.	TUBE OD (MM)	THREAD BSPT (IN)
PM090401E	4	x 1/8
PM090402E	4	x 1/4
PM090501E	5	x 1/8
PM090502E	5	x 1/4
PM090601E	6	x 1/8
PM090602E	6	x 1/4
PM090801E	8	x 1/8
PM090802E	8	x 1/4
PM090803E	8	x 3/8
PM091002E	10	x 1/4
PM091003E	10	x 3/8
PM091004E	10	x 1/2
PM091203E	12	x 3/8
PM091204E	12	x 1/2

SWIVEL ELBOW

BSPP THREAD



PART NO.	TUBE OD (MM)	THREAD BSPP (IN)
PM090411E	4	x 1/8
PM090412E	4	x 1/4
PM090511E	5	x 1/8
PM090512E	5	x 1/4
PM090611E	6	x 1/8
PM090612E	6	x 1/4
PM090811E	8	x 1/8
PM090812E	8	x 1/4
PM090813E	8	x 3/8
PM091012E	10	x 1/4
PM091013E	10	x 3/8
PM091014E	10	x 1/2
PM091213E	12	x 3/8
PM091214E	12	x 1/2

SWIVEL BRANCH TEE

BSPT THREAD



PART NO.	TUBE OD (MM)	THREAD BSPT (IN)
PM100401E	4	x 1/8
PM100402E	4	x 1/4
PM100501E	5	x 1/8
PM100502E	5	x 1/4
PM100601E	6	x 1/8
PM100602E	6	x 1/4
PM100801E	8	x 1/8
PM100802E	8	x 1/4
PM100803E	8	x 3/8
PM101002E	10	x 1/4
PM101003E	10	x 3/8
PM101004E	10	x 1/2
PM101203E	12	x 3/8
PM101204E	12	x 1/2

SWIVEL BRANCH TEE

BSPP THREAD



PART NO.	TUBE OD (MM)	THREAD BSPP (IN)
PM100411E	4	x 1/8
PM100412E	4	x 1/4
PM100511E	5	x 1/8
PM100512E	5	x 1/4
PM100611E	6	x 1/8
PM100612E	6	x 1/4
PM100811E	8	x 1/8
PM100812E	8	x 1/4
PM100813E	8	x 3/8
PM101012E	10	x 1/4
PM101013E	10	x 3/8
PM101014E	10	x 1/2
PM101213E	12	x 3/8
PM101214E	12	x 1/2

SWIVEL MALE RUN TEE

BSPT THREAD



PART NO.	TUBE OD (MM)	THREAD BSPT (IN)
PM110401E	4	x 1/8
PM110402E	4	x 1/4
PM110501E	5	x 1/8
PM110502E	5	x 1/4
PM110601E	6	x 1/8
PM110602E	6	x 1/4
PM110801E	8	x 1/8
PM110802E	8	x 1/4
PM110803E	8	x 3/8
PM111002E	10	x 1/4
PM111003E	10	x 3/8
PM111004E	10	x 1/2
PM111203E	12	x 3/8
PM111204E	12	x 1/2

SWIVEL MALE RUN TEE

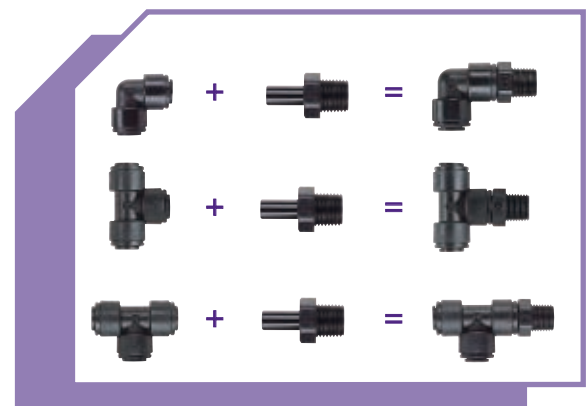
BSPP THREAD



PART NO.	TUBE OD (MM)	THREAD BSPP (IN)
PM110411E	4	x 1/8
PM110412E	4	x 1/4
PM110511E	5	x 1/8
PM110512E	5	x 1/4
PM110611E	6	x 1/8
PM110612E	6	x 1/4
PM110811E	8	x 1/8
PM110812E	8	x 1/4
PM110813E	8	x 3/8
PM111012E	10	x 1/4
PM111013E	10	x 3/8
PM111014E	10	x 1/2
PM111213E	12	x 3/8
PM111214E	12	x 1/2

John Guest Adaptability

Standard **Super Speedfit** products can be coupled together to form integral new fittings.



BULKHEAD UNION


PART NO.	TUBE OD (MM)	MOUNTING HOLE DIA. (MM)
----------	--------------	-------------------------

PM1204E	4	16.5
PM1205E	5	16.5
PM1206E	6	16.5
PM1208E	8	21.0
PM1210E	10	21.0
PM1212E	12	26.5

ENLARGER


PART NO.	STEM OD (MM)	TUBE OD (MM)
----------	--------------	--------------

PM130405E	4	5
-----------	---	---

REDUCING UNION


PART NO.	TUBE OD (MM)	TUBE OD (MM)
----------	--------------	--------------

PM200604E	6	4
PM200804E	8	4
PM200806E	8	6
PM201004E	10	4
PM201006E	10	6
PM201008E	10	8
PM201208E	12	8
PM201210E	12	10

REDUCING ELBOW


PART NO.	TUBE OD (MM)	TUBE OD (MM)
----------	--------------	--------------

PM210604E	6	4
PM210804E	8	4
PM210806E	8	6
PM211004E	10	4
PM211006E	10	6
PM211008E	10	8
PM211208E	12	8
PM211210E	12	10

PLUG IN ELBOW


PART NO.	STEM OD (MM)	TUBE OD (MM)
----------	--------------	--------------

PM220404E	4	4
PM220505E	5	5
PM220606E	6	6
PM220808E	8	8
PM221010E	10	10
PM221212E	12	12

TWO-WAY DIVIDER


PART NO.	TUBE OD (MM)
----------	--------------

PM2304E	4
PM2308E	8

TUBE TO HOSE STEM


PART NO.	STEM OD (MM)	HOSE ID (MM)
----------	--------------	--------------

PM250604E	6	4
PM250806E	8	6
PM251008E	10	8

REDUCING TEE


PART NO.	TUBE OD ENDS (MM)	TUBE OD BRANCH (MM)
----------	-------------------	---------------------

PM3022AE*	22	15
-----------	----	----

* New

FEMALE CONNECTOR


PART NO.	TUBE OD (MM)	THREAD (IN)
----------	--------------	-------------

PM450411E	4	x 1/8 BSPP
PM450612E	6	x 1/4 BSPP
PM450812E	8	x 1/4 BSPP
PM4508F4S	8	x 1/4 FFL
PM4508C5S	8	x 1/2-16UN

END STOP


PART NO.	TUBE OD (MM)
----------	--------------

PM4612E*	12
----------	----

* New

FIXED ELBOW


PART NO.	TUBE OD (MM)	THREAD NPTF (IN)
----------	--------------	------------------

PM480621E*	6	x 1/8
PM480622E*	6	x 1/4
PM480623E*	6	x 3/8

* New

OFFSET CONNECTOR


PART NO.	TUBE OD (MM)	TUBE OD (MM)
----------	--------------	--------------

NC657	12	8
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U-BEND


PART NO.	TUBE OD (MM)
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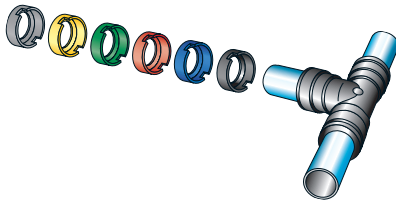
PMUB15E	15
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Accessories for PM Fittings are shown on page 15.



Accessories

COLLET COVER



The slip-on Collet Cover shown in the illustration prevents accidental removal or tampering with tubing. Tubing can be inserted with the Collet Cover already attached to the fittings or the cover can slide into position afterwards. The cover is easily removed when required and comes in a variety of colors for color coding.

Colors available - Suffix indicates colors

E = Black Y = Yellow B = Blue
R = Red S = Gray G = Green

INCH SIZE

PART NO.	TUBE OD
PM1904S	5/32
PI1906S	3/16
PI1908S	1/4
PM1908S	5/16
PI1912S	3/8
PI1916S	1/2

Please indicate by suffix, color required or gray will be supplied.

Collet Covers are also available in metric sizes.

FLOW BEND CLIP



PART NO.	TUBE OD
PM2608S	5/16
PM2610S	3/8

Designed to support tube and eliminate kinking.

TUBE INSERT



PART NO.	TUBE ID	TUBE OD
TSI250S	1/4	5/16
TSI312S	5/16	3/8
TSI375S	3/8	1/2
TSM10N		10
TSM15N		15
TSM22N		22

COLLET LOCKING/RELEASE TOOL



PART NO.	SIZE
ICLT/2	3/16 to 1/2
TSPITool	1/4, 3/8

TUBE CUTTER



PART NO.	BLADES ONLY
TSNIP	
BLADES	BLADES ONLY

Suitable for up to 12mm tube.

PIPE CUTTER



PART NO.	BLADES ONLY
JG-TS	
	BLADES ONLY

Suitable for up to 22mm pipe.

LOCKING CLIP



PART NO.	TUBE OD
PIC1808R	1/4
PIC1812R	3/8
PIC1816R	1/2



Secures the collet in its position to prevent an accidental disconnection of the tube.

Locking clips should be supplied only after full insertion to prevent scraping of the tube. Locking Clips are not designed for use with John Guest Stem Adapters in Swivel Combinations.

Polypropylene Angle Stop Adapter Valves

The PPSAV Range of inch-size Angle Stop Adapter Valves is offered in white polypropylene with food grade EPDM O-rings. Our Angle Stop Adapter Valve connects between your valve and riser, to the main water supply line, for applications in Reverse Osmosis, Filtration Systems, Ice-makers, Automatic Coffee Brewers, and many more. For use with other potable liquids, please refer to our Technical Support 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	Max. 150 psi at 70°F (10 bar at 20°C)
	Max. 60 psi at 140°F (4 bar at 60°C)
	Min. 33°F/1°C



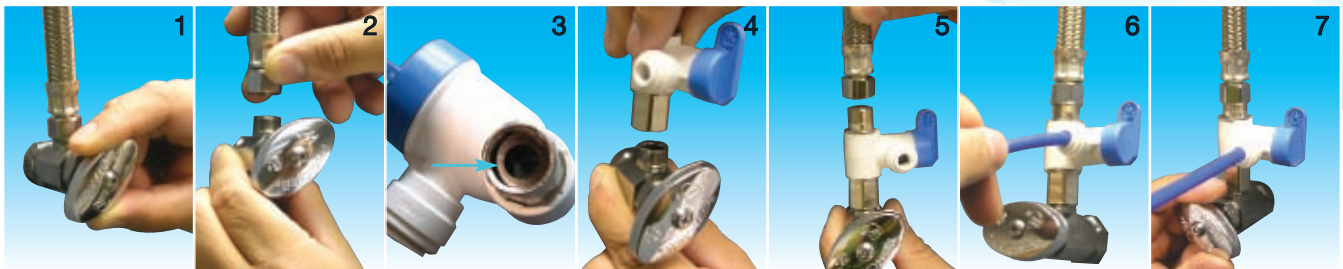
ANGLE STOP ADAPTER VALVE



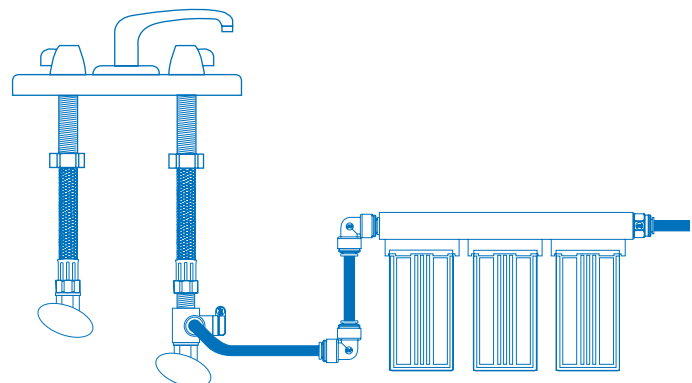
PART NO.	THREAD MALE COMPRESSION	x	THREAD MALE COMPRESSION	x	TUBE OD
PPASV121208W*	3/8"	x	3/8"	x	1/4"
PPASV121212W*	3/8"	x	3/8"	x	3/8"

* New

How to connect the Angle Stop Adapter Valve



1. Shut off water supply at brass/chrome supply valve.
2. Disconnect riser from brass/chrome supply valve.
3. Ensure that the sealing gasket is fully seated into the Angle Stop Valve female thread.
4. Install Angle Stop Adapter Valve on supply valve.
5. Connect the riser to the Angle Stop Adapter Valve.
6. Fully insert tubing into the **Speedfit®** side of the valve.
7. Open valves and check for leaks.



Polypropylene Shut-Off Valve

The PPSV Range of Shut-Off Valve is offered for tube sizes 1/2" O.D. and 3/8" O.D., produced in polypropylene and fitted with EPDM O-rings. 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 contact our Technical Support 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	Max. 150 psi at 70°F (Max.10 bar at 20°C)
	Max. 60 psi at 140°F (Max. 4 bar at 60°C)
	Min. 33°F/1°C

Detailed technical information is shown on page 21.

SPEEDFIT TO MALE

NPTF THREAD



PART NO.	TUBE OD	THREAD NPTF
PPSV010822W	1/4	x 1/4
PPSV011223W	3/8	x 3/8

SPEEDFIT TO SPEEDFIT



PART NO.	TUBE OD
PPSV040808W	1/4
PPSV041212W	3/8

SPEEDFIT TO FEMALE

NPTF THREAD



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



Acetal Shut-Off Valve

The PISV Range of Inch-size Shut-Off Valves is available in 3/8" tube O.D. size. The Valve is manufactured in gray acetal copolymer with a nitrile O-ring.

The valves are available with long and short handles to operate a 1/4 turn off action.

Specifically designed for compressed air and potable liquids, the valves are ideal for CO₂ lines in beverage dispensing and for pneumatic applications.

It is the customer's responsibility to ensure that the installation of John Guest fittings in CO₂ applications is performed in accordance with the relevant industry and government safety guidelines.

Working Pressures and Temperatures

Air	150 psi at -4°F (10 bar at -20°C)
Air/Potable Liquids	Max. 150 psi at 33°F (10 bar at 1°C)
	Max. 150 psi at 73°F (10 bar at 23°C)
	Max. 100 psi at 150°F (7 bar at 65°C)

Detailed technical information is shown on page 21.

SHUT-OFF VALVE

SHORT HANDLE



PART NO.	TUBE OD
PISV0412CS	3/8

SHUT-OFF VALVE

LONG HANDLE



PART NO.	TUBE OD
PISV0412S	3/8
PISV0416S	1/2



MOUNTING CLIP



PART NO.

SVMC-10

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.

Available for 3/8" O.D. valves.

Polyethylene Tubing



The John Guest PE Range of plastic tubing is produced in Linear Low Density Polyethylene for cold and intermittent hot water applications.

Our tubing is made from FDA approved materials and is NSF International standard 51 & 61 certified.

John Guest LLDPE Tubing provides excellent resistance to environmental stress cracking as measured by ASTM D-1693 (10% IGEPAL).

John Guest Polyethylene tubing is designed for use with John Guest Super Speedfit push-in fittings, John Guest Shut-Off Valves and virtually all standard tubing connectors.

Sizes Available

PART NO.	OD	ID	COIL LENGTH	MIN. BEND RADIUS
PE-08-BI-0500F-N	1/4"(0.250")	0.170"	500 FT	1.00"
PE-08-BI-1000F-N	1/4"(0.250")	0.170"	1000FT	1.00"
PE-10-CI-0500F-N	5/16"(0.3125")	0.187	500 FT	1.13"
PE-12-EI-0500F-N	3/8"(0.375")	0.250"	500 FT	1.25"
PE-16-GI-0250F-N	1/2"(0.500")	0.375"	250 FT	2.50"
PE-04025-0100M-N	4mm	2.5mm	100m	25mm
PE-0604-0100M-N	6mm	4mm	100m	25mm
PE-0806-100M-N	8mm	6mm	100m	30mm
PE-1007-100M-N	10mm	7mm	100m	32mm
PE-1209-100M-N	12mm	9mm	100m	63mm
PE-15115-0100M-B	15mm	11.5mm	100m	100mm

N denotes natural color. To request other colors please refer to table below.

Colors Available

SUFFIX COLOR		SIZES									
		1/4"	5/16"	3/8"	1/2"	4mm	6mm	8mm	10mm	12mm	15mm
N	NATURAL	✓	✓	✓	✓	✓	✓	✓	✓	✓	○
W	WHITE	✓	○	✓	✓	○	○	✓	○	○	○
B	BLUE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
E	*BLACK	✓	✓	✓	✓	✓	✓	✓	✓	✓	○
R	RED	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
O	ORANGE	✓	○	✓	○	○	○	○	○	○	○
V	VIOLET	✓	○	✓	○	○	○	○	○	○	○
G	GREEN	✓	○	✓	○	○	○	○	○	○	✓
Y	YELLOW	✓	○	✓	○	○	○	○	○	○	○

* Black tubing is UV stabilized.

✓ Denotes standard colors available.

○ Denotes optional colors which may be available based on order quantity.

Working Pressures and Temperatures - LLDPE

TUBE OD		TUBE ID	
1/4"	x	0.170"	230 psi @70°F 15 bar @20°C
5/16"	x	0.187"	
3/8"	x	0.25"	
4mm	x	2.5mm	120 psi @150°F 8 bar @ 65°C
6mm	x	4mm	
1/2"	x	0.375"	150 psi @70°F 10 bar @20°C
8mm	x	6mm	
10mm	x	7mm	
12mm	x	9mm	90 psi @150°F 6 bar @65°C
15mm	x	11.5mm	

1 Bar = 14.5 psi (approx.)

Maximum Working Temperature 150°F at pressures shown in chart above. For temperatures above 150°F customers should contact our Technical Support Department.

Please note maximum pressure rating for a 'system' depends on the lowest rated component, e.g., most John Guest fittings have a different rating from the tube ratings shown above.

Burst Pressures are approximately 3 times the maximum working pressure.

Tube inserts

If the tube is used in a warm water system a tube insert is necessary.



PART NO.	TUBE ID		TUBE OD
TSI250S	1/4	-	5/16
TSI312S	5/16	-	3/8
TSI375S	3/8	-	1/2



PART NO.	TUBE OD
TSM10N	10
TSM15N	15
TSM22N	22

Chemical Resistance

For use with chemicals or potentially aggressive liquids, please refer to our Technical Service Department.

Pneumatics Applications

John Guest LLDPE tube is suitable for pneumatic applications providing pressure is maximum 150 psi @ 70°F (10 bar @ 20°C). At elevated temperatures 120°F+ (50°C+) mineral oil will degrade LLDPE tube and, therefore, LLDPE tube used in pneumatic circuits should be periodically checked and replaced if necessary.

NOTE: When using cleaning agents or other potentially aggressive liquids, please ensure compatibility with tubing and fittings. LLDPE is not recommended for mineral oils, gases and fuels or high pressure compressed air / pneumatic systems.

Tube Tolerances

1/4" to 1/2"	+0.001/-0.004"
4mm to 6mm	+0.05/-0.07mm
8mm to 12mm	+0.05/-0.10mm
15mm	+0.10/-0.10mm



NSF 51
NSF 61

Plastic Half Cartridges

Plastic Half Cartridges have been designed to provide a simple, cost-effective method of integrating the **Super Speedfit®** technology into a wide variety of original equipment. The cartridge requires low insert loads, making it suitable for many different housing materials.

Plastic Half Cartridges consist of three components: a collet gripper, an O-ring of food grade materials and a plastic body with stainless steel teeth molded into the circumference.

Customers should ensure cartridges are suitable for their applications, materials and operating conditions.

For additional information consult our Technical Support Department.

INCH SERIES



GRAY ACETAL COLLET
GRAY ACETAL BODY
NITRILE O-ring

PART NO.	TUBE OD
PM2804S*	5/32"
PI2808S	1/4"
PM2808S	5/16"
PI2812S	3/8"
PI2816S	1/2"

* New

Most sizes available with Blue, Red or White Collet, suffix B,R or W (Ex PI2808S-B)
Also available with double O-rings, please use suffix 2 (Ex. PI2808S2).



GRAY ACETAL COLLET
GRAY ACETAL BODY
EPDM O-ring

PART NO.	TUBE OD
PCI2808S*	1/4"
PCM2808S*	5/16"
PCI2812S*	3/8"
PCI2816S*	1/2"

* New



WHITE POLYPROPYLENE COLLET
WHITE POLYPROPYLENE BODY
EPDM O-ring

PART NO.	TUBE OD
PP2808W*	1/4"
PP2812W*	3/8"

* New



WHITE ACETAL COLLET
WHITE ACETAL BODY
NITRILE O-ring

PART NO.	TUBE OD
PI2808W	1/4"
PM2808W	5/16"
PI2812W	3/8"

Also available with Blue or Red Collet, suffix B or R (Ex. PI2808W-B).

Also available with double O-rings, please use suffix 2 (Ex. PI2808W2).

METRIC SERIES



BLACK ACETAL COLLET
BLACK ACETAL BODY
NITRILE O-ring

PART NO.	TUBE OD
PM2806E	6mm
PM2808E	8mm
PM2810E	10mm

Also available with double O-rings, please use suffix 2 (Ex PM2806E2).

Metal Half Cartridges

Metal Half Cartridges are designed with the same **Super Speedfit®** technology as our Plastic Half Cartridges. As with Plastic Half Cartridges, Metal Half Cartridges are designed to provide a simple, cost-effective method of securing tubing into taps, manifolds, flow direction splitters and many other types of components, which can be produced in a wide variety of metals.

Metal Half Cartridges consist of three components: a collet gripper, an o-ring of food grade materials, and a metal body.

Customers should ensure cartridges are suitable for their applications, materials and operating conditions.

For additional information consult our Technical Support Department.

INCH SERIES



GRAY ACETAL COLLET
BRASS BODY
NITRILE O-ring

PART NO.	TUBE OD
MM2804N	5/32"
MI2806N	3/16"
MI2808N	1/4"
MM2808N	5/16"
MI2812N	3/8"
MI2816N	1/2"

Also available with double O-rings, please use suffix 2 (Ex MM2804N2)



WHITE ACETAL COLLET ON 1/4"
BLACK ACETAL COLLET ON 5/32"
GRAY ACETAL COLLET ON 3/8" AND 5/8"
BRASS BODY
EPDM O-ring

PART NO.	TUBE OD
CM2804W*	5/32"
CI2808W*	1/4"
CI2812N	3/8"
CI2820N	5/8"

* New



GRAY ACETAL COLLET
STAINLESS STEEL BODY
NITRILE O-ring

PART NO.	TUBE OD
MI2808ST*	3/16"
MI2808ST*	1/4"
MM2808ST*	5/16"
MI2812ST*	3/8"

* New

METRIC SERIES



BLACK ACETAL COLLET ON 5, 6, 10 AND 12MM
GRAY ACETAL COLLET ON 4 AND 8MM
BRASS BODY
NITRILE O-ring

PART NO.	TUBE OD
MM2804N	4mm
MM2805N	5mm
MM2806N	6mm
MM2808N	8mm
MM2810N	10mm
MM2812N	12mm

Also available with double O-rings, please use suffix 2 (Ex MM2804N2)



BLACK ACETAL COLLET ON 8MM
GRAY ACETAL COLLET ON 15 AND 22MM
BRASS BODY
EPDM O-ring

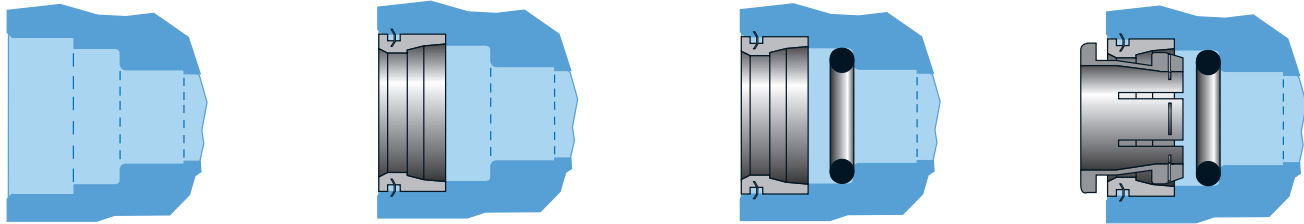
PART NO.	TUBE OD
CM2808N*	8mm
CM2815N*	15mm
CM2822N*	22mm

* New

Cartridges

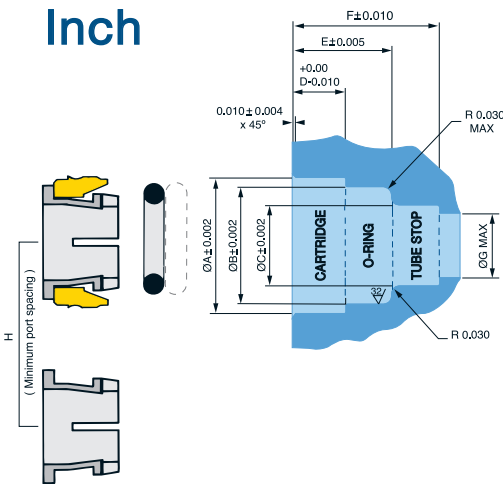


Cartridge Assembly



1. Ensure that the cavity is clean and free from debris, burrs, score marks, etc.
2. Insert the cartridge down into the housing; ensure the cartridge is flush with the housing.
3. Insert the O-ring.
4. Insert Collet to complete assembly.

Cavity Dimensional Detail



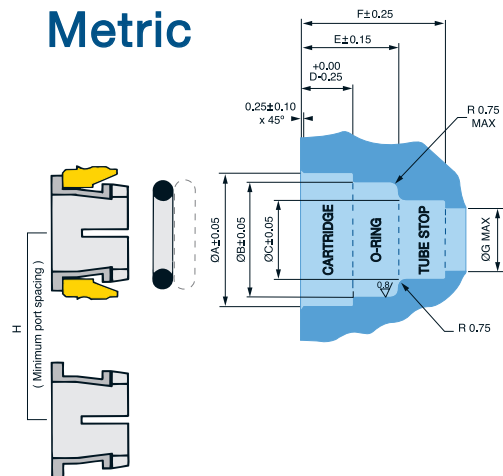
Tube OD	ØA	ØB	ØC	D	E1	E2	F1	F2	ØG	H
5/32* *	0.492	0.327	0.163	0.193	0.350	0.445	0.504	0.598	0.13	0.59
5/32* **	0.472	0.327	0.163	0.193	0.350	0.445	0.504	0.598	0.13	0.59
3/16"	0.472	0.348	0.193	0.193	0.340	0.440	0.490	0.590	0.16	0.59
1/4"	0.528	0.424	0.255	0.181	0.386	0.480	0.555	0.650	0.23	0.67
5/16"	0.544	0.470	0.320	0.215	0.400	0.500	0.590	0.690	0.29	0.67
3/8"	0.632	0.547	0.380	0.270	0.465	0.565	0.720	0.815	0.35	0.79
1/2"	0.777	0.671	0.506	0.304	0.561	0.659	0.797	0.896	0.48	0.93
5/8"	0.935	0.836	0.638	0.335	0.703	-	1.093	-	0.50	1.06

All dimensions in inches

* - Metal Half Cartridges. ** - Plastic Half Cartridges.

E1 and F1 relate to one O-ring.

E2 and F2 relate to two O-rings.



Tube OD	ØA	ØB	ØC	D	E1	E2	F1	F2	ØG	H
4mm *	12.50	8.30	4.14	4.90	8.90	11.30	12.80	15.20	3.30	15.0
4mm **	11.98	8.30	4.14	4.90	8.90	11.30	12.80	15.20	3.30	15.0
5mm	11.98	9.06	5.13	4.90	8.63	11.17	12.44	14.98	4.06	15.0
6mm	13.41	10.00	6.12	4.60	9.80	12.20	14.00	16.50	5.30	16.5
8mm	13.82	11.94	8.13	5.46	10.15	12.70	15.00	17.50	7.35	17.0
10mm	16.05	14.00	10.15	6.86	11.81	14.35	18.17	20.71	9.20	19.0
12mm*	19.10	16.54	12.15	8.65	15.50	19.00	23.50	27.00	11.20	22.0
12mm**	19.74	16.54	12.15	7.72	15.90	-	23.90	-	11.20	24.0
15mm	22.86	20.32	15.19	9.50	17.50	21.00	26.90	30.40	14.20	27.0
22mm	31.05	27.80	22.20	10.85	21.10	24.70	31.60	35.20	21.20	34.5

All dimensions in mm

* - Metal Half Cartridges. ** - Plastic Half Cartridges.

E1 and F1 relate to one O-ring.

E2 and F2 relate to two O-rings.

Technical Specifications

Working Pressure and Temperature Range for Acetal Fittings (PI, SI, SM and PM).

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		
- 4°F - 20°C	230 psi (16 Bar)	150 psi (10 Bar)
Potable Liquids and Air		
+33°F +1°C	230 psi (16 Bar)	150 psi (10 Bar)
+73°F +23°C	230 psi (16 Bar)	150 psi (10 Bar)
+158°F +70°C	150 psi (10 Bar)	100 psi (7 Bar)

Also suitable for vacuum

For Polypropylene Working Pressure and Temperature Range, please refer to page 2.

Depending on the tube used, under certain conditions fittings may be used at higher pressures and temperatures. Please refer to our Technical Support 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 page 6 is essential when using braided tube or hose. The 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 chrome plated tubes. For stainless steel and other polished metal tubes we recommend the use of Superseal fittings. These are shown on pages 10 and 11 of this catalog.

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. Refer to "How to make a connection" on inside front cover.

Chemicals

For use with chemicals or other potentially aggressive liquids, please refer to our Chemical Compatibility Chart shown on page 22 and 23, or contact our Technical Support Department.

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 color coding. The cover is offered in a range of six colors. Please see page 15 of this catalog.

Food Quality

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

The wetted surfaces of John Guest PI, PM, SI, CI, PP and NC plastic fittings, PPSV and PISV Valves, and PE Tubing are in compliance with FDA requirements for direct contact with food as detailed in 21CFR part 177.2470 for the body and 177.2600 for the O-ring.

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

Do not overtighten plastic threaded fittings as this could cause undue stress and eventual failure. Maximum recommended torque figures are shown below.

	Threads		
	1/8" - 1/4"	3/8" - 1/2"	3/4"
Maximum Torque	1.0ft lbs 1.5Nm	2.2ft lbs 3.0Nm	2.9ft lbs 4.0Nm

John Guest recommends that OEM customers 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. The maximum torque figures quoted for use with Speedfit fittings are dependent on the mating thread conforming to the relevant U.S., British or International thread standard.

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, discolored, 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 Sanitizing of Acetal Fittings

Our advice to customers is to use cleaners and sanitizing agents that are above pH4 and low in hypochlorite level. Acetal fittings and parts that are cleaned and/or sanitized should be rinsed immediately with copious amounts of clean, neutral tap water to remove all traces of the cleaners. Details of which products are made from acetal are shown in our catalog but generally John Guest products incorporating acetal are designated by the part number prefix PI, PM, CI, CM and RM. Polypropylene fittings offer greater resistance to aggressive chemicals than acetal fittings. Polypropylene does not have the same mechanical properties as acetal and John Guest polypropylene fittings are generally designated by the part number prefix PP, PPSV and PPASV.

Our material suppliers recommend ECOLAB Oasis 133 as a suitable external cleaner for acetal products manufactured by John Guest.

Responsibility of Use

While we give a warranty against defects in manufacture or materials, it is the responsibility of the user/installer 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 recognized codes of practice and relevant national standards, and be properly maintained. Please refer to our terms and conditions of sale.

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 Catalog. 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 its 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 catalog. John Guest reserves the right to change the color and shape of products. Photographs are for illustration purposes only. Subject to our Terms and Conditions of Sale shown on page 24.

John Guest USA, Inc. is not responsible for misprints or typographical errors.

Chemical Compatability Chart

Chemical Compatability for Material Contact of Standard PM/PI, CM/CI and PP Range of Fittings and LLDPE Range of Tubing.

This chart describes the compatability of the materials of construction of our standard PM/PI, CM/CI and PP Fittings and LLDPE Tubing when in contact solely with the listed chemical substance. It is intended as a guide only and is not an assurance of suitability for any specific application.

Customers are advised to determine suitability for their application. For further details please contact our Technical Support Department.

CHEMICAL	PM/PI RANGE	CM/CI RANGE	PP RANGE	LLDPE TUBING	CHEMICAL	PM/PI RANGE	CM/CI RANGE	PP RANGE	LLDPE TUBING
ACETALDEHYDE	UNSUITABLE	SATISFACTORY	NOT TESTED	NOT TESTED	CANE-SUGAR LIQUORS	NOT TESTED	NOT TESTED	NOT TESTED	NOT TESTED
ACETATE SOLVENTS	NOT TESTED	NOT TESTED	NOT TESTED	NOT TESTED	CARBON DIOXIDE - DRY	SATISFACTORY	SATISFACTORY	NOT TESTED	GOOD
ACETIC ACID 3%	SATISFACTORY	GOOD	GOOD	NOT TESTED	CARBON DIOXIDE - WET	SATISFACTORY	SATISFACTORY	NOT TESTED	GOOD
ACETIC ACID 20%	SATISFACTORY	NOT TESTED	NOT TESTED	NOT TESTED	CARBON TETRACHLORIDE	UNSUITABLE	UNSUITABLE	UNSUITABLE	UNSUITABLE
ACETIC ACID 50%	SATISFACTORY	NOT TESTED	NOT TESTED	NOT TESTED	CHLORINE - DRY	UNSUITABLE	UNSUITABLE	UNSUITABLE	POOR
ACETONE	UNSUITABLE	GOOD	GOOD	NOT TESTED	CHLORINE - WET	UNSUITABLE	UNSUITABLE	UNSUITABLE	NOT TESTED
ACETOPHENONE	UNSUITABLE	SATISFACTORY	NOT TESTED	NOT TESTED	CHLOROFORM	UNSUITABLE	UNSUITABLE	UNSUITABLE	UNSUITABLE
ACETYLENE	NOT FOR USE WITH THIS SUBSTANCE			GOOD	CHROMIC ACID 3%	UNSUITABLE	UNSUITABLE	UNSUITABLE	NOT TESTED
AIR	GOOD	GOOD	GOOD	GOOD	CITRIC ACID 10%	SATISFACTORY	SATISFACTORY	SATISFACTORY	NOT TESTED
ALCOHOLS 95%	NOT TESTED	GOOD	NOT TESTED	NOT TESTED	COKE OVEN GAS	UNSUITABLE	UNSUITABLE	UNSUITABLE	NOT TESTED
ALUMINUM CHLORIDE	UNSUITABLE	UNSUITABLE	NOT TESTED	NOT TESTED	COPPER SALTS	NOT TESTED	NOT TESTED	GOOD	NOT TESTED
ALUMINUM SULFATE	SATISFACTORY	SATISFACTORY	NOT TESTED	NOT TESTED	COPPER SULFATE 10%	GOOD	GOOD	NOT TESTED	GOOD
ALUMS	UNSUITABLE	UNSUITABLE	NOT TESTED	GOOD	COTTONSEED OIL	GOOD	GOOD	NOT TESTED	SATISFACTORY
AMMONIA - COLD GAS	GOOD	GOOD	GOOD	GOOD	CREOSOTE	SATISFACTORY	UNSUITABLE	UNSUITABLE	NOT TESTED
AMMONIA - LIQUID	NOT TESTED	NOT TESTED	NOT TESTED	NOT TESTED	CYCLOHEXANOL	SATISFACTORY	SATISFACTORY	SATISFACTORY	NOT TESTED
AMMONIUM ACETATE	NOT TESTED	NOT TESTED	NOT TESTED	GOOD	CYCLOHEXANONE	UNSUITABLE	SATISFACTORY	SATISFACTORY	UNSUITABLE
AMMONIUM CARBONATE	UNSUITABLE	GOOD	GOOD	NOT TESTED	D.D.T.	NOT TESTED	NOT TESTED	NOT TESTED	NOT TESTED
AMMONIUM CHLORIDE	UNSUITABLE	UNSUITABLE	GOOD	NOT TESTED	DETERGENT SOLUTION	GOOD	GOOD	GOOD	SATISFACTORY
AMMONIUM HYDROXIDE	UNSUITABLE	GOOD	NOT TESTED	NOT TESTED	DIBUTYL PHTHALATE	UNSUITABLE	SATISFACTORY	NOT TESTED	POOR
AMMONIUM NITRATE	SATISFACTORY	SATISFACTORY	GOOD	GOOD	DICHLOROETHYLENE	NOT TESTED	NOT TESTED	NOT TESTED	NOT TESTED
AMMONIUM PHOSPHATE	NOT TESTED	NOT TESTED	NOT TESTED	GOOD	DIMETHYLFORMAMIDE	UNSUITABLE	SATISFACTORY	SATISFACTORY	NOT TESTED
AMMONIUM SULFATE 10% pH 5.8	GOOD	GOOD	GOOD	GOOD	DIOXANE	UNSUITABLE	SATISFACTORY	NOT TESTED	SATISFACTORY
AMYL ACETATE	UNSUITABLE	NOT TESTED	NOT TESTED	POOR	ETHER (DAB 6)	NOT TESTED	NOT TESTED	NOT TESTED	UNSUITABLE
AMYL ALCOHOL	SATISFACTORY	SATISFACTORY	SATISFACTORY	SATISFACTORY	ETHYL ACETATE	UNSUITABLE	SATISFACTORY	SATISFACTORY	POOR
AMYL CHLORIDE	NOT TESTED	NOT TESTED	NOT TESTED	UNSUITABLE	ETHYL ALCOHOL (50%)	GOOD	GOOD	GOOD	GOOD
ANILINE	UNSUITABLE	SATISFACTORY	SATISFACTORY	NOT TESTED	ETHYL ALCOHOL (95%)	GOOD	GOOD	GOOD	GOOD
ASPHALT	SATISFACTORY	UNSUITABLE	UNSUITABLE	NOT TESTED	ETHYLENE GLYCOL	GOOD	GOOD	NOT TESTED	SATISFACTORY
AUTO REAR END LUBRICANT	NOT TESTED	NOT TESTED	NOT TESTED	NOT TESTED	FERNOX INHIBITOR	REFER TO JOHN GUEST INC.			NOT TESTED
AUTOMATIC TRANSMISSION FLUID	SATISFACTORY	UNSUITABLE	UNSUITABLE	NOT TESTED	FERRIC CHLORIDE 10%	UNSUITABLE	UNSUITABLE	NOT TESTED	GOOD
BARIUM SALTS	NOT TESTED	NOT TESTED	NOT TESTED	NOT TESTED	FERRIC SULFATE	NOT TESTED	NOT TESTED	NOT TESTED	NOT TESTED
BEER	GOOD	GOOD	GOOD	GOOD	FERROUS CHLORIDE	UNSUITABLE	UNSUITABLE	NOT TESTED	GOOD
BEEF-SUGAR LIQUORS	NOT TESTED	NOT TESTED	NOT TESTED	NOT TESTED	FERROUS SULFATE	SATISFACTORY	SATISFACTORY	NOT TESTED	GOOD
BENZALDEHYDE	UNSUITABLE	GOOD	GOOD	UNSUITABLE	FORMALDEHYDE 40%	UNSUITABLE	SATISFACTORY	SATISFACTORY	SATISFACTORY
BENZENE	UNSUITABLE	UNSUITABLE	UNSUITABLE	UNSUITABLE	FORMIC ACID 10%	UNSUITABLE	UNSUITABLE	GOOD	SATISFACTORY
BENZOIC ACID	UNSUITABLE	UNSUITABLE	UNSUITABLE	NOT TESTED	FREON	REFER TO JOHN GUEST INC.			NOT TESTED
BORAX	SATISFACTORY	GOOD	GOOD	GOOD	GELATIN	NOT TESTED	NOT TESTED	NOT TESTED	NOT TESTED
BORIC ACID	GOOD	GOOD	GOOD	GOOD	GLUCOSE	GOOD	GOOD	GOOD	GOOD
BRAKE FLUID	NOT TESTED	NOT TESTED	NOT TESTED	NOT TESTED	GLYCERIN	GOOD	GOOD	GOOD	NOT TESTED
BRANDY	NOT TESTED	NOT TESTED	NOT TESTED	NOT TESTED	HEPTANE	NOT TESTED	NOT TESTED	NOT TESTED	UNSUITABLE
BROMINE WATER	UNSUITABLE	UNSUITABLE	UNSUITABLE	NOT TESTED	HYDRAULIC FLUID	NOT TESTED	NOT TESTED	NOT TESTED	NOT TESTED
BUFFER SOLUTION pH 4.0	UNSUITABLE	UNSUITABLE	NOT TESTED	NOT TESTED	HYDRAULIC FLUID FIRE RESISTANT	NOT TESTED	NOT TESTED	NOT TESTED	NOT TESTED
BUFFER SOLUTION pH 7.0	NOT TESTED	NOT TESTED	NOT TESTED	NOT TESTED	HYDROBROMIC ACID (HYDROBROMIC ACID)	UNSUITABLE	UNSUITABLE	GOOD	GOOD
BUFFER SOLUTION pH 10.0	NOT TESTED	NOT TESTED	NOT TESTED	NOT TESTED	HYDROCHLORIC ACID 30%	UNSUITABLE	UNSUITABLE	SATISFACTORY	GOOD
BUTANE	NOT FOR USE WITH THIS SUBSTANCE			NOT TESTED	HYDROCHLORIC ACID 50%	UNSUITABLE	UNSUITABLE	NOT TESTED	GOOD
BUTTER	GOOD	GOOD	GOOD	SATISFACTORY	HYDROCYANIC ACID	NOT TESTED	NOT TESTED	NOT TESTED	GOOD
BUTYL ACETATE	UNSUITABLE	SATISFACTORY	SATISFACTORY	POOR	HYDROFLUORIC ACID - 40%	UNSUITABLE	UNSUITABLE	GOOD	GOOD
BUTYL RUBBER	NOT TESTED	NOT TESTED	NOT TESTED	NOT TESTED	HYDROFLUORIC ACID - 50%	UNSUITABLE	UNSUITABLE	NOT TESTED	GOOD
CALCIUM ARSENATE	NOT TESTED	NOT TESTED	NOT TESTED	NOT TESTED	HYDROFLUORIC ACID - DILUTE	UNSUITABLE	UNSUITABLE	GOOD	GOOD
CALCIUM BISULFITE	NOT TESTED	NOT TESTED	NOT TESTED	NOT TESTED	HYDROGEN FLUORIDE	UNSUITABLE	UNSUITABLE	NOT TESTED	NOT TESTED
CALCIUM CHLORIDE	GOOD	GOOD	GOOD	NOT TESTED	HYDROGEN GAS	NOT FOR USE WITH THIS SUBSTANCE			GOOD
CALCIUM HYPOCHLORITE	UNSUITABLE	UNSUITABLE	GOOD	GOOD	HYDROGEN PEROXIDE 3%	NOT TESTED	UNSUITABLE	SATISFACTORY	NOT TESTED
CALCIUM SALTS	NOT TESTED	NOT TESTED	NOT TESTED	NOT TESTED					

CHEMICAL	PM/PI RANGE	CM/CI RANGE	PP RANGE	LLDPE TUBING	CHEMICAL	PM/PI RANGE	CM/CI RANGE	PP RANGE	LLDPE TUBING
HYDROGEN SULFIDE	UNSUITABLE	SATISFACTORY	GOOD	NOT TESTED	SHELLAC	NOT TESTED	NOT TESTED	NOT TESTED	NOT TESTED
IODINE (IN ALCOHOL SOLUTION)	UNSUITABLE	UNSUITABLE	NOT TESTED	NOT TESTED	SILVER NITRATE	SATISFACTORY	SATISFACTORY	NOT TESTED	GOOD
ISO-PROPANOL	SATISFACTORY	GOOD	NOT TESTED	GOOD	SOAP SOLUTION	GOOD	GOOD	GOOD	SATISFACTORY
KEROSENE	SATISFACTORY	UNSUITABLE	UNSUITABLE	UNSUITABLE	SODIUM BICARBONATE 10%	NOT TESTED	NOT TESTED	NOT TESTED	GOOD
LACTIC ACID 20%	SATISFACTORY	GOOD	GOOD	NOT TESTED	SODIUM BISULFATE	UNSUITABLE	UNSUITABLE	NOT TESTED	GOOD
LEAD ACETATE	SATISFACTORY	SATISFACTORY	NOT TESTED	GOOD	SODIUM BISULFITE	UNSUITABLE	UNSUITABLE	NOT TESTED	GOOD
LIME SULPHUR	NOT TESTED	NOT TESTED	NOT TESTED	NOT TESTED	SODIUM BORATE	GOOD	GOOD	NOT TESTED	GOOD
LINSEED OIL	GOOD	GOOD	GOOD	POOR	SODIUM CARBONATE 10%	GOOD	GOOD	GOOD	GOOD
LUBRICATION OIL (WITH MOLYBDENUM)	NOT TESTED	NOT TESTED	NOT TESTED	NOT TESTED	SODIUM CHLORATE	NOT TESTED	NOT TESTED	NOT TESTED	NOT TESTED
MACHINE OIL	NOT TESTED	NOT TESTED	NOT TESTED	GOOD	SODIUM CHLORIDE 10%	GOOD	GOOD	GOOD	GOOD
MAGNESIUM CHLORIDE	SATISFACTORY	SATISFACTORY	NOT TESTED	GOOD	SODIUM CYANIDE	SATISFACTORY	SATISFACTORY	NOT TESTED	GOOD
MAGNESIUM HYDROXIDE	SATISFACTORY	GOOD	NOT TESTED	GOOD	SODIUM HYDROXIDE (CAUSTIC SODA SOLUTION)	SATISFACTORY	GOOD	GOOD	NOT TESTED
MAGNESIUM SULFATE	NOT TESTED	NOT TESTED	NOT TESTED	GOOD	SODIUM HYPOCHLORITE (12.5 ACTIVE CHLORINE)	UNSUITABLE	UNSUITABLE	SATISFACTORY	NOT TESTED
MALEIC ACID	UNSUITABLE	UNSUITABLE	UNSUITABLE	GOOD	SODIUM METAPHOSPHATE	NOT TESTED	NOT TESTED	NOT TESTED	NOT TESTED
MANGANESE SALTS	NOT TESTED	NOT TESTED	NOT TESTED	NOT TESTED	SODIUM NITRATE 10% pH 8.8	GOOD	GOOD	GOOD	GOOD
MAYONNAISE	NOT TESTED	NOT TESTED	NOT TESTED	NOT TESTED	SODIUM PERBORATE	NOT TESTED	NOT TESTED	NOT TESTED	NOT TESTED
MERCURIC CHLORIDE	UNSUITABLE	UNSUITABLE	NOT TESTED	GOOD	SODIUM PHOSPHATE	NOT TESTED	NOT TESTED	NOT TESTED	NOT TESTED
MERCURY	GOOD	GOOD	GOOD	GOOD	SODIUM SILICATE	NOT TESTED	NOT TESTED	NOT TESTED	NOT TESTED
METHANOL	NOT FOR USE WITH THIS SUBSTANCE			GOOD	SODIUM SULFATE	NOT TESTED	NOT TESTED	NOT TESTED	GOOD
METHYL CHLORIDE	UNSUITABLE	UNSUITABLE	UNSUITABLE	POOR	SODIUM SULFITE	NOT TESTED	NOT TESTED	NOT TESTED	GOOD
MILK	SATISFACTORY	SATISFACTORY	GOOD	GOOD	SODIUM THIOSULFATE	NOT TESTED	NOT TESTED	NOT TESTED	NOT TESTED
MOTOR OIL	NOT TESTED	NOT TESTED	NOT TESTED	DEPENDS ON TYPE	STEARIC ACID	SATISFACTORY	SATISFACTORY	SATISFACTORY	SATISFACTORY
NATURAL GAS	NOT FOR USE WITH THIS SUBSTANCE			NOT TESTED	SUCCINIC ACID	NOT TESTED	NOT TESTED	NOT TESTED	NOT TESTED
NICKEL SALTS	NOT TESTED	NOT TESTED	GOOD	NOT TESTED	SULFATE LIQUORS	NOT TESTED	NOT TESTED	NOT TESTED	NOT TESTED
NITRIC ACID - CONCENTRATED	UNSUITABLE	UNSUITABLE	UNSUITABLE	UNSUITABLE	SULFUR	UNSUITABLE	SATISFACTORY	GOOD	GOOD
NITRIC ACID 10%	UNSUITABLE	UNSUITABLE	SATISFACTORY	GOOD	SULFUR CHLORIDE	UNSUITABLE	UNSUITABLE	UNSUITABLE	NOT TESTED
NITROBENZENE	UNSUITABLE	NOT TESTED	NOT TESTED	UNSUITABLE	SULFUR DIOXIDE GAS	UNSUITABLE	UNSUITABLE	GOOD	GOOD
NITROGEN OXIDES	NOT TESTED	NOT TESTED	NOT TESTED	NOT TESTED	SULFURIC ACID - CONCENTRATED	UNSUITABLE	UNSUITABLE	UNSUITABLE	POOR
NITROUS OXIDES	UNSUITABLE	UNSUITABLE	NOT TESTED	NOT TESTED	SULFURIC ACID - 3%	NOT TESTED	GOOD	GOOD	NOT TESTED
OLEIC ACID	SATISFACTORY	NOT TESTED	NOT TESTED	POOR	SULFURIC ACID - 10%	NOT TESTED	SATISFACTORY	GOOD	GOOD
OLIVE OIL	GOOD	SATISFACTORY	SATISFACTORY	GOOD	SULFUROUS ACID	UNSUITABLE	UNSUITABLE	NOT TESTED	GOOD
OXALIC ACID	SATISFACTORY	SATISFACTORY	GOOD	SATISFACTORY	TANNIC ACID	SATISFACTORY	SATISFACTORY	NOT TESTED	SATISFACTORY
OXYGEN	SATISFACTORY	SATISFACTORY	NOT TESTED	GOOD	TAR	SATISFACTORY	UNSUITABLE	UNSUITABLE	NOT TESTED
PALMITIC ACID	SATISFACTORY	SATISFACTORY	NOT TESTED	NOT TESTED	TARTARIC ACID	UNSUITABLE	UNSUITABLE	SATISFACTORY	NOT TESTED
PERCHLORIC ACID	UNSUITABLE	UNSUITABLE	NOT TESTED	SATISFACTORY	TETRAHYDROFURAN	UNSUITABLE	NOT TESTED	NOT TESTED	UNSUITABLE
PETROL	SATISFACTORY	UNSUITABLE	NOT TESTED	NOT TESTED	TETRALIN	NOT TESTED	NOT TESTED	NOT TESTED	NOT TESTED
PETROLEUM - REFINED	NOT TESTED	NOT TESTED	NOT TESTED	NOT TESTED	THIOPHENE	NOT TESTED	NOT TESTED	NOT TESTED	NOT TESTED
PETROLEUM OILS	NOT TESTED	NOT TESTED	NOT TESTED	NOT TESTED	TOLUENE	UNSUITABLE	UNSUITABLE	UNSUITABLE	UNSUITABLE
PHENOL	UNSUITABLE	NOT TESTED	NOT TESTED	NOT TESTED	TOMATOES	NOT TESTED	NOT TESTED	NOT TESTED	NOT TESTED
PHOSPHORIC ACID - CONCENTRATED	UNSUITABLE	GOOD	GOOD	NOT TESTED	TRICHLOROETHANE	UNSUITABLE	UNSUITABLE	UNSUITABLE	UNSUITABLE
PHOSPHORIC ACID 20 - 25%	UNSUITABLE	UNSUITABLE	NOT TESTED	NOT TESTED	TURPENTINE	SATISFACTORY	UNSUITABLE	UNSUITABLE	UNSUITABLE
PIPIC ACID - AQUEOUS	UNSUITABLE	UNSUITABLE	NOT TESTED	NOT TESTED	UREA	NOT TESTED	NOT TESTED	NOT TESTED	GOOD
PIPIC ACID - MOLTEN	UNSUITABLE	UNSUITABLE	NOT TESTED	NOT TESTED	VARNISH	SATISFACTORY	UNSUITABLE	UNSUITABLE	NOT TESTED
POTABLE WATER	GOOD	GOOD	GOOD	NOT TESTED	VEGETABLE OIL	SATISFACTORY	SATISFACTORY	SATISFACTORY	NOT TESTED
POTASSIUM HYDROXIDE - 50%	SATISFACTORY	GOOD	GOOD	GOOD	VINEGAR	SATISFACTORY	SATISFACTORY	GOOD	GOOD
POTASSIUM SALTS	NOT TESTED	NOT TESTED	NOT TESTED	NOT TESTED	XYLENE	UNSUITABLE	UNSUITABLE	UNSUITABLE	UNSUITABLE
PROPANE	NOT FOR USE WITH THIS SUBSTANCE			UNSUITABLE	ZINC ACETATE	SATISFACTORY	SATISFACTORY	NOT TESTED	NOT TESTED
PYRIDINE	UNSUITABLE	UNSUITABLE	SATISFACTORY	SATISFACTORY	ZINC CHLORIDE	UNSUITABLE	UNSUITABLE	NOT TESTED	GOOD
ROSIN, LIGHT	NOT TESTED	NOT TESTED	NOT TESTED	NOT TESTED	ZINC SALTS	NOT TESTED	NOT TESTED	GOOD	GOOD
SALT WATER	GOOD	GOOD	GOOD	NOT TESTED					

GOOD - Weight increase of less than 5%, or weight loss of less than 3%, and/or a change of the tensile properties of less than 25%.

SATISFACTORY - Weight increase 5% to 10% or weight loss 3% to 5% and/or change of the tensile properties of 25% 40%.

NOT TESTED - This combination has not been tested or reliable data is not available.

POOR - This combination is not tested but may be suitable for very short term exposure (minutes).

UNSUITABLE - Unsuitable for exposure to this material.

Materials used in the construction of the fittings and tubing.

PI/PM Range : Body- Acetal, Seals & O-rings - Nitrile, Collets - Acetal & Stainless Steel

CM/CI Range : Body- Acetal, Seals & O-rings - EPDM, Collets - Acetal & Stainless Steel

PP Range : Body- Polypropylene, Seals & O-rings - EPDM, Collets - Polypropylene & Stainless Steel

NOTE : Ratings used in tables were generally assessed over a period of 30 days by our material suppliers and relate to chemicals being at a temperature of 20°C (68°F).

Any change in temperature or pressure may change the "Rating" on the chemical compatibility. It is the responsibility of the customer to ensure suitability. John Guest U.S.A. Inc. is not responsible for the correctness or interpretations of this chart.

Terms and Conditions

The products described in this document are hereby offered for sale to be established by John Guest (USA) Inc., its subsidiaries and its authorized distributors. This offer and its acceptance by any customer (the "Buyer") shall be governed by all of the following Terms and Conditions. Buyer's order for any item described in this document, when communicated to John Guest (USA) Inc., its subsidiaries or an authorized distributor (the "Seller") verbally or in writing, shall constitute acceptance of this offer.

1. Terms and Conditions of Sale. All descriptions, quotations, proposals, offers, acknowledgments, acceptances and sales of the Seller's products are subject to and shall be governed exclusively by the terms and conditions stated herein (the "Agreement"). The Buyer's acceptance of any offer to sell is limited to the terms and conditions in the Agreement. Any terms or conditions in addition to, or inconsistent with those stated in the Agreement, proposed by the Buyer in any acceptance of an offer by the Seller, are hereby objected to. No such additional, different or inconsistent terms and conditions shall become part of the agreement between the Buyer and the Seller unless expressly accepted in writing by the Seller. The Seller's acceptance of any offer to purchase by the Buyer is expressly conditioned upon the Buyer's assent to all the terms and conditions in this Agreement, irrespective of any terms in addition to, or inconsistent with those contained in the Buyer's offer. Acceptance of the Seller's products shall in all events constitute such assent.

2. Documents. Unless provided otherwise in the Agreement, all catalog descriptions, illustrations, drawings and literature or independently submitted estimates of performance, weights and measurements or other specifications provided by the Seller are mere approximations and the Seller reserves the right to alter or amend the same at any time. The Seller reserves the right to correct clerical or technical errors in the contract documents. The Buyer shall furnish with his order all necessary specifications and information. The Seller takes no responsibility for goods manufactured, priced or delivered not in accordance with the order or the specifications unless the Buyer's order and specifications are clear and correct.

3. Prices. Unless otherwise provided, all prices contained in our quotations and written acceptances are ex works and do not include the cost of packing. All orders are accepted on the condition that all such prices are subject to revision by the Seller at any time before the goods are dispatched to take account of any price change. In the event that the Buyer does not place the entire order quoted by the Seller for the Buyer, the Seller reserves the right to revise its prices. The Seller also reserves the right to revise its prices if the Buyer modifies the specification or quantity of the goods, or the delivery requirements after the order has been accepted by the Seller.

4. Advice. All advice given in connection with the Seller's goods is provided without charge to the Buyer. Any advice and assistance given by the Seller to the Buyer is given at the Buyer's risk and the Seller shall not be liable for any loss, damage or claim arising therefrom.

5. Payment. (a) Unless otherwise provided in the Agreement, or explicitly agreed upon in writing by the Seller, payment is due in full 30 days from date of shipment of the items purchased herein under. (b) In the case of an installment contract, deliveries or parts, payment for each installment delivery or part shall be made under subclause (a) as if the same constituted a separate agreement. (c) Amounts not timely paid shall bear interest at the rate of 2-1/2% above the Seller's bank's prime rate from time to time in force. (d) In the event that the Buyer fails within one calendar month of the date for payment to effect any payment which may be due under the Agreement or any agreement with the Seller, or if the Buyer commits any breach of the Agreement, or if the Buyer becomes insolvent or commits any act of bankruptcy or contemplation of liquidation, the Seller will be entitled, without prejudice to the Seller's other rights, to terminate the Agreement or any unfulfilled part thereof, or at the Seller's option to make partial deliveries.

6. Modifications and Cancellations. This Agreement is not subject to oral modification or cancellation. A Buyer's request for modification or cancellation will not be incorporated into the Agreement unless the request is accepted by the Seller in a writing that amends the Agreement. Acceptance of any such requested modification or cancellation shall be at the Seller's discretion and shall be upon such terms and conditions as the Seller may require.

7. Handling Charge. Goods supplied in accordance with the Buyer's order may later be returned to the Seller at the Seller's discretion provided the return is pre-authorized, in writing and the merchandise is unused, in original packages, unaltered, clean and no older than 60 days from the date of shipment by the Seller. The Buyer will be required to pay to the Seller a handling charge of 15% of the purchase price of the returned goods. A copy of the original invoice for the merchandise must accompany all returns.

8. Delivery. (a) Any delivery dates quoted are approximate only and the Seller shall have no liability for any delays in delivery. (b) Unless provided otherwise, delivery of the goods shall be made when the Seller has notified the Buyer that the goods are ready for dispatch. Regardless of the method of delivery, delivery shall be made F.O.B. Seller's plant, where the risk of loss shall thereupon pass to the Buyer upon the Seller's delivery to a carrier. Notwithstanding that the Seller's prices are ex-works, the Seller is prepared by special contract to procure carriage or freight and insurance on behalf of the Buyer and at Buyer's cost in which event the Seller shall be under no liability for damage in transit or loss or damage to the goods beyond the point at which the Seller contracts to deliver the same. (c) Seller will not make drop shipments.

9. Inspection and Rejection. (a) The following provisions shall apply in relation to all deliveries of goods: the Seller shall not be held liable for any claims of damage in transit, shortage of delivery or loss of goods, unless in the case of shortage of delivery, a separate notice in writing is given to the carrier concerned and to the Seller within three (3) days of the receipt of the goods, followed by a complete claim in writing within five (5) days of receipt of the goods and in the case of loss of goods, a separate notice in writing is given to the carrier concerned and to the Seller and a complete claim in writing made within thirty (30) days of the date of consignment. The Buyer must inspect the goods on arrival from the carrier, however, where goods are accepted from the carrier concerned without being inspected, the delivery book of the carrier concerned must be signed "not examined". The Seller shall have the right to inspect the goods at the Buyer's premises in respect to any such claims made by the Buyer and the Buyer shall retain such goods until the Seller has inspected such goods or until the Seller has notified the Buyer that the Seller does not wish to inspect such goods. Any breach of these conditions in this provision shall serve as a waiver to any claim brought by the buyer. (b) Without prejudice to the Seller's other rights, should the Buyer fail for any reason to send the Seller forwarding instructions within ninety (90) days after the date of the Seller's notification that the goods are ready for dispatch or to accept delivery of the goods, the Seller shall be entitled at the Buyer's risk and expense to store the goods and/or to procure or effect storage of the goods elsewhere. Goods so stored shall be paid for as if they had been dispatched and/or accepted.

10. Special Tooling. Where it is necessary for the Seller to manufacture or to purchase special tooling, including without limitation tools, dies, jigs, mandrills, fixtures, molds, and patterns in order to execute a contract, the Buyer will be charged with a proportion of the cost of such special tools. Such special tooling shall be and remain the Seller's property notwithstanding payment of any charges made by the Buyer. In no event will the Buyer acquire any interest in apparatus belonging to the Seller which is utilized in the manufacture of the items sold hereunder, even if such apparatus has been specially converted or adopted for such manufacture and notwithstanding any charges paid by the Buyer therefor. Unless otherwise agreed, the Seller shall have the right to alter, discard or otherwise dispose of any special tooling or other property in its sole discretion at any time.

11. Test and Performance. (a) The Seller's goods are, where practicable, submitted to the Seller's standard test before delivery. If special tests are required, these shall be made at the Seller's premises unless otherwise agreed, and will be subject to an extra charge. (b) The Seller accepts no liability for failure to attain any performance figures quoted by the Seller unless the Seller specifically has guaranteed them with an agreed sum as liquidation damages and the Buyer has suffered actual loss by reason of the failure to attain the figures quoted. (c) Any particulars of weights and measurements, power and consumption, power output or performance relating to the goods and like matters furnished by the Seller to the Buyer in the Seller's catalogs, literature or otherwise, are approximate and are intended only to present a general idea of the goods to be supplied and unless previously agreed specifically in writing shall not form part of the Agreement.

12. Buyer's Property. Any designs, tools, patterns, materials, drawings, confidential information or equipment furnished to the Seller by the Buyer, or any other items which become the Buyer's property, may be considered obsolete and may be destroyed by the Seller after two (2) consecutive years have elapsed without the Buyer placing an order for the items which are manufactured using such property. The Seller shall not be responsible for any loss or damage to such property while it is in the Seller's possession or control.

13. Taxes. Unless otherwise indicated, all prices and charges are exclusive of excise, sales, use, property, occupational or like taxes which may be imposed by any taxing authority upon the manufacture, sale or delivery of the items sold hereunder. If any such taxes must be paid by the Seller, or if the Seller is liable for the collection of such tax, the amount thereof shall be in addition to the amounts for the item sold. The Buyer agrees to pay all such taxes or to reimburse the Seller therefor upon receipt of its invoice. If the Buyer claims exemption from any sales, use or other tax imposed by any taxing authority, the Buyer shall promptly indemnify and hold the Seller harmless from and against any such tax, as well as any interest or penalties thereon which may be assessed if the items are held to be taxable.

14. Warranty. (a) The Seller warrants that the items sold hereunder shall be free from defects in material or workmanship at the time of shipment by the Seller. The Seller warrants that if within 12 months of delivery of the goods to the Buyer the Buyer returns immediately to the Seller's premises any of the said goods which the Buyer believes to be defective, carrier paid, properly packed and clearly marked with the Buyer's full name and address and any other information such as serial numbers which may be necessary to enable the goods to be identified, together with a complete description of the respects in which it is alleged that the goods are defective, they will be repaired or new goods will be supplied in exchange and the goods so repaired or such new goods will be delivered to the Buyer free of charge at the Seller's premises provided that the foregoing warranty shall only be applicable if upon demand by the Seller, the Buyer proves to the Seller's satisfaction: (i) that the defect was due solely to defective workmanship; (ii) that no alterations or repairs have been made to the goods except with the Seller's written consent; (iii) that the defect was not caused by any act of the Buyer or its agents; and (iv) that the defect was not caused by any matter beyond the reasonable control of the Seller, including, without limitation, accident or normal wear and tear. (b) For John Guest PEI and MWI Series Plumbing products only, the warranty period contained in sub-paragraph (a) may be extended to 120 months from date of delivery of the goods to the Buyer provided that, in addition to all other requirements, Seller's products are: (i) used in domestic plumbing applications or potable water related OEM/equipment installations; (ii) a) Installed by a Licensed Contractor, Plumber or qualified equipment installation professional; or b) OEM factory installed by a trained professional; c) Installed and operated in accordance with published John Guest technical specifications. (c) All costs and expenses, including freight charges, customs duties, and insurance incurred in returning the goods to the Seller's premises in accordance with this provision shall be paid by the Buyer. The benefit of this warranty shall not be assignable by the Buyer. (d) The warranty contained in sub-paragraph (a) above does not extend to any goods not manufactured by the Seller even though supplied by the Seller nor does it extend to any second-hand or reconditioned goods nor does it extend to components manufactured by the Seller but installed, attached or welded by the Buyer or his customer on equipment not manufactured by the Seller. Goods not manufactured by the Seller carry only the warranty (if any) of their makers and the Buyer is entitled to the benefit thereof only so far as the Seller has the power to transfer it. (e) This warranty comprises the sole and entire warranty pertaining to items provided hereunder, the Seller makes no other warranty, guarantee, or representation of any kind whatsoever. All other warranties, including but not limited to, merchantability and fitness for purpose, whether expressed or implied, or arising by operation of law, trade usage, or course of dealing are hereby disclaimed. (f) Notwithstanding the foregoing, there are no warranties whatsoever on items built or acquired wholly or partially to the Buyer's designs or specifications.

15. Limited Remedy. The Seller's liability arising from or in any way connected with the items sold or this Agreement shall be limited exclusively to repair or replacement of the items sold. In no event shall the Seller be liable to the Buyer or any 3rd party for any incidental, consequential or special damages of any kind or nature whatsoever, including but not limited to lost profits arising from or in any way connected with this agreement or items sold hereunder, whether alleged to arise from breach of contract, express or implied warranty, or in tort, including without limitation, negligence, failure to warn or strict liability.

16. Indemnity for Infringement of Intellectual Property Rights. (a) The Buyer shall defend and indemnify the Seller against all actions, claims, demands, penalties and costs by 3rd parties in tort, or for infringement, or alleged infringement, of patents, trademarks, copyrights, trade dress, trade secret or other rights of any 3rd party resulting from the goods manufactured in accordance with the Buyer's specifications or based on any information provided by the Buyer. The Buyer will defend any action against the Seller for title, patent, trademark, copyright infringement, or other claimed by a 3rd party at the Buyer's sole cost and expense. (b) The Seller shall have no liability for infringement of any patents, trademarks, copyrights, trade dress, trade secrets or similar rights except as provided in this provision. The Seller will defend and indemnify the Buyer against allegations of infringement of US patents, US trademarks, copyrights, trade dress and trade secrets ("Intellectual Property Rights"). The Seller will defend at its expense and will pay the cost of any settlement or damages awarded in an action brought against the Buyer based on an allegation that an item sold pursuant to this contract infringes the Intellectual Property Rights of a 3rd party. The Seller's obligation to defend and indemnify the Buyer is contingent on the Buyer notifying the Seller within 10 days after sole control over the defense of any allegations or actions, including all negotiations for settlement or compromise. If an item sold hereunder is subject to a claim that it infringes the Intellectual Property Rights of a 3rd party, the Seller may, at its sole expense and option, procure for the Buyer the right to continue using said item, replace or modify said item so as to make it noninfringing, or offer to accept return of said item and return the purchase price less a reasonable allowance for depreciation. Notwithstanding the foregoing, the Seller shall have no liability for claims of infringement based on information provided by Buyer, or directed to items delivered hereunder for which the designs are specified in combination or use in a system of any item sold hereunder. The foregoing in this provision shall constitute the Seller's sole and exclusive liability and the Buyer's sole and exclusive remedy for infringement of Intellectual Property Rights.

17. Lien. In addition to any right of lien to which the Seller may by law be entitled, the Seller shall have a general lien on all goods of the Buyer in the Seller's possession (although such goods or some of them may have been paid for) for the unpaid price of any other goods sold and delivered to the Buyer by the Seller under the same or other contracts.

18. Waiver. The Seller's rights shall not be affected or restricted by any indulgence or forbearance granted to the Buyer. No waiver by the Seller of any breach shall operate as a waiver of any later breach.

19. Force Majeure. The Seller shall be excused from performing any of its obligations under this Agreement which are prevented or delayed by any occurrence not within the reasonable control of the Seller, including but not limited to, accidents, acts of God, destruction or damage to the goods or the Seller's manufacturing plant, delays or failures in delivery of carriers or suppliers, shortages of materials, strikes or other labor matters, floods, earthquakes, fire, riots, explosions, or any regulations, rules, ordinances or orders of any governmental authority, federal, state or local, whether such cause exists at the date of the order or not.

20. Buyer's Representation of Solvency. The Buyer hereby represents that as of the signing of this Agreement it was not insolvent within the meaning of the Uniform Commercial Code or the Bankruptcy Laws of the United States.

21. Assignment and Delegation. The rights and obligations of the parties under this Agreement may not be assigned or delegated, except on the express written consent of the other party to the assignment or delegation.

22. Integration. The rights and obligations of the parties and the terms and conditions set forth herein, together with any amendments, modifications and any different terms and conditions expressly accepted by the Seller in writing, shall constitute a complete and exclusive statement of the terms of this Agreement. This Agreement supersedes not only all prior agreements, but also oral agreements made contemporaneously with the execution of this Agreement. All such materials may not be used to supplement, explain, or contradict the terms of this Agreement.

23. Severability. If any of these conditions or any part thereof purports to exclude or restrict or limit any liability and such exclusion or restriction or limitation is prohibited or rendered void or unenforceable by any legislation to which it is subject, or is itself prohibited or rendered void or unenforceable by any legislation to which it is subject, then the exclusion restriction or limitation on the condition or part thereof in question shall be so prohibited or rendered void or unenforceable and the validity or enforceability of any other part of these provisions shall not thereby be affected.

24. Governing Law/Limitation on Actions. The terms, conditions, rights, and obligations under this Agreement shall be construed under the laws of the State of New York, without regard to principles of conflicts of laws. No actions arising out of the sale of the items sold hereunder or this Agreement may be brought by the Buyer more than two (2) years after such cause of action accrues.

John Guest Companies



John Guest USA, a world-leading supplier of Fluid System Products, located in Northern New Jersey is part of a progressive and professional organization with multiple locations worldwide. For over 30 years the John Guest organization has built its reputation by providing high quality products and high levels of customer service.

Through a strong commitment to growth and innovation, John Guest USA will continue to serve its community and customers well into the future.

John Guest USA, Inc. distributes its products across North, Central, and South America, the Caribbean, and the US Virgin Islands.



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