

Hose Clamps - Worm Drive

'Jubilee Clip'[®]

Construction is per the diagram. This is a common construction available from many different manufacturers. The most popular brand is a 'Jubilee[®] clip'.

Its general use is for clamping flexible hoses on to fixtures attached for supplying liquids or gases to a tool or process. This type of clamp is used widely to secure hoses supplying compressed air to hand-held tools.

NOTE: There are no legal provisions which restrict or prohibit the use of such a clamping device.

The use of such clamps requires some skill to ensure that the joint made is sufficiently tight to provide a secure fitting once under pressure, but not too loose to cause slippage under pressure.

Tightening procedures should follow the manufacturer's recommendations.

Over-tightening can cause damage to the hose and consequent danger to the operator or other personnel. This is important where hand-held tools are used.

Due to the ease with which this type of clamp may be adjusted, it is open to tampering.

Worm drive hose clamps are covered by a British Standard BS 5315:

Specification for hose clamps (worm drive type) for general purpose use (metric series)

The standard identifies a list of designated widths for the bands that form the body of the worm drive clip.

The standard identifies;

- the torque to be applied during the test
- the hydraulic test pressure to be applied

The test pressure to be applied depends on the outside diameter of the clip to be tested.

Size o.d. (mm)	Pressure - bar (psi)
12 to 30 inclusive	14 (203)
35 to 70 inclusive	7 (102)
80 to 140 inclusive	3 (44)

NOTE: When purchasing a worm drive clip ensure that if it indicates compliance with BS 5315 that it is for **pressure acceptance** (as in the table above) and **not just for the width of the bands**.

As with all types of hose clamps, regular maintenance should be undertaken which could include instructions to the operator to visually check any clamped fitting. If this visual check results in a cause for concern, then details should be reported to a responsible person.

