



# **SURGE-TROL®**

## **SURGE SUPPRESSOR**

### **INSTALLATION & OPERATION INSTRUCTIONS**

**Models SPT-1 through SPT-70**



**NOTE:** Inspect for shipping damage and notify freight carrier or store where purchased immediately if damage is present. To avoid risk of personal injury and property damage, if the product appears to be malfunctioning or shows signs of corrosion, call a licensed professional immediately. Current copies of the Product manual can be viewed at [www.amtrol.com](http://www.amtrol.com). Use proper safety equipment when installing.



**THIS IS THE SAFETY ALERT SYMBOL. IT IS USED TO ALERT YOU TO POTENTIAL PERSONAL INJURY AND OTHER HAZARDS. OBEY ALL SAFETY MESSAGES THAT FOLLOW THIS SYMBOL TO REDUCE THE RISK OF PERSONAL INJURY AS WELL AS PROPERTY DAMAGE.**

**WARNING** READ CAREFULLY THE PRODUCT INSTALLATION & OPERATION INSTRUCTIONS. FAILURE TO FOLLOW THE INSTRUCTIONS AND WARNINGS IN THE MANUAL MAY RESULT IN SERIOUS OR FATAL INJURY AND/OR PROPERTY DAMAGE, AND WILL VOID THE PRODUCT WARRANTY. THIS PRODUCT MUST BE INSTALLED BY A LICENSED PROFESSIONAL. FOLLOW ALL APPLICABLE LOCAL AND STATE CODES AND REGULATIONS, IN THE ABSENCE OF SUCH CODES, FOLLOW THE CURRENT EDITIONS OF THE NATIONAL PLUMBING CODE AND NATIONAL ELECTRIC CODE, AS APPLICABLE.

**WARNING** This Product, like most Products under pressure, may over time corrode, weaken and burst or explode, causing serious or fatal injury, leaking or flooding and/or property damage. To minimize risk, a licensed professional must install and periodically inspect and service the Product. A drip pan connected to an adequate drain must be installed if leaking or flooding could cause property damage. Do not locate in an area where leaking could cause property damage to the area adjacent to the appliance or to lower floors of the structure.

**Chlorine & Aggressive Water.** The water quality can significantly influence the life of this product. You should test for corrosive elements,

acidity, total solids and other relevant contaminants, including chlorine and treat your water appropriately to insure satisfactory performance and prevent premature failure.

**WARNING** EXPLOSION OR RUPTURE HAZARD. A relief valve must be installed to prevent pressure in excess of local code requirement or maximum working pressure designated in the Product Manual, whichever is less. Do not expose product to freezing temperatures or temperatures in excess of 240°F. Do not adjust the pre-charge or re-charge this Product except during installation or regular inspection. Replace the Product and do not adjust the pre-charge if corroded, damaged or with diminished integrity. Adjustments to pre-charge must be done at ambient temperature only. Failure to properly size the product or follow these instructions may result in excessive strain on the system and may lead to product failure, serious or fatal personal injury, leakage, and/or property damage.

**WARNING** This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

**PLEASE READ THE FOLLOWING INSTRUCTIONS CAREFULLY**  
**IMPORTANT GENERAL SAFETY INFORMATION -**  
**ADDITIONAL SPECIFIC SAFETY ALERTS APPEAR IN THE FOLLOWING INSTRUCTIONS.**

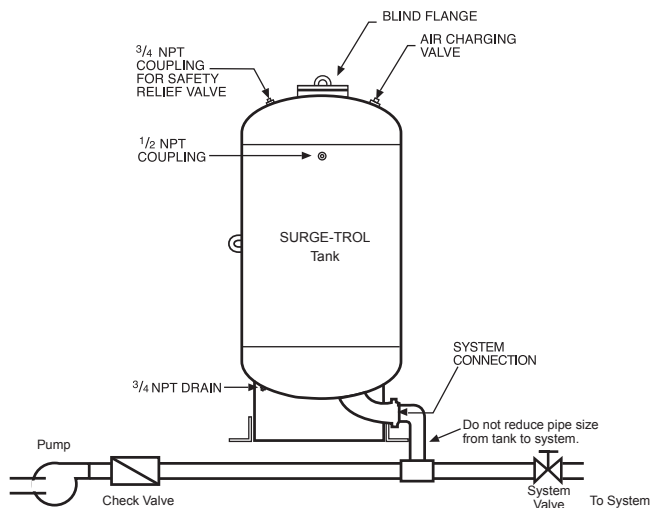
**⚠ WARNING** **DO NOT USE OXYGEN - EXPLOSIVE!** Protect against freezing temperatures. Never pre-charge below 50% of maximum system pressure.

**⚠ WARNING** **EXPLOSION OR RUPTURE HAZARD.** A relief valve must be installed to prevent pressure in excess of local code requirement or maximum working pressure designated in the Product Manual, whichever is less. At least once every 3 years or if discharge is present, a licensed contractor should inspect the pressure relief valve and replace if corrosion is evident or the valve does not function. **FAILURE TO INSPECT THIS VALVE AS DIRECTED COULD RESULT IN UNSAFE PRESSURE BUILD-UP WHICH CAN RESULT IN PRODUCT FAILURE, SERIOUS INJURY OR DEATH AND/OR SEVERE PROPERTY DAMAGE AND VOID THE PRODUCT WARRANTY.**

### Pre-Installation

1. Visually inspect the Surge-Trol® for any damage. If damage exists return product for replacement.
2. Remove air cap.
3. For applications with pump start-up creating water hammer, adjust the factory pre-charge setting to 15% below static pressure.
4. For applications with surge issues created by pump shut down, adjust the factory pre-charge setting to 50% below static pressure.
5. Replace and tighten cap on air valve.

### Typical Installation



**⚠ IMPORTANT** If increasing the pre-charge pressure above 55 psig, the following steps must be followed:

- a. Tank must be connected to the system with isolation valve open.
- b. System must be pressurized slightly higher than the pre-charge setting of the tank.
- c. Isolation valve then needs to be closed.
- d. The pre-charge pressure of the tank can now be increased to the recommended high pressure setting.
- e. Bring system up to pressure, and then open the isolation valve to the tank.

**Failure to follow these instructions could result in damage to the bladder and void all warranties.**

### Installation

1. The Surge-Trol should be installed after the pump and/or check valve assembly, on the supply side of the system isolation valves.
2. The Surge-Trol should be installed as close to the pump as possible in surge applications.
3. Once the Surge-Trol is installed and the pre-charge adjusted properly, check for any leaks. Make repairs if necessary.

### Maintenance

1. A licensed professional should check the complete system, including the Surge-Trol, yearly and more frequently as the system ages.

### Operation

1. The Surge-Trol is designed to provide surge protection as well as provide a cushion to prevent water hammer and column separation depending on its application.
2. Water temperature must not exceed 210°F or fall below 35°F.
3. The factory pre-charge setting is 25 PSIG and should only be adjusted at the time of the installation.
4. System velocity shall not exceed 22 fps.

### Warranty

Surge-Trol Models: Three (3) Year Limited Warranty  
Visit [www.amtrol.com](http://www.amtrol.com) for complete warranty details.



SPT-7 through  
SPT-70

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