

**WAC 16-202-2013 What are the requirements for metering devices?**

Metering devices must be capable of being accurately calibrated. Metering devices must control the rate of product injection into irrigation water and discontinue product delivery when the predetermined application quantity has been dispensed. All metering systems must be functionally interlocked with the source irrigation pump or irrigation water distribution system.

(1) Injecting product with a pressurized metering pump.

(a) The metering pump must be of a positive displacement design.

(b) Water-powered injection pumps can only be used when no other power source is available to operate the injection unit.

(c) The metering pump must be interlocked to the irrigation system in the event of an irrigation system malfunction or failure.

(2) Injection into nonpressurized section of an irrigation system.

(a) Application rate may be accomplished with an adjustable valve, flow control device, or other metering mechanism.

(b) The metering device must also control application quantity by employing a slide metering device or by placing a predetermined quantity into a batch tank.

(3) Venturi system as a metering device.

(a) A venturi system may be used as a metering device, except where variable pressure may contribute to a variable injection rate.

(b) The chemical injection line must contain either a normally closed, solenoid-operated valve connected to the system interlock or a normally closed hydraulically operated valve that opens only when the main water line is adequately pressurized. The valve must be placed on the intake side of the injection pump, immediately adjacent to the application tank.

(c) The chemical injection line between the application tank and the venturi must contain an automatic, quick-closing check valve to prevent the flow of liquid back toward the application tank. The check valve must be placed immediately adjacent to the venturi chemical inlet.

(d) In bypass systems, the check valve may be installed immediately upstream of the venturi water inlet. Either the normally closed solenoid or hydraulically operated valve may be installed immediately downstream of the venturi water outlet.

(e) If a booster or auxiliary pump is used in conjunction with a venturi system, the normally closed solenoid must be electrically interlocked with the source pump for the irrigation system.

[Statutory Authority: Chapters 15.54, 15.58, 17.21, and 34.05 RCW. WSR 01-23-018, § 16-202-2013, filed 11/9/01, effective 11/9/01. Statutory Authority: Chapters 15.54, 15.58, and 17.21 RCW. WSR 01-13-063, § 16-202-2013, filed 6/18/01, effective 11/9/01.]