

PART I – GENERAL**SECTION INCLUDES**

- Loading dock equipment of the following types:
 1. Dock bumpers.
 2. Vertical dock leveler.
 3. Control stations.
 4. Dock shelters.

RELATED SECTIONS

- Section 03100 - Concrete Forms and Accessories: Placement of anchors into concrete.
- Section 03300 - Cast-In-Place Concrete: Docks and pits.
- Section 05500 - Metal Fabrications: Metal angles for edge of dock.

REFERENCES

- American National Standards Institute (ANSI):
 1. ANSI MH30.1 - Industrial Loading Dock Boards (Ramps).

SUBMITTALS

- Section 01330 - Submittals Procedures: Procedures for submittals.
- Product Data: For each product specified.
 1. Bumpers: Indicate unit dimensions, method of anchorage, and details of construction.
 2. Levelers: Indicate materials and finish, installation details, roughing-in measurements, and operation of unit.
- Shop Drawings:
 1. Indicate required opening dimensions, tolerances of opening dimensions, placement dimensions, and perimeter conditions of construction.
 2. Wiring diagrams including location of control stations and disconnect switches.
- Assurance/Control Submittals:
 1. Certificates: Manufacturer's certificate that Products meet or exceed specified requirements.
 2. Qualification Documentation: Submit documentation of experience indicating compliance with specified qualification requirements.

QUALITY ASSURANCE

- Dock Levelers: Conform to requirements of ANSI MH30.1.
- Manufacturer Qualifications:
 1. Manufacturer specializing in manufacturing Products specified with minimum 30 years of experience.
 2. Manufacturer to have quality assurance improvement programs.
 3. Manufacturer shall be associated with Loading Dock Equipment Manufacturers (LODEM) setting ANSI standards.
 4. Manufacturers welding procedure compliant with A.W.S.D1.1 specifications.
- Installer Qualifications: Company specializing in performing the Work of this Section with minimum 5 years of experience.

DELIVERY, STORAGE, AND HANDLING

- Deliver, store and handle materials and products in strict compliance with manufacturer's instructions and recommendations and industry standards. Store materials within absolute limits for temperature and humidity recommended by manufacturer. Protect from damage.
- Store products in manufacturer's labeled packaging until ready for installation.

WARRANTY

- Warranty: Provide manufacturer's standard warranty.
- Dock Leveler: The manufacturer warrants to the original purchaser its loading dock equipment to be free from defective material and workmanship under normal use for a period of 1 year (365 days). Structural is covered for an additional (4) years and include deck, frame, support beams, lip and hinge. Hydraulics is covered for an additional (1) year and includes power pack motor, hydraulic pump, hydraulic hoses and hydraulic fittings.
- Dock Shelter: The manufacturer warrants to the original purchaser its dock seals and shelters to be free from defective material and workmanship under normal use for a period of 1 year (365 days).

PART II – PRODUCTS**MANUFACTURERS**

- Blue Giant Equipment Corporation, which is located at: 410 Admiral Blvd., ON, Canada L5T 2N6; Toll Free Tel: 1-800-668-7078; Tel: 905-457-3900; Fax: 905-457-2313. Contact Steve Ross Trimble, National Accounts, rtrimble@bluegiant.com; Secondary Contact: Chris Wang, 416-989-6294, cwang@bluegiant.com
- Substitutions: Not permitted.

DOCK BUMPERS

Dock Bumpers: Two per dock leveler as manufactured by Blue Giant.

- Type: Laminated and shall be made of nylon impregnated heavy-duty industrial rubber and punched to receive 5/8 inch (16 mm) supporting rod. Bumper material shall be assembled with two 3 inches by 3 inches by 1/4 inch (76 by 76 by 6 mm) thick steel angles, factory painted and fastened with threaded rod and nut. Dimensions include angle iron for laminated bumpers.
 1. Model DB512: 5-1/2 inches D by 14 inches W by 20 inches H (140 mm D by 356 mm W by 508 mm H).

VERTICAL DOCK LEVELERS

Hydraulic Dock Levelers: "V" Series Hydraulic Dock Levelers, Model 'V7006H' as manufactured by BLUE GIANT.

- Type: Recessed, pit installed hinged dock leveler. Electro-hydraulically operated with independent control of deck and lip

complete with hydraulic lip and deck cylinders and rear fixed hinge with 4 inches (102 mm) lateral ramp flex. Pit Depth: Front 12.5 inches (318 mm) and Rear 12 inches (305 mm). Deck length includes 10 inches (254 mm) lip.

1. Model VH7006H: Deck Size - 86 inches (2134 mm) W by 57.5 inches (1461 mm) L.
- Function:
 1. Vertical Travel: Working range of 12 inches (305 mm) above and 12 inches (305 mm) below dock level.
 2. Automatic Vertical Compensation: Unit provides float of 12 inches (305 mm) above and 12 inches (305 mm) below dock level.
 3. Automatic Lateral Compensation: Leveler shall have deck flex up to 4 inches (102 mm) to compensate for non-level trailer beds. Rear hinge fixed and does not come up above floor level.
 - Operation:
 1. Hydraulic Operating System: Easy to operate, quiet and smooth cycling. Electro-hydraulic raising and hydraulic lowering of the dock leveler controlled from a remote control station. Includes means of lowering the dock leveler below platform level with lip retracted behind dock bumpers. The loaded ramp's free fall is limited to not over 3 inches (76 mm) by a hydraulic velocity fuse. Unit shall come complete with a 1HP TENV motor. Power pack mounted underneath the deck.
 2. Control Station: Model SP1. Remote push-button control station. Provide a single push button control station with constant pressure "I" (UP) button. Control station is NEMA4X / IP65 rated, 3-1/4 inch W x 6-1/2 inch W x 5-1/8 inch D (83 mm x 165 mm x 130 mm) in size (standard).
 - Rated Capacity:
 1. Welding procedure compliant with ANSI AWS D1.1 specifications. All units rated in compliance with ANSI MH30.1. ANSI/NFPA70 approved electrical components. Structural deck support to include minimum six each high-tensile solid steel U-beam members.
 2. Capacity: 40,000 lb (18,144 kg).
 - Power: 575V, 3Phase, 60HZ.
 - Safety Devices:

1. Toe Guard: Full operating range metal toe guard protection.
2. Cross traffic support - lip engaged in saddles (standard).
3. Corner below level stops (standard).
4. Telescopic v-grooved maintenance strut, integral to unit (standard).
5. Beveled lip (standard).

- Finish and Color:
 1. Toe guards painted safety yellow as specified by ANSI Z535.1. High visibility OSHA safety striping on stationary side toe guards.
 2. Remainder of unit painted blue, standard.
- Warranty: Warranties are subject to standard limitations on liability. Consult manufacturer for full details on warranty information and product registration.
- Locking Devices: Standard night locks.
- Dock Bumpers: Standard, two model DB512 laminated bumpers
- Lip Extensions: 18 inch (457 mm) long lip.
- Accessories: Provide the following standard accessories.
 1. Side weather seals, nylon brush style.
 2. Rear weather seals, nylon brush style.
- Features/Accessories: Provide the following optional features/accessories:
 1. Pour-in pan (dock leveler welded to a 3 sided steel pan, allowing it to be "poured in place" after concrete slab is poured).
 2. Assured motion float: 4 inch / 101 mm maintained deck tilt
 3. Standard oil (temperature range of -41 to 200 degrees C).
 4. 48" high (2) door track guards, painted yellow
 5. Dock leveler wedge (2), to be fitted to bottom of door panel
 6. Wheel chock kit, c/w laminated wheel chock, 15' (4,572mm) chain, wall mounting bracket and sign, to be fitted on exterior driveway wall

CONTROL STATIONS

Single Push Button Control Stations: SP1 as manufactured by BLUE GIANT.

- Type: Model SP1; single push button control station.

- Standard Features:
 1. NEMA4X/IP65 plastic enclosure- resistant to both corrosion and wet conditions.
 2. UL/CSA/CE approved.
- Operation: Operating System: The single push button control station raises an independent hydraulic dock leveler via a constant pressure "I" (UP) button.
- Power: 575V, 3Phase, 60HZ
- Construction and Finish: NEMA4X/IP65 (wet and corrosion resistant) rated plastic enclosure. Overall dimensions 6-1/2 inch L x 3 -1/4 inch W x 5-1/8 inch D (165 x 83 x 130 mm).
- Warranty: Warranties are subject to standard limitations on liability. Consult manufacturer for full details on warranty information and product registration.

DOCK SHELTERS

Foam Frame Shelter: Model 'BG100V-22' as manufactured by BLUE GIANT

- Manufactured to fit door size of 8' x 10', overall shelter size 119" wide x 120" high x 10" deep (3023mm x 3048mm x 254mm)
- Galvanized steel frames covered with polyethylene sheeting
- All exterior front frame edges shall have a minimum 1.5" x 2.5" (40mm x 65mm) aluminum trim angle to provide a neat clean finish
- Projection is 10" (254mm) inclusive of wood build out box
- Polyurethane foam core with 98% memory unaffected by moisture heat or cold, maintaining flexibility at -40 degrees C. The foam core shall be continuously bonded to the kiln dried lumber backing with a high quality adhesive
- Base cover material shall be a polyester base using Hi-Tear Vinyl fabric with a finished weight of 22oz
- Head bumper shall be 12" high (305mm). Curtain bumper shall be a polyester base with a 40oz Hi-Tear Vinyl finished weight. Material shall have an unbalanced distribution coating of 90/10 to allow for superior abrasion on contact surface.
- Side seals shall be 12" wide (305mm) wide with a 4" (102mm) wide x full length yellow aiming stripe. Seal material shall be a polyester base with a 40oz Hi-Tear Vinyl finished weight. Material shall have an unbalanced distribution coating of 90/10 to allow for superior abrasion on contact surface.
- Side pads shall be 12" wide x 10" projection (305mm x 254mm) inclusive of build out box. Material shall be 22oz Hi-Tear Vinyl.
- All mounting hardware included shall be galvanized (manufacturer's standard).

PART III – EXECUTION

EXAMINATION

- Do not proceed with installation until substrates have been properly prepared and deviations from manufacturer's recommended tolerances are corrected. Commencement of installation constitutes acceptance of conditions.
- Prepare substrates using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
- If preparation is the responsibility of another installer, notify Architect in writing of deviations from manufacturer's recommended installation tolerances and conditions.
- Verification of Conditions: Verify that field measurements, surfaces, substrates and conditions are as required, and ready to receive Work.

INSTALLATION

- Follow manufacturer's directions for pour-in-place method of installation for leveler. Install leveler with pour in place box onto a prepared depression and shim level and lag in required locations to ensure unit is level with floor.
- Install/secure box spacers at top of side angles to prevent caving in of side panels.
- After first concrete base pour has set, shim level and lag and place second pour to curb angles and puddle between box sides and wall recess.
- Place pour to fill under base of leveler. Pour concrete base under/surrounding pit box to ensure that the inside rear frame will be fully supported. Cylinder base to be shimmed and fully supported.
- Remove box spacers and lip plate securement fastener. Open leveler and commission unit. Touch-up welds with matching paint.
- Install dock bumpers in accordance with manufacturer's instructions.
- Install shelter in accordance with manufacturer's instructions

ADJUSTING

- Adjust installed leveler for smooth and balanced operation.

STANDARD SECTIONAL OVERHEAD DOOR SPECIFICATIONS

OUTLINE SPECIFICATIONS

PART I – GENERAL

SECTION INCLUDES

- Insulated Sectional Overhead Doors.
- Electric Operators and Controls.
- Operating Hardware, tracks, and support.

DESIGN / PERFORMANCE REQUIREMENTS

Wind Loads: Design and size components to withstand loads caused by pressure and suction of wind acting normal to plane of wall as calculated in accordance with applicable code.

Single-Source Responsibility: Provide doors, tracks, motors, and accessories from one manufacturer for each type of door. Provide secondary components from source acceptable to manufacturer of primary components.

SUBMITTALS

- Submit under provisions of Section 01300.
- Product Data: Manufacturer's data sheets on each product to be used, including:
 1. Preparation instructions and recommendations.
 2. Storage and handling requirements and recommendations.
 3. Installation methods.
- Shop Drawings: Indicate plans and elevations including opening dimensions and required tolerances, connection details, anchorage spacing, hardware locations, and installation details.
- Manufacturer's Certificates: Certify products meet or exceed specified requirements.
- Operation and Maintenance Data.

QUALITY ASSURANCE

- Manufacturer Qualifications: Company specializing in manufacturing products specified in this section with minimum five years documented experience.
- Installer Qualifications: Authorized representative of the manufacturer with minimum five years documented experience.
- Products Requiring Electrical Connection: Listed and classified by Underwriters Laboratories, Inc. acceptable to authority having jurisdiction as suitable for purpose specified.

DELIVERY, STORAGE, AND HANDLING

- Store products in manufacturer's unopened labeled packaging until ready for installation.
- Protect materials from exposure to moisture until ready for installation.
- Store materials in a dry, ventilated weather tight location.

PROJECT CONDITIONS

Pre-Installation Conference: Convene a pre-installation conference just prior to commencement of field operations, to establish procedures to maintain optimum working conditions and to coordinate this work with related and adjacent work.

WARRANTY:

Warranty: Manufacturer's limited door and operators System warranty for 10 year against delamination of polyurethane foam from steel face and all other components for 3 years or 20,000 cycles, whichever comes first.

PART II – PRODUCTS

MANUFACTURERS

- Acceptable Manufacturer: Overhead Door Corporation as supplied by Blue Giant Equipment Corporation, Brampton, ON Canada, L6W 3K2
- Contact Steve Greco, Director, National Accounts, sgreco@BlueGiant.com; Secondary Contact: Chris Wang, 416-989-6294, cwang@bluegiant.com
- Substitutions: Not permitted.

INSULATED SECTIONAL OVERHEAD DOORS

- Insulated Steel Sectional Overhead Doors: 592 Series Thermacore Insulated Steel Doors by Overhead Door Corporation as supplied by Blue Giant Equipment Corporation
- Units shall have the following characteristics:
 1. Door Assembly: Metal/foam/metal sandwich panel construction, with PVC thermal break and weather-tight ship-lap design meeting joints
 - a. Panel Thickness: 2 inches (51 mm)
 - b. Exterior Surface: Ribbed, textured
 - c. Exterior Steel: .015 inch (.38 mm), hot-dipped galvanized
 - d. End Stiles: 16 gauge with thermal break
 - e. Spring Counterbalance: Sized to weight of the door, with a helically wound, oil tempered torsion spring mounted on a steel shaft; cable drum of diecast aluminum with high strength galvanized aircraft cable. Sized with a minimum 7 to 1 safety factor. Rated for 25,000 life cycle minimum. 1" solid keyed shaft to accept sprocket and chain connection from Door operator

- f. Insulation: CFC-free and HCFC-free polyurethane, fully encapsulated
 - g. Thermal Values: R-value of 17.50; U-value of 0.057
 - h. Air Infiltration: 0.08 cfm at 15 mph; 0.08 cfm at 25 mph
 - i. 1- 24" x 8" Insulated DSB lite in center of 3rd section (eye level) per door
 - j. Two coat baked-on polyester: Interior color, white. Exterior color, white.
 - k. Windload Design: Provide to meet the Design/Performance requirements specified
 - l. Hardware: Galvanized steel hinges and fixtures. Ball bearing rollers with hardened steel races
 - m. Locking: Interior mounted slide lock at each door jamb suitable for padlocks by owner
 - n. Weather stripping:
 - EPDM bulb-type strip at bottom section
 - Flexible Jamb seals
 - Flexible Header seal
2. Track: Provide track as recommended by manufacturer to suit loading required and clearances available.
- a. Size: 2 inch (51 mm). Full vertical/ high lift track to suit interior ceiling site checked and verified by Overhead Door Installation technician or Distributor or as verified by signed shop drawings as submitted.
- Anchor assembly to wall construction and building framing without distortion or stress.
 - Securely brace door tracks suspended from structure. Secure tracks to structural members only.
 - Fit and align door assembly including hardware.
 - Coordinate installation of electrical service. Complete power and control wiring from disconnect to unit components.

CLEANING AND ADJUSTING

- Adjust door assembly to smooth operation and in full contact with weather stripping.
- Clean doors, frames and glass.
- Remove temporary labels and visible markings.

PROTECTION

- Do not permit construction traffic through overhead door openings after adjustment and cleaning. 08360-592 Series - 7
- Protect installed products until completion of project.
- Touch-up, damaged coatings and finishes and repair minor damage before Substantial Completion.

END OF SECTION.**OPERATION**

Manual pull rope operation complete with lift handle and step plate

- Do not begin installation until opening properly prepared.
- Verify wall openings are ready to receive work and opening dimensions and tolerances are within specified limits.
- Verify electric power is available and of correct characteristics.
- If preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

PART III – EXECUTION**PREPARATION**

- Clean surfaces thoroughly prior to installation.
- Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

INSTALLATION

- Install overhead doors and track in accordance with approved shop drawings and the manufacturer's printed instructions.
- Coordinate installation with adjacent work to ensure proper clearances and allow for maintenance.

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