



**TECHNICAL NOTE 01-06 R**  
**HYDRO-FORCE SERIES**  
**OPTIMUM PRESSURE TECHNOLOGY**  
**RECERTIFICATION OF CHEMICAL CYLINDERS**

Revised April 19, 2007

## **INTRODUCTION**

This technical note provides instructions and information for the pressure recertification of all Hydro-Force Series pressure cylinders. This includes the PepperJet, X-10C, and X-Stream pressure cylinders.

## **BACKGROUND**

The Hydro-Force Series Optimum Pressure Technology (OPT) devices operate at higher pressures than other handheld pepper spray devices. The higher pressure provides the increased shooting range and the larger number of chemical shots at a greater distance.

Although the Hydro-Force Series cylinders are pressurized to no more than 650 pounds per square inch (psi), we utilize pressure tanks that can handle over 2000 psi so the units are very safe to operate. The U.S. Department of Transportation requires cylinders with high pressure capacity to be completely tested at manufacture and pressure recertified every five years. Each cylinder includes a serial number and a manufacturing date which is used to identify each cylinder and determine when recertification is necessary.

Hydro-Force Series Cylinders are high quality U.S. manufactured aluminum pressure cylinders. The cylinders can be recertified at many locations throughout the United States in the same manner that SCUBA air cylinders are recertified. However, the companies doing recertification are not able to handle pepper spray compounds so cylinders can be sent directly to Hydro-Force for recertification. When sent to Hydro-Force, each tank and the valve mechanism will be checked and tested.

## **PROCEDURE**

### **Checking the cylinder for certification date and serial number.**

These numbers are stamped into the neck of the cylinder. See photo below. The certification date is in the following format: XXCY, where the "XX" is the month of manufacture and the "YY" is the year of manufacture. The cylinder should be recertified before the end of the month stamped on the cylinder.



### **Returning a cylinder for recertification.**

The cylinder can be returned to Priax empty, partially full or full; however, we recommend returning the unit empty, with the pressure valve open and wrapped in a plastic bag.

**CAUTION:** Shipping of pressurized full or partially full cylinders is subject to special shipping requirements. These units must be sealed in a plastic bag to contain leakage and can only be shipped via ground transportation.

### **Preparing a cylinder for shipping**

The cylinder can be returned either with or without the valve mechanism.

1. We recommend returning the unit empty, with the pressure valve and mechanism installed and with the valve in the open position. The unit should be wrapped in a plastic bag, then packed securely
2. You may return the bottle alone if you wish. Open bottles should be thoroughly washed out and wrapped in a plastic bag, then packed securely.
3. The cylinder alone can also be sent to other recertifying agencies. In this case the cylinder should be washed out thoroughly. We have a washout solution available that will help you wash pepper spray (or CS) residue from the cylinder.

We recommend that you return each cylinder empty, with the pressure valve open and wrapped in a plastic bag. Shipping is not restricted for this shipping method. The cylinder should be shipped to:

Priax Corporation  
33408 Sandy Creek Lane  
P.O. Box 776  
Pine Valley, CA 91962-0776

### **What Priax will do:**

Upon receipt of your cylinder for recertification, Priax will

1. Unpacked and inspected your unit for damage or defects. The certification data and serial number is checked.

2. The unit is disassembled and the bottle cleaned for recertification. If the bottle is full or partially full, it will be emptied.
3. While the bottle is being recertified, the mechanism is pressurized and checked for defects and leaks.
  - a. Threads are inspected.
  - b. The pressure O-ring is replaced
  - c. The valve is checked for leaks and operation.
4. The completed unit is reassembled, pressurized and tested as a unit.
5. The unit is refilled with chemical and pressurized if you have asked for that service.
6. The unit is return shipped to you.
7. The recertification process, including checking and retesting the valve mechanism, required about 1 week in our facility.

### **What You Can Order**

1. The recertification process, including mechanism testing, costs \$60.00 for each cylinder and requires about 1 week at our facility. Order: No xxxxx-xx.
2. The cost of replacing the O-ring, cleaning and adjustment is included with the recertification. If other parts are found to be defective, these parts will be replaced at the published parts price, following your verbal approval.

### **Questions**

If you have any questions, or need further information, you can access our website at [www.priax.com](http://www.priax.com), or your call our office at 619-478-2600. Dial Extension 17 for technical assistance or Extension 10 for general information.