



## **SECTION 11 82 26 - FACILITY WASTE COMPACTORS**

### **PART 1 - GENERAL**

#### **1.1 SUMMARY**

- A. This Section includes waste compactors.

#### **1.2 DEFINITIONS**

- A. General: See the "WASTEC 2007 Listing of Rated Stationary Compactors" for detailed definitions of waste-compactor terminology.

#### **1.3 ACTION SUBMITTALS**

- A. Product Data: For each type of product indicated. Include rated capacities, operating characteristics, furnished specialties and accessories, and finishes.
- B. Shop Drawings: For each installation and for special components not dimensioned or detailed in manufacturer's product data. Include plans, elevations, sections, details, and attachments to other work.
  - 1. Detail equipment assemblies and indicate dimensions, weights, loads, required clearances, method of field assembly, components, and location and size of each field connection.
  - 2. Coordinate with Drawings for side or front loading of compactors.
  - 3. Equipment access points and required space for equipment service and operation.
  - 4. Setting drawings, templates, and instructions for installing anchor bolts and other anchorages.
  - 5. Wiring Diagrams: For power, signal, and control wiring.

#### **1.4 INFORMATIONAL SUBMITTALS**

- A. Qualification Data: For qualified Installer.
- B. Product Certificates: For each type of waste compactor, from manufacturer.
- C. Field quality-control reports.
- D. Operation and Maintenance Data: For waste compactors to include in operation and maintenance manuals.

#### **1.5 QUALITY ASSURANCE**

- A. Installer Qualifications: Manufacturer's authorized representative who is trained and approved for installation and maintenance of units required for this Project.
  - 1. Maintenance Proximity: Not more than one hour(s') normal travel time from Installer's place of business to Project site.
- B. Waste-Compactor Standards: ANSI Z245.21 including annexes and NFPA 82.
- C. Waste-Container Standards: ANSI Z245.30 and ANSI Z245.60.



## **1.6 WARRANTY**

- A. Special Warranty for Waste Compactors: Manufacturer's standard form in which manufacturer agrees to repair or replace waste compactor components that fail in materials or workmanship within specified warranty period.
1. Failures include, but are not limited to, the following:
    - a. Structural failures including cracked or broken structural support members, load-bearing welds, and front and rear hinges.
    - b. Faulty operation of operators, control system, or hardware.
    - c. Hydraulic system failures including failure of hydraulic seals and cylinders.
  2. Warranty Period for Structural Assembly: 3 years.
  3. Warranty Period for Operators, Control system and Hardware: 3 years.
  4. Warranty Period for Hydraulic System: 3 years.
  5. Warranty shall be for unlimited usage of waste compactor for the specified rated capacity over the term of the warranty.

## **PART 2 - PRODUCTS**

### **2.1 WASTE COMPACTORS**

- A. Waste Compactor: Manufacturer's heavy-duty stationary-horizontal-type stationary compactor, complying with requirements and with components, options, and accessories needed to provide a complete, functional system.

Basis-of-Design Product: 2.0 Cubic Yard Industrial Stationary Waste Compactor:

Sebright Products Inc. Model 4660-1-6 (or equal)

1. WASTECC-Rated Size (Volume): Minimum 2.00 cu. yd.
2. Chamber Opening (Length by Width): Minimum 52 by 60 inches, minimum
3. Displacement per hour: 132.5 cubic yards, minimum.
4. Cycle Time: Maximum under load 45.1 seconds.
5. Length: 119 inches.
6. Ground Height: 48 1/8 "
7. Cylinder: 6-inch bore x 4.5 chrome plate rod x 68 inches stroke.
8. Ram Face: 1/2 inch steel with 3/4 inch stiffener plates.
9. Ram Penetration: Minimum 22 inches.
10. Ram Face Pressure: 37 psi.
11. Compaction Force: Minimum 56,540 lb.
12. System Pressures: Adjustable up to 2400 lbf.
13. Base Unit Weight: 5, 950 lb. minimum.
14. Hydraulic Pump: 13.0 gpm.



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15. Motor Size: 10 hp TEFC 3 phase.
  16. Electrical Power Supply: 208 V, 3 phase, 60 Hz.
  17. Hydraulic Power Pack: Internal.
  18. Controls:
    - a. Multi-cycle timer.
    - b. Full container indicating light.
    - c. Full container shutdown.
    - d. Compactor container positioning safety switch.
    - e. UL approved cabinet enclosure and power disconnect.
    - f. Key Operator Control.
    - g. Mushroom emergency stop momentary contact switch.
    - h. 30 amps disconnect.
    - i. Adjustable over-run timer.
    - j. Adjustable pressure switch.
    - k. Heavy duty ratcheting binder clamps to secure bin to compactor.
  19. Ram Construction:
    - a. Ram Face: Minimum 3/4 inch A36 steel plate with steel reinforcing minimum.
    - b. Ram Top: Minimum 1/4 inch A36 steel plate with steel reinforcing minimum.
    - c. Ram Bottom: Minimum 3/8 inch steel plate.
    - d. Chamber wall: Minimum 1/4 inch A36 steel plate.
    - e. Chamber Floor: Minimum 3/4 inch A36 steel plate.
  20. Finish: PPG Durethane DTM Urethane, Low VOC, LEED Certifiable NC Version 2.2
    - a. Color: Dark Gray
- B. Storage containers, rectangular heavy duty roll-off type:
1. Size: 40 cubic yards.
  2. Size: Minimum 22'-10 3/4" long by 7'-11" high by 7'-8 5/16" wide.
  3. Construction:
    - a. Floor: Minimum 1/4" steel plate with joists, 3 inch steel channels on 18-inch centers.
    - b. Back: Minimum 3/16 inch steel plate
    - c. Sides and Roof: Minimum 12 gage steel plate with 6-inch steel channels supports.
    - d. Rails: Minimum 2 inch by 6 inch by 1/4 inch wall thickness steel tube, solid rail wheels, axles with grease fittings.
    - e. Doors: Minimum 10 gage steel plate with 3 inch by 5 inch by 3/16 inch wall thickness steel tube supports and 2 inch by 3 inch by 3/16 inch wall thickness steel tube supports.
    - f. Hinges: Minimum four 1/2 inch steel plate hinges per door with 1/2 inch hinge pins with grease fittings, with safety chain and safety wing nut assembly.
- C. Number of Extra Storage Containers: One 40 cubic yard container above the number of compactors.



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D. Accessories:

1. Bin wheel guide assembly: Steel channels, 12 inches x 3/8 inch thickness, flared at entry with welded steel embed plate 24 inches x 120 inches. Embed plate to contain welded rebar anchors at bottom.
  - a. Flared steel channel shall overlap embed plate by 12 inches.
  - b. Embed plate shall extend 120 inches beyond rails.
  - c. Steel channels shall contain 3 inch x 3 inch x 1/2 inch thick welded steel anchor tabs on each side or rails, 24 inch on center with holes appropriate for 3/4 inch bolts.
  - d. Wheel stops: welded steel stops.

**2.2 POWER UNIT**

- A. Type: Remote with a remote station (**No exceptions**) on 10' cable, key lock controls, auto multi-cycle, auto/deadman selector switch, ram position switch, automatic safety retract, emergency stop, full/jam auto shut-off, full load indicator and oil sight gauge with thermometer and oil pressure gauge.
1. Electrical; Motor: Electric 10-HP (min.) 208/230/460 V., 3 phase, 60 Hz, totally enclosed fan cooled (TEFC) motor. ii. Starter: I.E.C. Rated.
  2. Transformer: Machine tool type.
  3. Ram directional switches: Ram travel, forward and reverse, is controlled by a limit switch that reverses ram directional movement at low system pressures, thus eliminating hydraulic systems shock. When the forward movement of the ram is interrupted due to a jam or full container, a pressure switch shuts down the system, and then activates the indicator light.
  4. Push button controls: N.E.M.A. type 4/13 watertight/oil tight.
  5. Control Panel: Built to U.L. standards, N.E.M.A. rated.
  6. Hydraulic: Pump 16 gpm, constant displacement vane pump with check valve. Gear pumps and hi-low pumps are not accessible due to noise level. Directional control valve: tapered ports, tandem center spool to reduce hydraulic system shock and allow ram movement to be stopped. Hydraulic reservoir: 44 gallons or 3 gallons for every 1gpm or pump output (min).

**2.3 SELF CONTAINED COMPACTOR.**

- A. **Sebright Model SC 4060-2-4, No Exceptions.**
1. Manufacturer's rating: 2 cubic yard charging chamber capacity with 31 cubic yard container.
  2. Industrial design for heavy-duty applications.
  3. Base unit weight: 9,700 lbs. minimum.
  4. Chamber capacity: 2 cubic yards (min.)
  5. Chamber opening: 40" x 60" (min.)
  6. Cylinder Force: 55,308 lbs. (min.)
  7. 20 inch Ram penetration



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8. Built-in sump 1,200 Gallon capacity – optional liquid removal capabilities available upon request.
9. Cycle Time: 38 Seconds (max)
10. Displacement per hour : 135 cubic yards ( min.)
11. 31 Cubic Yard Container with full height door seal.
12. Double end pick up
13. Hydraulic Cylinder: (2) 4” bore x 2.5 “chrome plated rod, 33” stroke.
14. FRAME CONSTRUCTION:
  - a. Floor: 3/8 AR 235 steel plate ( min) with 1”x 1/2 “x 60 “ floor bracing reinforcement plate directly under top floor below breaker bar.
  - b. Floor supports: 10 1/4” average spacing , 4” 5.4# structural channels( formed steel supports are not acceptable)
  - c. Side supports 4” 5.4#, 6” 8.2# structural channels.
  - d. Breaker bar: 8”x 6”x 1” angle, reinforced with formed angle.
  - e. Ram hold-down bars: 1” square solid steel.
15. RAM CONSTRUCTION:
  - a. Face: 1/2 A36 steel plate (min)
  - b. Floor: 1/4” AR steel plate (min)
  - c. Top: 1/4 “ A36 steel plate (min)
  - d. Sides: 1/4 “ A36 steel plate (min)
  - e. Top supports : 3” 4.1# structural steel channels.
  - f. Internal support: 1/2”x 6” bar.
  - g. Guides: Three adjustable nylatron blocks that travel along the top, side and bottom of a 4”x4” steel tube.
  - h. Scraper: 1/2” x 6” solid pivot hinged bar.

#### **2.4 FABRICATION**

- A. Fabricate waste compactors with smooth, eased, exposed edges to prevent injury to persons in vicinity of the equipment.
- B. 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.
- C. Fabricate equipment with replaceable parts at points of normal wear.

### **PART 3 - EXECUTION**

#### **3.1 EXAMINATION**

- A. Examine areas and conditions, with Installer present, for compliance with requirements for installation tolerances, clearances, service rough-ins, and other conditions affecting performance of waste-compactor work.
- B. Examine walls, floors, and adjacent areas for suitable conditions where each waste compactor will be installed.



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- C. Prepare written report, endorsed by Installer, listing conditions detrimental to performance of the Work.
- D. Proceed with installation only after unsatisfactory conditions have been corrected.

**3.2 INSTALLATION**

- A. A. Install each waste compactor according to manufacturer's written instructions, ANSI Z245.2, and ANSI Z245.21 including annexes.
- B. Set waste compactors level, plumb, properly aligned, and securely in place. Anchor as required for secure operation.

**3.3 FIELD QUALITY CONTROL**

- A. Perform tests and inspections.
  - 1. Manufacturer's Field Service: Engage a factory-authorized service representative to inspect components, assemblies, and equipment installations, including connections, and to assist in testing.
- B. Tests and Inspections:
  - 1. Perform installation and startup checks according to ANSI Z245.21, Annex D, "Tests for Evaluation of Equipment and Performance," and manufacturer's written instructions.
  - 2. Test and adjust controls, alarms, and safeties. Replace damaged and malfunctioning controls and equipment.
  - 3. Verify unrestricted access to each firefighting access door or fire port required by ANSI Z245.21 and NFPA 82 for compactor container(s).
  - 4. Verify correct locations, color-coding, and legibility of caution, warning, and danger markings.
  - 5. Certify compliance with test parameters.
- C. A waste compactor will be considered defective if it does not pass tests and inspections.
- D. Prepare test and inspection reports.

**3.4 TRAINING**

- A. Engage a factory-authorized service representative to train LAWA's maintenance personnel to adjust, operate, and maintain waste compactors according to manufacturer's requirements and ANSI Z245.2.
- B. Provide minimum of 12 hours (3 shifts total) of classroom and hands-on training to LAWA Maintenance personnel.

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