

# **INSTRUCTIONS FOR INSTALLATION AND USE OF A WITHDRAWAL DEVICE**

## **1. IMPORTANT SAFETY NOTE:**

Cryogenic liquefied gases can cause severe cold burns if the liquid comes into contact with bare skin or other exposed parts of the body such as the eyes.

Before handling any equipment associated for use with Liquid Nitrogen ensure you have read the Safety Data Sheet provided by the Gas Supply Company and protect eyes, face and skin from liquid splashes by wearing appropriate recommended protective clothing.

## **2. OPERATING PRINCIPLES**

Liquid Nitrogen has a boiling point of  $-196^{\circ}\text{C}$ , when the Withdrawal Device is fitted and a seal made the continuous evaporation of the Liquid Nitrogen results in a build up of pressure within the Dewar. The two safety valves ensure the pressure inside the Dewar does not exceed 6 p.s.i. Normal operating pressure 4.p.s.i.

## **CAUTIONS**

**BEFORE ATTACHING OR REMOVING THE WITHDRAWAL DEVICE, THE PRESSURE VENT MUST BE OPEN AND ALL OF THE GAS PRESSURE WITHIN THE DEWAR ALLOWED TO ESCAPE.**

**BEFORE FITTING THE DEVICE BE SURE YOU LEAVE AT LEAST SIX (6) INCHES BETWEEN THE TOP OF THE DEWAR AND THE TOP OF THE LIQUID NITROGEN AS THIS AIR SPACE IS NEEDED TO ENABLE ADEQUATE PRESSURE BUILD UP.**

**FITTING THE DEVICE TO AN OVERFILLED DEWAR MAY CAUSE DAMAGE TO THE PLUG. THIS TYPE OF MISHANDLING WILL VOID ALL DEVICE WARRANTY.**

## **3. INSTALLING THE WITHDRAWAL DEVICE**

1. Ensure the pressure vent is **Open** – (turn the handle **counter-clockwise**).
2. Slowly insert the Withdrawal Device into the Dewar and maintain a firm downward on the top of the of the valve assembly so the Plug makes a good seal in the neck of the Dewar.
3. While maintaining downward pressure on the top of the Withdrawal Device, hook the four (4) individual hooks into the handles of the Dewar.
4. **Close** the pressure vent by turning **clockwise**. The vent must be closed to allow pressurization.
5. It may take 12-24 hours hours to build up sufficient pressure to withdraw liquid nitrogen through the valve assembly.

## **4. OPERATING INSTRUCTIONS**

1. Position the bottle under the filtered delivery tube ensuring the filter is below the neck of the bottle.
2. Open the main valve and Liquid Nitrogen will begin to flow.
3. Close the main valve once the required amount of Liquid Nitrogen has been dispensed. For optimum performance of your Cryogenic Spray Unit it is recommended to fill to 75% of the capacity of the bottle only.

If you have any other questions or comments, please do not hesitate to contact us on (800) 777-CRYO (USA) or +44 (0) 1256 841045 (UK) or email us at [brymill@brymill.com](mailto:brymill@brymill.com) (US) or [brymill.international-sales@gmail.com](mailto:brymill.international-sales@gmail.com) (UK)