

**GENERAL:**

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1. The scope of this document is to provide instruction for the installation and testing of manual valves installed on the exterior underground steam and condensate system.

**DESIGN GUIDELINES:**

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**Materials**

1. Valves General
  - 1.1. Valve manufacturer is listed for purposes of clarification. Equivalent valves produced by an approved manufacturer may be used.
  - 1.2. Valves shall be as listed below.
2. Steam or Condensate Valves
  - 2.1. Gate Valves - Threaded:

<u>SIZE</u>	<u>PRESSURE PSIG</u>	<u>DESCRIPTION</u>	<u>MANUFACTURER'S NUMBER</u>
2" and under	800	Screwed Forged Steel OS&Y	Hancock 950 S Vogt 12111
2" and under	800	Socket Weld Forged Steel OS&Y	Hancock 950 W Vogt SW 12111

- 2.2. Gate Valves - Flanged:

<u>SIZE</u>	<u>PRESSURE PSIG</u>	<u>DESCRIPTION</u>	<u>MANUFACTURER'S NUMBER</u>
2-1/2" and over	150 S	Flanged Cast Steel OS&Y Half Stellite	Crane No. 47XUF Stockham 15-OF-U Kitz K150 SCL

2.3 Globe Valves - Threaded:

<u>SIZE</u>	<u>PRESSURE PSIG</u>	<u>DESCRIPTION</u>	<u>MANUFACTURER'S NUMBER</u>
2" and under	800	Screwed Forged Steel OS&Y	Hancock 5500S Vogt 12141
2" and under	800	Socket Weld Forged Steel OS&Y	Hancock 5500W Vogt SW 12141

2.4 Check Valves - Threaded:

<u>SIZE</u>	<u>PRESSURE PSIG</u>	<u>DESCRIPTION</u>	<u>MANUFACTURER'S NUMBER</u>
2" and under	Class 300	Screwed Stainless steel Swing check	Powell

2.5 Butterfly Valves:

<u>SIZE</u>	<u>PRESSURE PSIG</u>	<u>DESCRIPTION</u>	<u>MANUFACTURER'S NUMBER</u>
16" and under	150 S	Class 150 lug type  ISO face to face Carbon steel body Stainless steel disk Laminated graphite and stainless steel valve seal Manual gear operator with handwheel and open/close	Adams MAK Bray Trilok Velan Torqseal Zwick Tri-Con

3. Sump Pump Valves  
3.1. Ball Valves - Threaded:

<u>SIZE</u>	<u>PRESSURE PSIG</u>	<u>DESCRIPTION</u>	<u>MANUFACTURER'S NUMBER</u>
2" and under	150 SWP 600 CWP	Screwed  Lead Free Bronze Body Full Port 2 Piece Apollo 77CLF 140-10 Stainless steel Trim and handle MTFE Seats and Seals	

### **Installation**

1. Install valves with stems horizontal or extending vertically upward. All valves shall be installed in accessible locations for operation as well as for removal, repair or replacement.

### **Testing**

1. Valve shall be tested for proper operation after installation.

### **Commissioning**

### **REFERENCES**

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