Unit 113: Plumbing, heating and ventilation

# Worksheet 2: Copper jointing – compression and push fittings (tutor)

Complete the following tasks as directed by your tutor:

1. According to BSEN 1057, what are the grades of copper pipe available for use within the BSE industry?

R220

R250

R290

1. Copper pipe can be factory sheathed for protection. Identify the colours of the pipework below to suit its application:

Wholesome water

Water (other)

Gas

Central heating

1. Identify the fittings:

|  |  |  |
| --- | --- | --- |
|  | **Image** | **Description** |
| A | A picture containing ware, light, engine  Description automatically generated | Compression elbow |
| B | [http://s7g3.scene7.com/is/image/ae235/?wid=100&hei=100&op_sharpen=1&layer=0&size=100,100&layer=1&size=100,100&src=ae235/93076_P](http://www.screwfix.com/p/conex-push-fit-090-90-elbow-28mm/93076) | Push-fit elbow - brass |
| C | A picture containing white  Description automatically generated | Plastic push-fit reducer |
| D | [http://s7g3.scene7.com/is/image/ae235/?wid=100&hei=100&op_sharpen=1&layer=0&size=100,100&layer=1&size=100,100&src=ae235/27112_P](http://www.screwfix.com/p/yorkshire-tectite-sprint-straight-coupling-15mm-pack-of-10/27112) | Push-fit coupling / socket - copper |
| E |  | Compression cap end |
| F |  | Compression reducer |
| G | A picture containing engine, light  Description automatically generated | Compression socket / coupling |
| H |  | Compression equal tee |

A close up of an object

Description automatically generated

1. Copper pipe is available in in various sizes. Complete the table below to indicate the sizes for the range of pipe by using the available diameters:

|  |  |
| --- | --- |
| **Range of pipe** | **Diameter(s)** |
| Microbore | 6-10mm |
| Small bore | 12-22mm |
| Large bore | 28mm plus |

42mm

35mm

28mm

22mm

12mm

10mm

8mm

6mm

159mm

133mm

108mm

76.1mm

66.7mm

54mm

1. Explain the difference between a Type A and Type B compression joint:

Type B Manipulative fittings require the end of the pipe to be manipulated using a swaging tool, whereas Type A non-manipulative do not, they use an olive instead.