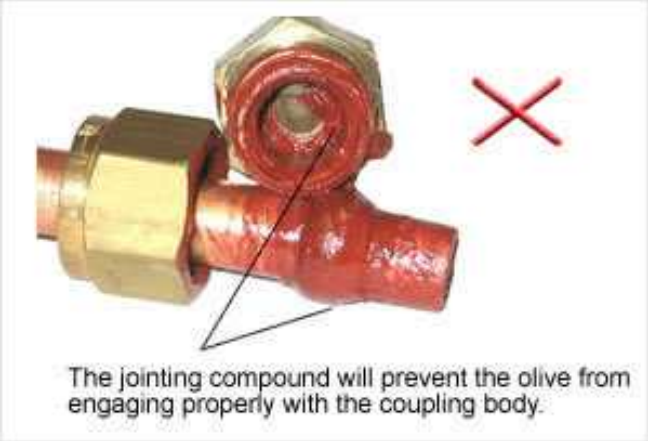
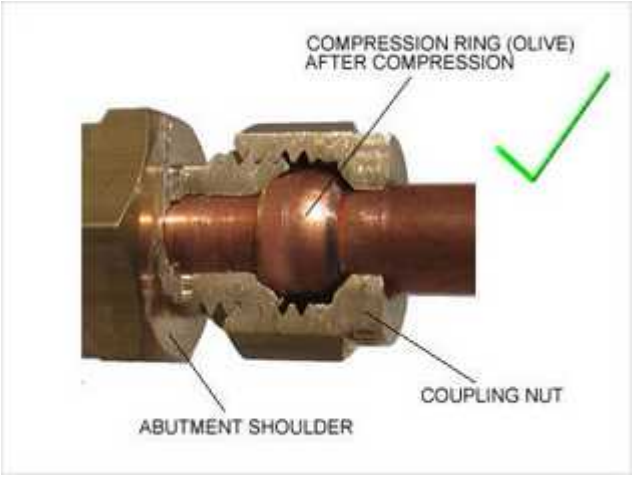
Gas Compression Fitting

A compression fitting is the most commonly used joint when fitting out a boat gas system. They use an olive which is compressed to make the gas tight joint. If assembled correctly, ensure a perfect seal, which can be dismantled and re made. The addition of jointing compound, to ensure a seal, is totally unnecessary.

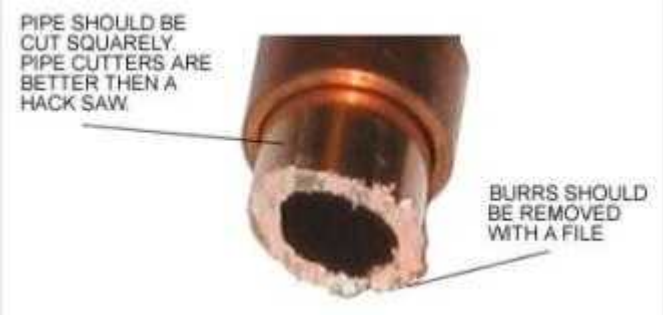


Indeed, applying a sealant could give a false impression of sealing the joint when the compression nuts may be only hand tight; also the jointing compound will prevent the olive from engaging properly with the coupling body. The resultant shrinkage of the sealant would lead to a gas leak.

When making compression joints, Calor recommends the use of soft copper olives . These olives are easier to compress and therefore easier to produce a good seal. Brass olives, which are harder, become brittle in use and the joint can leak or fail at the point where the brass olive engages the coupling body.



No special preparation of the tube is necessary when assembling a compression joint other than that the copper pipe is cut square and is free from burrs.



The coupling nut is slipped over the pipe followed by the copper olive. Then the pipe should be inserted into the body of the coupling ensuring that the pipe is seated firmly against the abutment shoulder. Care should be taken that the pipe does not enter the compression fitting at an angle.

The coupling nut should then be tighten up by hand.
The coupling nut should then be further tightened using a spanner.
Experience will tell you when the perfect compression joint is made. The number of turns varies according to the diameter of the pipe, but as a guide ¼" 5/16" & 3/8" sized pipe will require 1 1/2 complete turns, for ½" pipe 1 1/4 turns is usually sufficient.

Ensure that the pipe is straight at the point of entry into the coupling body and that the axis of the pipe and body are aligned. If the pipe has to be bent, ensure that this is carried out prior to assembly of the coupling components. Do not bend the pipe after the joint has been made, as this will cause side loading which can be detrimental to the performance of the joint.