

SECTION 111323 - PORTABLE DOCK EQUIPMENT

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes dock lifts (scissors lifts).

1.3 PREINSTALLATION MEETINGS

- A. Preinstallation Conference: Conduct conference at Project site.
 1. Inspect and discuss electrical roughing-in, equipment bases, and other preparatory work specified elsewhere.
 2. Review sequence of operation for each type of portable dock equipment.
 3. Review coordination of interlocked equipment specified in this Section and elsewhere.
 4. Review required testing, inspecting, and certifying procedures.

1.4 DEFINITIONS

- A. Operating Range: Maximum amount of travel above and below the loading dock level.
- B. Working Range: Recommended amount of travel above and below the loading dock level for which loading and unloading operations can take place.

1.5 ACTION SUBMITTALS

- A. Product Data: For each type of product.
 1. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes.
 2. Include rated capacities, operating characteristics, electrical characteristics, and furnished specialties and accessories.
- B. Shop Drawings: For portable dock equipment.
 1. Include plans, elevations, sections, details, and attachments to other work.
 2. Detail equipment assemblies and indicate dimensions, weights, loads, required clearances, method of field assembly, components, and location and size of anchors and field connection.

1.6 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For Installer.
- B. Product Test Reports: For each dock leveler, for tests performed by manufacturer and witnessed by a qualified testing agency.
 1. Indicate compliance of dock levelers with requirements in MH 30.1 for determining rated capacity, which is based on comprehensive testing within last two years of current products.
 2. Submittal Form: According to MH 30.1.

1.7 CLOSEOUT SUBMITTALS

- A. Operation and Maintenance Data: For portable dock equipment, to include in operation and maintenance manuals.

1.8 QUALITY ASSURANCE

- A. Installer Qualifications: An authorized representative who is trained and approved by manufacturer.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. 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.

2.2 DOCK LIFTS

- A. General: Built-in, scissors-type, single-leg, hydraulic dock lift of capacity, size, and construction indicated; complete with controls, safety devices, and accessories required.
 - 1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Vestil Manufacturing Corp.
- B. Standard: MH 29.1.
- C. Rated Capacity: Lifting capacity of not less than 6,000 lbs., evenly distributed.
- D. Platform: Nonskid, safety-tread heavy steel deck plate.
 - 1. Platform Size: As indicated on Drawings.
 - 2. Platform Guarding: Bevel toe guards, Toe sensor, Skirts, Enclosure to comply with requirements in MH 29.1.
 - 3. Fixed Handrails: Equip lift with handrails on two sides of platform with a single, removable chain across each end. Provide handrails not less than 39 inches high with midrail and 4-inch- high kick plate at bottom.
- E. Bridge: Nonskid, safety-tread steel plate.
 - 1. Hinged Bridge: Hinged, throw-over bridge bolted to full-length, heavy-duty, piano-type hinge welded to toe guard at end of platform. Provide bridge complete with heavy-duty lifting chains. Chamfer edge of bridge to minimize obstructing wheels of material-handling vehicles.
 - 2. Size: As indicated on Drawings.
 - 3. Locations: As indicated on Drawings.
- F. Function: Dock lifts shall compensate for differences in height between truck bed and loading platform.
 - 1. Vertical Travel and Travel Speed: As indicated on Drawings.
- G. Hydraulic Operating System: Self-contained, electric, hydraulic power unit for raising and lowering lift; of size, type, and operation needed for capacity of lift indicated; controlled from a remotely located push-button station.
 - 1. Power Unit: Consisting of continuous-duty motor, high-pressure gear pump, valve manifold, oil-line filters, and oil reservoir.
 - a. Equip manifold with relief valve, check valve, pressure-compensated flow-control valve, and solenoid valve and with provisions for lowering lift manually if power fails.
 - b. Equip reservoir, valve manifold, and pressure line with oil-line filters.
 - 2. Cylinders: Equip lift with not less than two heavy-duty, high-pressure, hydraulic, ram-type cylinders. Rams shall be manufacturer's standard, either direct-displacement plunger or rod-and-piston type with positive internal stops. Cylinder rods shall be chrome plated and polished.
 - a. Rate of Descent Protection: Pressure-compensated flow control or hydraulic velocity fuse to limit down speed for each cylinder.
 - 3. Remote-Control Station: Multibutton control station of the constant-pressure type with UP and DOWN push buttons. Controller shall consist of magnetic motor starter with three-pole adjustable overloads and 24-V control transformer with 4-A, fused secondary prewired to terminal strips and enclosed in NEMA ICS 6, Type 12 box.
 - a. Upper-Travel-Limit Switch: Equip unit with manufacturer's standard, adjustable, upper-travel-limit switch.
- H. Construction: Fabricate lift from structural-steel shapes rigidly welded and reinforced for maximum strength, safety, and stability. Design assembly to withstand deformation during both operating and stored phases of service. Provide mounting brackets and removable lifting eyes for ease of installation.
 - 1. Scissors Mechanism: Fabricate leg members from heavy, steel-formed tube or plate members to provide maximum strength and rigidity.
 - 2. Scissors Configuration: Multiple width.
 - 3. Bearings: Pivot points with permanently lubricated antifriction bushings or sealed ball bearings for minimum maintenance.
 - 4. Maintenance Leg: Removable, safety maintenance leg or hinged, safety maintenance bars.
 - 5. Mounting: Pit.
- I. Materials:
 - 1. Steel Plates, Shapes, and Bars: ASTM 36/A 36M.
 - 2. Rolled-Steel Floor Plate: ASTM A 786/A 786M, rolled from steel plate complying with ASTM A 572/A 572M, Grade 55.
 - 3. Steel Tubing: ASTM A 500/A 500M, cold formed.
- J. Finish: Immediately after cleaning and pretreating, apply manufacturer's standard two-coat, baked-on finish consisting of prime coat and thermosetting topcoat in manufacturer's standard color.
 - 1. Toe Guards: Paint to comply with ANSI Z535.1.

2. Galvanizing: Hot-dip galvanize components to comply with the following:
 - a. ASTM A 123/A 123M for iron and steel portable dock equipment.
 - b. ASTM A 153/A 153M or ASTM F 2329 for iron and steel hardware for portable dock equipment.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine areas and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.
- B. Examine roughing-in for electrical systems for portable dock equipment to verify actual locations of connections before equipment installation.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Coordinate size and location of portable dock equipment indicated to be attached to or recessed into concrete or masonry, and furnish anchoring devices with templates, diagrams, and instructions for their installation.

3.3 INSTALLATION

- A. General: Install portable dock equipment as required for a complete installation.
- B. Dock Lifts: Attach dock lifts securely to floor of recessed pit.

3.4 ADJUSTING

- A. Adjust portable dock equipment to function smoothly and safely, and lubricate as recommended by manufacturer.
- B. Test lifts for vertical travel within operating range indicated.
- C. After completing installation of exposed, factory-finished portable dock equipment, inspect exposed finishes and repair damaged finishes.

3.5 DEMONSTRATION

- A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain portable dock equipment.

END OF SECTION 111323

SECTION 113100 - RESIDENTIAL APPLIANCES

PART 1 - GENERAL

- 1.1 RELATED DOCUMENTS
 - A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.
- 1.2 SUMMARY
 - A. Section Includes:
 - 1. Cooking appliances.
 - 2. Kitchen exhaust ventilation.
 - 3. Refrigeration appliances.
 - 4. Cleaning appliances.
- 1.3 ACTION SUBMITTALS
 - A. Product Data: For each type of product indicated. Include rated capacities, operating characteristics, dimensions, furnished accessories, and finishes for each appliance.
 - B. Samples: For each exposed product and for each color and texture specified, in manufacturer's standard size.
 - C. Product Schedule: For appliances. Use same designations indicated on Drawings.
- 1.4 INFORMATIONAL SUBMITTALS
 - A. Qualification Data: For qualified Installer and manufacturer.
 - B. Product Certificates: For each type of appliance, from manufacturer.
 - C. Field quality-control reports.
- 1.5 CLOSEOUT SUBMITTALS
 - A. Operation and Maintenance Data: For each residential appliance to include in operation and maintenance manuals.
- 1.6 QUALITY ASSURANCE
 - A. Installer Qualifications: An employer of workers trained and approved by manufacturer for installation and maintenance of units required for this Project.
 - B. Source Limitations: Obtain each type of residential appliance from single manufacturer.
 - C. Regulatory Requirements: Comply with the following:
 - 1. NFPA: Provide electrical appliances listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
 - D. Accessibility: Where residential appliances are indicated to comply with accessibility requirements, comply with the U.S. Architectural & Transportation Barriers Compliance Board's ADA-ABA Accessibility Guidelines and Texas Accessibility Standards (TAS).
 - E. Preinstallation Conference: Conduct conference at Project site.
- 1.7 WARRANTY
 - A. Special Warranties: Manufacturer's standard form in which manufacturer agrees to repair or replace residential appliances or components that fail in materials or workmanship within specified warranty period.
 - 1. Warranty Period: Two years from date of Substantial Completion.

PART 2 - PRODUCTS

- 2.1 APPLIANCES
 - A. As scheduled.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates and conditions, with Installer present, for compliance with requirements for installation tolerances, power connections, and other conditions affecting installation and performance of residential appliances.
- B. Prepare written report, endorsed by Installer, listing conditions detrimental to performance of the Work.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION, GENERAL

- A. General: Comply with manufacturer's written instructions.
- B. Utilities: Comply with plumbing and electrical requirements.

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 visual, mechanical, and electrical inspection and testing for each appliance according to manufacturers' written recommendations. Certify compliance with each manufacturer's appliance-performance parameters.
 - 2. Leak Test: After installation, test for leaks. Repair leaks and retest until no leaks exist.
 - 3. Operational Test: After installation, start units to confirm proper operation.
 - 4. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and components.
- C. An appliance will be considered defective if it does not pass tests and inspections.
- D. Prepare test and inspection reports.

3.4 DEMONSTRATION

- A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain residential appliances.

END OF SECTION 113100

SECTION 118226 - FACILITY WASTE COMPACTORS

PART 1 - GENERAL

- 1.1 RELATED DOCUMENTS
- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.
- 1.2 SUMMARY
- A. This Section includes waste compactors.
- 1.3 DEFINITIONS
- A. General: See the "WASTEC 2007 Listing of Rated Stationary Compactors" for detailed definitions of waste-compactor terminology.
- 1.4 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. Dimensions locating chutes that interface with waste compactors.
 3. Location and installation details of automatic sprinkler in hopper of each chute-fed compactor.
 4. Equipment access points and required space for equipment service and operation.
 5. Setting drawings, templates, and instructions for installing anchor bolts and other anchorages.
 6. Wiring Diagrams: For power, signal, and control wiring.
- 1.5 INFORMATIONAL SUBMITTALS
- A. Qualification Data: For qualified Installer.
- B. Product Certificates: For each type of waste compactor, from manufacturer.
- C. Field quality-control reports.
- 1.6 CLOSEOUT SUBMITTALS
- A. Operation and Maintenance Data: For waste compactors to include in operation and maintenance manuals.
- 1.7 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 two hour(s) normal travel time from Installer's place of business to Project site.
- B. Waste-Compactor Standards: ANSI Z245.21 and NFPA 82.
- C. Waste-Container Standards: ANSI Z245.30 and ANSI Z245.60.
- 1.8 MAINTENANCE SERVICE
- A. Initial Maintenance Service: Beginning at Substantial Completion, provide 12 months' full maintenance by skilled employees of waste-compactor Installer. Include monthly preventive maintenance, repair, or replacement of worn or defective components, lubrication, cleaning, and adjusting as required for proper waste-compactor operation at rated speed and capacity. Provide parts and supplies the same as those used in the manufacture and installation of original equipment.
- B. Continuing Maintenance Proposal: From Installer to Owner, in the form of a standard yearly (or other period) maintenance agreement, starting on date initial maintenance service is concluded. State services, obligations, conditions, and terms for agreement period and for future renewal options.

PART 2 - PRODUCTS

2.1 WASTE COMPACTORS

- A. Waste Compactor: Manufacturer's standard stationary-horizontal -type stationary compactor, complying with requirements, liquidtight, and with components, options, and accessories needed to provide a complete, functional system.
 - 1. Manufacturers: Subject to compliance with requirements, :
 - a. Marathon Equipment Company; a Dover company.
 - 2. WASTEC-Rated Size (Volume): Minimum 2.00 cu. yd..
 - 3. Finish: Manufacturer's standard.
 - a. Color: As selected by Architect from manufacturer's full range.
 - 4. Deodorizing Device: Manufacturer's standard.

2.2 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.
- D. Fabricate liquidtight compactor baffles to stop liquid from leaking out.
- E. Fabricate diverter to fit chute and properly align with compactor hoppers.

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 chutes for suitable conditions where each waste compactor will be installed.
- 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. Install each waste compactor according to manufacturer's written instructions, ANSI Z245.2, and ANSI Z245.21 including annexes.
- B. Install automatic sprinkler in hopper of each chute-fed compactor according to NFPA 82.
- C. Set waste compactors level, plumb, properly aligned, and securely in place. Anchor as required for secure operation.
- D. Install diverter to chute and properly align with compactor hoppers.

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 DEMONSTRATION

- A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain waste compactors according to manufacturer's requirements and ANSI Z245.2.

END OF SECTION 118226

