

VALLEYCARE
OLIVE VIEW-UCLA MEDICAL CENTER/HEALTH CENTERS
DEPARTMENT: FACILITIES
POLICY & PROCEDURE

NUMBER: 336
VERSION: 1

SUBJECT/TITLE: A.C.D. PNEUMATIC DAMPERS

POLICY: To check pneumatic operation and function of ACD dampers annually. Check and test all pneumatic lines and connections for air leaks. Check the diaphragm inside the pneumatic damper motor for air leakage.

PURPOSE: Automatic control dampers (A.C.D.'s) in fan rooms controlling return air flow back to supply fans. Fan tracking system. Pneumatic checkout.

1. Test pneumatic air line from control panel to pneumatic motor at A.C.D. using squeeze bulb or maximum 20-PSI main air pressure. This can be done by disconnecting air lines at pneumatic motor and plugging lines or leave connected at motor and test both pneumatic lines and motor diaphragm at the same time. No pressure should bleed off test gauge for approximately 60 seconds.
2. Test diaphragm inside pneumatic motor using similar procedures in step #1.
3. Check out spring range of pneumatic motor for proper stroke. For example, a 5-10 PSI spring range pneumatic motor stroking a normally closed (N.C.) A.C.D. damper using a squeeze bulb attached to pneumatic motor, observe gauge on squeeze bulb. As the pressure builds, at 5 PSI, the pneumatic motor should start to stroke the A.C.D. damper open. At 7.5 PSI, the pneumatic motor should be stroking the A.C.D. damper to its ½ halfway position and at 10 PSI; the pneumatic motor should be stroking the A.C.D. damper to its 100% full open position.
4. For a 5-10 PSI pneumatic motor stroking a normally open (N.O.) A.C.D. damper, the same procedure is used, but damper positions are reversed. Example: at 5 PSI, motor is just starting to close A.C.D. damper. At 7.5 PSI, motor has stroked A.C.D. damper to its halfway position. At 10 PSI, motor has stroked A.C.D. damper fully closed, shut off tight, allowing no airflow through A.C.D. damper.
5. Check all pneumatic connections for leaks, sparking them with a soap-water solution works well for this.
6. Spring ranges of pneumatic motors controlling A.C.D. dampers throughout

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the hospital vary quite a bit. Always try to identify by make and model numbers. Most pneumatic motors have a tag on them, designating its spring range: 5-10 PSI, 8-13 PSI, etc.

DEPARTMENTS: FACILITIES

DEFINITIONS:

PROCEDURE:

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| References: | |
| Approved by: Robert Ross (Director, Facilities) | Date: 08/12/2009 |
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