Technical Checklist
Plumbing and Heating Fittings

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

- **Sizes** 10mm to 28mm diameter.

- **Pipes** Speedfit fittings can be used with:

  Copper pipe to BS EN 1057

  Speedfit cross-linked polyethylene (PEX) Barrier Pipe to BS7291.

  Speedfit fittings cannot be used on stainless steel pipe.

- **Standards** Speedfit products are designed and manufactured under a fully integrated system assessed by B.S.I. to BS EN ISO9001. They are approved by the WRAS and BBA. Speedfit PEM and PKM Fittings and Speedfit Barrier Pipe are kitemarked to BS7291 Part 1 and 3, Class S. (Licence No KM39767).

- **Applications**

  Mains fed and indirect cold water systems

  Vented and unvented hot water systems

  Vented and sealed central heating systems

- **DO NOT USE FOR Gas, fuel oil or compressed air applications.**

- **Working temperatures and pressures**

Central Heating	3.0 bar at 92°C
Hot Water	6.0 bar at 65°C
Cold Water	12.0 bar at 20°C

- **Burst Pressure** (fittings) With copper or plastic pipe at 20°C: Speedfit fittings used with copper or Speedfit (PEX) barrier and non barrier pipe will withstand pressures well in excess of normal working conditions.

- **High temperatures** Can withstand 114°C intermittently for short periods. The Speedfit System should not be used on an uncontrolled heat source.

- **Insulation** Should comply with BS6700 and BS5422, as for copper.

- **Minimum bend radii (PEX)**

Pipe diameter	10mm	15mm	22mm	28mm
Min radius with clips	100mm	175mm	225mm	300mm
Min radius with cold forming bend	-	75mm	110mm	-

- **Clip spacing** (in mm)

Pipe diameter	Clip Spacing	
	Horizontal Run	Vertical Run
10 – 15mm	300mm	500mm
22mm	500mm	800mm
28mm	800mm	1,000mm

- **Expansion** (PEX pipe) 1% on length between 20°C and 82°C.

- **Flow rates.** Comparable with metal systems.

- **Cleaners, inhibitors and descalents.** For advice on the replenishment of additives such as corrosion inhibitors, the following manufacturers should be contacted: Fernox Manufacturing Limited on 01799 550811 or Sentinel, BetzDearborn Limited on 0151 420 9595.

- **Paint and Chemicals.** Use only water or oil based paint. Collet covers prevent paint ingress into fittings. ***DO NOT ALLOW CONTACT WITH*** cellulose based paints, paint thinners or strippers, solder flux or acid-based descalents or aggressive cleaning products.

- **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.

- **Metal Joists** When 'cabling' plastic pipe through metal joists ensure rubber grommets are in place to prevent damage to pipe. Use of collet covers or collet clips on fittings recommended.

- **Connection To Boilers** A minimum 350mm run of copper pipe must be installed between the boiler and the Speedfit system, as per BS5955: Part 8.

- **Connection to copper pipe** 450mm is the minimum distance to make a solder connection on copper pipe inserted into a Speedfit fitting. Ensure that any residual flux solder does not come into contact with the fitting.

- **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. This is to enable the pipe to expand and provide accessibility for both pipe and fitting. As stated in Water Regulation Scheme 2.8 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.

- **Electrical Continuity** If Speedfit is used in an existing metal system which may have been used for earthing, electrical continuity should be reinstated.

- **Valves And Taps** All 15mm and 22mm valves and taps available from JG Speedfit Ltd are not suitable for central heating installations.

- **Collet covers and collet clips** provide added security against pipe disconnection, eg the fittings coming into contact with rigid surfaces and behind dry-lining walls. Collet covers for use with standard fittings are available in white or in red and blue to allow for colour coding.

  Collet clips are available in white for use with standard fittings. They are also offered in red or blue to provide colour coding of Pipe on Twist and Lock fittings.

- **System Testing. To ensure the pipework 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 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 "How to Make a 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.

- **British Gas Service has accepted the John Guest Speedfit fittings as being suitable for open vented and sealed central heating systems and as eligible for acceptance onto its service contracts.**

- **Maximum Torque Figures.** The maximum torque figures for BSP and BSPT threads on Speedfit plumbing products in mating threads conforming to relevant British or International thread standards.

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

It is recommended that all installations are checked prior to use to determine that a seal has been made.