See information at the end of the document

SECTION 118226 - FACILITY WASTE COMPACTORS

Revise this Section by deleting and inserting text to meet Project-specific requirements.

Verify that Section titles referenced in this Section are correct for this Project's Specifications; Section titles may have changed.

1. GENERAL
	* + 1. SUMMARY
				1. Section includes facility waste compactors.
				2. Related Requirements:

Retain subparagraphs below to cross-reference requirements Contractor might expect to find in this Section but are specified in other Sections.

Section 113013 "Residential Appliances" for residential trash compactors.

Section 114000 "Foodservice Equipment" for food-waste shredding, pulping, grinding, and compacting machines in foodservice facilities.

Section 211313 "Wet-Pipe Sprinkler System" for building fire sprinklers and piping connections to automatic sprinkler in hopper of each chute-fed compactor.

* + - 1. PREINSTALLATION MEETINGS

Retain "Preinstallation Conference" paragraph below if Work of this Section is extensive or complex enough to justify a conference.

* + - * 1. Preinstallation Conference: Conduct conference at Project site.

Retain subparagraphs below if additional requirements are necessary; include information about conference.

Inspect and discuss electrical, plumbing, and sprinkler roughing-in; equipment bases; and other preparatory work specified elsewhere.

Review coordination of chute[ and diverter] locations with waste compactors.

Review sanitary requirements for water bibs, floor drains, and grease traps if required for Project to reduce decomposition and odors.

Review haul routes of waste to the compactor, route of hauler's equipment, and protections along these routes that are specified elsewhere.

Review required testing, inspection, and certification procedures.

If needed, insert list of conference participants not mentioned.

* + - 1. SUBMITTALS
				1. Submittals for this section are subject to the re-evaluation fee identified in Article 4 of the General Conditions.
				2. Manufacturer’s installation instructions shall be provided along with product data.
				3. Submittals shall be provided in the order in which they are specified and tabbed (for combined submittals).
				4. Product Data: For each type of product.

Include rated capacities, operating characteristics, furnished specialties and accessories, and finishes.

* + - * 1. Shop Drawings: For each waste compactor and for special components not dimensioned or detailed in manufacturer's product data.

Include plans, elevations, sections, and attachment details.

Include details of equipment assemblies. Indicate dimensions, weights, loads, required clearances, method of field assembly, components, and location and size of each field connection.

Retain first two subparagraphs below for chute-fed compactors.

Dimension chute and diverter locations that interface with waste compactors.

Include location and installation details of automatic sprinkler in hopper of each chute-fed compactor.

Indicate equipment access points and required space for equipment service and operation.

Include setting drawings, templates, and instructions for installing anchor bolts and other anchorages.

Include diagrams for power, signal, and control wiring.

Coordinate "Qualification Data" paragraph below with qualification requirements in "Quality Assurance" Article.

* + - * 1. Qualification Data: For Installer.

Retain "Product Certificates" paragraph below to require submittal of product certificates from manufacturers.

* + - * 1. Product Certificates: For each type of waste compactor.
				2. Field quality-control reports.
			1. CLOSEOUT SUBMITTALS
				1. Operation and Maintenance Data: For waste compactors to include in operation and maintenance manuals.
			2. QUALITY ASSURANCE
				1. Installer Qualifications: An authorized representative who is trained and approved by manufacturer.
1. PRODUCTS

Manufacturers and products listed in SpecAgent and MasterWorks Paragraph Builder are neither recommended nor endorsed by the AIA or Deltek. Before inserting names, verify that manufacturers and products listed there comply with requirements retained or revised in descriptions and are both available and suitable for the intended applications.

* + - 1. FACILITY WASTE COMPACTORS

Copy "Waste Compactor" paragraph below and re-edit for each product.

Insert drawing designation. Use these designations on Drawings to identify each product.

First five options in "Waste Compactor" paragraph below are the most common types of compactors; insert other type descriptions to suit Project. See the Evaluations.

* + - * 1. Waste Compactor **<Insert drawing designation>**: Manufacturer's standard **[stationary-horizontal] [self-contained horizontal] [compactor-container (combination-container)] [vertical] [pivoting-ram] -type stationary compactor, complying with requirements[; liquidtight]**; and with components, options, and accessories needed to provide a complete, functional system.

[Manufacturers:](http://www.specagent.com/Lookup?ulid=11720) Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

Precision Machinery Systems, Inc.

PTR Baler & Compactor Company.

Rudco Products, Inc.

Approved equivalent.

Source Limitations: Obtain from single source from single manufacturer.

Generally, retain option in "Waste-Compactor Standards" subparagraph below; appendices to ANSI Z245.21 are informative, not mandatory unless specified as such. See the Evaluations.

Waste-Compactor Standards: ANSI Z245.21 including appendices and NFPA 82.

If handling of hazardous waste is required, insert requirements for hazardous-waste-handling equipment to suit Project.

Waste-Container Standards: ANSI Z245.30 and ANSI Z245.60.

Values in subparagraphs below vary with manufacturer, type of compactor, and model.

Rated Size (Volume): Minimum **[0.14 cu. yd.] [1.00 cu. yd.] [1.50 cu. yd.] [2.00 cu. yd.]** **[3.50 cu. yd.] [5.00 cu. yd.] [7.50 cu. yd.] [10.00 cu. yd.]**.

Clear Top Opening (Length by Width): Minimum **[20 by 28 inches] [24 by 36 inches] [30 by 48 inches] [60 by 48 inches] [108 by 72 inches]**.

Cycle Time: Maximum **[30] [40] [50] [60] [70]** seconds.

Discharge Opening (Width by Height): Maximum **<Insert dimensions>**.

Ground Height: Minimum **<Insert dimension>**.

Ram Face: Minimum **<Insert dimensions>**.

Ram Penetration: Minimum **<Insert dimension>**.

Normal/Maximum Resultant Ram Forces: **[20,000/22,000 lbf] [36,000/40,000 lbf] [70,000/80,000 lbf] [125,000/150,000 lbf]**.

Normal/Maximum System Pressures: **[1600/1800 psi] [2000/2400 psi] [2500/2800 psi]**.

Scale Weight: Maximum **[2500 lb] [6000 lb] [12,000 lb] [20,000 lb]**.

Retain "Electrical Characteristics" subparagraph below if characteristics are not indicated on Drawings. Consult manufacturer for electrical requirements and availability, and coordinate with Project electrical engineer.

Electrical Characteristics:

Horsepower: **[3] [10] [15] [20] [30] [50]** hp.

Voltage: **[115 V ac single phase, 60 Hertz] [230 V ac, single phase, 60 Hertz] [208 V ac, three phase, 60 Hertz] [230 V ac, three phase, 60 Hertz] [460 V ac three phase, 60 Hertz]**.

Color: **[White] [Black] [Gray] [Dark green] [Yellow] [As selected by Director’s Representative from manufacturer's full range]**.

Insert special control features, such as monitors and photo-eye startup, in "Controls" subparagraph below.

Controls: **<Insert control features>**.

Revise "Finish" subparagraph below to suit Project if more than one color is required, such as for multiple containers for different, compacted recyclables. Some manufacturers offer as many as 20 standard colors; consult manufacturer for availability.

Finish: **[Manufacturer's standard] [Manufacturer's standard primer for field painting]**.

Retain "Deodorizing Device" subparagraph below if required; verify availability with manufacturer.

Deodorizing Device: **[Manufacturer's standard]**.

Retain "Number of Extra Storage Containers" paragraph below, if required, only for containers that separate from the waste compactor. Multiple containers may be used for storage until pickup and to separate waste for recycling purposes.

* + - * 1. Number of Extra Storage Containers: **[One] [Two]**.
			1. FABRICATION
				1. Fabricate waste compactors with smooth, eased, exposed edges to prevent injury to persons in vicinity of the equipment.
				2. Fabricate containers, hoppers, compaction chambers, unit bodies, and similar components of steel with welded joints. Reinforce with steel members sized and spaced to withstand impacts and pressures of normal operations and to prevent deformation.
				3. Fabricate equipment with replaceable parts at points of normal wear.

Retain paragraph below for liquidtight compactors intended for wet waste.

* + - * 1. Fabricate liquidtight compactor baffles to stop liquid from leaking out.
1. EXECUTION
	* + 1. EXAMINATION
				1. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances, clearances, service rough-ins, and other conditions affecting performance of the Work.
				2. Examine walls, floors, and chutes for suitable conditions where each waste compactor will be installed.
				3. Prepare written report, endorsed by Installer, listing conditions detrimental to performance of the Work.
				4. Proceed with installation only after unsatisfactory conditions have been corrected.
			2. INSTALLATION OF FACILITY WASTE COMPACTORS

Generally, retain option in first paragraph below; appendices to ANSI Z245.21 are informative and not mandatory unless specified as such. See the Evaluations.

* + - * 1. Install each waste compactor according to manufacturer's written instructions, ANSI Z245.2, and ANSI Z245.21, including appendices.

Retain one of the two paragraphs below for chute-fed compactors. Retain the first paragraph if the work is being performed by a single contract. Retain the second paragraph if there is a separate Plumbing Work Contract.

* + - * 1. Install automatic sprinkler in hopper of each chute-fed compactor according to NFPA 82.
				2. Coordinate sprinkler installation in hopper of each chute with the Plumbing Work Contract.
				3. Set waste compactors level, plumb, properly aligned, and securely in place. Anchor as required for secure operation.
			1. FIELD QUALITY CONTROL

Retain "Perform the following tests and inspections" paragraph below to require Contractor to perform tests and inspections.

* + - * 1. Perform the following tests and inspections with the assistance of a Company Service Advisor:

Generally, retain option in first subparagraph below; appendices to ANSI Z245.21 are informative and not mandatory unless specified as such. See the Evaluations.

Perform installation and startup checks according to ANSI Z245.21, Appendix D, "Tests for Evaluation of Equipment and Performance," and manufacturer's written instructions.

Test and adjust controls, alarms, and safeties. Replace damaged and malfunctioning controls and equipment.

Retain first subparagraph below if compactor containers are required.

Verify unrestricted access to each firefighting access door or hose connection required by ANSI Z245.21 and NFPA 82 for compactor container(s).

Verify correct locations, color coding, and legibility of caution, warning, and danger markings.

Certify compliance with test parameters.

* + - * 1. A waste compactor will be considered defective if it does not pass tests and inspections.
				2. Prepare test and inspection reports.
			1. DEMONSTRATION
				1. Engage a Company Field Advisor to train Facility’s maintenance personnel to adjust, operate, and maintain waste compactors according to manufacturer's written instructions and ANSI Z245.2.

END OF SECTION 118226

The following design elements are required per NFPA 82

 - Chute-fed compactors must have an automatic sprinkler installed in the hopper of the compactor.

 - Integral waste containers, which are found in "self-contained and breakaway compactors," must have a firefighting access door or "2.5-inch " hose connection (fire port) that fits standard firefighting equipment, which is similar to a requirement in ANSI Z245.21

 - An annual inspection and maintenance is required, which must be performed according to manufacturer's instructions, with a signed record of the inspection retained for inspection by the authority having jurisdiction.

 - "Chute terminal, compacting, or storage rooms" must have a fire-resistance rating of not less than two hours and have fire doors rated not less than one-and-a-half hours. However, "waste- and recyclables-storage rooms" must be sprinklered and have a fire-resistance rating of not less than one hour and have fire doors rated not less than 45 minutes. These requirements apply to compactors and rooms with waste volumes greater than 1 cu. yd.