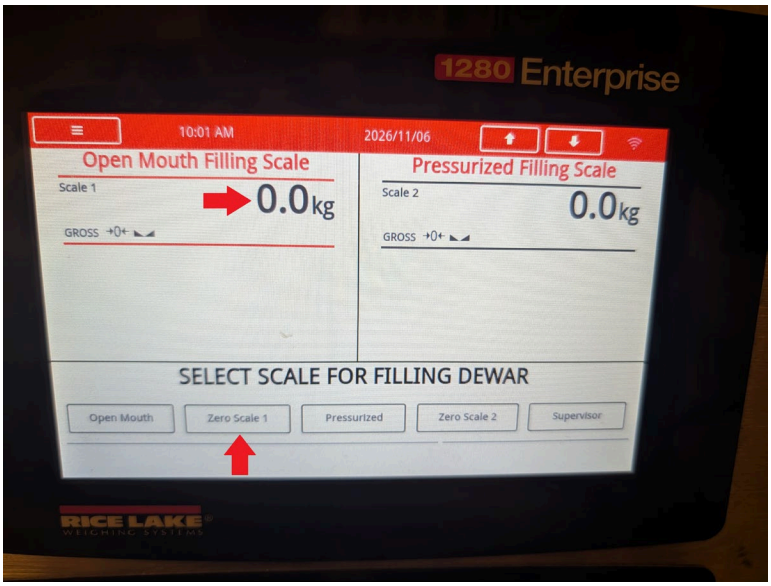
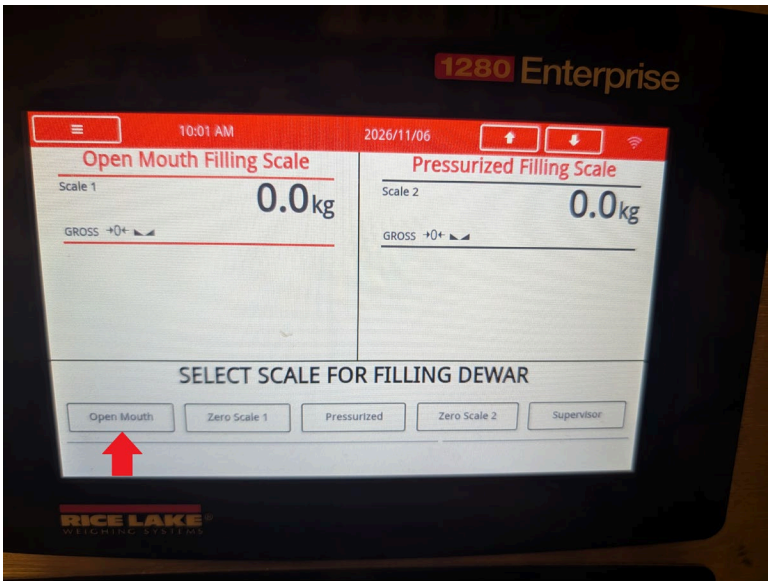
Automated Liquid Nitrogen Dispensing Instructions

The following are instructions to fill any registered open-mouth dewar:

1. Before placing your dewar on the scale, verify that the scale is reading 0.0kg. If it is reading anything else, press the “Zero Scale 1” button.



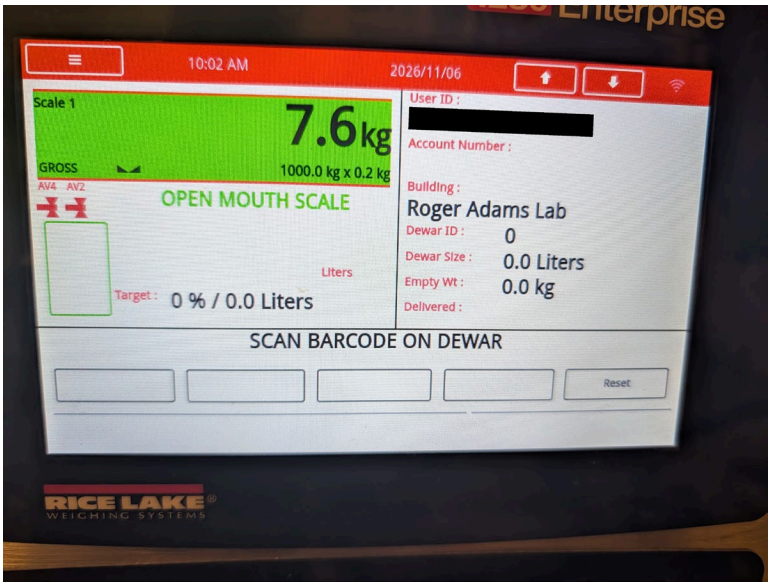
2. Press the “Open Mouth” button to select the open-mouth scale. You can now place your dewar on the scale.



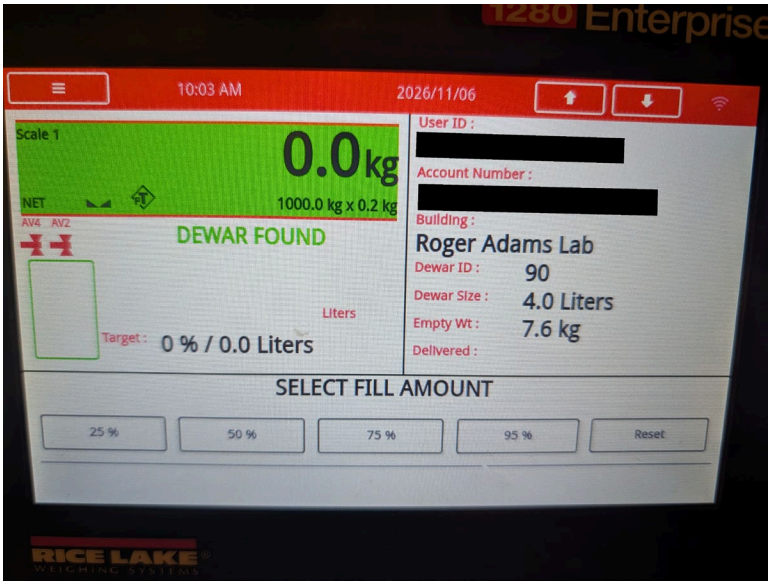
3. Swipe your I-card with the magnetic stripe facing to the right using the card reader attached to the front of the terminal. If a message comes up on the screen that says “Invalid ID – Swipe Student ID Card”, wait until the red light on the card reader goes back to green and try swiping your card again.



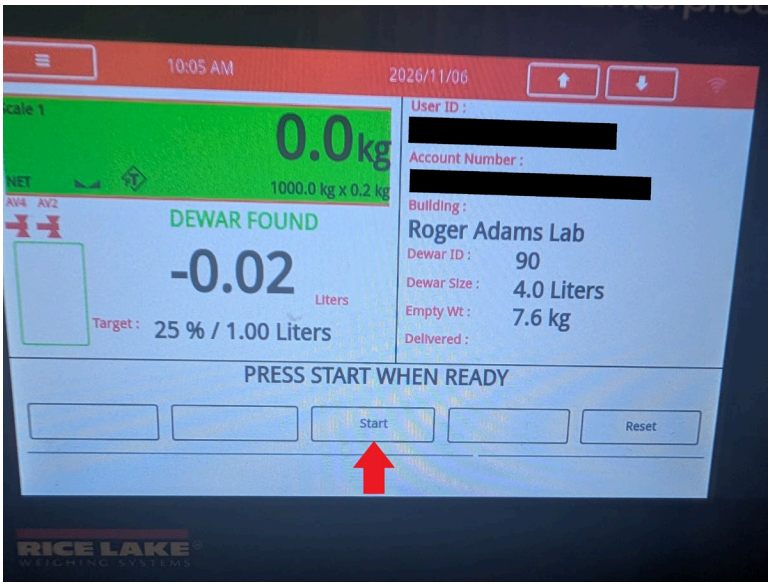
4. Scan the barcode affixed to the dewar. The barcodes used for the liquid nitrogen system have only a 4-digit barcode ID so be sure to avoid any University asset tags that may be present on the dewar.



5. Select the “Fill Amount” for your dewar. The options available are either 25%, 50%, 75%, and 95%.

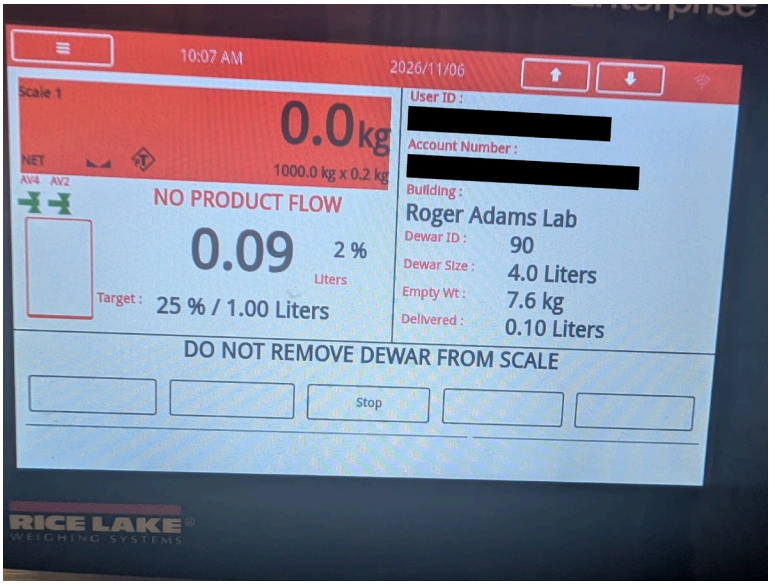


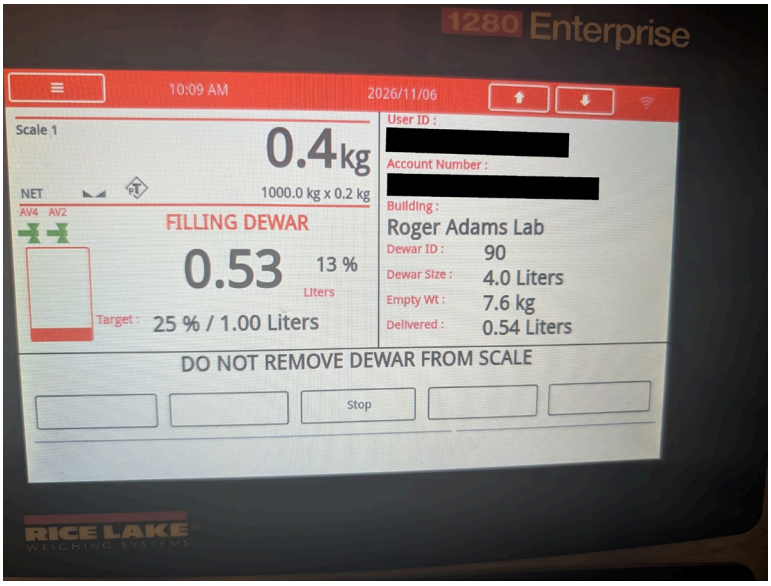
6. Once you have your PPE on and are prepared to begin the filling process, press “Start”.



7. The system will begin to purge the lines and begin to draw liquid nitrogen from the storage dewar. It will take 5-6 minutes to begin getting liquid into your dewar if the lines are warm and ~3 minutes if they are still cold. During

the purge process, you will see message on the screen that says “No Product Flow”. This is normal and this message will go away once the flow of liquid has begun. The system will continue to dispense liquid nitrogen until the amount current in the dewar (number under “Filling Dewar) matches the target fill amount (1.00 liters in this example). If you want to stop the fill before the amount reaches the target, press the “Stop” button at the bottom of the screen.





8. Once the feed is cut off from the storage dewar, the system will take a 3 second “settle time” to allow any liquid nitrogen in the dewar to come to rest. After that “settle time”, the screen will show “Safe To Remove Dewar From Scale” and your transaction will be registered. The amount shown on the right side of the screen in the “Delivered” field is the amount you will be billed for. There will be a 60 second countdown on the screen where the system will try to drain any liquid remaining in the lines back into the storage dewar. You do not need to wait until this timer counts all the way down to remove your dewar once you receive the “Safe To Remove Dewar From Scale” message. Once you remove your dewar from the scale and this timer is completed, the screen will reset back to the “Select Scale” screen.

