DeFelsko®

Management Procedure 2548
Revision: A
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Date Revised:

Calibration Procedure

DeFelsko Corporation

PosiTest AIR

Leak Tester

Table of Contents

1 Introduction and UUC Performance Requirements

1.1 This procedure describes the calibration of DeFelsko Corporation PosiTest AIR leak tester with the following specification:

Table 1-1 Measurement Ranges

Unit	Measurement Range
PosiTest Air	0 – 800 Pa

1.2 The unit being calibrated will be referred to as the UUC (Unit-Under-Calibration).

2 Measurement Standards and Support Equipment Performance Requirements

2.1 The UUC accuracy requirements are based upon the published UUC performance specifications.

2.2 The test uncertainty ratio applied in this Calibration Procedure is 4:1 unless otherwise stated.

2.3 The Minimum-Use-Specifications are the minimum test equipment specifications required to meet all the UUC accuracy requirements and the test uncertainty ratio applied.

Table 2-1 UUC Accuracy Requirements and Description

UUC	Performance Specifications		Test Method
AIR	0 – 800 Pa	± (10% of reading + 10 Pa)	Air Pressure Sensor

Table 2-2 Minimum use specification

Range	Accuracy
0 – 800 Pa	± 2.5 Pa

Table 2-3 Actual Equipment Specification

Equipment Generic Name	Range	Accuracy	Manufacturer / Model #'s Applicable
Air Flow Meter	0 – 4000 Pa	± (1% of reading + 1 Pa)	Fluke model 922

***Caution*:** The instructions in this Calibration Procedure relate specifically to the equipment and conditions listed in Section 2. If other equipment is substituted, the information and instructions must be interpreted accordingly.

Table 2-4 Calibration Environmental and Warm-Up Requirements

Measurement Standards & Support Equipment Environmental Requirements:	Temperature: 23 ± 5° C. Relative Humidity: Less than 95%
Measurement Standards & Support Equipment Warm-up and Stabilization Requirements:	Not Required

3 Preliminary Operations

Note: Review the entire document before starting the calibration process.

3.1 Visual Inspection

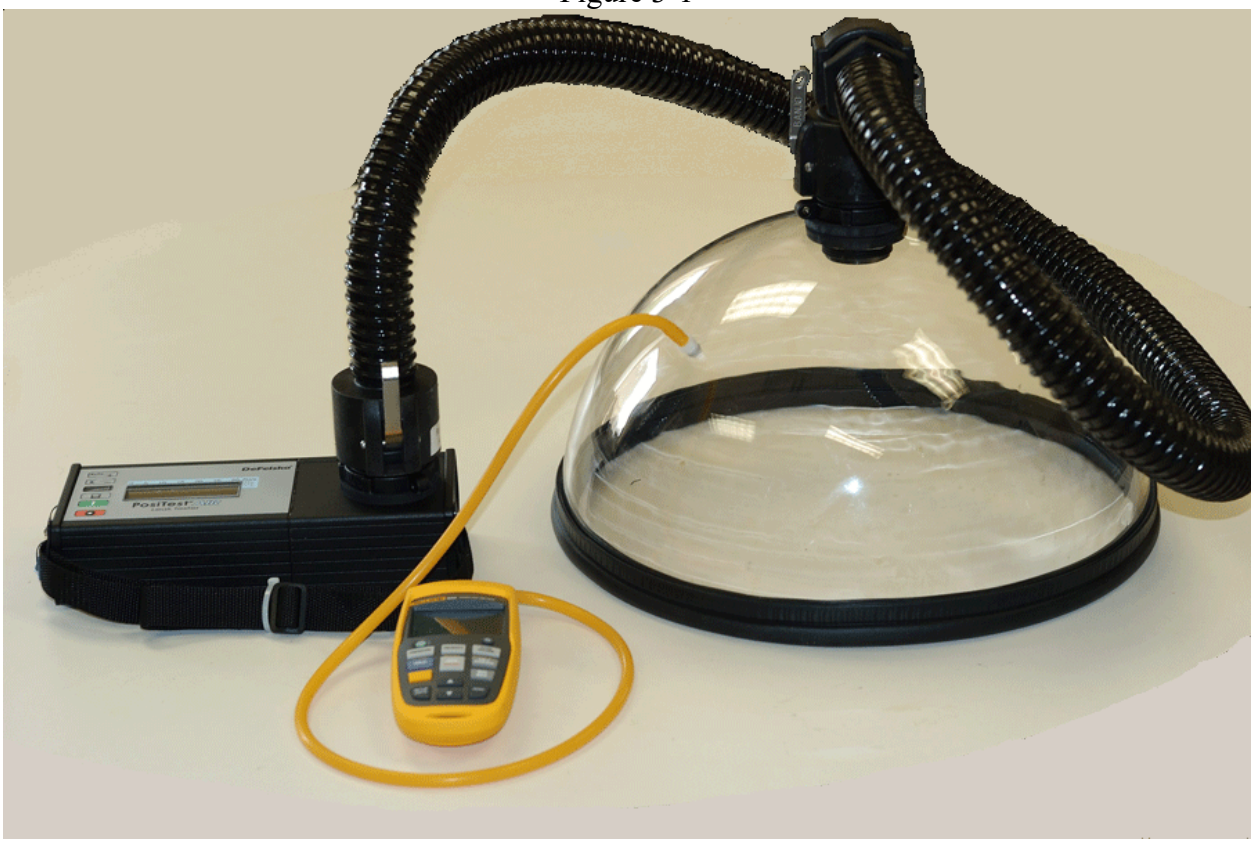
3.1.1 Visually inspect the UUC for:

- damage to LCD readout, keypad, enclosure or quick disconnect coupling
- missing USB and/or power port covers
- proper identification

3.1.2 Damage or excess wear shall be repaired prior to beginning the calibration process.

3.2 Connect one end of vacuum hose to the UUC and the other end to the test dome.

Figure 3-1



3.3 Place the open end of the dome on a hard, flat and smooth surface. Ensure the dome gasket is making good contact with the surface all the way around and the hose is not kinked.

3.4 Attach the hose from the air flow meter inlet to the test port on the dome. Make sure the hose is not kinked.

3.5 Turn on the air flow meter. If the displayed pressure is not zero, press and hold the zero button until the meter beeps and the displayed pressure changes to zero.

4 Calibration Process

Note: Whenever the test requirement is not met, verify the results of each test and take corrective action before proceeding.

4.1 Review the Performance Requirements Table 5-1.

4.2 Press the green button on the UUC twice, the gage will turn on and then display zero.

4.3 Press the Auto/+ button until it displays Man for manual mode, then press the green button once to save the mode change and then press the green button a second time to start the unit.

4.4 Press the Auto/+ button until the unit reaches approximately 200 Pa. Allow the unit to stabilize for a couple seconds and then record the value displayed on the UUC and the flow meter.

4.5 Repeat step 4.4 for 300, 400 and the unit maximum at approximately 800 Pa.

4.6 Determine the allowed range of readings for the UUC using the calculation methods shown in Table 5-1.

5 Performance Requirements

Table 5-1 Performance Requirements and Calibration Data for PosiTest AIR

Flow Meter Reading (Pa)	Min. Reading Allowed❶ (Pa)	UUC Reading (Pa)	Max. Reading Allowed❷ (Pa)
A			

❶Calculation (A times 0.90) – 10. Round up to the nearest 1 Pa increment
❷Calculation (A times 1.10) + 10. Round down to the nearest 1 Pa increment.

Management Procedure Change Notice

Procedure Number: MP 2548
Revision Level: A
Date of Change: September 19, 2013
Title: Calibration Procedure for PosiTest AIR

Reason for Change:
• New product
Description of Change:
• New procedure

I confirm I have read and understand the procedure and the change described above.

Printed Name	Signature	Date

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