

STEEL GRAVITY TRASH CHUTE SYSTEM

Part 1: GENERAL

1.1 RELATED DOCUMENTS

- A. The general provisions of the contract, including General and Supplementary Conditions and Division 1, General Requirements, apply to the work specified in this section.

1.2 DESCRIPTION OF WORK

- A. Work Included: Furnish and install where shown on plans 24" (210mm) diameter trash chute as manufactured by Reaction Distributing Inc., as specified below.

1.3 SUBMITTALS

- A. Catalog Cuts: Before the trash chute is delivered to the job site, submit catalog cuts to the General Contractor in accordance with these specifications, showing all details of installation and assembly and all requirements for work by other trades.
- B. Product Data: Manufacturer's product specifications, standard details and recommendations for project conditions; indicate selected sizes and installation details specific to the project.
- C. Shop Drawings:
 - 1. Plans: 3-D CAD/Inventor based drawings will be submitted to the General Contractor within 2 weeks of contract award and will be based on information and dimensions included in the original architectural plan drawings. They will indicate locations, dimensions, and required associated construction activities. Note: site specific shop drawings will also be submitted for review once the necessary dimensions can be obtained by the manufacturer.
 - 2. Elevations/Sections: 3-D CAD/Inventor based drawings will be submitted to the General Contractor within 2 weeks of contract award and will be based on information and dimensions included in the original architectural elevation drawings. They will indicate locations, dimensions, and required associated construction activities.

3. Details:
 - a. Shop drawings will be specific to project conditions.
 - b. Shop drawings will interface with adjacent construction.
 - c. Shop drawings will contain all dimensions and tolerances.
 - d. Shop drawings will list any/all products required for the installation of the trash chute, but not supplied by the trash chute manufacturer.
- D. Quality Assurance/Control
Submittals: Certification that:
 - a. Products of this section are manufactured by RDI.
 - b. Manufacturer's certification that installer of manufacturer's product is approved.
 - c. Manufacturer's certification that installer of manufacturer's product is approved.
 - d. Manufacturer's certification that installer of manufacturer's product is approved.
 - e. Applicable standards: National Fire Protection Association (NFPA.82.1999), standards as referenced herein.
- E. Close-out Submittals:
 1. Operation and Maintenance Data.
 2. Warranty Documents: Issued and executed by the manufacturer and installer of the system.

1.5 QUALITY ASSURANCE

- A. Qualifications:
 1. Manufacturer: Must have a minimum of five (5) years documented and current experience producing the products specified in this section.
 2. Dealer/sales agent: Not to be considered.
 3. Installer: To be approved by the Manufacture, and having a minimum of five (5) years documented and current experience.
- B. Pre-Installation Meetings:
 1. Convene at job site a minimum of seven (7) calendar days prior to scheduled beginning of construction activities of this section to review requirements of this section or as required by the General Contractor throughout the term of the project.
 2. Require attendance by representatives of the following:
 - a. The trash chute manufacturer.
 - b. The manufacturer's installer of this section.
 - c. Other entities directly affecting, or affected by, construction activities of this section.
 - d. Notify the General Contractor seven (7) calendar days in advance of any/all requested or scheduled meeting date.

1.6 RELATED WORK BY OTHERS SPECIFIED ELSEWHERE

- A. The following work is excluded from the scope of work in this section (11175) and is included in other divisions of the specifications for inclusion in the scope of work by others.
1. Flashing for the roof vent.
 2. Water supply and valves to flushing and fire sprinkler heads
 3. Switch assembly, conduit and/or wiring to solenoid valve for the disinfecting and sanitation unit located behind a plumbing access door directly above the highest intake door.
 4. Installation of the plumbing access door provided under this section is to be by the forces erecting the shaft enclosure walls.
 5. Conduit run inside the chute shaft from the trash room to each floor for the low voltage control wire that will connect each floor operator to the main sorter control panel located in the main trash room.

1.7 WARRANTY

- A. Manufacturer's warranty: Furnish manufacturer's standard one (1) year warranty from date of temporary certificate of occupancy or similar, locally mandated permission to use the project common areas for their intended use. Warranty shall apply to defects in product workmanship and materials.

Part 2: PRODUCTS

2.1 MANUFACTURERS

- A. Product must be manufactured in the United States or Canada.
- B. Manufacturer: Reaction Distributing Inc. (RDI), 19 Brock Street, Ajax, Ontario, Canada, L1S 1S9.
- C. Substitutions: Not permitted.
- D. Components:
 - 1. The chute shall be 24" (610mm) diameter and made from 16 gauge aluminized steel (if roll formed) or 18 gauge aluminized steel if spiral formed with a 4 ply overlapping and continuous seam.
 - 2. Intakes Door: Stainless steel, 15.25" (387mm) wide x 17.25" (438 mm) high, bottom hinged, hand operated self-closing positive latching, "T"-handle door that is **ADA compliant**. The door will be Intertek Laboratories tested/approved, chrome plated/painted steel finish with a UL[®] approved, "B" Label, and have a **minimum 2 hour fire rated assembly**. The door shall be mounted in such a fashion to ensure **on site ADA compliance** with respect to tenant accessibility. The door opening shall be a minimum of 11" (279mm) in the open position. The door shall be fitted with a 15" (381mm) x 2" (51mm) piano hinge, made from 12 gauge chrome plated/painted steel and be fitted with a Faucher (777.7727) gas cylinder to ensure it is self-closing.
 - 3. Discharge: RDI discharge door shall be of an accordion design with a 165°F (74°C) fusible link hold open to close automatically when the ambient temperature reaches 165°F (74°C) as required by city, provincial or federal building and/or fire codes.
 - 4. Vent: Chute shall extend full diameter through roof to metal top vent cap 4'-0" (1219mm) above roof level with counter flashing and insect screen. A roof curb 40"x 40" (1016mm x 1016mm) x minimum of 8" (203mm) high is required for flat roof conditions and is to be provided by others.
 - 5. Accessories: 3/4" (19mm) IPS flushing spray head and 1/2" (13mm) sprinkler head above highest intake. Additional 1/2" (13mm) sprinkler heads at every second intake (counting from the top) or as required by local code.
 - 6. Provide Disinfecting & Sanitizing unit for installation in line to the flushing spray head. Connection to flushing spray head, back flow prevention valve and electric control switch by others.

7. Provide 15" x 15" (381 mm x 381mm) right side hinged, hand operated, self closing, positive latching, and UL 1 1/2-hour. "B" labeled, stainless steel plumbing access door having stainless steel door trim for installation by forces erecting enclosing shaft wall. Door for access to disinfecting & sanitizing unit above the highest intake door of the chute.
8. Offsets (bends) in the chute, if required, shall be made the same diameter as the chute of #16 gauge aluminized steel and have an additional layer of #13 gauge aluminized steel reinforcing the impact area. Offsets are not to deviate more than 15° off the vertical axis of the chute as per NFPA82. Any/all offsets must be sound dampened through the application of either an applied coating or fiberglass bats added to the exterior of the offset assembly. Any/all offsets requiring supports in addition to the standard support frame hangers must have those supports isolated from the wall or floor to which they are fastened using engineered isolation mounts.
9. Provide manufacturer's recommended sound coat vibration dampening method consisting of an applied coating or fiberglass bats applied to the exterior of the chute riser. Note: spiral formed chutes as described in item #D.1 **do not require additional dampening** due to the inherent dampening qualities imparted to the chute riser by the spiral overlapping seam that runs the entire length of the chute riser. Include sound isolator pads at each floor installed under each steel angle chute support frame.
10. Sprinkler System: The chute shall be protected internally by automatic sprinklers. This requires a sprinkler at or above the top intake door of the chute, and in addition, a sprinkler shall be installed within the chute at alternate floor levels in building over two stories in height with mandatory sprinkler located at the lowest service level.

2.2 FABRICATION

- A. The trash chute shall be fully factory assembled, unless otherwise specified, and all joints, except those required to separate the sections for shipment and installation shall be welded or lock-seamed tight.
- B. The floor intake doors shall be bolted in place on throats formed into the chute.

- C. All chute sections shall flash inside the sections below and there shall be no bolts, clips, or other projections inside the chute to snag the flow of material.
- D. Pre-positioned support frames shall assure proper intake levels and there shall be an expansion joint in the chute between all support joints. Discharge hoppers and offsets, where required, shall be reinforced and separately supported in the impact area.

Part 3: EXECUTIONS

3.1 EXAMINATION

- A. Verification of conditions:
 - 1. Area in which system is to be located is correct size and location, and is prepared for installation of trash chute and components.
- B. Installer's examination:
 - 1. Have installer of this section examine conditions under which construction activities of this section are to be performed, then submit written notification if conditions under which construction activities of this section are to be performed are unacceptable.
 - 2. Beginning construction activities of this section before unacceptable conditions have been corrected is prohibited.
 - 3. General Contractor shall verify and record chute alignment with installer immediately following installation.

3.2 INSTALLATION

- A. Install trash chute in accordance with shop drawings and manufacturer's printed installation instructions.

3.3 DEMONSTRATION

- A. Arrange demonstration of system operation, conducted by manufacturer's representative, to Owner's maintenance personnel.

END OF SECTION