



# HIGH PRESSURE CHARGING PROCEDURE

Instruction Sheet

*For Field Technicians Installing Captive Air Tanks with Special Precharge Requirements*

In certain high-performance systems, elevated precharge pressures are needed to meet demanding conditions. Follow this proven step-by-step procedure to safely charge captive air expansion tanks while protecting the internal bladder from overpressure damage. Your attention to detail ensures your customer's long-term reliability and peace of mind.

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## Important Safety and Performance Guidelines

- Maximum allowable differential pressure across the bladder: 90 PSI
- Maximum allowable precharge pressure: Refer to the name plate MAWP rating

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## Step-by-Step Charging Instructions

1. **Initial Precharge (Before System Connection):** Precharge the tank to no more than 90 PSI before installing it into the system. This protects the bladder during the initial connection.
2. **System Installation:** Install the tank into the system and pressurize the system to 90 PSI.
3. **Increase Tank Precharge (Once Pressurized):** Raise the tank's precharge to the lesser of:
  - The required minimum system fill pressure
  - Or 180 PSI



**Note:** If the required pressure exceeds 125 PSI, verify that the tank is rated for higher working pressure. Do not exceed the tank's maximum design rating.

4. **Set System Fill Pressure:** Raise the system fill pressure to match the lesser of:
  - The required minimum fill pressure
  - Or 180 PSI
5. **For Systems Requiring More Than 180 PSI:** If your system requires pressures above 180 PSI:
  - Increase the tank precharge to the desired minimum fill pressure, but do not exceed 300 PSI.
  - Then increase the system fill pressure to match (again, max 300 PSI).



**Reminder:** Consult the factory before going beyond 300 PSI.

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## Maintenance Best Practices

Important Safety and Performance Guidelines

- Never allow system pressure at the tank to drop to a point where the differential across the bladder exceeds 90 PSI.
- If depressurizing the system:
  - First, remove the tank precharge.
  - Then, once service is complete, recharge the tank following the steps above.



**Tip:** Always double-check system pressure at the tank location, especially in zones prone to isolation or depressurization.

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## Your Partner for Peace of Mind

This procedure helps ensure reliable, long-life performance from your captive air tank—even under high-pressure demands. If you have application-specific questions or need help selecting the right tank, Taco is here to support you.