

Section 01750**STARTING SYSTEMS****1.0 GENERAL****1.01 SECTION INCLUDES**

- A Starting systems.
- B Demonstration and instructions.
- C Testing, adjusting, and balancing.
- D References to Technical specifications:
 - 1. Section 01350 – Submittals
 - 2. Section 01430 – Contractor’s Quality Control

1.02 MEASUREMENT AND PAYMENT

- A Unless indicated as a Bid Item, no separate payment will be made for Work performed under this Section. Include cost in Bid Items for which this Work is a component.

1.03 SUBMITTALS

- A Make Submittals required by this Section under the provisions of Section 01350 – Submittals.
- B Submit a written report that equipment or system has been properly installed and is functioning correctly.

2.0 PRODUCTS - Not Used**3.0 EXECUTION****3.01 PREPARATION**

- A Contractor shall conduct all start-up operations under this Contract in conformance with Section 01430 – Contractor’s Quality Control.
- B Coordinate schedule for start-up of various equipment and systems.
- C Notify Engineer 7 days prior to startup of each item.
- D Verify that each piece of equipment or system has been checked for proper lubrication, drive rotation, belt tension, control sequence, or other conditions which may cause damage.
- E Verify that tests, meter readings, and specified electrical characteristics agree with those required by the equipment or system manufacturer.

- F Verify wiring and support components for equipment are complete and tested.
- G Execute start-up under Contractor's supervision in accordance with manufacturer's instructions.
- H When specified in individual specification sections, require manufacturer to provide authorized representative to be present at site to inspect, check and approve equipment or system installation prior to and during start-up, and to supervise placing equipment or system in operation.

3.02 DEMONSTRATION AND INSTRUCTIONS

- A Demonstrate operation and maintenance of products to Owner two weeks minimum prior to date of Substantial Completion.
- B Utilize operation and maintenance manuals as basis for instruction. Review contents of manual with Owner in detail to explain all aspects of operation and maintenance.
- C Demonstrate start-up, operation, control, adjustment, trouble-shooting, servicing, maintenance, and shutdown of each item of equipment at agreed-upon times, at equipment location.
- D Prepare and insert additional data in operations and maintenance manuals when need for additional data becomes apparent during instruction.

3.03 TESTING, ADJUSTING, AND BALANCING

- A Contractor shall start, test, adjust, balance, and provide reports on all installed equipment as provided for in this section.
- B Owner may also appoint, employ, and pay for services of an independent firm to perform testing, adjusting, and balancing. Reports will be submitted by the independent firm to the Owner indicating observations and results of the tests and indicating compliance or non-compliance with specified requirements and with the requirements of the Contract Documents.
- C Owner's employment of an independent firm shall not relieve the Contractor's responsibility under this section.

END OF SECTION