

Speedfit®

The Ultimate Push-fit Solution for Plumbing



UNBEATABLE BENEFITS

- **SABS Approved** SANS 21003-1,2,3 & 5
- **Major Time Savings**
- **Permanent Leak-Proof Connection**
- **Connects Directly onto Copper Pipe**
- **Compatible with Brass Compression Fittings**
- **No Expensive Tools Needed**
- **Easier to Work in Confined Spaces**
- **Truly Demountable without Damage to Pipe**
- **Lightweight & Easy to Handle on Site**
- **Better for the Environment**
- **Manufactured in the UK**
- **Zero Defect Production**
- **No Theft - all plastic system**

Supplied by
Speedfit®
Africa

Make the right connection

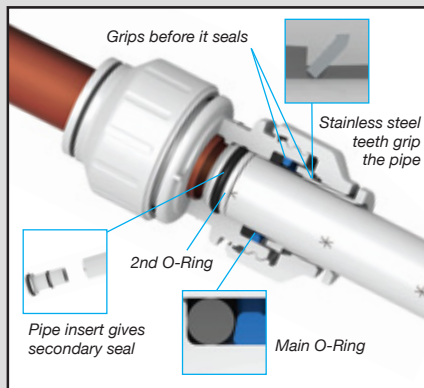
FREE SERVICES: Check out our first class services on the back!

June 2013 v2.4

**South African Product
and Technical Guide**



How Speedfit Works

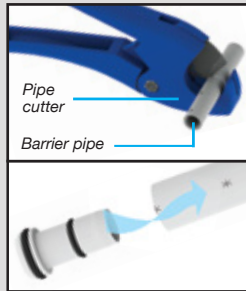


JG Speedfit is an easy to use, plastic push-fit system suitable for the plumbing of hot and cold water services. The flexible piping provides the ability to significantly reduce installation time without the need for specialist tools.

A BASIC INTRODUCTION

Speedfit Fittings have a unique grip then seal construction made up of a collet with stainless steel teeth to grip the pipe and an 'O' Ring to provide a permanent leak proof seal.

Making a Good Connection



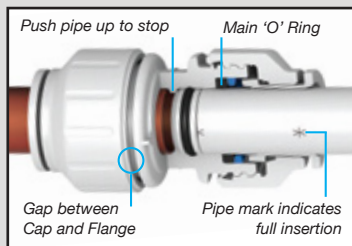
PREPARE THE PIPE

Fittings and pipe should be kept clean, bagged and undamaged before use.

Ensure the pipe is free of score marks. Cut the pipe square. When using Speedfit pipe cut along an insertion mark >< clearly shown on pipe. We recommend the use of JG Pipe Cutters.

To prevent damage to the 'O' Ring remove all burrs and sharp edges. When connecting Speedfit pipe use a Superseal Pipe Insert. The insert should only be used with Speedfit pipe. **A twisting motion will aid insertion.**

CONNECTING TWIST AND LOCK FITTINGS

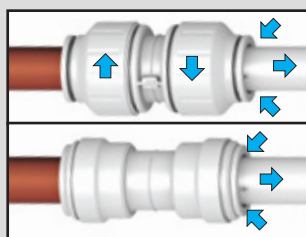


The fitting should be in the 'unlocked' position; shown by a small gap between the screwcap and the body flange.

Push the pipe fully into the fitting, up to the pipe stop. If the Speedfit pipe has been cut correctly the insertion mark on the pipe will be level with the collet head. The 'O' Ring on the Superseal Pipe Insert provides a secondary seal against the bore of the fitting. A good connection has been made.



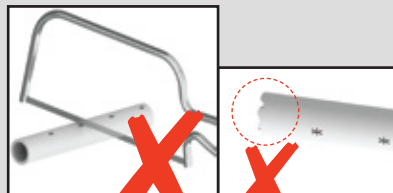
If you are not using collet clips, ensure that the screw caps are in the locked position. Pull to check it is secure. It is good practice to test the system prior to leaving the site or before use. Our recommended test procedure is shown in our Technical Checklist.



TO DISCONNECT

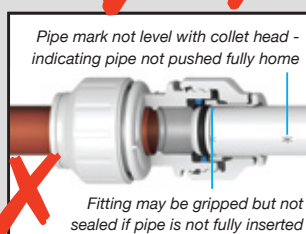
Ensure that the system is depressurised. The screw cap on Twist and Lock fittings will need to be turned back to the unlocked position.

Push the collet square against the face of the fitting by using fingers or with the help of our collet release tool. With the collet held in position the pipe can be removed. The fitting can be used again without the need for replacement parts.



WHAT NOT TO DO!

- Don't use hacksaws to cut the pipe or leave burrs on the end of the pipe.
- Don't use damaged or scored pipe.



- Don't forget to push the pipe fully into the fitting, past both the collet (gripper) and the 'O' Ring.
- Do not insert fingers into the fitting as the stainless steel teeth may cause injury.
- Remember to pressure test the completed installation according to the recommendations in our Technical Checklist.

Please read the technical checklist on the back page for an overview of plumbing with Speedfit. This information will help ensure that mistakes are avoided and you have a trouble free installation.

Plumbing Fittings

95° Maximum

Equal Straight Connector

Part No.	Size MM
PEM0415W	15
PEM0422W	22
PEM0428W	28

Equal Elbow

Part No.	Size MM
PEM0315W	15
PEM0322W	22
PEM0328W	28

Reducing Straight Connector

Part No.	Size MM
PEM202215W	22 x 15

Reducing Elbow

Part No.	Size MM
PEM212215W	22 x 15

Bent Tap Connector

Part No.	Size MM X BSP
PEMBTC1514	15mm x 1/2"

Conversion Connector

Part No.	Size MM
NC471	15mm x 1/2" ID

ID = Internal diameter (Connects imperial to metric pipe)

Male Coupler - Straight

Part No.	Size MM X BSPT
NC2556	15mm x 1/2"
NC2557	22mm x 3/4"

Slip Connector

Part No.	Size MM
CM-SC-15S	15

Used for making repairs to damaged pipe. Hot and cold water only, 65° maximum.

Female Coupler - Tap Connector

Part No.	Size MM X BSP
PSE3201W	15mm x 1/2"
PSE3203W	15mm x 3/4"
PSE3202W	22mm x 3/4"

Tap Connectors only need hand tightening to connect up a terminal tap, mixer or float valve. An integral seal within the fitting avoids the need for further sealers.

Stop End

Part No.	Size MM
PSE4615W	15
PSE4622W	22
PSE4628W	28

Stem Reducer

Part No.	Size MM
PEM062215W	22 x 15
PEM062815W	28 x 15
PEM062822W	28 x 22

Stem Elbow (Swivel Action)

Part No.	Size MM
PEM221515W	15 x 15
PEM222222W	22 x 22

Provides an instant swivel fitting so pipe can be orientated in any direction.

Wall Plate Elbow

Part No.	Size MM X BSP
15PWB	15mm x 1/2"

Hot and cold water only, 65° maximum.

Equal Tee

Part No.	Size MM
PEM0215W	15
PEM0222W	22
PEM0228W	28

Stem Tee (Swivel Action)

Part No.	Size MM
PEM532215W	22 x 22 x 15

Useful for creating two, three or more port manifolds in series with 15mm ports facing any direction.

Reducing Tee

Part No.	Size MM
PEM3022AW	22 x 22 x 15
PEM3022BW	22 x 15 x 15
PEM3022CW	15 x 15 x 22
PEM3022DW	22 x 15 x 22
PEM3028AW	28 x 28 x 22
PEM3028BW	28 x 22 x 22
PEM3028DW	28 x 22 x 28
PEM302815AW	28 x 28 x 15

Pipe

95° Max

Speedpex Barrier Pipe (Coils)

Part No.	Size MM X M
15BPEX-25C	15 x 25
15BPEX-50C	15 x 50
15BPEX-100C	15 x 100
22BPEX-25C	22 x 25
22BPEX-50C	22 x 50

Speedpex Barrier Pipe (Straight Lengths)

Part No.	Size MM X M
15BPEX-20x2L	15 x 2
15BPEX-20x5L	15 x 5
22BPEX-20x2L	22 x 2
22BPEX-20x5L	22 x 5
28BPEX-10x6L	28 x 6

Packs of 10 and 20 lengths.

White PVC Flexi Hoses

65° Maximum

Speedfit X Hand Tighten Nut

Part No.	Size MM X BSP
300mm long	
PFLX15	15mm x 1/2"
PFLX16	15mm x 3/4"
PFLX22	22mm x 3/4"
500mm long	
PFLX18	15mm x 1/2"
PFLX19	22mm x 3/4"
WFLX20	15mm x 3/4"

Speedfit X Hand Tighten Nut with Service Valve

Part No.	Size MM X BSP
300mm long	
PFLX37-H	15mm x 1/2"
PFLX39-H	22mm x 3/4"

Speedfit X Speedfit

Part No.	Size MM
300mm long	
WFLX17	15 x 15

Speedfit for monobloc Mixer

Part No.	Size MM X MALE
300mm long	
WFLX28	15 x M10

Valves

65° Maximum

Stop Valve

Part No.	Size MM
15STV	15
22STV	22

Washing Machine Tap

Part No.	Size MM X BSP
15APT	15mm x 3/4"

Emergency Shut Off Tap

Part No.	Size MM
15ESOT	15

Service Valve with Handle

Part No.	Size MM
15SV-H	15
22SV-H	22

Service Valve with Tap Connector

Part No.	Size MM X BSP
15SVSTC-W	15 x 1/2"

Angle Service Valve with Tap Connector

Part No.	Size MM X BSP
15SVBTC-W	15mm x 1/2"

Accessories

Pipe Cutter

Part No.	Size MM
JG-TS	10 - 28

Standard Pipe Insert

Part No.	Size MM
TSM15N	15
TSM22N	22
TSM28N	28

Must be used when connecting Speedfit pipe with compression (CONEX) fittings.

Superseal Pipe Insert

Part No.	Size MM
STS15	15
STS22	22
STS28	28

Collet Cover

Part No.	Size MM
PM1915R	15
PM1915B	15
PM1922R	22
PM1922B	22

Use a collet cover or collet clip to provide added security against pipe disconnection on standard fittings e.g. if the fitting may come into contact with rigid surfaces and behind dry-lining walls.

Collet Locking Clip

Part No.	Size MM
CM1815R	15
CM1815B	15
CM1815W	15
CM1822R	22
CM1822B	22
CM1822W	22

Bending Springs

Part No.	Size MM
SFA-IBS15	15 Internal
SFA-IBS22	22 Internal
SFA-EBS15	15 External

Tap in a Box

Part No.	Size MM
SFA-TAPBOX1	15 x 1/2" Short
SFA-TAPBOX2	15 x 1/2" Long

Unique patented solution for fixing taps into steel and wooden frame buildings.

Pipe Clips and Spaces

Part No.	Size MM
PC15W	15
PC22W	22
PC28W	28
PCSW	

Spacers are designed to slide onto the bottom on pipe clips in order to make a cross over when surface mounting and to allow lagging to be connected around pipe.

Nail Clips

Part No.	Size MM
NPC15	15
NPC22	22
NPC28	28

Pipe Collar

Part No.	Size MM
WCOL15W	15
WCOL15C	15

Used to cover holes cut into wall tiles where pipe exits the wall.

Collets (Replacement)

Part No.	Size MM
PXC15	15
PXC22	22
PXC28	28

EPDM 'O' Ring (Replacement)

Part No.	Size MM
15EPR	15
22EPR	22
28EPR	28

Thread Washer (Replacement)

Part No.	Size
1/2EPW	1/2"
3/4EPW	3/4"

Used for part numbers PSE3201/2/3/W.

Fernox Flux

Part No.	Size
SFA-FERX2	225g

Fernox Flux is a non-acidic flux, safe for use around Speedfit pipe and fittings. Fernox Flux is a high quality flux for use on copper tube and fittings.

Technical Checklist

- **Handling Speedfit:**
 - Ensure fittings and pipe are kept clean at all times by keeping them in bags and boxes provided.
 - Do not empty Speedfit products onto the floor area.
 - Ensure internal 'O' Ring seals are kept free from dirt and debris.
- **Expansion:** Speedfit pipe expands 1% between 20°C and 82°C degrees on length. For detailed technical information on expansion and contraction please contact Speedfit Africa.
- **Burst Pressure (Fittings):** Speedfit fittings used with copper or Speedfit Barrier Pipe will withstand pressures well in excess of normal service conditions. SABS ratings are 12 BAR at 20°C, 8 BAR for 15mm; and 6 BAR for 22mm and 28mm at 95°C.
- **Maximum Temperatures:** Speedfit Barrier Pipe can withstand 114°C intermittently for short periods. The Speedfit system should not be used on an uncontrolled heat source.
- **Insulation:** Same as copper. Speedfit Barrier Pipe can withstand lower temperatures than copper which reduces the chances of bursting due to the flexibility of the pipe.
- **Clip Spacing for Surface Mounted Pipes:**

Pipe Diameter	Clip Spacing	
	Horizontal Run	Vertical Run
15mm	300mm	500mm
22mm	500mm	800mm
28mm	800mm	1000mm

- **Paint and Chemicals:** Use only water or oil based paint. Collet covers prevent paint ingress into standard fittings. **DO NOT ALLOW CONTACT** with oil based jointing compounds, cellulose based paints, paint thinners, paint strippers, solder flux, acid based descalers or aggressive cleaning products.
- **Solder Flux:** No fluxes of any type should come into contact with Speedfit pipe and fittings. If fluxes are to be used in an environment where Speedfit is installed, then extreme care should be taken to ensure that no such contact takes place.

- **Chlorine:** Speedfit is not suitable for use in systems where the water contains high levels of chlorine e.g. swimming pools, fountains etc.
- **Exposure to Sunlight:** Speedfit products, when used indoors, are not affected by sunlight. When used outdoors protect from ultra violet light by lagging or painting.
- **Pipe Clips:** Pipe clips should not be fitted any closer than 60mm from the end of the fitting. Pipe should be adequately supported by pipe clips to prevent undue stress (side load) on fittings.
- **Pipe Inserts:** Must be used on all installations when using plastic pipe and should be fully inserted. Only use a Speedfit Insert with Speedfit pipe.
- **Metal Joists/Panels:** When 'cabling' pipe through metal joists/panels ensure rubber or plastic grommets are in place to prevent damage to pipe. The use of collet covers or collet clips on fittings is also recommended.
- **Connection to Geysers:** A minimum 1000mm run of copper pipe should be installed between the geyser and the Speedfit system.
- **Electrical Continuity:** If Speedfit is used in an existing metal system which may have been used for earthing, electrical continuity should be reinstated.
- **Collet Covers:** Collet covers provide added security against pipe disconnection, e.g. the fittings coming into contact with rigid surfaces and behind dry-lining walls. They are offered in white as standard and in red or blue to provide colour coding of pipe.
- **Collet Clips:** White collet clips are used with standard fittings to prevent accidental pipe disconnection. Red or blue clips provide colour coding of pipe. Red and blue clips should not be used to prevent accidental release of pipe.
- **System Testing:** To ensure the pipe and fittings have been installed correctly, whether it be on a new or extended system, it is essential that the system is checked and hydraulically wet tested. Testing should be at 2 BAR for 10 minutes and then 10 BAR for 10 minutes. This testing, combined with other relevant checks, should reveal installation problems and is regarded as good plumbing practice.

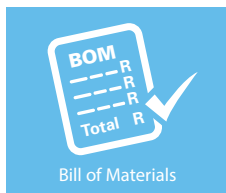
However, system testing should not be regarded as a substitute for correct installation (see also "Making a Good Connection").

- **System Flushing:** As is usual practice for any plumbing installation, flushing of the system prior to the use of Speedfit is recommended to remove any contaminants/chemical residue from elsewhere in the system.
- **Vermis:** Speedfit products will need special protection in vermin infested areas.
- **Biological:** No taste, colour, odour or toxicity is imparted to water by Speedfit components, nor do they promote microbiological growth. The opacity of both pipes and fittings allows insufficient light to pass for the growth of algae.
- **Side Loads:** Fittings should not be subject to excessive side loads and they should not be used as support brackets. Pipe and fittings should be adequately supported to prevent excessive side loading.
- **Maximum Torque Figures (BSP):** 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. Over tightening of plastic threads will cause undue stress and eventual cracking and leakage. The maximum torque figures for BSP threads used on Speedfit plumbing products in mating threads conforming to the relevant BS or International thread standards are shown below.

Threads	Size	Maximum Torque
Plastic	1/2"	3.0 Nm
	3/4"	4.0 Nm
Brass	1/2"	4.0 Nm
	3/4"	5.0 Nm

Do not use for gas, fuel oil or compressed air applications.

Separate fittings are available for compressed air



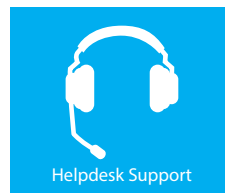
Bill of Materials



Plumber Training



On-Site Support



Helpdesk Support

To make use of our FREE SERVICES please contact us

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www.speedfitafrica.co.za

Installers

Our national team of Sales and Product Consultants are available to help installers get the best from the Speedfit System. Please contact us for an introduction to your local Speedfit team.

Stockists

If you would like to add Speedfit to your range, please call to arrange an appointment and **make the right connection.**

Product Support

The Speedfit Africa Technical Helpdesk Service is available to assist and advise on all aspects of using the Speedfit system. The service is available between 8am and 4pm, Monday to Friday on Telephone No. +27(0)31 5693073 and Fax No. +27(0)31 5693074. E-mail queries can be sent to **info@speedfitafrica.co.za**

If you would like a free bill of materials please send your plans to **boms@speedfitafrica.co.za**

While John Guest Ltd warrants their products against defects in manufacture and materials, it is the responsibility of any user/installer to ensure that the fittings and related products are suitable for their application, that the installation is carried out correctly, and that the installation is properly maintained. Due to the wide variety of operating conditions, applications and uses of our products, it is the user's (specifier's) responsibility, through their own testing and analysis, to ensure correct product selection for their application. Products should be used only in accordance with the manufacturers' guidelines and all installations should be fully pressure tested before handover to the final 'user'.



SANS 21003

Speedfit fittings and pipe are SABS approved to SANS 21003-1, 2, 3 & 5:2008

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