

1. GENERAL

1.1 Scope

- .1 When the duct systems are completed and before any fan systems are operated, all ductwork, plenums, coils and air handling equipment shall be cleaned by compressed air and mechanical equipment; or compressed air and high power suction equipment. No special cleaning is required for exhaust ductwork systems that convey air directly to the outside at all times without recirculation.
- .2 A letter shall be submitted by the cleaning company certifying that all systems have been completely cleaned.

1.2 Quality Assurance

- .1 Firms to be specialists in this field. Submit list of equipment, capacities, method and sequence of cleaning to the Contract Administrator for acceptance prior to beginning work.

2. PRODUCTS

2.1 Materials

- .1 The sheet metal subtrade shall provide all necessary access doors to facilitate efficient ductwork cleaning as listed under installation.
- .2 Provide approved filters to protect equipment during cleaning operation. Submit shop drawings indicating which type of filters are to be utilized to protect equipment during construction and cleaning operation.
- .3 The Contractor shall sample and analyse the contamination in the ductwork as requested by the Contract Administrator. The results may be verified by an independent laboratory, paid for by the Contractor, specializing in this type of work.

3. EXECUTION

3.1 Installation

- .1 Ductwork access doors for ductwork cleaning shall be installed as follows:
 - .1 At 10 m (33 ft) intervals in all duct systems.
 - .2 At the base of all duct risers.
 - .3 Both sides of turning vanes in all ducts.
 - .4 At each fire damper location.

- .5 At each side of all heating or cooling coils.
- .6 At all locations of internally duct mounted equipment or devices including balancing dampers, automatic dampers, damper motors and controls.
- .2 Access doors shall be as specified in Section 15835, "Duct Accessories". Access panels with screws are not acceptable.
- .3 For duct cleaning system utilizing compressed air and mechanical brush, suitably sized access points with positive locking cover shall be installed at 3 m(10 ft) interval in the duct work and on both sides of dampers, coils, turning vanes, etc.
- .4 Access system shall be reusable to allow for future inspection or cleaning.
- .5 All ductwork outlets shall be sealed with suitable cover after ductwork has been cleaned. All plenums to be sealed after plenums have been cleaned.
- .6 Prior to any work being started on the system, filter media shall be installed behind every supply grille or diffuser. This will act as a safety net for contamination, which may be disturbed during cleaning. After a settling down period of two to five days, the filter media will be removed.
- .7 Each aspect of the system shall be cleaned regardless of the size, type or configuration. Dirt clinging to the sides or top of ducting must be removed and left as clean as the bottom. Spiral ducting should be as clean as flat.

3.2 Inspection

- .1 The cleanliness of ductwork shall be inspected using a borescope supplied by the contractor. This shall be made available to the City at all times.
- .2 Any ductwork found to be dirty shall be redone through its entire length at no extra cost to the City.

END OF SECTION