



For Revised Lead and Copper Rule Corrosion Control Testing

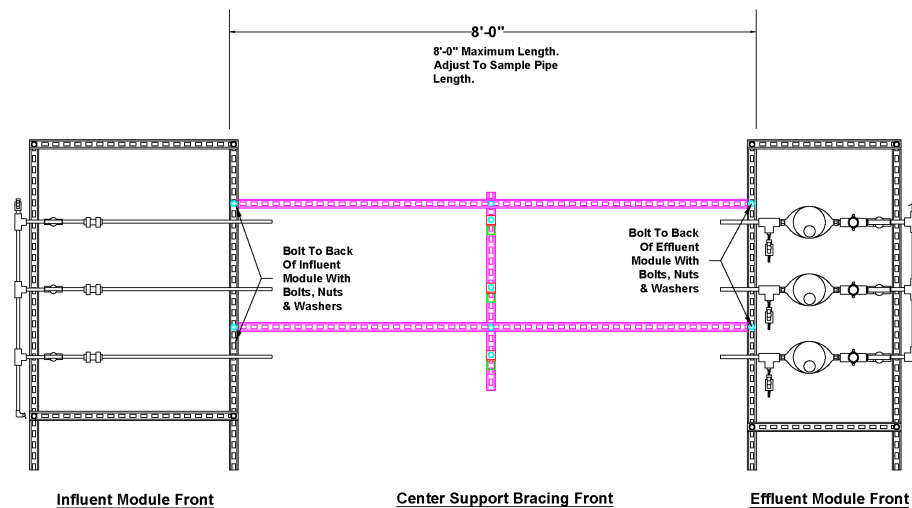
The PRS/RS Pipe Rig™



Influent Module



Effluent Module



Pipe Rig with Connecting Pipe Support

The Revised Lead and Copper Rule calls for comparison tests of corrosion control chemicals and dosages to select the proper corrosion control treatment for each water system.

A PRS/RS Pipe Rig™ is a pre-assembled apparatus for quick startup of chemical scenario testing programs. The user first connects the influent and effluent modules with PVC pipe. Then, service lines and other pipes can be harvested and installed directly into the operating pipe rig, replacing each PVC pipe one at a time. (New pipes, rather than harvested pipes, can also be installed. However, a PRS Monitoring Station® is a less expensive option if using new metal surfaces for testing.)

The pipe rig, when operated with harvested pipes from the distribution system, is approved by regulation for chemical scenario testing.

Specifications:

- Size
 - Influent module: 5'5" high x 4'0" wide x 3'0" deep.
 - Effluent module: 5'5.25" high x 2'4" wide x 2'10" deep.
 - Comes with an adjustable connecting pipe support. The length of the connecting test pipes varies by user selected test conditions. The pipe support frame can be adjusted between 4 to 8 feet in length.
 - One pipe rig is required per chemical scenario being tested.
 - Each pipe rig holds up to 3 pipes for testing under each chemical scenario. Replicate pipes are necessary because of the variability of metal release data from harvested pipes.
- Site Requirements
 - Indoor location with temperatures above freezing
 - Proximity to a tap nearby or directly tapped into a water main
 - A floor drain to a sanitary sewer
 - A 120V electrical outlet with ground fault interrupter (GFI) or GFI plugged into outlet
 - Secure location with access only to water utility personnel
 - Because of the size of the pipe rig with harvested pipes installed, they are typically located at water treatment plant buildings or well houses. However, any utility- or city-owned building that can accommodate the size can house the pipe rig.
- Operation Requirements
 - Water flow per test piece varies based on the inside diameter of the pipe that can be obtained from the distribution system. The goal is to achieve a water velocity of 1 to 2 fps. For a ¾" inside diameter pipe, the flowrate per test pipe would be 1.40 to 2.75 gpm.
 - Flow on and off per day based on user's choice of schedule. Total flow per day per test pipe is user's choice. Many past studies have used 210 gpd per test pipe.
 - 30 psig maximum; 10 psig minimum
- Miscellaneous Features
 - Couplings to connect the harvested pipes to the rig that can accommodate a range of outside pipe diameters are provided.
 - A backflow preventer is available. The size is based on purchaser's installation configuration.
 - Many operations and sampling options to be selected by the user have been built into the pipe rig configuration. For example, pipe test pieces can be sampled under system pressure or under atmospheric pressure.
 - The Station operates automatically using timer-controlled valves.
 - All sampling is manual and weekly visits to the Station are recommended.
 - Locking casters are installed on the influent and effluent modules for easy transport within a building.
 - A chemical dosing port and static mixer are installed in each pipe rig; for chemical dosing, purchase of a dosing kit complete with storage, pump, tubing, fittings, and calibration by-pass is available.
 - An operation manual and an initial training session are included in the cost of the pipe rig.
 - Other related educational materials are being developed.
 - Data analysis is available for a separate fee.



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