



Title: Procedure for AHU Duct Leak Test

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1.0 OBJECTIVE:

To lay down a Procedure for AHU Duct leak test.

2.0 SCOPE:

This SOP is applicable for AHU duct leak test.

3.0 RESPONSIBILITY:

Officer / Executive – Engineering

4.0 ACCOUNTABILITY:

Head – Engineering

5.0 ABBREVIATIONS:

%	Percentage.
CFM	Cubic Feet per Meter
RPM	Revolutions per Minute.
SOP	Standard Operating Procedure

6.0 PROCEDURE:

6.1 FOR SUPPLY DUCT:

- 6.1.1** Prepare the 1 % Teepol solution to check the duct leakages. (Take 10 ml solution and dissolve in 1000 ml of purified water)
- 6.1.2** Ensure the all supply duct dampers are closed.
- 6.1.3** Switch on the AHU motor to create air pressure in the supply duct.
- 6.1.4** Apply the 1 % Teepol solution on the duct joints.
- 6.1.5** Observe all supply ducts carefully for any bubble formation on outside.
- 6.1.6** If any bubbles observed on supply ducts tight the nut bolts and make sure that the leakage is stopped.
- 6.1.7** Stop the AHU motor and wait for 10 minutes and again check for leakages repeat point no 6.1.2 to 6.1.5.
- 6.1.8** If any bubble formation is observed mark the area with marker pen to identify the leakages.
- 6.1.9** If required apply the silicon grease to arrest the leakages. Ensure the duct should be dry before applying the silicon grease.



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6.1.10 Record the leak test details in **Annexure-I**.

6.2 FOR RETURN DUCT:

6.2.1 Ensure the all supply duct dampers are open and partially close the return duct dampers.

6.2.2 Switch on the AHU motor to create air suction in the return duct.

6.2.3 Take 500 cm polythene paper and cover the duct joints.

6.2.4 If the polythene falls down, this indicates no leakages. If the polythene sticks to the joint this indicate leakages in the duct.

6.2.5 If any leakages observed on return ducts tight the nut bolts and make sure that the leakage is stopped

6.2.6 Repeat the process twice to ensure no duct leakages.

6.2.7 Record the leak test details in **Annexure-I**.

7.0 ANNEXURES:

ANNEXURES No.	TITLE OF ANNEXURE	FORMAT No.
Annexure-I	AHU Duct leak test observation sheet.	

ENCLOSURES: SOP Training Record

8.0 DISTRIBUTION:

- Controlled Copy No. 01 Quality Assurance
- Controlled Copy No. 02 Engineering
- Master Copy Quality Assurance

9.0 REFERENCES

Not Applicable

10.0 REVISION HISTORY:

CHANGE HISTORY LOG

Revision No.	Change Control No.	Details of Changes	Reason for Change	Effective Date	Updated By

