

Standard Operating Procedure Start-Up Procedure & Verification of Smoke Fire Damper	SOP No. 8.061
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DCR No.: 05007
Revision No.: 0

Effective: 03-01-2005
Supersedes: 03-01-2005
Revision Date: 03-01-2005
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1 Purpose

- 1.1 Provide a standard procedure for start-up and commissioning of HVAC equipment.
- 1.2 Provide a standard procedure for coordinating selection, receiving, check out, and acceptance of new equipment.

2 Scope

- 2.1 This procedure applies to smoke fire dampers.

3 Responsibility

- 3.1 Project Managers have overall responsibility for new equipment from procurement to start-up. To assure optimum selection of equipment and smooth commissioning, the Project Manager is responsible for coordinating the following activities:
 - 3.1.1 Review of customer and specific job specifications.
 - 3.1.2 Review of equipment selected with Service prior to ordering. Assure equipment is on approved list.
 - 3.1.3 Review drawings, assure drawing schedules and equipment details are correct.
 - 3.1.4 Coordinate delivery and commissions schedule with all team members including (but not limited to): Site Foremen, Balance and Service (start-up), Customer, General Contractor, and Safety (as needed).
 - 3.1.4.1 In most cases, Start-up should be scheduled a month in advance.
 - 3.1.4.2 If exact date is known, Service should be notified with estimated time frame.
 - 3.1.4.3 Communicate specific requirements to all team players in writing and verbally.

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3.1.4.4 Provide appropriate job number(s) to team members.

3.2 Therma Service/Start-up has responsibility for the following activities:

- 3.2.1 Therma will provide a qualified Service Mechanic to perform equipment start-up.
- 3.2.2 The start-up technician will perform the start-up tasks as specified in the commissioning Standard Operating Procedure for that equipment.
- 3.2.3 Service will provide estimated time required to Project Manager (PM) prior to start-up. Service will meet agreed upon schedules to assure customer satisfaction.
- 3.2.4 The start-up technician will fully complete a start-up sheet for each piece of equipment. A copy of this sheet will be provided to the Project Manager with the turnover documents: A second copy will be filed in Service by Customer Name and Address.
- 3.2.5 All time will be charged to the appropriate job number as specified by the Project Manager. If requested, Time and Material forms shall be completed.

3.3 The Start-up/Commissioning Coordinator has responsibility for the following activities:

- 3.3.1 Provide a communication path between the Project Manager and the Field Foremen.
- 3.3.2 Schedule qualified personnel for start-up, balance, test, and room certification as required.
- 3.3.3 Coordinate punch list completion with Project Managers.
- 3.3.4 Coordinate start-up, service, balance, and testing report documentation.

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4 Procedures

4.1 General: A Service Technician is responsible for filling out start-up sheet FN 8.061.1 for Smoke Fire Damper. A start-up sheet will be completed for each piece of equipment. Each sheet requires the following information:

4.1.1 Job identification: The job name, job number, and job address are to be completed by the start-up/commissioning coordination; these will be provided to the Service Technician.

4.1.2 Section 5 - Equipment Description.

4.1.3 Section 6 - Equipment Pre-Installation Inspection.

4.1.4 Section 7 - Equipment Installation Inspection.

4.1.5 Section 8 - Operational Inspection.

4.1.6 Signature - As each section and page is completed, the Service Technician must print and sign his/her name and record the date. This document should also be signed off by an owner representative.

5 Equipment Description

5.1 This section should be completed by the Service Technician or Service Coordinator. Any design documentation specifying equipment should be recorded in this section. This includes: Specification number, Submittal number, Process and Instrumentation Diagram number, and Drawing number. Also, record which area this equipment will be serving.

6 Equipment Pre-Installation Inspection

For each of the following items: Check Yes, No or N/A for not applicable. If No is checked, describe the difference in the comment section and notify the Project Manager immediately. Initial and date each item as it is checked.

6.1 Nameplate data matches vendor specifications.

6.2 Make sure all parts are received and verify the packing slip(s).

6.3 Inspect for visible signs of damage, leak, or defective parts. Note any discrepancies and notify the Project Manager.

6.4 Operational and Maintenance (O&M) manual is available in the field.

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6.5 Control technicians have reviewed factory start-up procedures in the O&M manual.

7 Installation Inspection

For each of the following items: Check Yes, No or N/A for not applicable. If No is checked, describe the difference in the comment section and notify the Project Manager immediately. Lock Out/Tag Out procedures should be observed before most of the following steps.

- 7.1 Damper is part of a central protection system.
- 7.2 Damper is properly installed in place.
- 7.3 Tag is attached to the damper.
- 7.4 Service clearance is adequate for maintenance.
- 7.5 Flanges are installed correctly.
- 7.6 Access door is installed.
- 7.7 Access door is labeled.
- 7.8 Ceiling tile grid or ceiling access door is labeled.
- 7.9 Actuator is installed.
- 7.10 Power wiring is installed.
- 7.11 Control wiring is installed.
- 7.12 Pneumatic air is installed.
- 7.13 Fusible link is installed.
- 7.14 Smoke detector is installed.

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8 Operational Inspection

For each of the following items: Check Yes, No or N/A for not applicable. If No is checked, describe the difference in the comment section and notify the Project Manager immediately. Lock Out/Tag Out procedures should be observed before most of the following steps.


- 8.1 De-energize damper actuator and make sure damper closes completely.
- 8.2 Energize damper actuator and make sure damper opens completely.
- 8.3 Verify that ceiling noise level is below acceptable limit.
- 8.4 Verify that smoke detector is functioning and able to shut down the damper.

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Document Approval


 Service Manager

3-1-05
 Date


 Engineering Manager

Mar 1 05
 Date


 Quality Assurance Manager

03-01-2005
 Date

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