# **ARMSTRONG**<sup>®</sup>

# INSTALLATION AND OPERATING INSTRUCTIONS

# **AET Series** (Vertical and Horizontal Mount)

# ASME PLAIN STEEL EXPANSION TANKS FOR HEATING & COOLING SYSTEMS

### **VESSEL DESCRIPTION**

Armstrong Type AET Tanks are ASME constructed, plain steel, expansion tanks. They are designed to absorb the expansion forces and control the pressure in heating / cooling systems.

The system's expanded water enters the tank and further compresses the pressure controlling air cushion.



# **CONSTRUCTION DETAILS**

MATERIALS OF CONSTRUCTION		
Shell	Carbon Steel	
Heads	Carbon Steel	

MAXIMUM OPERATING CONDITIONS				
Working Temperature		450°F (232°C)		
Working	Models AET 12X33 to AET 16x72	150 psi (1034 kPa)		
Pressure	Models AET 20X62 to AET 42x96	125 psi (862 kPa)		

### **STEPS & PROCEDURE**

- Visually inspect tank for damage, which may occur during transit..
- Install sight-glass trim as required by design engineer.
- Set tank in place and pipe system connection to system. Be sure to include isolation valve(s) and drain.
- Allow system water to enter and compress tank air cushion. Approximately one half (1/2) of the tank volume will be displaced with system water to reach 15 psi.
- The following table is a guideline to achieve proper water level:

<u>System Fill Pressure (psi)</u>	Water Volume (%)	<u>Air Volume (%)</u>
12	45	55
15	50	50
20	58	42
25	63	37
30	67	33
35	70	30
40	73	27

- It is recommended that the sight-glass water level be checked every six (6) months to ensure proper system protection and vessel's long-life.
- If tank becomes waterlogged, isolate tank and drain off stored water. Then, re-introduce system water into the tank and observe water level.

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