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EXPANSION PLUGS

Safety tips from an expert

Lance Anderson of Anderson Manufacturing Co. in St. Paul, Minn., a major manufacturer of expansion plugs for leak locating and winterizing, offers these safety suggestions when pressure testing for plumbing leaks:

- Never use tapered plugs for pressure testing.

Tapered plugs were originally designed for winterizing pools, where minimal pressure is required. They tend to pop out under the 15-20 pounds per square inch (psi) required for a leak test. Plugs that pop out waste time, ruin tests and put anyone in the area at risk of being hit by flying plugs. A plug made with straight-sided, solid rubber and large wing nuts will provide from 1 to 1½ inches of seal inside a pipe; a tapered plug provides only ¼ inch.

- Always use a plug of correct size.

A test plug should not have to be expanded excessively before being put in a hole. This reduces the sealing power of the plug and also creates unnecessary wear on the rubber sleeve. A helpful rule of thumb is never use a plug that is less than ⅛-inch smaller than the hole to be plugged (⅓-inch for holes sizes less than 1¼ inches).

- Never use worn or broken plugs.

Plugs should be conscientiously maintained to keep them in proper working order. A plug that is rusted cannot be expanded properly and may blow out under pressure. Worn rubber seals could cause the same problem or may result in leakage. Occasional oiling of the threads, replacement of the rubber seal and care when handling to avoid thread damage will result in years of trouble-free use. A plug made from non-corrosive materials should last for 2-5 years with proper maintenance.

- When possible, clean and dry the

hole before plugging.

This reduces the chance of leakage and a pop-out.

- Always use a properly calibrated pressure gauge.

Check gauges frequently to assure accurate operation. A leak should never require more than 20 psi of air pressure. When possible, liquid should be used, because it will not compress under pressure as much as gas does.


- Never pressurize a system from an unregulated air source.

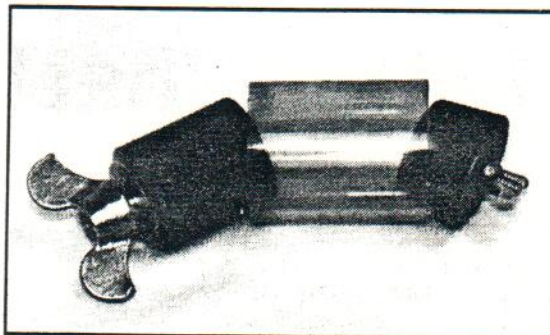
Unregulated CO₂ bottles are unacceptable!

- Always stand clear of plugs when a system is under pressure.

If the plug should pop out, it could cause severe injury.

- Always release back pressure from system before removing plugs.

Remember, safety should be your first priority. 



Heavy-duty test plug at left is designed to stay in place under the 15-20 psi required to pressure-test lines. Tapered plug at right is designed for winterizing pools, where minimal pressure is required, and would tend to pop out under pressures needed in order to perform a leak test.

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