



PHENIX HELIUM BAG INSTALLATION PROCEDURE

PHENIX Procedure No. PP-2.5.5.4-18

Revision: A

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Hand Processed Changes

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REVISION CONTROL SHEET

LETTER	DESCRIPTION	DATE	WRITTEN BY	APPROVED BY	CURRENT OVERSIGHT
A	First Issue	05/03/2001	n/a	P. Kroon, M.Sivertz, W. Lenz, C. Pearson	n/a
Deactivated	Cannot use with HBD and RXNP in place. Reactivate in future if needed	3/21/2007	n/a	D. Lynch, P. Giannotti, R. Pisani for PHENIX	D. Lynch

1.0 Purpose and Scope

The scope of this procedure is to describe the installation of the Helium Bag in PHENIX.

2.0 Responsibilities

The PHENIX Run Coordinator (RC) is responsible for coordinating the installation with the effected subsystems; i.e. the MVD, the NTC and the T0 groups.

It is the responsibility of the PHENIX Gas Coordinator to make sure that the Helium Bag is in proper working condition, with no substantial leaks. The PHENIX Gas Coordinator is also responsible for the design, construction, and operation of the Helium Gas delivery system.

3.0 Prerequisites

In order to install and operate the PHENIX Helium Bag, the following requirements must be met:

- 2.1 BNL Compressed Gas Training (OSH-026)
- 2.2 Fall Protection Training (GE-FALLPROTECT)

4.0 Precautions

Before installing the PHENIX Helium Bag, all affected subsystem coordinators shall be made aware of the procedure by the PHENIX RC.

5.0 Procedure

5.1 Installation Procedure

- 5.1.1 Using the MVD platform, bolt the four brass outer mounting rings to the photon shields using 3/4-10 Stainless Steel bolts.
- 5.1.2 Wrap the containment string around the aluminum rivets, stretching the string with 25 pounds tension. The string shall make a latticework of horizontal lines separated by 1.5 inches.
- 5.1.3 The string shall be tied off after every fourth rivet, to insure that the entire netting cannot unravel if the string breaks.
- 5.1.4 Install the two brass inner mounting rings to the Central Magnet Nose Cone.
- 5.1.5 Wrap the containment string around the aluminum rivets, stretching the string with 25 pounds tension, as for the outer netting.
- 5.1.6 Connect the top inner two grommets of the Helium Bag to the top bolts of the photon shields using cable ties.
- 5.1.7 Connect the bottom outer two grommets of the Helium Bag to the bottom bolts of the photon shields.
- 5.1.8 Connect the top inner two grommets of the Helium Bag to the inner mounting ring with cable ties.
- 5.1.9 Connect the bottom inner two grommets of the Helium Bag to the inner mounting ring with cable ties.
- 5.1.10 Inflate the Helium Bag to 0.5 inches WC.
- 5.1.11 The Helium gas will be controlled by a photohelic which will open or close a solenoid valve depending upon the pressure in the bag. If the pressure drops below 0.25 inches WC, the valve will open inflating the bag. When the pressure reaches 0.75 inches WC, the valve closes.
- 5.1.12 A safety bubbler venting to the LCVS will ensure that the pressure inside the bag does not exceed 1 inch WC.

6.0 Documentation

None.

7.0 References

None.