	Title: YALE OFFICE OF FACILITIES PROCEDURE MANUAL Chapter: 01 - Yale Design Standard Division: HVAC Standards	Section: 23 22 16 01 Steam Pressure Reducing Stations
		Date: 6/15/16
		Author: Office of Facilities
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## PART 1 - INTRODUCTION

### 1.1 PURPOSE

- A. This section is intended to define the general installation and minimum product requirements for Steam Traps for both Building and Utility Systems.

## PART 2 - GENERAL DESIGN REQUIREMENTS AND MINIMUM PRODUCT REQUIREMENTS


### 2.1 STEAM TRAPS

#### A. General

1. Locate steam trap stations at all low points and in no case more than 500 feet apart. It is preferred that steam traps be located 300 feet apart.
2. Refer to Detail for typical piping details for steam trap stations and drip legs.
3. Provide steam trap stations and dirt legs on both sides of isolation valves where there is a potential that steam could be back-fed from another source. There are many instances on campus where there are redundant feeds. If there is any question, ask Yale Utilities.
4. All steam traps shall be scheduled on drawings. Do not leave it up to the Contractor to select a steam trap.
5. All steam traps shall be numbered in a manner as designated by Yale Utilities for record keeping purposes associated with maintenance. The designation shall be "STP-XXX-XX". The steam trap number shall be on a stainless steel tag connected to the steam trap.

#### B. HPS and MPS Systems

1. Type: Thermostatic type with membrane regulator and built-in strainer with blowdown valve and built-in check valve.
2. Construction
  - a. General: Traps shall be designed for 300 psig, 750 degree F. All stainless steel internals.
  - b. Body: ASTM A 105.
  - c. Connections: Size of connection shall depend on the flow requirements. Type

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of connection shall be screwed.

3. Acceptable Manufacturers: Gestra (Flow Serve) Model MK 45-1 or Armstrong.

**C. LPS System**

1. Type: Float and thermostatic type. Thermostatic control capsule shall allow automatic deaeration.
2. Construction
  - a. General: Traps shall be designed for 30 psig, 275 degree F steam conditions. Internals shall be brass and stainless steel.
  - b. Body: Cast iron, Class 250.
  - c. Connections: Minimum connection size is 1 inch NSP. Type of connection shall be screwed.
3. Acceptable Manufacturers: Gestra (Flow Serve) UNA 30 F&T or Armstrong.

**2.2 DRAINAGE AND VENTING**

- A.** Drainage of low points in steam piping shall be through the drip leg of the steam trap station. Provide 2" shut-off valves with screwed caps at all drip legs and at all low points in main trap return pipes and pumped condensate return mains.
- B.** Provide 1" shut-off valves with a screwed cap at all high points in steam and condensate piping.