

# BLADDER EXPANSION TANKS

Protect antifreeze sprinkler systems with  
Young Engineering Bladder Expansion Tanks



 young  
engineering &  
manufacturing, inc.

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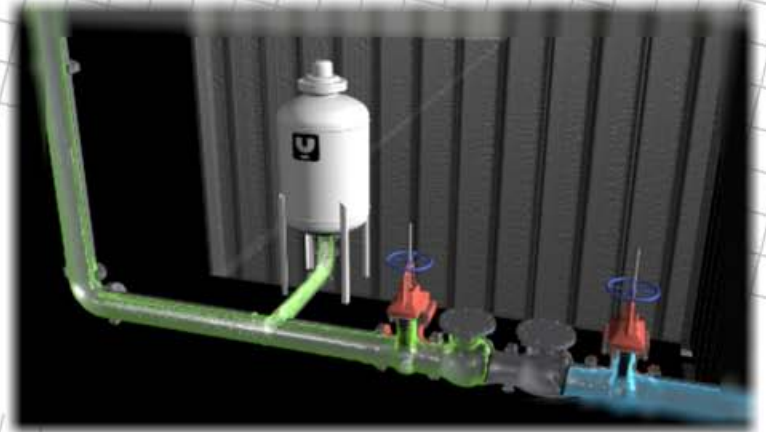
# Bladder Expansion Tanks

## The Need for Expansion Chambers

The National Fire Protection Association (NFPA 13) requires the use of expansion chambers in antifreeze systems with backflow preventors. Backflow preventors stop antifreeze from flowing back into the water supply; but problems can occur when pressure builds in the system as a result of thermal expansion from temperature changes. This over-pressurization can be alleviated with Young Engineering Bladder Expansion Tanks which absorb the expanding fluid, thereby controlling the pressure to a safe level within the system.

## How Expansion Chambers Work

When the sprinkler system fluid begins to expand as a result of thermal expansion, the excess fluid discharges into the expansion chamber. Within the vessel, the gas charged bladder compresses as the fluid enters the shell. The expansion chamber prevents the system from locking up hydraulically and allows the trapped antifreeze to expand without an excessive rise in pressure, thereby protecting the system and components.



Computer Animated DVD Illustrating the need for Bladder Expansion Tanks

- Protect antifreeze fire protection systems from the damaging effects of thermal expansion with Young Engineering Bladder Expansion Tanks.
- Expansion chambers are simple in design and offer a high degree of reliability, with low maintenance.
- Available sizes range from 1 to 150 gallons.
- Most sizes in stock for fast, on time deliveries.
- All units are UL Listed and manufactured in accordance with ASME code Section VII, Div 1.
- DVD Illustrating how a Bladder Expansion Tank functions available upon request.

**Call**

**800.33.SURGE**

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