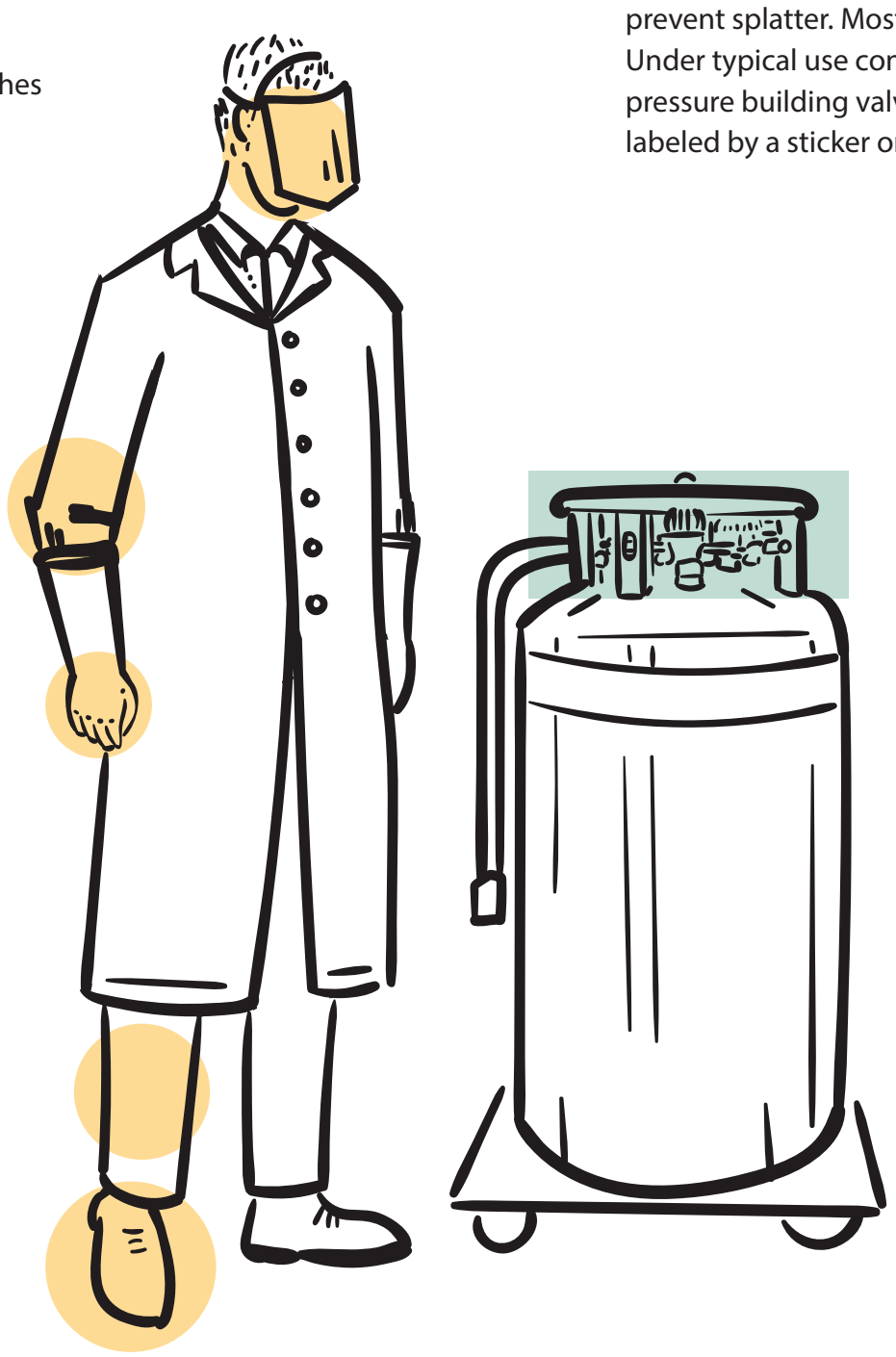
DISPENSING CRYOGENS

REQUIRED PPE

Face Shield
Protect face from splashes

Long sleeves/ Lab coats

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



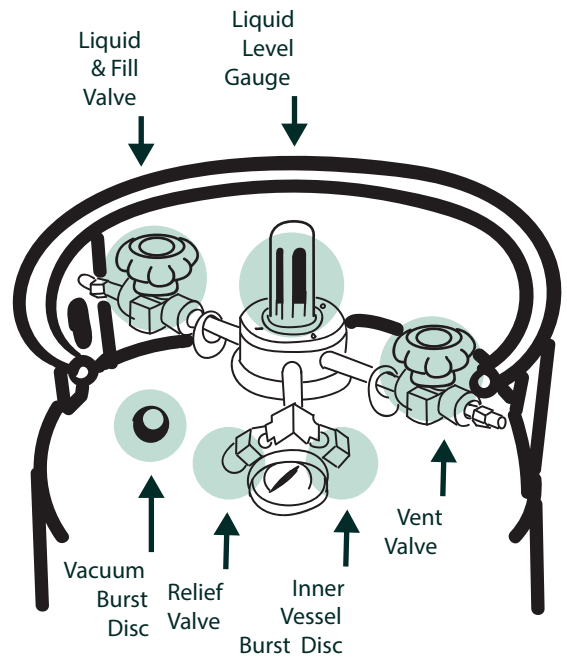
Cuffless Pants
Should cover the ankle

Closed Toe Shoes
(no sandals)

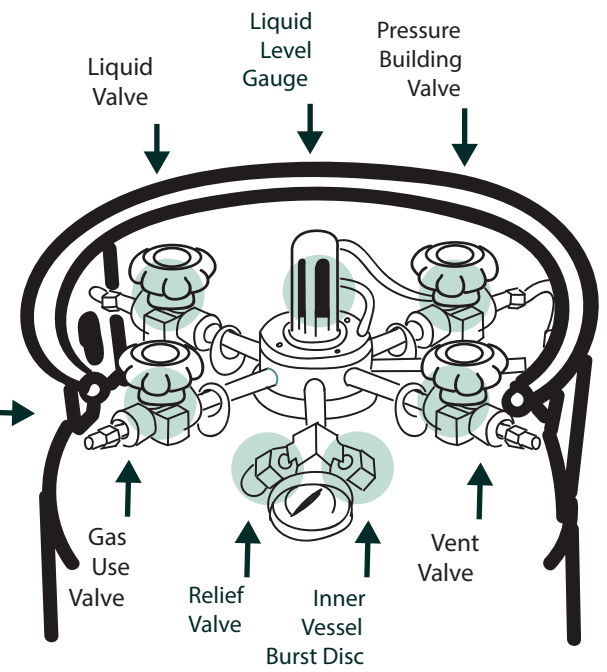
HOW TO USE

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



Vacuum Burst Disc (Detail view) Located between Liquid and Gas Use Valve

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
- Burst disc ruptures - evacuate the area and notify EHS immediately

Do not enter a room with a cryogen release. For example, nitrogen gas can displace oxygen in the room (1L LN_2 = 696L N_2 gas).

The University of Texas at Austin
Environmental Health & Safety

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