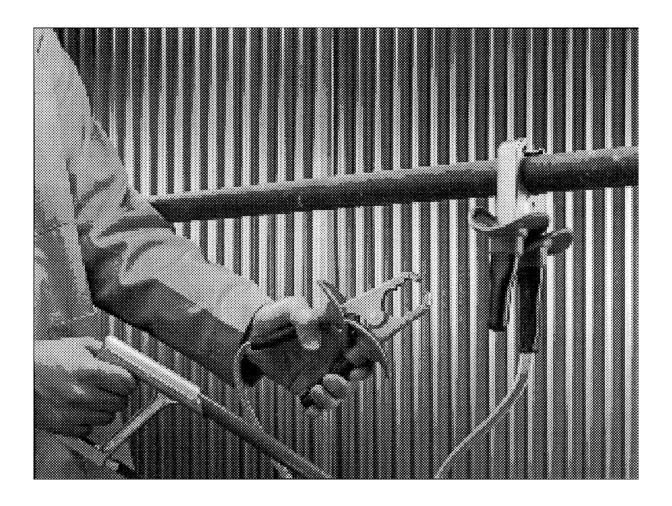
Temporary Continuity Connectors (Temporary Earth Safety Loops)

# SAFETY EQUIPMENT



During installation, maintenance or repair work on any metal water pipes likely to carry extraneous electrical current, it is necessary under health and safety at work legislation to afford protection against electric shock to personnel. The Sicame range of temporary continuity connectors is designed to meet the basic requirements for cross bonding pipe diameters or combinations of diameters within the normal service range.

The following pages detail the standard range available. If however these do not meet your requirements specials can be manufactured to customers specifications on request. Please contact our sales department for further information.

**Temporary Continuity** Connectors (Temporary Earth Safety Loops)

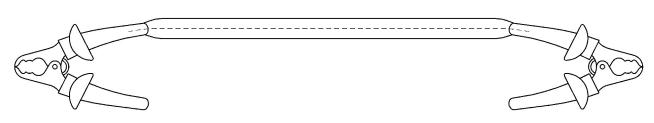
# **SAFETY EQUIPMENT**

#### TCC/W & TCC/SW Connectors

#### TCC/W



### TCC/SW



Suitable for all metal pipes up to 45mm diameter. Span 4 metres.

**TCC/W** consists of two heavy duty, plated steel, spring loaded clamps with insulated grips, joined by 4 metres of insulated flexible tinned copper braid of 11mm<sup>2</sup> C.S.A. (or 22mm<sup>2</sup> as specified in code of practice on Electrical Earthing Nov 1991, Part No. TCC/W/22).

A 4 metre flexible bond has been used so that it can easily be lead away from the immediate area of work on a pipe, and where possible laid outside the excavation. Longer or shorter versions can be produced to meet customers own requirements.

TCC/SW is identical in specification and application to TCC/W, but is fitted with additional insulation in the form of a protective hilt intended to prevent physical contact with the bare metal of the clamp jaws. It is designed in accordance with the safety requirements of the Scottish Association of Directors of Water and Sewage Services (SADWSS).

### **Fitting Instructions:**

The clamps are placed on the pipe at either side of the existing or intended break in continuity, wherever possible beyond the outermost union or elbow fitting where already fitted, and a satisfactory electrical connection may be made by moving the closed clamp around the pipe until the serrations in the jaws provide a bright metal contact, exercising care where lead pipe is concerned. The connector is suitable for bonding together pipes of different diameters within the stated range.

In clamping to 15mm (1/2") pipe, the profile across the end of the jaw is used, the clamps being attached at an angle to the line of the pipe.

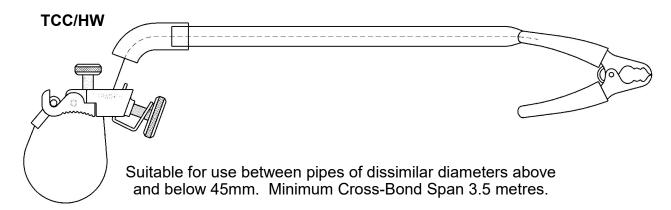
**Temporary Continuity** Connectors (Temporary Earth Safety Loops)

# **SAFETY EQUIPMENT**

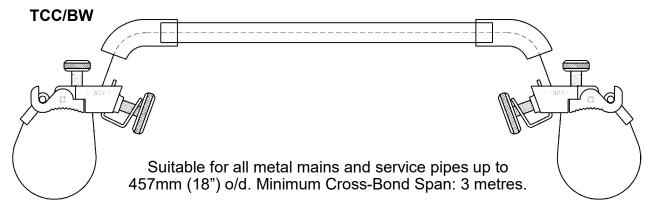
#### TCC/W & TCC/SW Connectors

### **Principle Application:**

TCC/HW Is a hybrid device designed to bond between pipes of widely dissimilar diameters beyond the range of TCC/W or TCC/SW e.g. where a small service pipe up to 45mm (1 3/4") is taken via a ferrule from a larger pipe in excess of 45mm, up to 457mm (18") o/d.



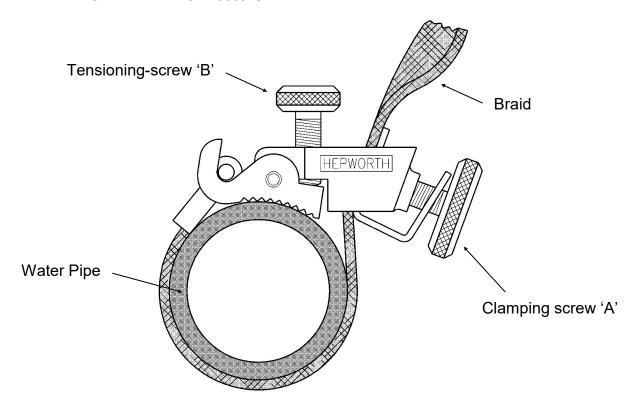
It consists of a TCC/W-type spring loaded clamp at one end connected by a tinned copper braid of 11mm<sup>2</sup> C.S.A. (or 22mm<sup>2</sup> as specified in "Code of Practice on Electrical Earthing Nov 1991"), length o/a 5 metres, to an infinitely adjustable clamping arrangement. Electrical contact is established by means of a circumferential wrap around the pipe, the braid being tensioned by the specially designed clamp. The braid has a clear polythene primary insulation fixed at the spring loaded clamp end, and a sliding, adjustable length of secondary insulation sleeve at the adjustable clamp end to give protection on exposed braid up to the clamping point on the pipe.



TCC/BW consists of a tinned copper braid of 11mm<sup>2</sup> C.S.A. (or 22mm<sup>2</sup> as specified in "Code of Practice on Electrical Earthing Nov 1991"), length o/a 6 metres, with a infinitely adjustable clamping arrangement at each end to accommodate pipes of up to and including 457mm (18") outside diameter. Electrical contact is established by means of a circumferential wrap around the pipe, the braid being tensioned by a clamp specially designed for this purpose.

# **SAFETY EQUIPMENT**

#### TCC/HW & TCC/BW Connectors



## **Fitting Instructions:**

The clamp is attached by passing the free end of exposed braid around the pipe, engaging the transverse retaining pin in the claw, pulling the braid tight around the pipe and securing by means of clamping screw 'A'. Intimate contact under tension is established by tightening tensioning screw 'B' across the clamp hinge. It is essential that the braid around the pipe is in contact with bare metal, dirt and protective coatings must be removed using wire brushes, files, or other suitable tools. As a final step, the sliding sleeve is pushed up to the clamping position at each end.

### Important:

Observe any local safety procedures. Remember that you may be working in the presence of an electrical current of unknown magnitude.

The temporary continuity connector must be attached, and a satisfactory electrical contact established, before the pipe is cut. Additional precautions are necessary when carrying out repairs on accidentally separated pipes.

Where TCC/HW is to be used across a previously completely separated joint, the connector should be secured to the larger pipe before contact is established on the smaller pipe by means of the insulated spring-loaded clamp. Removal should be a reverse of this procedure.

