

**American Society of Sanitary Engineering  
Seal (Certification) Program**

**Factory Audit Inspection Test for:  
Water Hammer Arresters**

**Tested under ASSE Standard 1010 • Revised: 2004**

**Factory Audit Inspection Test**

**Manufacturer** \_\_\_\_\_

**Model No.** \_\_\_\_\_

**Address** \_\_\_\_\_

**Serial No.** \_\_\_\_\_

**Other Identification Markings** \_\_\_\_\_

**Size** \_\_\_\_\_

**Connections (screwed, flanged, etc.)** \_\_\_\_\_

**Size of Orifice in Arrester** \_\_\_\_\_ inches (\_\_\_\_\_ mm)

**Type and Size of Connector Attached to Arrester:**

- Compression - Size of Orifice in connector** \_\_\_\_\_ inches (\_\_\_\_\_ mm)
- PEX- Size of Orifice in connector** \_\_\_\_\_ inches (\_\_\_\_\_ mm)
- CPVC - Size of Orifice in connector** \_\_\_\_\_ inches (\_\_\_\_\_ mm)
- Sweat - Size of Orifice in connector** \_\_\_\_\_ inches (\_\_\_\_\_ mm)
- Other - Size of Orifice in connector** \_\_\_\_\_ inches (\_\_\_\_\_ mm)

**When testing a water hammer arrester with more than one type of connector, provided the orifice of each connector is of equal or larger size than the orifice of the water hammer arrester, only one connector need be tested. All connectors with an orifice size smaller than the orifice of the water hammer arrester must be tested for full compliance to the standard.**

**3.1 Shock Absorbing Capacity Test**

Was the test rig so designed and arranged that the device under test was subjected to the full energy imposed by the abrupt stoppage of a 50 foot (15.2 m) column of water flowing at a prescribed pressure and velocity in a standard schedule 40 steel pipe as shown in Figure 1?

Yes  No  Questionable

If questionable, explain: \_\_\_\_\_

(a) What was the valve closure speed? \_\_\_\_\_ milliseconds

(b) What was the flowing pressure? \_\_\_\_\_ psi (\_\_\_\_\_ kPa.)

In compliance?

Yes  No  Questionable

If questionable, explain: \_\_\_\_\_

### 3.2 Endurance Test

(a) What was the water temperature during the first 5000 cycles of the test? \_\_\_\_\_ °F (\_\_\_\_\_ °C)

(b) What was the surge pressure (average of five (5) readings) at the beginning of the first 5000 cycles?  
\_\_\_\_\_ psi (\_\_\_\_\_ kPa)

(c) What was the maximum total pressure recorded at the 5000<sup>th</sup> cycle? \_\_\_\_\_ psi (\_\_\_\_\_ kPa)

(d) What was the water temperature during the last 5000 cycles of the test? \_\_\_\_\_ °F (\_\_\_\_\_ °C)

(e) What was the surge pressure (average of five (5) readings) at the end of the first 5000 cycles?  
\_\_\_\_\_ psi (\_\_\_\_\_ kPa)

(f) What was the maximum total pressure recorded at the 10,000<sup>th</sup> cycle \_\_\_\_\_ psi (\_\_\_\_\_ kPa)

(g) What was the average of the two maximum total pressure readings? \_\_\_\_\_ psi (\_\_\_\_\_ kPa)

In compliance?

Yes  No  Questionable

If questionable, explain: \_\_\_\_\_

TESTING AGENCY \_\_\_\_\_

ADDRESS \_\_\_\_\_

PHONE: \_\_\_\_\_ FAX: \_\_\_\_\_

TEST ENGINEER(S) \_\_\_\_\_

We certify that the evaluations are based on our best judgments and that the test data recorded is an accurate record of the performance of the device on test.

Signature of the official of the agency: \_\_\_\_\_

Title of the official: \_\_\_\_\_ Date: \_\_\_\_\_

Signature and seal of the Registered Professional Engineer  
supervising the laboratory evaluation:



\_\_\_\_\_  
Signature

Seal