

# TESTING

## JWpress System: Testing Instruction for fittings with integral leak detection

### Pressure Testing

JWpress and most local inspection authorities recommend/ or require leak testing when installing copper press fittings systems. To assist in making that testing more reliable, JWpress has engineered a unique patented o-ring design, with integral and continuous leak paths. The following procedures allow installers to detect “un-pressed” fittings in a system under pressure and prior to concealment. Our unique o-ring allows both gasses and approved use fluids to bypass the o-ring and leak in a manner which makes detection easy and allows for timely correction. When JWpress copper press fittings have been pressed correctly, the leak path fully seals and provides a positive seal across the face of the fitting.

### Air Testing

When the system, or a portion of the system is installed and isolated, pressurize to 20 psi using dry clean air, carbon dioxide or nitrogen charge.

The system should stabilize over the next several hours (2-3 hours recommended) and the pressure should be checked to see what the reading is at that point.

If the pressure has dropped, as is often the case, add more pressure to bring the system back up to the 20 pound desired initial test level. Bleed off excess pressure.

We recommend the use of a set point test gage when testing. Set point gages register the desired test point and give greater visibility of any system leakage.

Test gages can be installed in line with either a PXPxFPT Tee, or at the end or terminus of the section being tested.

Allow another 2-3 hours for complete system stabilization. If upon inspection the system pressure has dropped below the 20 psi test level, there is likely a leaking fitting. This design leak is easily tested and identified either by use of commercial leak locator fluid or with a solution of soap and water which will form identifying bubbles at the leak point. Un-pressed joints should be checked to make sure they are socketed correctly and then pressed. A fitting that appears to be pressed, detectable by the mild deformity to the immediately adjacent tube, should not be re-pressed but removed from the system. The most common failure of any manufactured press fitting is dislodgement of the o-ring when inserting the tube, often caused by failure to remove and deburr the pipe as required. Any such fitting should be removed in its entirety, and sent back to your wholesale distributor to be processed and evaluated.

Once any un-pressed or otherwise leaking system has been tested and repaired, repeat the testing process until pressure of 20 psi is maintained for 24 hours, or for the duration of time specified by local plumbing authority guidelines.

## Water Testing

When the system, or a portion of the system is installed and isolated, pressurize to 50 psi maximum, using clean potable water.

The system should stabilize over the next several hours (2-3 hours recommended) and the pressure should be checked to see what the reading is at that point.

if the pressure has dropped, but there is no immediately detectable leakage, add more water pressure to bring the system back up to the 50 pound desired initial test level. Bleed off excess pressure. We recommend the use of a set point test gage when testing. Set point gages register the desired test point and give greater visibility of any system leakage. Test gages can be installed in line with either a PXPxFPT Tee, or at the end or terminus of the section being tested.

Allow another 2-3 hours for complete system stabilization. If upon inspection the system pressure has dropped below the 50 psi test level, there is likely a leaking fitting, which should be easily identified. Un-pressed joints should be checked to make sure they are socketed correctly and then pressed, as pressure could unseat them from being fully engaged. A fitting that appears to be pressed (identifiable by the mild deformation of the immediately adjacent tube, should not be re-pressed but removed from the system. The most common failure of any manufactured press fitting is dislodgement of the o-ring. when inserting the tube, often caused by failure to remove and deburr the pipe as required. Any such fitting should be removed in its entirety, and sent back to your wholesale distributor to be processed and evaluated.

Once any un-pressed or otherwise leaking system has been tested and repaired, repeat the testing process until pressure of 50 psi is maintained for 24 hours, or for the duration of time specified by local plumbing authority guidelines.

Once either testing procedure has been completed and verified, water pressures can be introduced and increased to the working pressure design of the system, as long as within the design.

