*Delete highlighted text before printing.*

Section 14 9100 – Facility Chutes

Section 14 9133 – Linen/Laundry Chutes

PART 1 – GENERAL

* 1. RELATED DOCUMENTS
1. Drawings and general provisions of the contract, including general and supplementary conditions and division 1 specification sections, apply to this section.
2. Related sections include the following:

Delete items below if not required.

* 1. Division 21 0000 sections for connection to sprinklers.
	2. Division 22 0000 sections for connecting the disinfecting and sanitizing unit.
	3. Division 26 0000 sections for electrical connections to electric interlocks.
	4. Division 28 0000 sections for smoke detectors.
1. DESCRIPTION OF WORK
	1. This section includes laundry/linen chutes.
	2. SUBMITTALS
2. See Section 01 7700 – Administrative requirements, for submittal procedures. general contractor to furnish subcontractor approved shop drawings and plan view drawing of linen room.
	1. Product Data: Manufacturer’s product specifications, standard details and recommendations for project conditions; indicate selected sizes and installation details specific to the project.
	2. Shop Drawings:
		1. Indicate chute location
		2. Specific project conditions
		3. Interface with adjacent construction
		4. Dimensions and clearances required
		5. Products required for installation of the chute, but not supplied by manufacturer.

Delete following if NO Electric Interlocks

* + 1. Wiring Diagrams: Power, signal and control wiring
1. Close-out Submittals:
	1. Operation and maintenance manual (O&M Manual).
	2. Warranty Documents: Issued and executed by the manufacturer and installer of the system.
	3. QUALITY ASSURANCE

Recommended qualifications listed below. Delete subparagraphs as needed.

1. Qualifications:
	1. Manufacturer: Minimum five (5) years documented experience-producing products specified in this section.
	2. Installer: Approved by the manufacturer, and/or having a minimum of five (5) years experience.
	3. Products must be manufactured in the United States.
2. Fire Rated Door Assemblies: Intake doors and access doors: 1½-hour fire rated with 30-minute temperature rise of 250° F (140° C). UL Labeled.
3. Standard: Provide chutes complying with NFPA 82.

Delete following subparagraph if NO Electric Interlocks.

1. Electrical Components, Devices, and Accessories: Listed and labeled as

defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.

* 1. WARRANTY
1. Manufacturer’s warranty: Furnish manufacturer’s standard one (1) year warranty from date of shipment. Warranty shall apply to defects in product workmanship and material only.

1.5      RELATED WORK BY OTHERS SPECIFIED ELSEWHERE

1. The following work is excluded from the scope of work in this Section 14 9100 and is included in other divisions of the specifications for inclusion in the scope of work for others.
	1. Electrical Standards:  The following electrical circuits with disconnects are required and are to be installed by others: 1 each:  120VAC, 20 Amp 1-Phase, 60 Hz Circuit.  Local disconnect box to be NEMA 13
	2. Water supply and valves to fire sprinkler heads and flushing spray heads.
	3. ADA - Braille signage provided by others, if required.

PART 2 – PRODUCTS

2.1 MANUFACTURER

1. Basis of Design:
	1. **CHUTES International Manufacturing**,

33 Industrial Park Drive, Waldorf, Maryland 20602;

Telephone: (800) 882-4883; FAX (301) 753-4109.

[www.chutes.com](http://www.chutes.com) or sales@chutes.com

* 1. LINEN/LAUNDRY CHUTES

In subparagraph below, select chute metal. Aluminized steel is standard.

1. Chute Metal**: [Aluminum-coated; ASTM A 463/A 463M, Type 1 with not less than T1-40 (T1M-120) coating] [430 ROIF Stainless Steel; ASTM A240/ASME SA240] [304 Stainless Steel; ASTM A 240]** cold-rolled, commercial steel sheet.

In subparagraph below, select chute metal thickness. 16 gauge is standard.

* 1. Thickness: **[0.060 inch (16 gauge)] [0.080 inch (14 gauge)].**

In subparagraph below, select chute diameter. 24 inch diameter is standard.

1. Size: **[24 inch] [28 inch] [30 inch] [36 inch]** diameter.
2. Fire Sprinklers: Manufacturer’s standard NPS ½” (DN 13) fire sprinklers ready for piping connections.
	1. DOORS
3. Intake Door Assemblies: Stainless steel front and back, noiseless, self- closing with positive latch and ADA compliant lever handle; as required to provide fire-protection and temperature rise ratings indicated. And with corrosion-resistant, industrial grade enamel painted steel frame suitable for enclosing chase construction.
	1. Door type: **[Right] [Left]** side hinged, not for public access applications.
	2. Size: Manufacturer’s standard size for door type, chute type, and diameter indicated.
	3. Finish: Stainless steel, front and back, with 430 ROIF finish.
	4. Handles and Locks: ADA compliant lever handle, with 2 keys. Provide locks keyed alike.
4. Discharge Assemblies: Doors required to provide fire protection ratings indicated; equipped with fusible links that cause doors to close in the event of a fire.

In subparagraph below, choose discharge door type (and size, if applicable). Hopper Discharge is recommended.

1. Hopper discharge constructed of same material as the chute, supported by a 2 legged frame for chutes that are 24” or 28” in diameter. For chutes that are 30” or 36” in diameter, support is provided by a 4 legged frame. Floor frames at the lowest level, above the discharge room, will have a thicker density of 1-1/2” x 1- 1/2” x 1/4” for chutes 30” + and/or 12 stories and higher.
2. Hopper discharge door is “UL” labeled, top-hinged spring counter-balanced door, and fusible linked for closing with heat rising above 165° F.
	1. OPTIONAL DOOR ACCESSORIES

Delete subparagraph below if NO Electric Interlock Intake Door.

1. Electric Interlocks: Interlock system that is energized by opening one intake door; remaining doors automatically lock when system is energized.

Delete subparagraph below if NO Heat and Smoke Detector connection.

1. Heat and Smoke Detector connection: Electro Thermal Fusible Link and wire connection at Manual Control Box to lock out chute doors. NOTE: Only operable with electric interlock systems. (Heat Sensor located outside discharge door). Detector supplied by others, manufacturer provides connector only.

Delete subparagraph below if NO Control System

1. Control System: Manual control system with key operated switch that locks doors of chute during maintenance and etc, including manual override switch to bypass interlock system.

Delete subparagraph below if NO Access Door Assembly.

1. Access Door Assembly: Stainless steel front and back, with 430 ROIF finish. Noiseless, self- closing with positive latch and ADA compliant lever handle; as required to provide fire-protection and temperature rise ratings indicated. And with corrosion-resistant, industrial grade enamel painted steel frame suitable for enclosing chase construction.

Delete subparagraph below if NO isolator pads.

1. Isolator Pad: Manufacturer’s standard, ¼” top and bottom grooved design, oil resistant, neoprene with ⅜” close grained cork core.

2.5 CHUTE FABRICATION

1. The linen chute sections are factory manufactured and vertical seams are to be fully welded. All sections sleeve inside the sections below and there are to be no bolts, clips, or other projections inside the chute to snag the flow of material. Pre-positioned support clips assure proper intake levels and there shall be an expansion joint in the chute between all support joints. No “spiral” manufactured sections within chute will be allowed.
2. Discharge offsets, where required, will be made of 12 gauge material Delete end of sentence if impact plate option is NOT wanted. And be reinforced with 12 gauge material at area of impact.
3. Vent: Full diameter Aluminum .080 (12 gauge) vent extending 3 feet (per NFPA Code 82; 2009) above roof penetration with aluminum hinged metal safety cap.
4. Standard Floor Frames: Corrosion resistant, industrial grade enamel painted, steel angle floor frames, and are 1-1/2” x 1-1/2” x 3/16”.
5. Fire Sprinklers: ½” NPT sprinkler and ¾” NPT flushing head above top intake. Additional ½” sprinkler heads at alternate intake floors and at intake above discharge floor as required by NFPA Code 82.

PART 3 – EXECUTION

* 1. EXAMINATION
1. Verification of conditions:
	1. Confirm slab penetrations are properly sized (diameter of chute + 4”minimum), aligned, plumb and clear of any obstructions at chute location. Also, confirm floor heights and other applicable dimensions are in accordance with the approved shop drawings.
	2. INSTALLATION
2. Install chute in accordance with approved shop drawings and manufacturer’s printed installation instructions.
3. General Contractor shall provide control line for location and finished face wall to determine chute intake centerline location.

END OF SECTION 14 9133