



**NSF International**

Special Engineered Specification  
NSF SE 7703

Plumbing Supply Fittings with  
Compression Connections  
Greater than One Half Inch

The Public  
Health and Safety  
Company.™



## SPECIFICATIONS FOR A SPECIAL ENGINEERED (SE) PRODUCT

### NSF SE 7703

#### SE – Plumbing Supply Fittings with Compression Connections Greater Than 1/2” Mechanical Plumbing

- 1. Purpose:** Currently plumbing supply fittings with compression connections are not covered by the dimensional requirements of ASME A112.18.1/CSA B125.1 Section 4.4.1(f). This section states that the dimensions of supply compression connections shall be compatible with the requirements of SAE J512; however, compression connections that are greater than 1/2” are not covered by the scope of SAE J512.
- 2. Scope of Specification:** The scope of this specification is to outline the requirements and test methods for the testing and marking of plumbing supply fittings with compression connections greater than 1/2”.
- 3. Applications:** Plumbing supply fittings located between the supply line stop and the terminal fitting which have compression connections greater than 1/2” shall have the compression connections evaluated against the manufacturer’s specified dimensions and shall be covered by this SE Document.
- 4. Canadian Acceptance:** While this specification references ASME A112.18.1/CSA B125.1 which is a recognized standard in Canada, this specification is not considered an “Other Recognized Document” per CAN P-1500L and may not be the basis for acceptance in Canada.
- 5. Testing Requirements:**
  - 5.1 Dimensions – The dimensions of the compression connection shall be against the manufacturer’s specification. This measurement shall allow the plumbing supply fittings with compression connections greater than 1/2” to meet the requirements of Section 6 of this specification.
  - 5.2 Bending Strength – These products shall meet the requirements identified in Section 5.7.1 of ASTM A112.18.1/CSA B125.1
  - 5.3 Torque Resistance – These products shall meet the requirements identified in Section 5.7.2 of ASTM A112.18.1/CSA B125.1
  - 5.4 Handle Security – These products shall meet the requirements identified in Section 5.8.1 of ASTM A112.18.1/CSA B125.1
  - 5.5 Valve Closure – These products shall meet the requirements identified in Section 5.5 of ASTM A112.18.1/CSA B125.1
  - 5.6 Life Cycle Test – These products shall meet the requirements identified in Section 5.6 of ASTM A112.18.1/CSA B125.1
  - 5.7 Burst Strength – These products shall meet the requirements identified in Section 5.3.2 of ASTM A112.18.1/CSA B125.1
  - 5.8 Flow Capacity - These products shall meet the requirements identified in Section 5.4 of ASTM A112.18.1/CSA B125.1
  - 5.9 Hydrostatic Pressure - These products shall meet the requirements identified in Section 5.3 of



## ASTM A112.18.1/CSA B125.1

**6. Product Marking:** The plumbing supply fittings with compression connections greater than 1/2" shall be marked with the following:

### 6.1 Product

- 6.1.1 Manufacturer's name or trademark
- 6.1.2 Mark of the certification agency – NSF – SE
- 6.1.3 Marking shall be permanent or a permanent label on the product and shall be visible after installation.

### 6.2 Packaging

- 6.2.1 Manufacturer's name or trademark
- 6.2.2 Model number
- 6.2.3 Mark of the certification agency – NSF – SE

**7. QC Requirements:** If applicable, specific QC requirements are located in the NSF Registered Documentation Report for this Mechanical Plumbing Product.

## 8. Referenced Standards:

ASME A112.18.1/CSA B125.1 – 2005 Plumbing Supply Fittings  
SAE J512 Automotive Tube Fittings

This registered Special Engineered (SE) document accurately describes the products noted above. Authorization of this document does not imply NSF Certification of, or the authorization to use the NSF Mark in connection with, the products described. The NSF Official Listing, [www.nsf.org](http://www.nsf.org), documents products Listed by NSF International.