

PART 1 - GENERAL

- 1.1 REFERENCES
- .1 American National Standards Institute  
(ANSI)/American Society of Mechanical Engineers  
(ASME)
    - .1 ANSI/ASME B1.20.1-1983(R2006), Pipe Threads,  
General Purpose (Inch).
    - .2 ANSI/ASME B16.18-2001, Cast Copper Alloy Solder  
Joint Pressure Fittings.
  - .2 ASTM International
    - .1 ASTM A 276-08, Standard Specification for  
Stainless Steel Bars and Shapes.
    - .2 ASTM B 62-02, Standard Specification for  
Composition Bronze or Ounce Metal Castings.
    - .3 ASTM B 283-08a, Standard Specification for  
Copper and Copper Alloy Die Forgings (Hot-Pressed).
    - .4 ASTM B 505/B 505M-08a, Standard Specification  
for Copper-Base Alloy Continuous Castings.
  - .3 Manufacturers Standardization Society of the Valve  
and Fittings Industry, Inc. (MSS)
    - .1 MSS-SP-25-1998, Standard Marking System for  
Valves, Fittings, Flanges and Unions.
    - .2 MSS-SP-110-1996, Ball Valves, Threaded,  
Socket-Welding, Solder Joint, Grooved and Flared  
Ends.
- 1.2 ACTION AND INFORMATIONAL SUBMITTALS
- .1 Provide submittals in accordance with Section  
01 33 00 - Submittal Procedures.
  - .2 Product Data:
    - .1 Provide manufacturer's printed product  
literature and data sheets for equipment and systems  
and include product characteristics, performance  
criteria, physical size, finish and limitations.
    - .2 Submit WHMIS MSDS - Material Safety Data  
Sheets.
  - .3 Shop Drawings:
    - .1 Submit data for valves specified in this  
Section.
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- 1.3 CLOSEOUT SUBMITTALS
- .1 Provide maintenance data for incorporation into manual specified in Section 01 78 00 - Closeout Submittals.
- 1.4 DELIVERY, STORAGE AND HANDLING
- .1 Deliver, store and handle materials in accordance with Section 01 10 10 - General Instructions .
  - .2 Delivery and Acceptance Requirements:
    - .1 Deliver materials to site in original factory packaging, labelled with manufacturer's name, address.
  - .3 Packaging Waste Management: remove for reuse crates, padding, and packaging materials in accordance with Section 01 10 10 - General Instructions .

PART 2 - PRODUCTS

- 2.1 MATERIALS
- .1 Valves:
    - .1 Except for specialty valves, to be single manufacturer.
    - .2 Products to have CRN registration numbers.
  - .2 End Connections:
    - .1 Connection into adjacent piping/tubing:
      - .1 Steel pipe systems: screwed ends to ANSI/ASME B1.20.1.
      - .2 Copper tube systems: solder ends to ANSI/ASME B16.18.
  - .3 Ball Valves:
    - .1 NPS 2 and under:
      - .1 Body and cap: cast high tensile bronze to ASTM B 62.
      - .2 Pressure rating: Class125, 860 kPa steam.
      - .3 Connections: screwed ends to ANSI B1.20.1 and with hexagonal shoulders or solder ends to ANSI.
      - .4 Stem: tamperproof ball drive.
      - .5 Stem packing nut: external to body.
      - .6 Ball and seat: replaceable stainless steel solid ball and Teflon seats.
      - .7 Stem seal: TFE with external packing nut.
      - .8 Operator: removable lever handle.

PART 3 - EXECUTION

- 3.1 INSTALLATION
- .1 Remove internal parts before soldering.
  - .2 Install valves with unions at each piece of equipment arranged to allow servicing, maintenance, and equipment removal.
- 3.2 CLEANING
- .1 Clean in accordance with Section 01 10 10 - General Instructions.
    - .1 Remove surplus materials, excess materials, rubbish, tools and equipment.
  - .2 Waste Management: separate waste materials for reuse and recycling in accordance with Section 01 10 10 - General Instructions.