



GREEN[®] Garbage Chutes

TYPICAL SPECIFICATIONS

A- General

The Contractor shall supply and install prefabricated refuse chute of 500 mm internal diameter, manufactured from 1.5 mm thick, laser welded, stainless steel grade 304 L sheets. The chute shall be supplied to site after complete factory fabrication. No further fabrication works or welding shall be allowed on site.

Each section of the chute shall have access apertures at each residential floor and plain sections where the chute passes through inaccessible levels. All sections shall be supported as recommended by the manufacturer. The chute shall be finished with an approved insulating material throughout its length to act as a sound retardant to deaden noise and to provide thermal insulation to reduce the possibility of condensation. A vent pipe 250mm dia. (minimum) shall be provided above the chute head plate above the cleaning and disinfecting system. The vent shall be connected to the Main chute through a flexible section. At roof level, the chute shall be covered with a capping piece and shall be connected to an in-line exhaust fan. The vent pipe shall discharge to atmosphere at the roof level without any obstructions.

B. Cleaning

To ensure satisfactory hygienic conditions at the refuse collection point at the base of the chute, the Contractor shall supply and install an automatic disinfecting system. The complete system along with all other accessories noted above and required for the efficient functioning of the system should be supplied as one package, by the chute manufacturer to ensure compatibility of design and unit responsibility.

C. Fire Protection

At the base of the chute an automatic fire cut off door shall be installed to prevent the spread of smoke and fire. This door which will be operated by a fusible link set at 71°C (165° F) at a suitable location as recommended by the manufacturer and in accordance with the applicable codes and to the satisfaction of the Local Authorities. The fire cut off door can be eliminated when a pneumatic/vacuum collection system is installed.

Fire sprinklers shall be built into the system and shall be provided at each floor intake to operate automatically at 68° C (155°F).

D. Refuse Intake Doors

Access to the chute from each floor shall be via stainless steel hinged, noiseless, self-sealing and self-closing doors. The intake doors shall be fire rated for a minimum period of 90 minutes. Each door shall have electro-magnetic, interlocking device with red and green pilot lamps. All intake doors shall be automatically locked when cleaning is in progress, during maintenance, in the event of fire, and when a general alarm signal is received.



E. Chute Accessories

The chute shall be supplied complete with automatic cleaning system comprising of powerful flushing spray, one on the chute head plate and passing through the disinfectant unit and one each at every individual floor inside the intake throat of the chute system. An Efficient non-chemical disinfecting unit shall be provided for disinfecting the system during cleaning operations.

F. Master Control Panel

A PLC Electrical Interlock Controller for the garbage chute system will be provided. Necessary controls shall be provided to switch off the system, lock all doors, sound the fire alarm, and call the civil defense when fire occurs.

The Intelligent Electrical Interlock Controller shall include floor monitoring system, and an integral timer for cleaning. The floor monitoring system shall show the status of intake doors, of the compactor, cleaning brush, and exhaust fan at all times. Indicating lamps shall be provided for all the monitored equipment, main power supply and control voltage status. All indicating lamps shall be of low voltage type with built-in transformer. Phase failure and earth leakage protection shall be included in the control panel.

The Intelligent Electrical Interlock Controller shall interface with the Building Management System to indicate a common fault as applicable.

The Intelligent Electrical Interlock Controller shall interface with the vacuum collection system to indicate a common fault and lock all doors all as per the requirements of the vacuum collection system contractor and to the satisfaction of the engineer.

The master control panel enclosure shall be wall mounted. The enclosure shall be IP 55 rated.

G. Refuse Containers

Refuse containers/trolleys shall be hot dip galvanized and shall comply with DIN 30700. The containers shall be provided with acceptor pegs for lift and tip devices and should be suitable for and compatible with the local Municipal disposal vehicles

The containers shall run on wheels with rubber tires and capacity shall be 1.10 m³ unless required otherwise by local authorities.