

Title: PROCEDURE FOR OPERATION OF THE BACK TO AIR CART

PROCEDURE FOR OPERATION OF THE BACK TO AIR CART
LIGO VACUUM EQUIPMENT

Hanford, Washington and Livingston, Louisiana

JOB NO. V59049

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PROCESS SYSTEMS INTERNATIONAL, INC.			SPECIFICATION
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			Rev.0

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OUTLINE

- 1.0 PURPOSE
- 2.0 GENERAL
- 3.0 REFERENCE DOCUMENTS
- 4.0 RESPONSIBILITY
- 5.0 BACKFILL PROCEDURE
- 6.0 PURGE PROCEDURE

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- 5.2 Install the Baratron capacitance manometer sensor on the RGA port of the vacuum vessel. The reading on this instrument is used to monitor the vessel pressure during backfilling. Open the isolation valve and check that the Baratron is reading the vessel pressure.
- 5.3 Connect the back to air cart to the clean air header using one section of the NW 50 metal hose supplied with the cart. In order to enhance controllability, it is recommended that the direction of air flow through the valves on the cart be from under the plug to over the plug (in the bottom port ,out the side port).
- 5.4 Connect one end of the NW 50 vessel supply hose to the outlet side of the cart. The NW 50 purge tee / NW 16 purge valve is now installed between the vessel supply hose and the vessel backfill isolation valve. This allows purging of the back to air system up to the point of vessel entry through the NW 16 purge valve mounted on the tee.
- 5.5 Open the clean air header isolation valve (BVCA) to admit clean air to the cart. Partially open the NW 16 (NW 25) valve on the cart to admit clean air to the vessel supply hose. Partially open the purge valve on the purge tee to start system purge flow. Adjust the NW 16 (NW 25) valve, as required, to establish a steady purge flow through the cart and hoses. Allow the system to purge for at least two hours. Note: The NW 40 (NW 50) valve on the cart should also be cracked open during the purge in order to dry it out.
- 5.6 After back to air cart purging is complete, close the purge valve on the tee. The cart is now ready to backfill the vessel by opening the vessel isolation valve. Backfill flowrate is controlled by manually adjusting the valves on the cart. The NW 40 (NW 50) valve provides coarse control, the NW 16 (NW 25) valve provides fine control. Note: Vessel pressure must be monitored at all times. Backfilling is complete when the Baratron reads 760 torr

6.0 VESSEL PURGE PROCEDURE

- 6.1 After backfilling of the vessel has been completed, purging may be initiated by opening an appropriate vent to allow purge air to exit the vessel. When purging the vessel, operation of the back to air cart is exactly the same as during backfilling (ref. section 5.0).

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