

DISPENSING CRYOGENS

REQUIRED PPE

Face Shield

Protect face from splashes. Also wear **safety glasses** and/or **goggles**

Long sleeves/ Lab coats

Gloves

Use mid-arm to elbow-length cryogenic gloves to avoid liquid splashing inside the glove

Cuffless Pants

Should cover the ankle

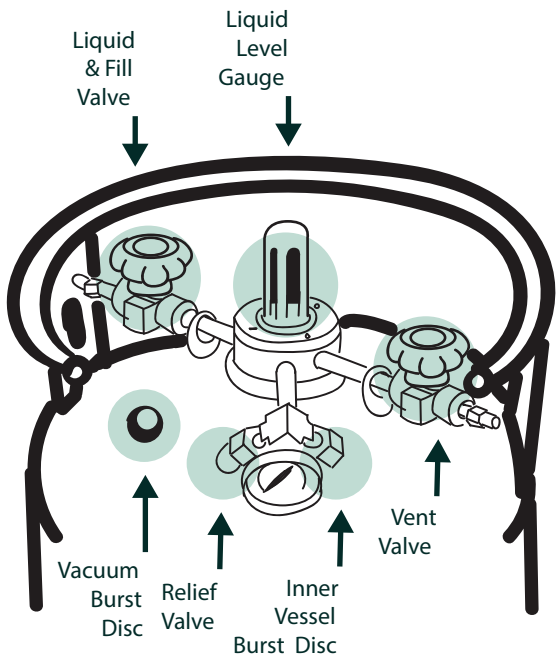
Closed Toe Shoes

(no sandals)

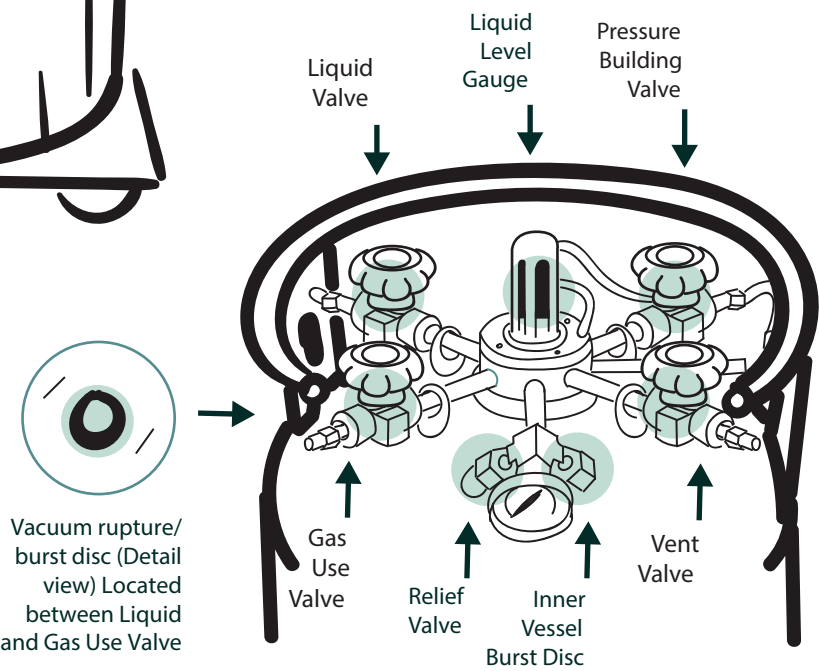
HOW TO USE

Attach a diffuser/phase separator to the end of the dispensing hose to prevent splatter. Most labs only need to manipulate the liquid valve. Under typical use conditions, all other valves (vent valve, gas valve, and pressure building valve, if equipped) should be closed. Valves are labeled by a sticker on the tank and/or a metal tag on each valve stem.

Low Pressure Design



High Pressure Design



COMMON ISSUES

Relief Valve Freezes Open

If the relief valve freezes open, it is usually because moisture froze the spring open. To close it, gently tap the side of the relief valve, taking care to avoid damaging the valve. If the relief valve is still stuck, call the vendor.

Frost Buildup

Frost buildup on top or around the tank and along the dispensing hose is not a cause for concern during normal use. A single spot of frost buildup (e.g., an ice ball) on the side of the tank should be reported to the vendor

so they can flag the tank for an internal check during the next refill. Do not use water to clear the frost buildup.

NOTIFY EHS IF THE TANK LOOKS OR BEHAVES ABNORMALLY

- Pressure relief valve is venting continuously for a prolonged period of time (periodic venting is normal)
- Indented or bulging tanks
- Rupture disc bursts - evacuate the area and call 9-1-1

Do not enter a room with a cryogen release. For example, nitrogen gas can displace oxygen in the room (1L LN₂ = 696L N₂ gas).