

**PRECHARGING INSTRUCTIONS  
FOR 5000 PSI  
BLADDER ACCUMULATORS**

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**IMPORTANT**

USE DRY NITROGEN GAS ONLY to precharge the accumulator.

Check the precharge tag attached to the accumulator. The accumulator will either be precharged to 25 psig(1.7 bar) for shipping purpose or to the pressure specified on the purchase order. If the accumulator does not have the correct precharge, it must be precharged to the required level using only DRY NITROGEN GAS, before it is installed in the hydraulic system.

Precharge pressures vary according to the application and operating conditions. Please seek technical support from the factory if you are not sure about the correct precharge. Incorrect Precharge pressure can lead to reduced accumulator performance, reduced bladder life expectancy, and even bladder failure. It is very important to have the correct precharge. As a guidance, the following values can be used.

Energy Storage:

90% of the minimum system pressure

Pulsation dampening:

70% of the system mean operating pressure

Shock absorption:

75% of the system working pressure.

*Precharge must never be below 25% of the maximum system pressure.*

Always use a pressure regulator valve on the nitrogen bottle when the accumulator shell pressure is lower than the gas pressure in the nitrogen cylinder.

Ensure bladder is thoroughly lubricated with system fluid before precharging.

Whenever you have to replace the gas valve core, replace it with a valve core approved for accumulator service. NEVER USE AN AUTOMOTIVE TYPE VALVE CORE.

**CHECKING PRECHARGE**

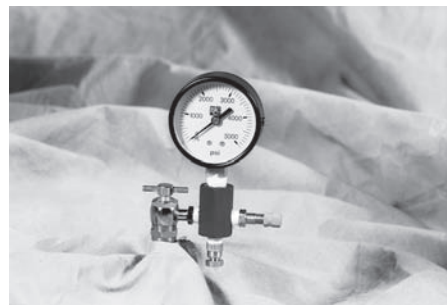
Check the precharge pressure only after the hydraulic pressure has been completely released. When a new accumulator is installed, the precharge pressure should be checked to ensure that there is no leakage. This should be performed once during the first week of operation, and then every six months thereafter. Under high cycling or high temperature conditions, the precharge should be checked once every month.

**RECOMMENDED CHARGING KITS FOR  
5000 PSI BLADDER ACCUMULATORS**

Type	Capacity	Assembly Part No:
Standard Accumulator	2.5 to 15 Gallon	CG-5000
Top Repairable Accumulator	2.5 to 15 Gallon	CG-5000



**Charging Kit  
CG-5000**



**Charging Head Assembly  
CG-5013**



**Hose Assembly  
CG-5010**



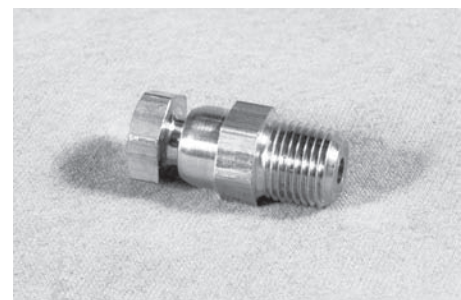
**MS Valve 11-5-309**



**Air Chuck CG-3002**



**Tank Valve CG-3005**



**Bleed Valve CG-3009**

## PRECHARGING PROCEDURE FOR 5000 PSI STANDARD ACCUMULATORS



1. Remove the protective cap and the seal cap.



2. Open the valve adapter by securing the bottom hex with a wrench while turning the top hex counter clockwise.



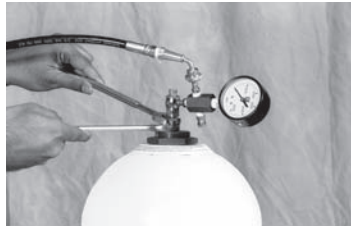
3. Close the bleed valve on the charging and gauging assembly.



4. Install Charging and Gauging Assembly on the accumulator by screwing the air chuck to the gas valve. Hand tighten sufficiently to prevent any leakage. Connect the hose to the nitrogen bottle regulator.



5. Remove the seal cap from the gas charging tank valve and connect the swivel connector on the hose assembly. Hand tighten sufficiently to prevent leakage.



7. Close the valve adapter by securing the bottom hex with a wrench while turning the top hex clockwise. Make sure the valve is completely closed.



8. Open the bleed valve to bleed of nitrogen in the hose. Disconnect the charging assembly from the accumulator and the gas bottle.



10. Replace the valve seal cap and the protective cap.

6. Open the regulator valve on the nitrogen bottle carefully to let nitrogen flow at a slow rate into the accumulator. Proceed to charge until the accumulator reaches desired precharge pressure. Close the regulator and let the nitrogen stabilize and obtain gauge reading. Adjust the pressure if necessary.

9. Check for leakage through the valve adapter by soap solution or snoop. If the adapter is leaking, then retighten the top hex. If leakage persists then replace the valve adapter.

11. Check precharge pressure once in the first week of operation, and then every six months during normal working or every month during high cycling or high temperature condition.

## PRECHARGING PROCEDURE FOR 5000 PSI TOP REPAIRABLE ACCUMULATORS



1. Remove the protective cap and the seal cap.



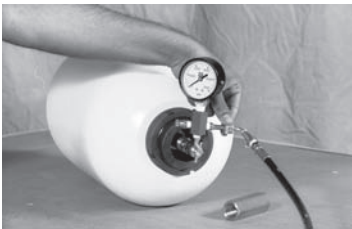
2. Open the valve adapter by securing the bottom hex with a wrench while turning the top hex counter clockwise.



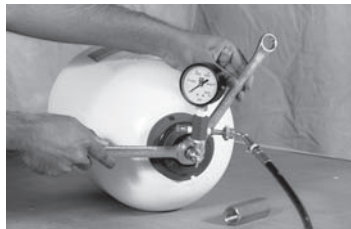
3. Close the bleed valve on the charging and gauging assembly.



4. Install Charging and Gauging Assembly on the accumulator by screwing the air chuck to the gas valve. Hand tighten sufficiently to prevent any leakage. Connect the hose to the nitrogen bottle regulator.



5. Remove the seal cap from the gas charging tank valve and connect the swivel connector on the hose assembly. Hand tighten sufficiently to prevent leakage.



7. Close the valve adapter by securing the bottom hex with a wrench while turning the top hex clockwise. Make sure the valve is completely closed.



8. Open the bleed valve to bleed of nitrogen in the hose. Disconnect the charging assembly from the accumulator and the gas bottle.



10. Replace the valve seal cap and the protective cap.

6. Open the regulator valve on the nitrogen bottle carefully to let nitrogen flow at a slow rate into the accumulator. Proceed to charge until the accumulator reaches desired precharge pressure. Close the regulator and let the nitrogen stabilize and obtain gauge reading. Adjust the pressure if necessary.

9. Check for leakage through the valve adapter by soap solution or snoop. If the adapter is leaking, then retighten the top hex. If leakage persists then replace the valve adapter.

11. Check precharge pressure once in the first week of operation, and then every six months during normal working or every month during high cycling or high temperature condition.