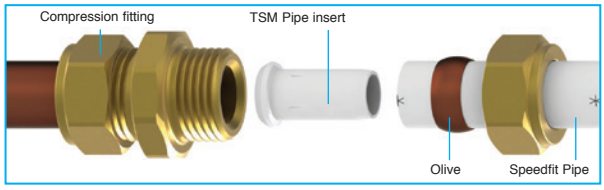
SYSTEM CONNECTIONS

CONNECTION TO COMPRESSION FITTING

Many but not all compression fittings are suitable for use with plastic fittings and pipe. Users should therefore check for compatibility. Compression fittings with short tube stop depth or brass olives should not be used with plastic fittings or pipe.

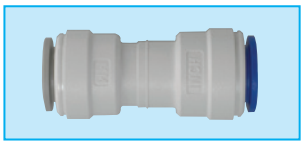
When using compression fittings with Speedfit pipe, a Standard Pipe Insert (prefix TSM) must be used to withstand the compressive pressure of the olive. The olive must be located within the length of the pipe insert and the pipe fully inserted into the fitting. The connection should not need more than 2 full turns after the olive has gripped the pipe. JG Speedfit recommend the use of soft copper olives.

Ensure nut and olive are in place before inserting pipe insert.



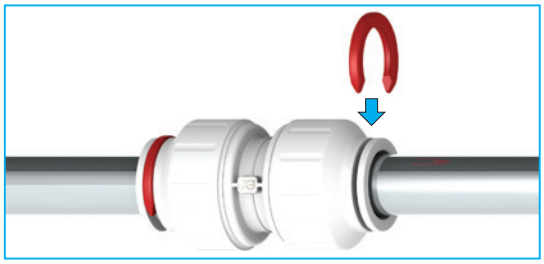
CONNECTION TO IMPERIAL PIPE AND FITTINGS

The Speedfit Range includes couplers to connect Speedfit Pipe to 1/2" to 1" BSP and BSPT. See page 13.



Fittings to connect imperial pipe to metric are shown on page 16.

CONNECTION TO CHROME-PLATED COPPER PIPE



Speedfit fittings can be connected onto chromium plated copper pipe if the chromium plating is completely removed to the full depth of the fitting. To ensure maximum grip, the fitting of a collet clip is recommended.

It is not possible to connect Speedfit fittings to Stainless Steel Pipe.

CONNECTION TO MAINS SUPPLY

In modern properties, water enters a building usually in blue MDPE (medium density polyethylene) pipe. In order to comply with Water Regulation Schedule 2.10, the internal plumbing system should be connected via a Speedfit Stop Tap from our Cold Water Services Range, Part No.'s UGSTV2515, 25mm x 15mm or UGSTV2522, 25mm x 22mm.

Connection of Speedfit Pipe to supply pipe of other materials should be via a stop tap with a 15mm or 22mm compression outlet.

CONNECTION TO BOILERS

Speedfit pipe should never be connected directly to a boiler.

Although most modern boilers have a high limit thermostat, residual heat can be conducted by the heat exchanger. Therefore, Speedfit recommend a minimum of 1 metre from the boiler casing should be run in copper pipe unless otherwise stated in the boiler manufacturer's installation literature.

A gravity primary circuit operating on an uncontrolled cooking range or solid fuel boiler should be run entirely in copper and the heating circuit run in copper for the first metre.

Refer to BS 5955: Part 8 for further clarification.

All appliances should have safety devices to make sure they cannot operate above the working temperature and pressure range set out in our Technical Checklist on page 38. If safety devices are not incorporated within the appliance then external controls will be needed.

Water meters (and other devices) can contain check valves that prevent the expansion of heated water back down the main supply from a combi boiler. If plastic pipe is to be used, a suitable expansion vessel must be fitted. This is especially important to consider if a water meter is fitted retrospectively. Speedfit do not recommend the use of plastic pipe on the main supply between a water meter and a combi boiler if an expansion vessel is not fitted.

Speedfit Products should not be fitted to a sealed system oil boiler, a back fired boiler or other uncontrolled heat source.

Please also see **Drop-Pipe Systems** on page 28 and **System Commissioning and Flushing** on page 32.

CONTINUOUSLY OPERATED RE-CIRCULATING SYSTEMS (SECONDARY HOT WATER CIRCULATION/RING MAIN INSTALLATIONS):

A continuously operated re-circulating system is a water-replenished circulating system which is maintained at a constant high temperature to provide a constant source of hot water. Continuously operated re-circulating systems are used to distribute constant hot water to draw off points that may be distant from the source or hot water storage vessel.

Continuously operated re-circulating systems are very different from conventional hot water supply and central heating systems found in domestic properties, for which our products have been tested to, under either BS7291:2010 Class S or WRAS approval standards, and for this reason Speedfit products must not be used on any continuously operated re-circulating systems as they are not approved under the current version of these standards.

UNVENTED PRESSURISED CYLINDERS

Unvented Pressurised Cylinders can be installed using Speedfit pipe and fittings. However if the safety parameters of the cylinder exceed those of the pipe and fittings it is possible to fit a pressure reduction valve on the out going hot supply pipe. This will not interfere with any other cylinder safety

devices demanded by regulations as they are all fitted in the incoming side of the cylinder.

Run a short length of copper pipe from the cylinder connection (about 150mm - 300mm) then fit a suitable pressure reduction valve. This will protect the pipe and fittings from excessive pressure in the event of boiler / cylinder malfunction. The factory fitted temperature / pressure relief valve on the cylinder will discharge below 100˚C therefore protecting the pipe from excessive temperature.

CONNECTION TO CYLINDERS & WATER HEATERS

Speedfit can be used on sealed and open vented heating systems, where boilers are either heating a hot water storage cylinder or instantaneous hot water such as a combination boiler. The temperature and pressure limits of the system must not exceed the maximum values stated under the heading 'Working Temperatures and Pressures'.

When using a traditional copper vented cylinder Speedfit Pipe and Fittings can be installed with direct connections to the cylinder. Unvented pressurised cylinders can be installed using Speedfit Pipe and Fittings. However, insertion depths on compression joints that form part of the cylinder must be checked prior to installation and the use of standard pipe inserts (Prefix TSM) is recommended.

In accordance with current U.K. Building Regulations (Part G), discharge pipes from temperature and/or pressure relief valves must be run in metal pipework.

Speedfit connections to combined Cylinder/Boiler units and Thermal Storage Units must be made outside the casing unless otherwise stated in manufacturers installation literature.

DROP-PIPE SYSTEMS

Care should be taken when designing and installing a central heating system where radiators are supplied by pipe work which drops from an upper floor.

With this kind of system it is possible to trap air in the upper floor pipe work. When the boiler is fired the increase in pressure within the pipe caused by expanding air could cause the pipe to burst.

It is therefore essential that the system be designed so that any air can be removed from the system either automatically or manually by installing automatic or manual air vents at the highest points of the system.

CONNECTION TO PUMPS AND VALVES

Speedfit Pipe should be connected to circulating pumps and motorised valves in accordance with the section in this book headed, "Connecting Plastic Pipe To Compression Fittings". If Speedfit Pipe is not mounted on a supporting structure, the pipe must be clipped close to the component's connections to ensure adequate support and to assist in the reduction of vibration.

For heavier equipment, ensure that appropriate metal brackets provide full and independent support of the components and that it does not rely solely on the pipework for support.

CONNECTION TO COPPER PIPE

The minimum distance to make a solder connection on copper pipe inserted into a Speedfit Fitting is 450mm (18 inches). Ensure that any residual flux solder is not allowed to come in contact with the fitting. That same measurement is the safe distance to use a freezer kit to Speedfit Pipe.

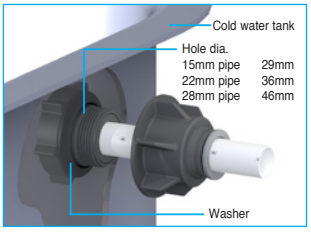
CONNECTING TO COLD WATER STORAGE TANK

To install the Speedfit Tank Connector, unscrew the nut and push the body of the fitting through the tank hole with the washer on the inside of the tank. Hand tighten the nut onto the body. Push the pipe into the connector.

Note: Hand tightening the nut onto the body is all that is required. Further mechanical tightening will damage the fitting.

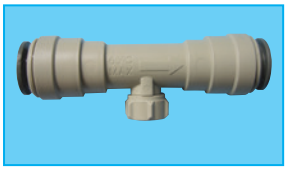
Maximum wall thickness of tank 4mm





PREVENTING BACK FLOW

The Speedfit Range includes a Double Check Valve (Part No 15DCV) to enable installers to comply with Water Regulation Schedule 2.15, thus preventing contamination of water arising from back siphonage, backflow or cross connection. Suitable for use with fluid categories 1, 2 and 3 only.



RADIATOR CONNECTIONS

The most common way of running pipework to a radiator is to run both flow and return pipes central to the radiator position.

The pipes exit a single gang box (fitted with rubber grommets) located at the mid height of the finished radiator position. This also provides a fixed point for other trades to work to and reduces the risk of damage to the pipework.

Once the plaserboard is installed the pipes are passed through the Speedfit Radiator Outlet Plate to exit plasterboard without the need of unsightly holes.



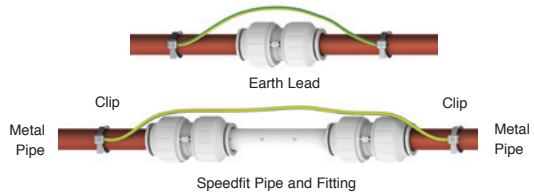
Metal reducing sets which convert radiator valves from 15mm to 10mm are not suitable for use with Speedfit Fittings or Pipe as they can cause damage to the plastic.

ELECTRICAL CONTINUITY

The plumbing or heating system installer should have these aspects checked to ensure compliance with current IEE Regulations. If in doubt please contact the Speedfit Technical Advisory Service or consult your local Electricity Authority.

IEE Guidance Note 7 provides useful guidance on the design of electrical installations where there is increased risk of electric shock. It recognises that the requirement for supplementary bonding may be relaxed where metal taps and plastic pipes supply other bathroom fittings.

Similarly a metal bath or radiator not connected to an exraneous-conductive-part is not required to be connected to the local supplementary conductors.



Speedfit Pipe and Fitting

SUPPLEMENTARY BONDING TO BATHROOMS

Pipe Material			Supplementary Bond Required Between	Comments
Cold Water	Hot Water	Central Heating		
P	P	P	Earth terminals of protective conductors of class I and of class II equipment and accessible exposed conductive parts of the building structure.	Bonding of metal taps metal radiators or metal baths is not required unless the bath is connected to the metallic building structure.
P	M	M	Hot water pipe, central heating pipes, earth terminals of protective conductors of class I and class II equipment and accessible exposed conductive parts of the building structure.	A bond is not required to the taps either hot nor cold, or to metal baths unless connected to the metallic building structure.
P	P	M	Central heating pipes, the earth terminals of protective conductors of class I and class II equipment and access to exposed conductive parts of the building structure.	Bonding of metal water taps is not required, nor metal baths unless connected to the metallic building structure.
M	M	M	All metal pipes, earth terminals of protective conductors class I and class II equipment, and accessible exposed conductive parts of the building structure.	Metal pipes themselves can be used as bonding conductors if joints are metal to metal and electrically continuous.
M	M	P	All metal pipes, earth terminals of protective conductors of class I and class II equipment, and accessible exposed conductive parts of the building structure.	Metal central heating radiator does not require bonding.

P = Plastic **M** = Metal **NB: All Waste Pipes are plastic.**

1. Supplementary bonding is carried out to the earth terminal protective conductors of class I and class II equipment within the bathroom. A supplementary bond is not run back to the main earth.

2. Metal window frames are not required to be supplementary bonded unless they are electrically connected to the metallic structure of the bonding.

3. Metal baths supplied by metal pipes do not require supplementary bonding if all the pipes are bonded and there is no other connection of the bath to earth.

4. All bonding connections must be accessible and labelled "Safety Electrical Connection - Do Not Remove".

CONNECTING TO OTHER PLUMBING FIXTURES

As shown in the Product Range List, the Speedfit Range of fittings includes valves, taps, adaptors and connectors for the plumbing of all typical domestic appliances and fittings.

DISCHARGE PIPES

Speedfit Pipe should not be used to provide the discharge from unvented cylinders, unvented water heaters and sealed systems via the temperature relief and pressure relief valves.

WATER HEATERS

Speedfit recommend that mains supply pipework to unvented water heaters (up to 15ltr capacity), be run in metal pipes.

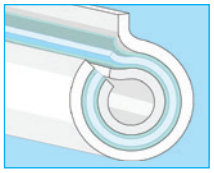
Adequate provision must also be made regarding thermal expansion of water from a water heater. The use of an expansion relief valve and / or an expansion vessel must be used where water expansion is not possible back into the mains supply.

Ensure water temperatures do not exceed those recommended for Speedfit.

INSTALLING PIPEWORK

SPEEDFIT BARRIER PIPE

Speedfit Barrier Pipe is manufactured to BS 7291 Parts 1, 2 and 3 Class S and is Kitemarked.



It is made up of 5 layers, the centre of which is a blue coloured oxygen barrier which prevents the ingress of air into the system, thereby reducing the effect of corrosion on metal components. Because of its low thermal conductivity when carrying hot water, Speedfit Pipe is cooler and therefore safer to touch. Relatively low heat loss through radiation means that a system retains its heat longer and delivers hot water more quickly and with less wastage than a metal system.



The pipe is available in coils and straight lengths. See page 13. Pipe markings are spaced to aid the making of a good connection when using a Superseal Pipe Insert.

PIPEWORK SIZING

For general guidance on pipework sizing, please refer to BS EN 806 and complimentarty guidance document BS 8558, or the Institute of Plumbing Engineering Services Design Guide. Speedfit Fittings are suitable for pipes within ±0.1mm of nominal size. They can be used with copper pipe to BS EN 1057 or Speedfit Plastic Pipe.

The Product Range List shows the fittings available for reducing pipe diameters within the system.

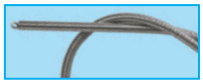
Speedfit Pipe is available in straight lengths and coils.

PIPE BENDING

Gentle bends can be made with pipe clips on either side of the curve, positioned to maintain the bend radius.



Tighter bends can be achieved by using the cold forming bends shown on page 16.



Internal Bending Springs are available in 10mm to 22mm sizes. See page 16.

It is also possible to bend Speedfit Pipe using a standard pipe bender. The pipe should not be heated with a blowlamp or hot air gun.

Minimum bend radii for Speedfit pipe (BPEX and BPB) are as follows:

Speedfit Min Radius	*Pipe Diameter*			
	10mm	15mm	22mm	28mm
with Cold Forming Bends	30mm	75mm	110mm	-
with Clips	100mm	175mm	225mm	300mm

BPB Min Radius	*Pipe Diameter*			
	10mm	15mm	22mm	28mm
with Cold Forming Bends	30mm	75mm	110mm	-
with Clips	80mm	120mm	176mm	-

For bends of radii smaller than those shown, standard elbow fittings are recommended.

PIPE SUPPORT AND CLIPPING

There are two types of pipe clip in the Speedfit Range.



Firstly, a nail clip is used for fixing to timber when running concealed pipe work i.e. underfloor or in a roof space . This clip takes less time to fit and is compact which allows pipework to be fixed close together when space is at a premium.



The second type uses a screw and therefore takes a little longer to fix. When pipes are required to cross over, it is possible to add a spacer to the clip. This will give room between the pipe and the wall to allow the pipes to cross over. If pipework needs to be insulated, using the spacer will give room for the lagging to be applied.

Pipe clips should not be fitted any closer than 60mm from the end of the fitting to allow for expansion. Pipes should always be adequately supported to prevent undue stress or side load on the fittings.

RECOMMENDED CLIP SPACING

For surface mounted pipes.

Pipe Diameter	*Clip Spacing*	
	Horizontal Run	*Vertical Run*
10 - 15mm	300mm	500mm
22mm	500mm	800mm
28mm	800mm	1,000mm

PIPE SIZING

For general guidance on pipework sizing, please refer to BS EN 806 and complimentary guidance form BS 8558, and BS EN 12828 or the Institute of Plumbing Engineering Services Design Guide. Speedfit Fittings are suitable for connection to pipe sizes within ± 0.1mm of nominal size.

The maximum heat carrying capacity and flow of Speedfit Pipe, based on 1.2m/s velocity and an 11°C temperature drop is shown in the table below.

Pipe size	*Max Capacity KW*	*Max Flow litres/sec*	*Headloss m/m pipe*
10mm	1.948	0.042	0.283
15mm	5.941	0.129	0.139
22mm	13.604	0.295	0.084
28mm	21.991	0.478	0.062

PIPEWORK INSULATION

The insulation requirements for Speedfit Pipe are the same as those for copper and should comply with BS EN 806 and complimentary guidance form BS 8558, and BS5422.

CONCEALED PIPEWORK

The flexibility of Speedfit Pipe gives it the ability to be threaded through concealed or inaccessible spaces without disruption to surrounding structures, making major savings in installation time.

Pipework can be “cabled” through drilled holes in joists and rafters. Therefore, pipework can be installed after floorboards have been laid, working below the floor before the ceiling is installed.

This makes site work far safer as the installer does not have to balance on open joists with the risk of dropping tools or equipment on other people below.

This will also eliminate the risk of damage by floorboard nails. There is no need for dry runs since pipe can be cut and connections made in-situ.

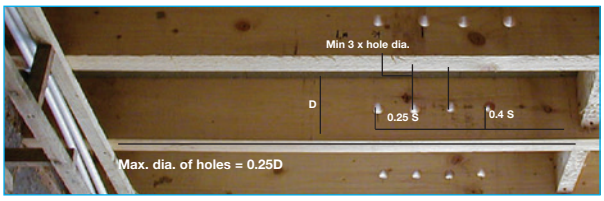
Rigid pipe, such as copper, can only be fed under floor in short lengths. However, Speedfit Pipe, being flexible, can run from one fitting to another without having to install a connector in between.

Speedfit needs no jointing materials, eliminating the risk of fire from the use of a blowlamp, solder and flux.

TRADITIONAL JOISTS

Instructions on the drilling of joists is given in the Building Regulations Approved Document A, and summarised as follows:

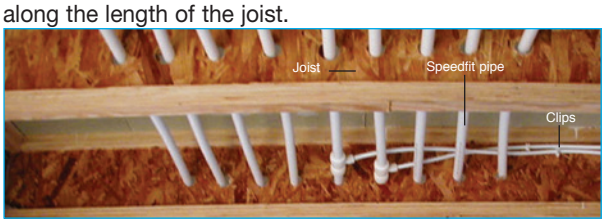
1. Holes should be no greater than 0.25 of the depth of the joist.
2. Holes should be drilled at the neutral axis.
3. Holes should not be less than 3 diameters (centre to centre) apart.
4. Holes should be located between 0.25 and 0.4 times the span from the support.



TIMBER I BEAM JOISTS

Several types of joists are available and Speedfit recommends that specific manufacturers details are consulted. However, the following can be used for general guidance.

- Holes may be located vertically anywhere in the web, but leave 3mm web at the top and/or bottom of hole. Do not cut into joist flanges when cutting the web.
- If more than one hole is to be cut in the web, the distance between the edges of the holes must be at least 2x diameter of the largest hole.
- Generally joists are manufactured with 38mm perforated knockouts in the web at approximately 300mm centres along the length of the joist.



CROSS WEB JOISTS

Unlike I beam joists, pipe can be cabled anywhere within the open Web as no drilling is required. However, the top and bottom flanges must not be notched. Avoid damaging the outside diameter of the pipe as you cable through the metal cross web members.



TIMBER FRAMED CONSTRUCTION

Speedfit is well suited for timber frame construction. Ensure that the structural integrity is not compromised when installing the pipework. If the pipe passes through an external wall, care must be taken not to damage the vapour barrier and should be installed on the inside of the thermal insulation layer.

If this is not possible, the use of conduit should be specified at the design stage.

STEEL FRAMED CONSTRUCTION

Speedfit is well suited for steel frame construction and care should be taken when installing the pipework. All runs should be installed through preformed holes in the structure and protected by a rubber or plastic grommet.

Where clipping of pipework is restricted, cable ties may be used to secure the pipe. As with all installations, make sure that any pipework passing through walls and floors does not affect the fire resistant properties of the structure.

DRY LINED WALLS

Speedfit Pipework can be easily cabled through studwork and within wall systems as well as behind “dot and dab” plasterboard installations. Speedfit 10mm Barrier Pipe is most commonly used to feed radiators. If incorporating fittings in this way, collet covers or collet clips must be used with the **Standard** Range of Fittings.

WET PLASTER

To prevent surface damage to the plaster caused by expansion and contraction of Speedfit Pipes, it is important to ensure that all Speedfit Pipework is channelled into the wall and protected with appropriate sleeving. Alternatively, the pipework can be surface mounted and boxed in if required for aesthetic appearance.

LAYING OF PIPE IN CONCRETE AND MASONRY

Speedfit Pipe and Fittings can be laid in concrete and masonry providing they are installed in conduit pipe with access boxes for the fittings. As stated in Water Regulation Schedule 2.7 and BS 8000 : Part 15, fittings and pipe should be removable for possible replacement. Insulation is also recommended to protect against heat loss and the effects of frost. Speedfit Conduit Pipe is in either 15mm or 22mm in coil lengths of 25m or 50m. The flexible convoluted pipe has an outside diameter of 24mm and 30mm.



EXPOSED PIPEWORK

On long exposed runs of pipework, the expansion of Speedfit Pipe when warm (1% on length between 20 to 82°C) can cause it to sag between clip fixings. When this is undesirable, pipework can be boxed in or replaced with rigid copper pipe.

Speedfit Pipe and Fittings are stabilised to withstand limited exposure to ultra-violet radiation in sunlight but are not designed for permanent direct exposure. Under such conditions painting or lagging is required. Pipe and fittings should also be lagged to prevent frost damage.

CHEMICAL EFFECTS

Only water or oil based paints should be used. Do not allow Speedfit fittings to come into contact with jointing compounds, cellulose based paints, paint thinners or strippers, solder flux, acid based descalents or aggressive cleaning products including those below pH4, high in hypochlorite (e.g. bleach) or containing hydrogen peroxide. (See the DISINFECTION OF HOT AND COLD WATER SYSTEMS section of the installation advice for specifically permitted disinfection procedures).

If there is a risk of any chemical treatments coming into contact with Speedfit, please contact the Technical Advisory Service first to check compatibility.

FLUXES AND SPEEDFIT

JG Speedfit does not recommend that fluxes of any type come into contact with our pipe and fittings. However, if fluxes are to be used in an environment where Speedfit is installed then we recommend installers use non-acidic and zinc chloride free fluxes such as Fernox Flux.

ACOUSTIC

Properly installed, Speedfit Pipes are virtually silent in operation and do not resonate; they absorb the acoustic vibrations and pressure waves created by cavitations, water hammer, float operated valve oscillation and other hydraulic effects. The inherent flexibility of Speedfit Pipe effectively eliminates these troublesome problems, including those that occur when, due to thermal expansion, metal pipes rub against structural members and where long, straight runs of rigid pipe amplify water borne noise.

PROTECTION AGAINST RODENTS

When used in locations vulnerable to rodent attack, all plastic pipes and fittings should be adequately protected within sealed ducts. Speedfit Products along with other materials such as electrical cables may be damaged if rodents are present. If vermin infestation is suspected then a rodent exterminator should take appropriate action.

BIOLOGICAL

No taste, colour, odour or toxicity is imparted to water by Speedfit Components, nor do they promote microbiological growth. In accordance with BS7291 Part 1 requirements, the opacity of both pipes and fittings allows insufficient light to pass for the growth of algae. Tests within the Water Regulations Advisory Scheme, have approved Speedfit Pipe and Fittings to BS 6920 for water quality.

SYSTEM TESTING

On completion of the plumbing and heating system it is essential that system checking and a hydraulic wet test takes place. Connections to boilers, radiators and sanitary ware should first be capped or plugged. Testing Should be carried out at 2 bar for 10 minutes followed by 10 bar for 10 minutes. This testing combined with other relevant checks, should reveal most system problems. Any components within the system not designed to take these pressures should be disconnected.



Before carrying out a pressure test ensure all Speedfit Pipe and fittings are installed correctly. Speedfit Barrier Pipe is printed with insertion marks to help ensure full insertion has been achieved.

Remember pressure testing is NOT a substitute for making sure fittings are clean and free of any grit, dirt or swarf and the pipe is correctly inserted (see Making a Good Connection).

SYSTEM COMMISSIONING AND FLUSHING

With existing systems, flushing prior to the use of Speedfit is essential to remove any harmful contamination or chemical residues from elsewhere in the system.

For the installation of central heating systems flushing procedures must be in line with BS7593 code of practice for treatment of water in domestic hot water heating systems. Flux residues used in the soldering of capillary fittings are very corrosive. Dirt and grit, which can enter the system when Speedfit Pipe is being pushed through underfloor or across a roof space, must be removed.

During the commissioning of a heating system, all air must be removed from the system before the boiler is allowed to fire. This will ensure pockets of air do not cause localized overheating within the system as this could have a detrimental affect on the pipework and boiler. For further advice on chemical flushing agents and inhibitor treatments, the following manufacturers should be contacted: Fernox Manufacturing Ltd, 0330 100 7750 or Sentinel BetzDearborn Ltd, 0151 424 5351 or Adey Innovations LLP on 01242 546717.

DISINFECTION OF HOT AND COLD WATER SYSTEMS

Speedfit can be disinfected with chlorine (sodium hypochlorite) after installation. Domestic systems are disinfected with a solution of chlorine with a concentration of 50ppm (mg/l) for one hour. The concentration should not be less that 30ppm at all draw off points after this time.

Other disinfection methods and chemicals (e.g. ozone and hydrogen peroxide) are now in common use. Only those specifically recommended as suitable for contact with plastic plumbing systems and, where necessary, employing specialist contractors may be used with Speedfit.

Disinfection solutions must only come into contact with the internal (wet) surfaces of the system. If any normally dry surfaces of a Speedfit fitting come into contact with disinfection solution the whole fitting must be replaced immediately. The disinfection solution must be immediately flushed out at all draw off points with fresh, wholesome water at the end of the disinfection period.

The solution must not be left in the system.

TECHNICAL ADVISORY SERVICE

The JG Speedfit Technical Advisory Service is available to assist and advise on all aspects of using the Speedfit system. The service is available between 8.00am and 5.00pm, Monday to Friday on Telephone No. 01895 425333 and Fax No. 01895 425350. Products within this Product Guide are designed for use within UK plumbing and heating installations or in other countries where similar installation requirements apply. For information on products suitable for use in other countries please consult our Technical Advisory Service.

We take pride in the quality of our products and all complaints are investigated thoroughly. If you have a problem with a Speedfit Product please return both fitting and pipe to us for investigation. We will need at least 50mm of pipe to ensure an accurate analysis. If there is a suspicion that the pipe is faulty, please provide marking details from the pipe.

METAL FOIL TAPE

JG Speedfit aluminium Foil Tape can be used to fulfil the NHBC requirements for the identification of location of plastic pipes in or behind a wall surface by a metal detector. It features a bright aluminium finish, rubber/resin high-tack adhesive and quality siliconised backing paper to allow the easy handling of short, cut lengths.

DO NOT stick the tape to the Speedfit pipe or fittings or those of any other manufacturer.

COMMON PROBLEMS AND IDENTIFICATION

Problem : Burst or melted pipe.

Pipe will be distorted showing either a 'Parrot beak' look or a long opening with the edges of the pipe melted in a wave shape.

Identification : A 'Parrot beak' will have been formed by the pipe bursting due to the water freezing. If the Pipe has a melted appearance it will have been subject to a temperature in excess of 128°C. This will have been caused by direct contact with a heat source such as a blowtorch or flue pipe or by water or steam within the system rising above safety levels.

Problem : A fitting or part of a fitting dissolved - the fitting may have blown off the pipe and may have missing component parts.

Identification : The fitting will have failed because of a chemical attack. The most common attack is from acid based solder flux running down into the fitting during soldering of a nearby copper fitting or flux coming into contact with the fitting in some other way.

Problem : Weep from fitting.

Identification : The pipe has not been fully inserted up to the pipe stop or one or both of the 'O' rings have been damaged by burrs or sharp edges on the end of pipe. See 'What Not to Do' on page 04.

Problem : The fitting has blown off the pipe. Fitting is missing the collet, the pipe insert is still inside the fitting after the pipe has come out.

Identification : If this happens on first fix, the most likely reason is that the pipe has not been fully inserted into the fitting, up to the pipe stop, and the system has not been pressure tested.

If the collet (gripping device) is missing everything will blow out. If the collet is there and the pipe support is still inside the connector but the pipe has still blown out, this means that full insertion had not been accomplished.

Speedfit®
UNDERFLOOR

UNDERFLOOR HEATING

The Speedfit Underfloor Heating System has been designed to be quick and easy to install with components designed and manufactured to ISO9001 and DIN4726.

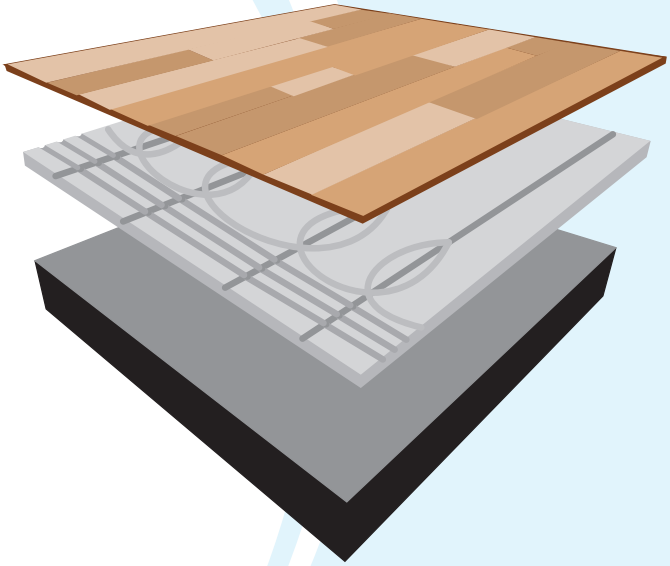
The Speedfit System has hot water pumped from a boiler to a pump pack, where it is mixed to approximately 50˚C then distributed via a manifold to heating circuits made using Speedfit Barrier Pipe.

In concrete floors, the pipe is laid on insulation and then covered with a screed on which can be laid almost any type of floor covering.

For timber floor, spreader plates are laid between the joists and the floor decking or on the underside of the floor. Speedfit Pipe is pushed into the grooves on the plates.

The floor area is typically warmed to between 25˚C and 28˚C, providing an even distribution of heat at only slightly higher than room temperature.

A wide range of electrical components means The System can have as much or as little control as required.



TECHNICAL CHECKLIST

The Technical Checklist for Underfloor Heating Products is on page 39.

SPEEDFIT SUPPORT

JG Speedfit Underfloor offers a range of products to ensure that a wide variety of project types and sizes can be catered for. All pipe connections are made with a Speedfit push-in connection and the new JG Layflat pipe system has made fixing plastic pipe a far easier experience.

Speedfit Support's national team of technical engineers is available to help you get the best from your Speedfit System, be it assistance or advice.

Their service includes a free underfloor heating estimate, onsite installation advice, a technical helpline and a free CAD design service.

Technical Help Desk: 01895 425333
8am to 5pm Monday through Friday

Speedfit Support

With you every step of the way

Instant Estimate

Free Design With Quote

Support On your Doorstep

Technical Helpline

Install Videos & Guides