



SECTION 11 13 00

LOADING DOCK EQUIPMENT
Display hidden notes to specifier.

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Loading dock equipment of the following types:
 - 1. Hydraulic dock levelers.
 - 2. Control stations.
 - 3. Dock bumpers.

1.2 RELATED SECTIONS

- A. Section 03 11 19 - Insulating Concrete Forming.
- B. Section 03 30 00 - Cast-in-Place Concrete.
- C. Section 05 50 00 - Metal Fabrications.

1.3 REFERENCES

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

1.4 SUBMITTALS

- A. Section 01 33 26 - Source Quality Control Reporting.
- B. Product Data: For each product specified. Indicate unit dimensions, method of anchorage, and details of construction. Indicate materials and finish, installation details, roughing-in measurements, and operation of unit.
- C. 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.
- D. 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.

1.5 QUALITY ASSURANCE

- A. Dock Levelers: Conform to requirements of ANSI MH30.1.
- B. Manufacturer Qualifications:
 - 1. Manufacturer specializing in manufacturing Products specified with minimum 30 years' experience.

2. Manufacturer to have quality assurance improvement programs and ISO certified.
 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.
- C. Installer Qualifications: Company specializing in performing the Work of this Section with minimum 5 years' experience.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. 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.
- B. Store products in manufacturer's labeled packaging until ready for installation.

1.7 WARRANTY

- A. Warranty: Provide manufacturer's standard warranty.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturer: Blue Giant Equipment Corporation, which is located at: 410 Admiral Blvd.; Mississauga, ON, Canada L5T 2N6; Toll Free Tel: 800-872-2583; Tel: 905-457-3900; Fax: 905-457-2313; Email: marketing@bluegiant.com; Web: <https://www.bluegiant.com>
- B. Substitutions: Not permitted.
- C. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00 - Product Requirements.

2.2 HYDRAULIC DOCK LEVELERS

- A. Hydraulic Dock Levelers: Dock Levelers, Model "H" as manufactured by BLUE GIANT.
 1. 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 20 inches (508 mm) and Rear 19-1/2 inches (495 mm). Deck length includes 16 inches (406 mm) lip.
 - a. Model H6006: Deck Size - 72 inches (1829 mm) W by 75-1/2 inches (1918 mm) L to suit Pit Size – 74 inches (1880 mm) W by 63 inches (1600 mm) L.
 - b. Model H6008: Deck Size - 72 inches (1829 mm) W by 99-1/2 inches (2527 mm) L to suit Pit Size – 74 inches (1880 mm) W by 87 inches (2210 mm) L.
 - c. Model H6010: Deck Size - 72 inches (1829 mm) W by 123-1/2 inches (3137 mm) L to suit Pit Size – 74 inches (1880 mm) W by 111 inches (2819 mm) L.
 - d. Model H6606: Deck Size - 78 inches (1981 mm) W by 75-1/2 inches (1918 mm) L to suit Pit Size – 80 inches (2032 mm) W by 63 inches (1600 mm) L.
 - e. Model H6608: Deck Size - 78 inches (1981 mm) W by 99-1/2 inches (2527 mm) L to suit Pit Size – 80 inches (2032 mm) W by 87 inches (2210 mm) L.
 - f. Model H6610: Deck Size - 78 inches (1981 mm) W by 123-1/2 inches (3137 mm) L to suit Pit Size – 80 inches (2032 mm) W by 111 inches (2819 mm) L.
 - g. Model H7006: Deck Size - 83 inches (2108 mm) W by 75-1/2 inches (1918 mm) L to suit Pit Size – 85 inches (2159 mm) W by 63 inches (1600 mm) L.
 - h. Model H7008: Deck Size - 83 inches (2108 mm) W by 99-1/2 inches (2527 mm) L to suit Pit Size – 85 inches (2159 mm) W by 87 inches (2210 mm) L.

- i. Model H7010: Deck Size - 83 inches (2108 mm) W by 123-1/2 inches (3137 mm) L to suit Pit Size – 85 inches (2159 mm) W by 111 inches (2819 mm) L.
2. Function:
- a. Vertical Travel: Working range of 12 inches (305 mm) above and 12 inches (305 mm) below dock level.
 - b. Automatic Vertical Compensation: Unit provides float of 12 inches (305 mm) above and 12 inches (305 mm) below dock level.
 - c. 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.
 - d. Lip Operation: Hydraulic lip automatically extends and locks into position. Lip will yield under impact of incoming truck and automatically drop pendant upon truck's departure. The length of the lip extension shall not be less than 16 inches (406 mm) from the ramp edge.
3. Operation:
- a. 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.
 - b. 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).
 - c. Control Station: Model SP2. Remote push-button control station. Provide a single push button control station with constant pressure UP button. The running timer shuts down the motor after a specific interval to prevent excessive motor activity. Onboard diagnostics alert user to equipment status via a red LED light inside the control box. Control station is NEMA4X / IP65 rated, 5 15/16 inches L x 6 15/32 inches W x 4 inches D (151 x 164 x 102 mm).
 - d. Control Station: Remote touch button control station. The Blue Genius Gold Series I is a multiple touch-button control station with constant pressure "DECK", and "LIP" touch buttons. It has a NEMA4X/IP65 (wet and corrosion resistant) rated polycarbonate enclosure. Overall dimensions 11 1/4"L x 7 1/2"W x 5 1/2"D (286 x 191 x 140 mm). For added safety, the control station has a 'STOP' touch button that will cause the deck and lip to stop in mid-travel when touched. The 'ESC' touch button activates the release function.
 - e. Control Station Blue Genius Gold Series III Control Panel (for dock leveler-vehicle restraint combos only): to interlock dock leveler and restraint functions. The Blue Genius Gold Series III is a multiple touch-button control station with constant pressure "DECK", "LIP", "ENGAGE", and "RELEASE" touch buttons. It has a NEMA4X/IP65 (wet and corrosion resistant) rated polycarbonate enclosure. Overall dimensions 11-1/4"L x 7-1/2"W x 5-1/2"D (286 x 191 x 140 mm). For added safety, the control station has a 'STOP' touch button that will limit equipment motion when touched. The 'ESC' touch button activates the release function.
 - f. Control Station For Dock Leveler - Vehicle Restraint Combination: Blue Genius Platinum Series Master Control Panel to control a combination of dock equipment including dock leveler, vehicle restraint, overhead doors, dock light and inflatable seal. The Blue Genius Platinum Series Master Control Panel has a software-based operating sequence which can be customized to suit application requirements. Equipment is controlled via touch buttons that correspond to the equipment's function It has a NEMA4X/IP65 (wet and

- corrosion resistant) rated polycarbonate enclosure. Overall dimensions 20.59 inches L x 14 inches W x 5-1/2 inches D (523 x 356 x 140 mm). For added safety, the control station has a 'STOP' button that halts or limits the motion of connected dock equipment.
4. Rated Capacity:
 - a. Welding procedure compliant with A.W.S.D1.1 specifications. All units rated in compliance with ANSI MH30.1. ANSI/NFPA70 approved electrical components. Structural deck support to include minimum eight each high-tensile solid steel J-beam members.
 - b. Rated Capacity: As scheduled and indicated on Drawings.
 - c. Rated Capacity: Workhorse class ANSI MH30.1 - 12,500 lb) (5,700 kg).
 - d. Rated Capacity: Heavy class (ANSI MH30.1 - 19,000 lb) (8,700 kg).
 - e. Rated Capacity: Super class (ANSI MH30.1 - 26,000 lb) (11,800 kg).
 - f. Rated Capacity: Extreme class (ANSI MH30.1 - 33,000 lb) (15,000 kg).
 - g. Rated Capacity: Ultra class (ANSI MH30.1 - 40,000 lb) (18,200 kg).
 5. Power: __ V, __ Amps, __ Phase.
 - a. Motors: Enclosed, non-ventilated, 1 HP rated at 110/120V, 60 Hz, single phase.
 - b. Motors: Enclosed, non-ventilated, 1 HP rated at 208/240V, 60 Hz, single phase.
 - c. Motors: Enclosed, non-ventilated, 1 HP rated at 208/240V, three phase.
 - d. Motors: Enclosed, non-ventilated, 1 HP rated at 440/480V, three phase.
 - e. Motors: Enclosed, non-ventilated, 1 HP rated at 575V, 60 Hz, three phase.
 - f. Motors: Enclosed, non-ventilated, 1 HP rated at 380/415V, 50 Hz, three phase.
 - g. Motors: Provide motors for unique applications, consult (option).
 6. Safety Devices:
 - a. Toe Guard: Full yellow operating range metal toe guard protection.
 - b. Cross traffic support - lip engaged in saddles (standard).
 - c. Corner below level stops (standard).
 - d. V-grooved dock strut, integral to unit (standard).
 - e. Lip leading edge, optimized bevel (standard).
 - f. Lip leading edge, extended bevel (option).
 - g. Clean Pit Frame (standard).
 7. Finish and Color:
 - a. Powder Coated and bake cure, resistant to chemicals, corrosion, and incorporates UV inhibitors to reduce fading of colors (standard).
 - b. Deck, lip, frame powder coated gray or color as specified.
 - c. Toe guards powder coated safety yellow as specified by ANSI Z535.1. High visibility OSHA safety striping on stationary side toe guards.
 - a. Remainder of unit zinc enriched powder (option).
 - b. Remainder of unit galvanized coated (option).
 8. Warranty: Warranties are subject to standard limitations on liability. Consult manufacturer for full details on warranty information and product registration.
 9. Standard Accessories:
 - a. Night Locks. Resist unauthorized entry beneath locked overhead door.
 - b. 16 inches (406mm) long lip.
 10. Oil: Multi Viscosity (temperature range: -41 to 392 degrees F, -41 to 200 degrees C) (standard).
 11. Oil: Arctic (temperature range: -71 to 302 degrees F, -57 to 150 degrees C) (option).
 12. Oil: Biodegradable (temperature: -33 to 446 degrees F, -36 to 230 degrees C) (option).
 13. Dock Bumpers: Standard, two model DB411 laminated bumpers 14 inches (356 mm) W by 10 inches (254 mm) H by 4.5 inches (114 mm) D.
 14. Lip Size: As scheduled and indicated on Drawings.
 15. Lip Size: 16 inches (406 mm) long (standard)
 16. Lip Size: 18 inches (457 mm) long (option)
 17. Lip Size: 20 inches (508 mm) long (option)
 18. Tapered Lip for 72 inches (1829 mm) and 78 inches (1981 mm) wide models (option).

19. Full Width (Non-tapered) Lip for 83 inches (2104 mm) wide models (option).
20. Features/Accessories: Provide the following optional features/accessories:
 - a. Side weather seals, rubber style.
 - b. Side weather seals, nylon brush style.
 - c. Side weather seals, safety brush, yellow black zebra striped.
 - d. Rear weather seals, rubber style.
 - e. Rear weather seals, nylon brush style.
 - f. Rear weather seals, safety brush, yellow black zebra striped.
 - g. Foam insulation underside of deck.
 - h. Remote mounted power pack on 18 feet (5,486 mm) hydraulic hose.
 - i. Overhead door interlocked operation connects (option).
 - j. Pour-in pan (dock leveler welded to a steel pan, allowing it to be "poured in place" after concrete slab is poured).
 - k. Closed pit frame (option).
 - l. Blue Genius advanced communication package (includes LED interior red/yellow/green and exterior red/green traffic lights and driver warning signs) with security features (activate / deactivate via code)
 - m. Auto-Park: Automatic ramp return should the vehicle depart unexpectedly.
 - n. Assured motion float: 4 inch / 102 mm maintained deck tilt.
 - o. Dock lip safety barrier: 5 inch / 127 mm steel barrier extending above the deck surface when the dock is not in use, preventing warehouse traffic from rolling off the edge of the dock.
 - p. Vehicle Restraints.