SECTION 22 11 19
DOMESTIC WATER PIPING SPECIALTIES

PART 1 - GENERAL

1.01 SUMMARY

A. This Section includes the following domestic water piping specialties:
   1. Vacuum breakers.
   2. Backflow preventers.
   3. Water pressure-reducing valves.
   4. Balancing valves.
   5. Temperature-actuated water mixing valves.
   6. Strainers.
   7. Hose bibbs.
   8. Wall hydrants.
   9. Drain valves.
   10. Water hammer arresters.
   11. Air vents.
   12. Trap-seal primer systems.

PART 2 - PRODUCTS

2.01 VACUUM BREAKERS

A. Pipe-Applied, Atmospheric-Type Vacuum Breakers
   1.
   2. Standard: ASSE 1001.

B. Hose-Connection Vacuum Breakers
   1.
   2. Standard: ASSE 1011.

2.02 BACKFLOW PREVENTERS

A. Reduced-Pressure-Principle Backflow Preventers
   1.
   2. Standard: ASSE 1013.

B. Backflow-Preventer Test Kits
   1. Description: Factory calibrated, with gages, fittings, hoses, and carrying case with test-procedure instructions.

2.03 WATER PRESSURE-REDUCING VALVES

A. Water Regulators
   1. Standard: ASSE 1003.

2.04 BALANCING VALVES

A. Copper-Alloy Calibrated Balancing Valves :
1. Type: Ball valve with two readout ports and memory setting indicator.

2.05 TEMPERATURE-ACTUATED WATER MIXING VALVES

A. Primary, Thermostatic, Water Mixing Valves:
1. Standard: ASSE 1017.

B. Individual-Fixture, Water Tempering Valves
1. Standard: ASSE 1016, thermostatically controlled water tempering valve.

2.06 STRAINERS FOR DOMESTIC WATER PIPING

A. Y-Pattern Strainers
1. Pressure Rating: 125 psig minimum, unless otherwise indicated.
2. Body: Bronze for NPS 2 and smaller; cast iron with interior lining complying with AWWA C550 or FDA-approved, epoxy coating and] for NPS 2-1/2 and larger.

2.07 HOSE BIBBS

A. Hose Bibbs
1. Standard: ASME A112.18.1 for sediment faucets.

2.08 WALL HYDRANTS

A. Vacuum Breaker Wall Hydrants
1. Standard: ASSE 1019, Type A or Type B.
2.

2.09 DRAIN VALVES

A. Stop-and-Waste Drain Valves
1. Standard: MSS SP-110 for ball valves or MSS SP-80 for gate valves.

2.10 WATER HAMMER ARRESTERS

A. Water Hammer Arresters See Editing Instruction No. 1 in the Evaluations for cautions about naming manufacturers and products.
1. Standard: ASSE 1010 or PDI-WH 201.

2.11 AIR VENTS

A. Bolted-Construction Automatic Air Vents

2.12 TRAP-SEAL PRIMER SYSTEMS

A. Trap-Seal Primer Systems
1. Standard: ASSE 1044,

PART 3 - EXECUTION

3.01 INSTALLATION

A. Refer to Division 22 Section "Common Work Results for Plumbing" for piping joining materials, joint construction, and basic installation requirements.

3.02 FIELD QUALITY CONTROL

A. Perform the following tests and prepare test reports:
   1. Test each pressure vacuum breaker reduced-pressure-principle backflow preventer according to authorities having jurisdiction and the device's reference standard.

B. Remove and replace malfunctioning domestic water piping specialties and retest as specified above.

3.03 ADJUSTING

A. Set field-adjustable pressure set points of water pressure-reducing valves.

B. Set field-adjustable flow set points of balancing valves.

C. Set field-adjustable temperature set points of temperature-actuated water mixing valves.

END OF SECTION 22 11 19