

Preparing New Shipping Dewars for Use with SSRL Cassettes

SSRL cassettes are compatible with most dry shipping dewars. We recommend using the combination of a MVE model SC4/2V shipping dewar (Figure 1a), Taylor Wharton CX100 or CXR100R cryogenic shipping dewar (Figure 1b) with a Taylor Wharton TAY CX10-8C00 dewar container (Figure 2). Follow the directions below to prepare your shipping dewar for use with SSRL cassettes.



1. Replace canisters or modify canisters for compatibility with SSRL cassettes:
 - o Acquire modified canisters from Crystal Positioning Systems (<http://www.crystalpositioningsystems.com/>). For Taylor Wharton dewars, we highly recommend purchasing a modified canister. Although the original canister may be used, it will be a tight fit around the cassettes making it difficult to insert and remove them, even with the modification.
 - o To modify an original canister, a portion of the fiberglass tube holding the handle together needs to be filed away. This allows the cassette to be inserted easily. For step by step instructions refer to: http://smb/facilities/hardware/cassette_kit/canister_directions/index.html
2. Acquire the following additional parts: Teflon support ring, Styrofoam spacer, and Styrofoam cover. You can buy these parts, separately or altogether, from Crystal Positioning Systems. CPS Part number: CP-111-010: <http://www.crystalpositioningsystems.com/Cassette-Shipping-Canister.htm>.
3. Place the Teflon support ring inside the shipping dewar. This helps prevent the canister handle from breaking. (Figure 3)
4. Insert the canister. (Figure 4)





5. Add the Styrofoam cover on the vacuum plug before you fill the dewar with liquid nitrogen in the usual manner. This protects the vacuum seal from getting liquid nitrogen spilled on it when filling. (Figure 5a, Figure 5b)



6. Two cassettes may be shipped inside one canister. (Figure 6a) When shipping just one cassette, place the Styrofoam spacer on top of the cassette to keep cassette in place during shipment. (Figure 6b)



Note: To ensure the safety of your samples, it is strongly recommended to test the shipping dewar prior to shipping: <http://smb.slac.stanford.edu/facilities/hardware/cryotools/shipping-dewar-testing.html>

For information on how to ship dewars to and from SSRL see the User Shipments web page:
<http://smb.slac.stanford.edu/forms/shipping/DewarToSSRL.html>

For information on how to load and ship your cassettes see the User's Guide web page:
http://smb/users_guide/manual/Using_SSRL_Automated_Mounti.html#SECTION00052000000000000000