

**VEERMATA JIJABAI TECHNOLOGICAL INSTITUTE**

(VJTI)

[Central Technological Institute, Maharashtra State]  
MATUNGA, MUMBAI - 400 019.**PAGE NO.6****TECHNICAL TEST REPORT**

-6-

**II. REPORT OF TESTS CONDUCTED TO FIND OUT**  
**LEAKAGE RATES OF DUCTS****DATE OF TEST: 26TH JANUARY 2002****II (A) OBSERVATIONS & RESULTS:**

Id. Mark : RP1

Cross Section of Ducting : 400 x 400  
B x D (mm)

Length of Duct in (ft) : 8.0

Duct wall Gauge : 24G

Sealing of Longitudinal joints (Pgh.) : Sealed

Type of Connector : ROLAMATE<sup>TM</sup> - H

Corners : Extra Sealent

Gasket : Imported (10x4.5 mm)

Material of Duct : GI

Pitch of pop rivets (mm) : 110

Pressure Class : Class-A (Low Pressure) upto 500 pascals

Sr.No.	Applied Duct Pressure (Pascals)	Static Pressure Differential (Pascals)	Actual Leakage of Duct work (lit/sec/m <sup>2</sup> )
1	100	12	0.135
2	200	23	0.207
3	300	34	0.267
4	400	44	0.316
5	500	54	0.361

The test was carried out on the request of the party as per Calibration Certificate Nos. 18755 & 18756 dated 10.7.1999. The next calibration was done at VJTI on 28.1.02. The above observations should be modified by using the latest calibration charts bearing ID Mark MML 4744 and MML 4743 respectively.

*for S. J. Joshi*  
31/1/02  
Head, Structural Engg. Dept.

*S. J. Joshi*  
Principal & Secretary

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MATUNGA, MUMBAI - 400 019.PAGE NO.7TECHNICAL TEST REPORT

-7-

REPORT OF TESTS CONDUCTED TO FIND OUT LEAKAGERATES OF DUCTSDATE OF TEST: 26TH JANUARY 2002**II (B) OBSERVATIONS & RESULTS:**

Id. Mark : RP2  
 Cross Section of Ducting : 400 x 400  
 B x D (mm)  
 Length of Duct in (ft) : 8.0  
 Duct wall Gauge : 24G  
 Sealing of Longitudinal joints (Pgh) : Unsealed  
 Type of Connector : ROLAMATE<sup>TM</sup> - H  
 Corners : Extra Sealant  
 Gasket : Imported (10x 4.5 mm)  
 Material of Duct : GI  
 Pitch of pop rivets (mm) : 110  
 Pressure Class : Class-A (Low Pressure) upto 500 Pascals

Sr.No.	Applied Duct Pressure (Pascals)	Static Pressure Differential (Pascals)	Actual Leakage of Duct work (lit/sec/m <sup>2</sup> )
1	100	15	0.157
2	200	40	0.297
3	300	55	0.365
4	400	69	0.423
5	500	95	0.521

The test was carried out on the request of the party as per Calibration Certificate Nos. 18755 & 18756 dated 10.7.1999. The next calibration was done at VJTI on 28.1.02. The above observations should be modified by using the latest calibration charts bearing ID Mark MML 4744 and MML 4743 respectively.

*for G. D. Joshi*  
31/1/02  
Head, Structural Engg. Dept.

*[Signature]*  
Principal & Secretary

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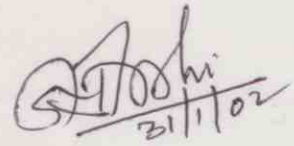
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## TECHNICAL TEST REPORT

PAGE NO. 10

### NOTE :-

- (1) The testing for Leakage on ducts was done using a procedure similar to that described in DW/143, A practical guide to DUCTWORK LEAKAGE TESTING , 1983.
- (2) The Id. Mark of the equipment used for the leakage test, to apply the duct pressure and to measure the static pressure differential is as follow:-  
Inclined Manometer - AIRFLOW Make, Range 0-500 Pascals  
Pressure Gauge - MAGNEHELIC Make Range 0-3 KPa
- (3) The leakage test was done on 26.1.2002, using the calibration certificates issued by Maritime & Mercantile International Engineering Services dated 10.7.1999. The next calibration was due on 10.7.2000.
- (4) The instrument was calibrated on 28.1.2002 at VJTI and it is therefore stated that the readings should be corrected using the latest calibration certificate for the pressure gauge and the inclined manometer.
- (5) The xerox copies of the old and the latest calibration certificates are attached herewith for your record.

for   
21/1/02  
Head, Structural Engg. Dept.

  
Principal & Secretary