



## Specification

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### Steam Distribution and Condensate Collection Manifolds

Category: Steam and Condensate

Type: Steam Distribution Manifold Assemblies

#### Part 1 - General

##### 1.1. Description

- 1.1.1. Steam distribution manifold assemblies centralize steam supply valves in a singular location while supplying steam to multiple steam users.
- 1.1.2. Condensate collection assemblies collect condensate from various steam users and drainage points from steam mains.
- 1.1.3. All steam supply and condensate return manifolds shall be the vertical type and installed at grade to conserve space whenever possible.

##### 1.2. Submittals

- 1.2.1. Armstrong manifold literature: full item description and optional features and accessories. estimated dimensions, materials, and model numbers shall also be included.
- 1.2.2. Armstrong general assembly manifold drawings shall provide insight into dimensions, components, connection sizes and types, and all design and inspection details of drawn manifold.
- 1.2.3. Installation, operation, and maintenance instructions (IOM) include instruction for assembly, operating principle, and troubleshooting.

##### 1.3. Quality Assurance

- 1.3.1. Manifold weld procedures and welder to be qualified to ASME BPVC SEC IX.
- 1.3.2. Manifold assemblies shall be hydrotested at 1.5 times the design pressure.

#### Part 2 – Materials

##### 2.1. Manifold Body and Piping

- 2.1.1. Manifold body to be forged steel A105N/LF2 dual certified.
- 2.1.2. Manifold piping: ASTM A106 grade B, seamless, schedule 80; or ASTM A106 grade B, seamless, schedule 160.

##### 2.2. Flanges

- 2.2.1. Welding flanges: weld neck or socket weld, raised face ASME B16.5.

##### 2.3. Fittings

- 2.3.1. Thread or welded tees shall be class 3000 carbon steel ASTM A105 in accordance with ANSI B16.11.

## 2.4. **Valves**

2.4.1. Steam supply isolation valves to be piston-style with removable stainless steel, ASTM A182 F316, bonnets. Stems covered by the bonnet and handwheel to protect against corrosion. Material of handwheels shall be stainless steel. Threads shall be ACME Threads. The number of turns required to fully open or close the isolation valves, shall not exceed 5 turns.

2.4.2. Gate valves: ASTM A105 CL 800.