

## **SECTION 33**

### **BRASS PIPE AND FITTINGS**

#### 33-1 General

##### 33-1.01 Scope

This section describes the requirements for furnishing and installing brass pipe, valves, fittings and fixtures in contact with potable water of the size and type shown on the plans. These requirements include the types of materials to be used and measurement for payment.

This section does not include service saddles nor brass pipe and fittings not in contact with potable water. It does not include installation. Such items have been shown on the plans and described elsewhere in these specifications.

##### 33-1.04 Design

Brass pipe and fittings shall be designed to withstand the working pressures shown on the plans or to a design working pressure of 250 psi, whichever is greater.

##### 33-1.05 Submittals

All materials shall be furnished with submittals, as described elsewhere in these specifications. The Contractor's attention is directed to the General Conditions of this Contract under "Submittals".

#### 33-2 Materials

##### 33-2.01 General

Materials furnished shall be new and unused.

##### 33-2.04 Brass Pipe and Fittings

All brass components in contact with potable water shall be made from either CDA/UNS Brass Alloys C89520 or C89833 with a maximum lead content of 0.25 percent by weight. Brass alloys not listed in ANSI/AWWA C800 Paragraph 4.1.2 are not approved. All brass fittings shall be certified as suitable for contact with drinking water by an ANSI accredited organization in accordance with ANSI/NSF Standard 61, Drinking Water Systems Components – Health Effects. All fittings shall be individually and clearly marked that the product is manufactured from the alloys specified herein.

#### 33-4 Measurement and Payment

##### 33-4.01 Measurement and Payment

No separate measurement for payment will be made for work under this section and all costs shall be included in the price for which the item is pertinent.