

SPECIFICATION SECTION XXX

PRODUCT: ONEFLOW® SCALE PREVENTION SYSTEM

1.0 GENERAL

Furnish a commercial scale prevention system as specified here in this section and as called for in the equipment schedule for the reduction of water hardness related scale formation. It shall be a non-electric zero discharge type system with no drain connection and no regeneration requirement. The scale prevention system shall be supplied complete, and assembled entirely by one manufacturer and certified to NSF/ANSI standard 372 for Lead Free compliance and to NSF/ANSI/CAN standard 61. System to include all components required for proper operation of the system. These components include mineral tank, scale prevention media, inlet and outlet connections/plumbing manifold, and internal distributor system. The system shall be a Watts OneFlow® Model # [].

2.0 RELATED SECTIONS XXX

3.0 COMPONENTS

3.1 Mineral Tank

The mineral tank shall be constructed of a polyethylene liner with a continuous roving outer fiberglass reinforced wrapping. The tank shall be Non-ASME code with a 150 psi maximum pressure rating, 120 deg. F (48 deg. C) maximum temperature rating, and certified to NSF/ANSI Standard 44 or 61. 14" diameter tanks and larger shall have a bottom base permanently installed with industrial grade adhesive. The tanks shall come with a 4" or 2.5" top threaded port for loading media and connection of the plumbing manifolds. The tank shall be designed with a safety factor of 4:1 for minimum burst pressure.

3.2 Scale Prevention Media

The scale prevention media shall convert dissolved bicarbonate related water hardness into inactive non-scale forming nano-crystals. The media shall operate in an upflow flow mode and shall not require backwashing or chemicals for regeneration. The media shall be certified to NSF/ANSI/CAN standard 61 and NSF/ANSI standard 372.

3.3 Internal Distributor System

The internal distributor system shall come already installed in the scale prevention system's mineral tank. There shall be one upper distributor and one lower distributor screen to ensure that the media cannot be washed out of the tank regardless of flow direction. The screens of the internal distribution system shall be a slotted screen type diffuser. The slots shall be sized to not allow the scale prevention media to pass through and become present in the systems effluent water. The lower distributor shall be equipped with a downward pointing shroud to direct water to the bottom most portion of the media bed before it travels upward through the media. For systems 10" diameter and smaller, the internal distribution screens shall be made of abrasion resistant 20% glass filled polypropylene. For systems 12" in diameter and larger the screens shall be constructed of PVC.

3.3 Plumbing Manifold

The system shall include a plumbing manifold on top of the mineral tank to allow for the connection of the inlet and outlet plumbing.

4.0 SERVICES

4.1 Warranty

The Contractor providing the equipment shall provide a 1 year parts and labor warranty for the system to protect against manufacturers defects. The scale prevention media shall be warranted for a period of 2 years, from date of installation, for performance. The system shall not be subjected to water temperatures above 100 deg. F (38 deg. C) or below 40 deg. F. (5 deg. C) nor shall it be subjected to pressure exceeding 100 psi. During operation the feed water pressure must not fall below 15 psi. Appropriately sized flex connectors and vacuum breakers shall be used on all commercial installations as required by the installation instructions. The media shall not be subjected to iron levels greater than .3 ppm, manganese greater than .05 ppm, total phosphates greater than 3 ppm, copper greater than 1.3 ppm, pH below 6.5 or higher than 8.5, free chlorine greater than 2 ppm, and any oil or grease.

4.2 Start Up

The Contractor providing the equipment shall provide start up of the scale prevention system and perform operator training for the owner upon completion of start up.