



LOADING DOCK EQUIPMENT

PART 1 GENERAL

1.1 SECTION INCLUDES

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

1.2 RELATED SECTIONS

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

1.3 REFERENCES

- A. American National Standards Institute (ANSI):
 - 1. ANSI MH30.1- Industrial Loading Dock Boards (Ramps).
 - 2. ANSI MH29.1- Industrial Scissor Lifts.
 - 3. ANSI MH30.3- Vehicle Restraining Devices (Safety, Performance, and Testing)

1.4 SUBMITTALS

- A. Section 01330 - Submittals Procedures: Procedures for submittals.
- B. 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.
- 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. Vehicle Restraining Devices: Conform to requirements of ANSI MH30.3.
- C. 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.
- D. Installer Qualifications: Company specializing in performing the Work of this Section with minimum 5 years experience.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Refer to Section 01600 - Product Requirements: Transporting, handling, storage, installation and protection of products.

1.7 WARRANTY

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

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturer: Blue Giant Equipment Corp., which is located at: 85 Heart Lake Rd. S. ; Brampton, ON; Canada L6W 3K2; Toll Free Tel: 800-668-7078; Tel: 905-457-3900; Email: mpoeltl@bluegiant.com; Web: www.BlueGiant.com

2.2 AIR-POWERED DOCK LEVELERS

- A. Air-Powered Dock Levelers: Air Cylinder Dock Levelers, Model 'ACU' as manufactured by BLUE GIANT.
 - 1.Type: Recessed, pit installed hinged dock leveler. Air operated with independent control of deck and lip complete with lip and deck cylinders and rear fixed hinge with 4 inches (101 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 ACU6006: Deck Size - 72 inches (1829 mm) W by 75-1/2 inches (1918 mm) L. Pit - 74 inches (1878 mm) W by 61-1/4 inches (1556 mm) L.
 - b. Model ACU6008: Deck Size - 72 inches (1829 mm) W by 99-1/2 inches (2527 mm) L. Pit - 74 inches (1878 mm) W by 85-1/4 inches (2165 mm) L.
 - c. Model ACU6010: Deck Size - 72 inches (1829 mm) W by 123-1/2 inches (3137 mm) L. Pit - 74 inches (1878 mm) W by 109-1/4 inches (2775 mm) L.
 - d. Model ACU6606: Deck Size - 78 inches (1981 mm) W by 75-1/2 inches (1918 mm) L. Pit - 80 inches (2032 mm) W by 61-1/4 inches (1556 mm) L.
 - e. Model ACU6608: Deck Size - 78 inches (1981 mm) W by 99-1/2

- inches (2527 mm) L. Pit - 80 inches (2032 mm) W by 85-1/4 inches (2165 mm) L.
- f. Model ACU6610: Deck Size - 78 inches (1981 mm) W by 123-1/2 inches (3137 mm) L. Pit - 80 inches (2032 mm) W by 109-1/4 inches (2775 mm) L.
 - g. Model ACU7006: Deck Size - 83 inches (2108 mm) W by 74 inches (1878 mm) L. Pit - 85 inches (2159 mm) W by 61-1/4 inches (1556 mm) L.
 - h. Model ACU7008: Deck Size - 83 inches (2108 mm) W by 99-1/2 inches (2527 mm) L. Pit - 85 inches (2159 mm) W by 85-1/4 inches (2165 mm) L.
 - i. Model ACU7010: Deck Size - 83 inches (2108 mm) W by 123-1/2 inches (3137 mm) L. Pit - 85 inches (2159 mm) W by 109-1/4 inches (2775 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 (101 mm) to compensate for non-level trailer beds. Rear hinge is fixed and does not come up above floor level.
3. Operation:
- a. Air-Powered Operating System: Smooth cycling. Tankless, on-demand air compressor motor is pit mounted with bracket. Air raising and gravitational lowering of the dock leveler is controlled via a wall-mounted control station. Includes means of lowering the dock leveler below platform level with lip retracted behind dock bumpers. Fluid-based velocity fuse limits the free-fall of a loaded ramp. Comes with one lip cylinder and one deck cylinder.
 - b. Control Station: Remote touch button control station. The Blue Genius Gold Series I (standard) 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 inches L x 7-1/2 inches W x 5-1/2 inches 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.
4. Rated Capacity:
- a. Welding procedure compliant with ANSI AWS D1.1 (2008) specifications. All units rated in compliance with ANSI MH30.1 (2007). ANSI/NFPA70 approved electrical components. Dock Leveler capacities available from 30,000lb to 45,000lb (13,636 kg to 20,412 kg). Structural deck support to include minimum six each high-tensile
5. Power: 115V / 1PH Range: 110-130V / 50-60Hz.
6. Standard Safety Devices:
- a. Full operating range metal toe guard protection.
 - b. Fluid-based velocity fuse.
 - c. 'STOP' touch button allows operator to cut power to the dock in an emergency situation.
 - d. Cross traffic support - lip engaged in saddles.
 - e. Corner safety stops.
 - f. Telescopic V-grooved maintenance strut, integral to unit.

- g. Beveled lip.
- 7. Finish and Color:
 - a. Dock Levelers: Toe guards painted safety yellow as specified by ANSI Z535.1. High visibility OSHA safety striping on stationary side toe guards.
- 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.
 - b. Two model DB411 laminated bumpers 14 inches W by 10 H by 4.5 inches D (355 by 254 by 114mm).
 - c. 16 inch (406 mm) long lip
- 10. **Optional Accessories:**
 - a. Foam insulation underside of deck.
 - b. Clean Pit Frame.
 - c. 18" (457mm) long lip
 - d. 20" (508mm) long lip
 - e. Three wheel forklift center deck support, up to 45,000 lb (20,412 kg) capacity.
 - f. Blue Genius advanced communication package (includes LED interior red/yellow/green and exterior red/green traffic lights and driver warning signs)
 - g. Overhead door interlock.
 - h. Audible alarm.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Section 01700 - Execution Requirements: Verification of existing conditions before starting work.
- B. Verification of Conditions: Verify that field measurements, surfaces, substrates and conditions are as required, and ready to receive Work.

3.2 INSTALLATION

- A. Install dock leveler and/or dock lift unit in prepared opening in accordance with manufacturer's instructions.
- B. Set square and level.
- C. Anchor unit securely, flush with dock. Weld back of dock leveler to pit frame. Touch-up welds with matching paint.
- D. Install dock bumpers in accordance with manufacturer's instructions.

3.3 ADJUSTING

- A. Adjust installed unit for smooth and balanced operation.

END OF SECTION