SECTION 11 13 00

LOADING DOCK EQUIPMENT

Display hidden notes to specifier. (Don't know how? [Click Here](https://www.arcat.com/sd/display_hidden_notes.shtml))

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\*\* NOTE TO SPECIFIER \*\* Poweramp: Loading dock equipment, dock levers and truck restraints, vertical storing levelers, bascule bridges, dock seals and shelters, dock lights, and overhead door operators.
This section is based on the products of Poweramp, which is located at:
W194 N11481 McCormick Drive
Germantown, WI 53022
Toll Free: 800-643-5424
Fax: 262-255-4199
Email: info@poweramp.com.
Web: www.poweramp.com
[Click Here] for additional information.
Poweramp, a division of Systems LLC, has manufactured structurally superior loading dock equipment for over 50 years. Our industry standard dock levelers and vehicle restraints will fulfill the needs of your application with unmatched reliability and effectiveness. Poweramp also provides complete loading dock solutions, including vertical storing levelers, bascule bridges, dock seals and shelters, dock lights, overhead door operators, communication packages, control panels, safety barriers, and maintenance/service packages. Poweramp loading dock equipment also utilizes IoT technology to connect to the cloud with iDock, a complete package of advanced dock controls and web-based software to monitor dock activity and analytics online.

1. GENERAL
	1. SECTION INCLUDES

\*\* NOTE TO SPECIFIER \*\* Delete items below not required for project.

* + 1. Loading Dock Levelers:
			1. Hydraulic. (PR Series) (VH Series) (EH Series) (LHP Series)
			2. Air-Powered. (CentraAir Series) (AP Series)
			3. Mechanical. (HM Series) (LMP Series)
			4. Specialty. (VS Series)
		2. Loading dock communication and controls. (iDock)
		3. Vehicle restraints. (PowerHook) (TPR UniLock) (TPR) (PowerStop Automatic) (PowerStop Manual) (UniChock)
	1. RELATED SECTIONS

\*\* NOTE TO SPECIFIER \*\* Delete any sections below not relevant to this project; add others as required.

* + 1. Section 03 30 00 - Cast-in-Place Concrete.
		2. Section 05 50 00 - Metal Fabrications.
		3. Division 16 - Electrical; electrical connections to dock equipment.
	1. REFERENCES

\*\* NOTE TO SPECIFIER \*\* Delete references from the list below that are not actually required by the text of the edited section.

* + 1. CS 202-56 - U.S. Department of Commerce Industrial Lifts and Hinged Loading Ramps.
		2. ANSI MH 30.1 - Safety Performance and Testing of Dock Leveling Devices.
		3. Underwriters Laboratories (UL).
	1. DEFINITIONS
		1. CIR - Comparative Industry Rating
	2. SUBMITTALS
		1. Submit under provisions of Section 01 30 00 - Administrative Requirements.
		2. Product Data:
			1. Manufacturer's data sheets on each product to be used.
			2. Preparation instructions and recommendations.
			3. Storage and handling requirements and recommendations.
			4. Typical installation methods.

\*\* NOTE TO SPECIFIER \*\* Delete if not applicable to product type.

* + 1. Verification Samples: Two representative units of each type, size, pattern, and color.
		2. Shop Drawings: Include details of materials, construction, and finish. Include relationship with adjacent construction.
	1. QUALITY ASSURANCE
		1. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section with a minimum five years documented experience.
		2. Installer Qualifications: Company specializing in performing Work of this section with minimum two years documented experience with projects of similar scope and complexity.
		3. Source Limitations: Provide each type of product from a single manufacturing source to ensure uniformity.
	2. PRE-INSTALLATION CONFERENCE
		1. Convene a conference approximately two weeks before scheduled commencement of the Work. Attendees shall include Architect, Contractor and trades involved. Agenda shall include schedule, responsibilities, critical path items and approvals.
	3. DELIVERY, STORAGE, AND HANDLING
		1. Store and handle in strict compliance with manufacturer's written instructions and recommendations.
		2. Protect from damage due to weather, excessive temperature, and construction operations.
	4. PROJECT CONDITIONS
		1. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's recommended limits.
	5. WARRANTY
		1. Provide manufacturer's standard limited warranty on structural, mechanical, hydraulic, and electrical parts.
1. PRODUCTS
	1. MANUFACTURERS
		1. Acceptable Manufacturer: Poweramp, which is located at: W194 N11481 McCormick Drive; Germantown, WI 53022; ASD Toll Free: 800-643-5424; Fax: 262-255-4199; Email: info@poweramp.com; Web: www.poweramp.com.

\*\* NOTE TO SPECIFIER \*\* Delete one of the following two paragraphs; coordinate with requirements of Division 1 section on product options and substitutions.

* + 1. Substitutions: Not permitted.
		2. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00 - Product Requirements.
	1. HYDRAULIC LOADING DOCK LEVELERS
		1. Basis of Design: PR Series Hydraulic Dock Leveler as manufactured by Poweramp. Incorporates use of hydraulics to raise and lower the platform and lip. A push button activates a hydraulic pump for operating the lip and hoist cylinders.
			1. Features:
				1. Structural Steel frame. Four-sided box construction.
				2. Operation: Push button control box. Motor overload protection.
				3. Integral Maintenance Inspection Strut: Lockout/tagout compliant.
				4. End Loading Capability:
				5. Service Range: 12 inches (305 mm) above to 12 inches (305 mm) below dock level. Platform compensates for canted truck beds up to 4 inches (102 mm).
				6. Full Range Folding and Locking Toe Guards: Close off sides even in highest position.
				7. Hydraulic lip activation.
				8. Internal Velocity safety stop.
				9. Lip keepers for cross traffic support and automatic nighttime security against theft.
				10. 3-wheel fork truck protection.
				11. Auto return to dock; all positions.
				12. Quick cycle below dock lanyard control.
				13. Overhead door interlock capability.
			2. Construction:
				1. Platform: 1/4 inch (6 mm) thick 4-way high tensile 50,000 minimum yield A572 steel safety tread-plate. 3/8 inch (9.5 mm) treadplate is used on CIR 80,000 and 120,000 lbs (26,287 and 54,431 kg) units. Platforms are reinforced and supported by full-length structural "C" channels and/or "I" beams. Platforms are designed to compensate for up to 4 inches (102 mm) of canted truck beds.

Front and Rear Header Plate: 1/2 x 7 or 8 inch (13 x 178 or 203 mm) hot rolled steel.

* + - * 1. Lips: 4-way safety tread-plate.

CIR 30,000, 35,000, and 40,000 lbs (13,608, 15,876, and 18,144 kg): 5/8 inch (16 mm) thick.

CIR 45,000, 50,000, and 60,000 lbs (20,412, 22,680, and 27,216 kg): 3/4 inch (19 mm) thick.

* + - * 1. Lips: T1 smooth plate with non-skid abrasive coating.

CIR 80,000 and 120, 000 lbs (26,287 and 54,431 kg): 1 inch (25 mm) thick.

* + - * 1. Lip Length: 16 inches (406 mm) for CIR 30,000, to 50,000 lbs (13,608 to 22,680 kg).
				2. Lip Length: 18 inches (457 mm) for CIR 60,000, to 120,000 lbs (27,216 to 54,431 kg).
				3. Lip Hinge Tubes:

CIR 30,000 lbs (13,608 kg): 1-3/4 inch (44 mm) OD x 5/16 inch (8 mm) wall.

CIR 35,000 and 40,000 lbs (15,876 and 181,44 kg): 1-7/8 inch (48 mm) OD x 3/8 inch (9.5 mm) wall.

CIR 45,000 50,000, and 60,000 lbs (20,412, 22,680, and 27,216 kg): 2-1/8 inch (54 mm) OD x 1/2 inch (13 mm) wall.

CIR 80,000 lbs (26,287 kg): 2-5/8 inch (67 mm) OD x 3/4 inch (19 mm) wall.

CIR 120,000 lbs (54,431 kg): 3-1/8 inch (79 mm) OD x 1 inch (25 mm) wall.

* + - * 1. Lip Hinge Pins: 1 inch (25 mm) M1044 steel.
				2. Steel Lip Gussets: Standard on all models CIR 50,000 lbs (22680 kg) or greater.
				3. Steel Header Gussets: On all models with CIR of 35,000 lbs (13608 kg) or greater.
			1. Hydraulics:
				1. Fluid Logic Block: A close-grained ductile casting with precision machined "logic" paths and ports for control of hydraulic functions.
				2. Platform Operation: Hydraulic cylinder; hard chrome-plated hollow ram design. Bore Diameter: 3-1/2 inch (89 mm).

Equipped with an integral tamperproof velocity safety stop to limit free fall of loaded platform to 3 inches (76 mm), plus or minus 1 inch (25 mm).

* + - * 1. Lip Operation: Hydraulic cylinder; nickel-plated. Bore Diameter: 2-1/2 inch (64 mm), fully yieldable.
				2. Pump and Motor Assembly:

1-1/2 HP TENV at 120 V or 208 V single phase.

1-1/2 HP TENV at 208 V, 230 V,230 V, 460 V, and 575 V three phase.

Elevated Platform: Mounted to keep clear of debris accumulation in pit.

* + - * 1. Hydraulic Hoses: Routed under leveler platform, away from debris.
				2. Hydraulic System: Operates at low pressures from 275 to 325 psi (1896 to 2241 kPa).

Service Access/Inspection Plate in Deck: Permits fluid level inspection and adjustments from inside the building when leveler is in stored position.

* + - 1. Operation: Quick cycle lip control and deck mounted control is available through dual lanyard located at the rear of the platform, provided as standard on PR Series levelers.
			2. Electrical:
				1. Control Panels: Nema 12 enclosure for single push-button.

Manufactured in Poweramp UL approved panel shop.

* + - * 1. Components, Connections and Wiring: UL listed or recognized.
				2. Unless specifically noted on quotation, electrical requirements are the responsibility of others.
			1. Options:

\*\* NOTE TO SPECIFIER \*\* Delete options not required.

* + - * 1. Color: Manufacturer's Battlehip gray.
				2. Color: As determined by Architect from Manufacturer's range.
				3. Capacity: CIR 30,000 lbs (13,607 kg).
				4. Capacity: CIR 35,000 lbs (15,875 kg).
				5. Capacity: CIR 40,000 lbs (18,143 kg).
				6. Capacity: CIR 45,000 lbs (20,411 kg).
				7. Capacity: CIR 50,000 lbs (22,680 kg).
				8. Capacity: CIR 60,000 lbs (27,216 kg).
				9. Capacity: CIR 80,000 lbs (18,143 kg).
				10. Capacity: CIR 120,000 lbs (18,143 kg).
				11. Width: 6 ft (1,829 mm).
				12. Width: 6.5 ft (1,981 mm).
				13. Width: 7 ft (2,134 mm).
				14. Length: 6 ft (1,829 mm).
				15. Length: 8 ft (2,438 mm).
				16. Length: 10 ft (3,048 mm).
				17. Length: 12 ft (3658 mm).
				18. Extended Lip: 18 inches (457 mm).
				19. Extended Lip: 20 inches (508 mm).
				20. Weather Seal: Brush.
				21. Weather Seal: Rubber.
				22. Pit Steel: 3 x 3 x 1/4 inch (76 x 76 x 6 mm) 6 piece curb steel.
				23. Pit Steel: 3 x 3 x 1/4 inch (76 x 76 x 6 mm) 4 piece curb steel with 2 bumper mounting brackets.
				24. Pit Steel: 3 sided box.
				25. Pit Steel: 4 sided box - leveler pre-installed.
				26. Dock Bumpers: B410-14 Laminated; standard.
				27. Dock Bumpers: B410-14 Steel face.
				28. Dock Bumpers: B610-14 Laminated; standard for CIR 60,000.
				29. Dock Bumpers: B610-14 Steel face.
				30. Dock Bumpers: VB420-11 Laminated.
				31. Dock Bumpers: VB420-11 Steel face.
				32. Dock Bumpers: VB620-11 Laminated.
				33. Dock Bumpers: VB620-11 Steel face.
				34. Emergency mushroom stop button.
				35. Lip out button.
				36. iDock controls.
				37. Hydraulic Motor: 1 or 3 phase voltage.
				38. Dock alert communication system.
				39. Foam insulation.
				40. Connect online to myQ Dock Management.
		1. Basis of Design: VH Series Hydraulic Dock Leveler as manufactured by Poweramp. Incorporates use of hydraulics to raise and lower the platform and lip. A push button activates a hydraulic pump for operating the lip and hoist cylinders.
			1. Features:
				1. Structural Steel frame. Four-sided box construction.
				2. Operation: Push button control box. Motor overload protection.
				3. Maintenance Strut: Lockout/tagout compliant.
				4. Service Range: 12 inches (305 mm) above to 12 inches (305 mm) below dock level. Platform compensates for canted truck beds up to 4 inches (102 mm).
				5. Full Range Telescoping Toe Guards: Close off sides even in highest position.
				6. Hydraulic lip activation.
				7. Internal Velocity safety stop.
				8. Lip keepers for cross traffic support and automatic nighttime security against theft.
				9. Overhead door interlock capability.
			2. Construction:
				1. Platform: 1/4 inch (6 mm) thick 4-way high tensile 50,000 minimum yield A572 steel safety tread-plate. 3/8 inch (9 mm) tread-plate is used on CIR 80,000 lbs (36287 kg) units. Platforms are reinforced and supported by full-length structural "C" channels and/or "I" beams. Platforms are designed to compensate for up to 4 inches (102 mm) of canted truck beds.

Front and Rear Header Plate: 1/2 x 7 or 8 inch (13 x 178 or 203 mm) hot rolled steel.

* + - * 1. Lips: 4-way safety tread-plate.

CIR 25,000 lbs: 1/2 inch (13 mm) thick.

CIR 30,000, 35,000, and 40,000 lbs (13,608, 15,876, and 18,144 kg): 5/8 inch (16 mm) thick.

CIR 45,000, 50,000, and 60,000 lbs (20,412, 22,680, and 27,216 kg): 3/4 inch (19 mm) thick.

* + - * 1. Lips: T1 smooth plate with non-skid abrasive coating.

CIR 80,000 lbs: 1 inch (25 mm) thick.

* + - * 1. Lip Length: 16 inches (406 mm) for CIR 30,000, to 50,000 lbs (13,608 to 22,680 kg).
				2. Lip Length: 18 inches (457 mm) for CIR 60,000, to 120,000 lbs (27,216 to 54,431 kg).
				3. Lip Hinge Tubes:

CIR 30,000 lbs (13,608 kg): 1-3/4 inch (44 mm) OD x 5/16 inch (8 mm) wall.

CIR 35,000 and 40,000 lbs (15,876 and 18,144 kg): 1-7/8 inch (48 mm) OD x 3/8 inch (9.5 mm) wall.

CIR 45,000 50,000, and 60,000 lbs (20,412, 22,680, and 27,216 kg): 2-1/8 inch (54 mm) OD x 1/2 inch (13 mm) wall.

CIR 80,000 lbs (26,287 kg): 2-5/8 inch (67 mm) OD x 3/4 inch (19 mm) wall.

* + - * 1. Lip Hinge Pins: 1 inch (25 mm) M1044 steel.
				2. Steel Lip Gussets: Standard on all models CIR 50,000 lbs (22680 kg) or greater.
				3. Steel Header Gussets: On all models with CIR of 35,000 lbs (13608 kg) or greater.
			1. Hydraulics:
				1. Fluid Logic Block: A close-grained ductile casting with precision machined "logic" paths and ports for control of hydraulic functions.
				2. Platform Operation: Hydraulic cylinder; hard chrome-plated hollow ram design. Bore Diameter: 3-1/2 inch (89 mm).

Equipped with an integral tamperproof velocity safety stop to limit free fall of loaded platform to 3 inches (76 mm), plus or minus 1 inch (25 mm).

* + - * 1. Lip Operation: Hydraulic cylinder; nickel-plated. Bore Diameter: 2-1/2 inch (64 mm), fully yieldable.
				2. Pump and Motor Assembly:

1-1/2 HP TENV at 120 V or 208 V single phase.

1-1/2 HP TENV at 208 V, 230 V,230 V, 460 V, and 575 V three phase.

Frame mounted to keep clear of debris accumulation in pit.

* + - * 1. Hydraulic System: Operates at low pressures from 275 to 325 psi.
			1. Electrical:
				1. Control Panel: Nema 12 enclosure for single push-button.
				2. Components, Connections and Wiring: UL listed or recognized.
				3. Control panels manufactured in Poweramp UL approved panel shop.
				4. Unless specifically noted on quotation, electrical requirements are the responsibility of others.
			2. Options:

\*\* NOTE TO SPECIFIER \*\* Delete options not required.

* + - * 1. Color: Manufacturer's Battleship gray
				2. Color: As determined by Architect from Manufacturer's range.
				3. Capacity: CIR 25,000 lbs (11,339 kg).
				4. Capacity: CIR 30,000 lbs (13,607 kg).
				5. Capacity: CIR 35,000 lbs (15,875 kg).
				6. Capacity: CIR 40,000 lbs (18,143 kg).
				7. Capacity: CIR 45,000 lbs (20,411 kg).
				8. Capacity: CIR 50,000 lbs (22,680 kg).
				9. Capacity: CIR 60,000 lbs (27,216 kg).
				10. Capacity: CIR 80,000 lbs (18,143 kg).
				11. Width: 6 ft (1,829 mm).
				12. Width: 6.5 ft (1,981 mm).
				13. Width: 7 ft (2,134 mm).
				14. Length: 6 ft (1,829 mm).
				15. Length: 8 ft (2,438 mm).
				16. Length: 10 ft (3,048 mm).
				17. Length: 12 ft (3658 mm).
				18. Extended Lip: 18 inches (457 mm).
				19. Extended Lip: 20 inches (508 mm).
				20. Weather Seal: Brush.
				21. Weather Seal: Rubber.
				22. Pit Steel: 3 x 3 x 1/4 inch (76 x 76 x 6 mm) 6 piece curb steel.
				23. Pit Steel: 3 x 3 x 1/4 inch (76 x 76 x 6 mm) 4 piece curb steel with 2 bumper mounting brackets.
				24. Pit Steel: 3 sided box.
				25. Pit Steel: 4 sided box - leveler pre-installed.
				26. Dock Bumpers: B410-14 Laminated; standard.
				27. Dock Bumpers: B410-14 Steel face.
				28. Dock Bumpers: B610-14 Laminated; standard for CIR 60,000
				29. Dock Bumpers: B610-14 Steel face.
				30. Dock Bumpers: VB420-11 Laminated.
				31. Dock Bumpers: VB420-11 Steel face.
				32. Dock Bumpers: VB620-11 Laminated.
				33. Dock Bumpers: VB620-11 Steel face
				34. Emergency mushroom stop button.
				35. Lip out button
				36. iDock controls.
				37. Hydraulic Motor: 1 phase or 3 phase voltage.
				38. Dock alert communication system.
				39. Foam insulation.
				40. Connect online to myQ Dock Management.
		1. Basis of Design: EH Series Hydraulic Dock Leveler as manufactured by Poweramp. Incorporates use of hydraulics to raise and lower the platform and lip. A push button activates a hydraulic pump for operating the lip and hoist cylinders.
			1. Features:
				1. Structural Steel frame. Four-sided box construction.
				2. Operation: Push button controls. Motor overload protection.
				3. An array of optional control panel features are available.
				4. Integral Maintenance Inspection Strut: Lockout/tagout compliant.
				5. Full Range Telescoping Toe Guards: Close off sides even in highest position.
				6. Hydraulic lip activation.
				7. Velocity safety stop.
				8. Lip keepers for cross traffic support and automatic nighttime security against theft.
			2. Construction:
				1. Platform: 1/4 inch (6 mm) thick 4-way high tensile 50,000 minimum yield A572 steel safety tread-plate. All platforms are designed to compensate for up to 4 inches (102 mm) of canted truck beds.

CIR 25,000 and 30,000 lbs (1,1340 and 13608 kg):

Reinforced and supported by full-length roll formed "C" channels.

CIR 35,000 and 40,000 lbs (1,5876 and 18144 kg):

Reinforced and supported by Structural "C" channels.

CIR 45,000 50,000, and 60,000 lbs (20,412, 22,680, and 27,216 kg):

Reinforced and supported by Structural "C" channels and "I" beams.

Front and Rear Header Plate: 1/2 x 8 inch (13 x 203 mm) hot rolled steel.

* + - * 1. Lips: 4-way safety tread-plate.

CIR 25,000 lbs (1,1340 kg): 1/2 inch (13 mm) thick.

CIR 30,000, 35,000 and 40,000 lbs (13,608, 1,5876 and 18,144 kg): 5/8 inch (16 mm) thick.

CIR 45,000, 50,000, and 60,000 lbs (20,412, 22,680, and 27,216 kg): 3/4 inch (19 mm) thick.

Lip Length: 16 inches (406 mm) for CIR 25,000 to 50,000 lbs (11,340 to 22,680 kg).

Lip Length: 18 inches (457 mm) for CIR 60,000 lbs (27,2316 kg).

* + - * 1. Lip Hinge Tubes:

CIR 25,000 and 30,000 lbs (11,340 and 13,608 kg): 1-3/4 inch (44 mm) OD x 5/16 inch (8 mm) wall.

CIR 35,000 and 40,000 lbs (15,876 and 18,144 kg): 1-7/8inch (48 mm) OD x 3/8 inch (9.5 mm) wall.

CIR 45,000 50,000, and 60,000 lbs (20,412, 22,680, and 27,216 kg): 2-1/8 inch (54 mm) OD x 1/2 inch (130 mm) wall.

* + - * 1. Lip Hinge Pins: 1 inch (25 mm) M1044 steel.
				2. Steel Lip Gussets: Standard on CIR 50,000 and 60,000 lbs (22680, and 27216 kg) models.
				3. Steel Header Gussets: On all models with CIR of 35,000 lbs (15876 kg) or greater.
			1. Hydraulics:
				1. Platform Operation: Inverted hydraulic cylinder; hard chrome-plated single acting. Rod Diameter: 3 inch (76 mm) rod. Bore Diameter: 3-1/2 inch (89 mm).

Velocity Safety Stop: Limits free fall of loaded platform to 3 inches (76) plus or minus 1 inch (25 mm).

* + - * 1. Lip Operation: Hydraulic cylinder; hard chrome-plated. Bore Diameter: 2-1/2 inch (64 mm), fully yieldable.
				2. Pump and Motor Assembly: 1-1/4 HP TEFC at 115 V single phase.

Elevated, frame mounted to keep clear of debris accumulation in pit.

* + - * 1. Hydraulic Hoses: Routed under leveler platform, away from debris.
			1. Operation: Controlled remotely from wall mounted control panel.
			2. Electrical:
				1. Control Panel: Non-metallic Nema 4 enclosure for single push-button.
				2. Components, Connections and Wiring: UL listed or recognized.
				3. Unless specifically noted on quotation, electrical requirements are the responsibility of others.
			3. Options:

\*\* NOTE TO SPECIFIER \*\* Delete options not required.

* + - * 1. Color: Manufacturer's standard Battleship gray.
				2. Color: As determined by Architect from Manufacturer's range.
				3. Capacity: CIR 25,000 lbs (11,339 kg).
				4. Capacity: CIR 30,000 lbs (13,607 kg).
				5. Capacity: CIR 35,000 lbs (15,875 kg).
				6. Capacity: CIR 40,000 lbs (18,143 kg).
				7. Capacity: CIR 45,000 lbs (20,411 kg).
				8. Capacity: CIR 50,000 lbs (22,680 kg).
				9. Capacity: CIR 60,000 lbs (27,216 kg).
				10. Width: 6 ft (1,829 mm).
				11. Width: 6.5 ft (1,981 mm).
				12. Width: 7 ft (2,134 mm).
				13. Length: 6 ft (1,829 mm).
				14. Length: 8 ft (2,438 mm).
				15. Length: 10 ft (3,048 mm).
				16. Extended Lip: 18 inches (457 mm).
				17. Extended Lip: 20 inches (508 mm).
				18. Weather Seal: Brush.
				19. Weather Seal: Rubber.
				20. Pit Steel: 3 x 3 x 1/4 inch (76 x 76 x 6 mm) 6 piece curb steel.
				21. Pit Steel: 3 x 3 x 1/4 inch (76 x 76 x 6 mm) 4 piece curb steel with 2 bumper mounting brackets.
				22. Pit Steel: 3 sided box.
				23. Pit Steel: 4 sided box - leveler pre-installed.
				24. Dock Bumpers: B410-14 Laminated; standard.
				25. Dock Bumpers: B410-14 Steel face.
				26. Dock Bumpers: B610-14 Laminated; standard for CIR 60,000.
				27. Dock Bumpers: B610-14 Steel face.
				28. Dock Bumpers: VB420-11 Laminated.
				29. Dock Bumpers: VB420-11 Steel face.
				30. Dock Bumpers: VB620-11 Laminated.
				31. Dock Bumpers: VB620-11 Steel face.
				32. Lip extend only button.
				33. Mushroom style E-Stop button.
				34. Combo Lip Ext/Leveler stop button.
				35. iDock controls.
				36. Hydraulic Motor: 3 phase voltage.
				37. Dock alert communication system.
				38. Foam insulation.
				39. Connect online to myQ Dock Management.
		1. Basis of Design: LHP Series Hydraulic Dock Leveler as manufactured by Poweramp. Incorporates use of hydraulics to raise and lower the platform and lip. A push button activates a hydraulic pump for operating the lip and hoist cylinders.
			1. Features:
				1. Structural Steel frame. Four-sided box construction.
				2. Operation: Push button controls. Motor overload protection.
				3. Integral Maintenance Inspection Strut: Lockout/tagout compliant.
				4. Full Range Telescoping Toe Guards: Close off sides even in highest position.
				5. Hydraulic lip activation.
				6. Velocity safety stop.
				7. Lip keepers for cross traffic support and automatic nighttime security against theft.
			2. Construction:
				1. Platform: 1/4 inch (6 mm) thick 4-way high tensile 50,000 minimum yield A572 steel safety tread-plate. All platforms are designed to compensate for up to 4 inches (102 mm) of canted truck beds.

CIR 25,000 and 35,000 lbs (11,339 and15,875 kg):

Reinforced and supported by full-length 6 inch roll formed "C" channels.

CIR 40,000 lbs (18,143 kg):

Reinforced and supported by 6 inch (152 mm) Structural "C" channels.

Front and Header Plate: 1/2 x 7 inch (13 x 178 mm) hot rolled steel.

* + - * 1. Lips: 4-way safety tread-plate.

CIR 25,000 lbs (11,339 kg): 1/2 inch (13 mm) thick.

CIR 35,000 and 40,000 lbs (15,875 and 18,143 kg): 5/8 inch (16 mm) thick.

Lip Length: 16 inches (406 mm) all capacities.

* + - * 1. Lip Hinge Tubes:

CIR 25,000 lbs (11,339 kg): 1-3/4 inch (44 mm) OD x 5/16 inch (16 mm) wall.

CIR 35,000 and 40,000 lbs(15,875 and 181,43 kg): 1-7/8inch (78 mm) OD x 3/8 inch (9.5 mm) wall.

* + - * 1. Lip Hinge Pins: 1 inch (25 mm) M1044 steel.
				2. Steel Joist Gussets: Standard on CIR 25,000 and 35,000 lbs (11,339 and15,875 kg) models.
			1. Hydraulics:
				1. Platform Operation: Hydraulic cylinder; hard chrome-plated single acting. Rod Diameter: 2-1/2 inch (76 mm) rod. Bore Diameter: 3 inches (76 mm).

Velocity Safety Stop: Limits free fall of loaded platform to 3 inches (76 mm) plus or minus 1 inch (25 mm).

* + - * 1. Lip Operation: Hydraulic cylinder; hard chrome-plated. Bore Diameter: 2 inches (51 mm), fully yieldable.
				2. Pump and Motor Assembly: 1-1/4 HP TEFC at 115 V single phase.

Elevated, frame mounted to keep clear of debris accumulation in pit.

* + - * 1. Hydraulic Hoses: Routed under leveler platform, away from debris.
			1. Operation: Controlled remotely from wall mounted control panel.
			2. Electrical:
				1. Control Panel: Non-metallic Nema 4 enclosure for single push-button.
				2. Components, Connections and Wiring: UL listed or recognized.
				3. Unless specifically noted on quotation, electrical requirements are the responsibility of others.
			3. Options:

\*\* NOTE TO SPECIFIER \*\* Delete options not required.

* + - * 1. Color: Manufacturer's standard Battleship gray.
				2. Color: As determined by Architect from Manufacturer's range.
				3. Capacity: CIR 25,000 lbs (11,339 kg).
				4. Capacity: CIR 35,000 lbs (15,875 kg).
				5. Capacity: CIR 40,000 lbs (18,143 kg).
				6. Width: 6 ft (1,829 mm).
				7. Width: 6.5 ft (1,981 mm).
				8. Width: 7 ft (2,134 mm).
				9. Length: 6 ft (1,829 mm).
				10. Length: 8 ft (2,438 mm).
				11. Extended Lip: 18 inches (457 mm).
				12. Extended Lip: 20 inches (508 mm).
				13. Weather Seal: Brush.
				14. Weather Seal: Rubber.
				15. Pit Steel: 3 x 3 x 1/4 inch (76 x 76 x 6 mm) 6 piece curb steel.
				16. Pit Steel: 3 x 3 x 1/4 inch (76 x 76 x 6 mm) 4 piece curb steel with 2 bumper mounting brackets.
				17. Pit Steel: 3 sided box.
				18. Pit Steel: 4 sided box - leveler pre-installed.
				19. Dock Bumpers: B410-14 Laminated; standard.
				20. Dock Bumpers: B410-14 Steel face.
				21. Dock Bumpers: B610-14 Laminated; standard for CIR 60,000.
				22. Dock Bumpers: B610-14 Steel face.
				23. Dock Bumpers: VB420-11 Laminated.
				24. Dock Bumpers: VB420-11 Steel face.
				25. Dock Bumpers: VB620-11 Laminated.
				26. Dock Bumpers: VB620-11 Steel face.
				27. iDock controls.
				28. Hydraulic Motor: 3 phase voltage.
				29. Dock alert communication system.
				30. Foam insulation.
				31. Connect online to myQ Dock Management.

\*\* NOTE TO SPECIFIER \*\* Delete article if not required.

* 1. AIR POWERED LOADING DOCK LEVELERS

\*\* NOTE TO SPECIFIER \*\* Delete basis of design option not required.

* + 1. Basis of Design: CentraAir Series Air-Powered Dock Leveler as manufactured by Poweramp. Utilizes compressed air with steel-belted rubber bellows systems to raise deck. When used with pneumatic controls, leveler can be fully powered without electricity at each unit.
			1. Features:
				1. Structural Steel frame. Four-sided box construction.
				2. Operation: electrical or pneumatic push button controls.
				3. Rear frame vertical uprights supported by structural angles.
				4. Full width Piano style hinge tubes on front header for maximum strength.
				5. Lip Extension: Automatic with yieldable lip.
				6. Service Range: 12 inches (305 mm) above to 12 inches (305 mm) below dock level. Platform compensates for canted truck beds up to 4 inches (102 mm).
				7. End Loading Capability:
				8. Maintenance Strut: Lockout/tagout compliant.
				9. Full Range Telescoping Toe Guards: Close off sides even in highest position.
				10. Lip keepers for cross traffic support and automatic nighttime security against theft.
				11. Reduced electrical footprint of building.
				12. Supply Air: In-plant system or dedicated compressor.
				13. Proven industrial air bellows technology.
				14. Low maintenance: Few moving parts.
				15. RFL Air lubricator for cold weather operation.
				16. Dual pivoting cross traffic legs for multi position safety at stop.
				17. Bellows: 5 cu ft (0.14 cu m) industrial automotive grade. Exhausts air through a cartridge valve located in the pit.
			2. Construction:
				1. Platform: 1/4 inch (6 mm) thick 4-way high tensile 50,000 minimum yield A572 steel safety tread-plate. All platforms are designed to compensate for up to 4 inches (102 mm) of canted truck beds.

CIR 25,000 and 30,000 lbs (11,340 and 13,608 kg):

Reinforced and supported by full-length roll formed "C" channels.

CIR 35,000 and 40,000 lbs (15,876 and 18,144 kg):

Reinforced and supported by Structural "C" channels.

CIR 45,000 and 50,000 lbs (20,412 and 22,680 kg):

Reinforced and supported by Structural "C" channels and "I" beams.

Front and Rear Header Plate: 1/2 x 7 inch (13 x 178 mm) hot rolled steel.

* + - * 1. Lips: 4-way safety tread-plate.

CIR 25,000 lbs (11,340 kg): 1/2 inch (13 mm) thick.

CIR 30,000, 35,000 and 40,000 lbs (13,608, 15,876, and 18,144 kg): 5/8 inch (16 mm) thick.

CIR 45,000 and 50,000 lbs (20,412 and 22,680 kg): 3/4 inch (19 mm) thick.

Standard Lip Length: 16 inches (406 mm) all capacities.

* + - * 1. Lip Hinge Tubes:

CIR 25,000 and 30,000 lbs (11,340 and 13,608 kg): 1-3/4 inch (44 mm) OD x 5/16 inch (8 mm) wall.

CIR 35,000 and 40,000 lbs (15,876 and 18,144 kg): 1-7/8 inch (48 mm) OD x 3/8 inch (9.5) wall.

CIR 45,000 and 50,000 lbs (20,412 and 22,680 kg): 2-1/8 inch (54 mm) OD x 1/2 inch (13 mm) wall.

* + - * 1. Lip Hinge Pins: 1 inch (25 mm) M1044 steel.
				2. Steel Lip Gussets: Standard on CIR 50,000 lbs (22,680 kg) models.
				3. Steel Header Gussets: On all models with CIR of 35,000 lbs (15,876 kg) or greater.
			1. Operation: Via wall mounted control panel or manual lanyard. Facility compressed air or dedicated compressor regulated at approximately 90 psi (625.5 kPa).
				1. Push button or lanyard control.

Pneumatic:

Press and Hold Raise Button on Dock Controls:

Raises leveler and automatically extends lip.

Requires no electricity. Wash down or explosion proof applications.

Releasing Raise Button:

Permits leveler to float down to trailer bed.

Electrical: Unless specifically noted on quotation, all electrical requirements are the responsibility of others.

Press Raise Button on Dock Controls.

Raises leveler and automatically extends lip.

Utilizes 115 V circuit. 0.073 amp solenoid activates system.

Releasing Raise Button:

Permits leveler to float down to trailer bed.

* + - 1. Options:

\*\* NOTE TO SPECIFIER \*\* Delete options not required.

* + - * 1. Color: Manufacturer's standard Battleship gray.
				2. Color: As determined by Architect from Manufacturer's range.
				3. Capacity: CIR 25,000 lbs (11,339 kg).
				4. Capacity: CIR 30,000 lbs (13,607 kg).
				5. Capacity: CIR 35,000 lbs (15,875 kg).
				6. Capacity: CIR 40,000 lbs (18,143 kg).
				7. Capacity: CIR 45,000 lbs (20,411 kg).
				8. Capacity: CIR 50,000 lbs (22,680 kg).
				9. Width: 6 ft (1,829 mm).
				10. Width: 6.5 ft (1,981 mm).
				11. Width: 7 ft (2,134 mm).
				12. Length: 6 ft (1,829 mm).
				13. Length: 8 ft (2,438 mm).
				14. Length: 10 ft (3,048 mm).
				15. Extended Lip: 18 inches (457 mm).
				16. Extended Lip: 20 inches (508 mm).
				17. Weather Seal: Brush.
				18. Weather Seal: Rubber.
				19. Pit Steel: 3 x 3 x 1/4 inch (76 x 76 x 6 mm) 6 piece curb steel.
				20. Pit Steel: 3 x 3 x 1/4 inch (76 x 76 x 6 mm) 4 piece curb steel with 2 bumper mounting brackets.
				21. Pit Steel: 3 sided box.
				22. Pit Steel: 4 sided box - leveler pre-installed.
				23. Dock Bumpers: B410-14 Laminated; standard.
				24. Dock Bumpers: B410-14 Steel face.
				25. Dock Bumpers: B610-14 Laminated.
				26. Dock Bumpers: B610-14 Steel face.
				27. Dock Bumpers: VB420-11 Laminated.
				28. Dock Bumpers: VB420-11 Steel face.
				29. Dock Bumpers: VB620-11 Laminated.
				30. Dock Bumpers: VB620-11 Steel face.
				31. Integrated control panel.
				32. Safety Barrier Lip: 5 inches (127 mm) high.
				33. Dedicated air compressor.
				34. Foam insulated deck.
				35. Extended reach air wand for housekeeping.
				36. Connect online to myQ Dock Management.
		1. Basis of Design: AP Series Air-Powered Dock Leveler as manufactured by Poweramp. Incorporates the use of a low pressure, high volume air system to raise and lower the platform.
			1. Features:
				1. Structural Steel frame. Four-sided box construction.
				2. Operation: Simple electric push button control. Single-phase 115 V motor.
				3. Rear frame vertical uprights supported by structural angles.
				4. Lip Extension: Automatic with yieldable lip.
				5. Service Range, End Loading Capability: 12 inches (305 mm) above to 12 inches (305 mm) below dock level. Platform compensates for canted truck beds up to 4 inches (102 mm).
				6. Integral Maintenance Strut: Lockout/tagout compliant.
				7. Full Range Telescoping Toe Guards: Close off sides even in highest position.
				8. Lip keepers for cross traffic support and automatic night lock security against theft.
				9. Dual pivoting cross traffic legs for multi position safety at stop.
				10. Full operating range toe guards.
			2. Construction:
				1. Platform: 1/4 inch (6 mm) thick 4-way high tensile 50,000 minimum yield A572 steel safety tread-plate. All platforms are designed to compensate for up to 4 inches (102 mm) of canted truck beds.

CIR 25,000 and 30,000 lbs (11,340 and 13,608 kg):

Reinforced and supported by full-length roll formed "C" channels.

CIR 35,000 and 40,000 lbs (15,876 and 18,144 kg):

Reinforced and supported by Structural "C" channels.

CIR 45,000 and 50,000 lbs (20,412 and 22,680 kg):

Reinforced and supported by Structural "C" channels and "I" beams.

Front and Rear Header Plate: 1/2 x 7 inch (13 x 178 mm) hot rolled steel.

* + - * 1. Lips: 4-way safety tread-plate.

CIR 25,000 lbs (11,339 kg): 1/2 inch (13 mm) thick.

CIR 30,000, 35,000 and 40,000 lbs (13,607, 15,875, and 18,143 kg): 5/8 inch (16 mm) thick.

CIR 45,000 and 50,000 lbs (20,412 and 22,680 kg): 3/4 inch (19 mm) thick.

Standard Lip Length: 16 inches (406 mm) all capacities.

* + - * 1. Lip Hinge Tubes:

CIR 25,000 and 30,000 lbs (11,340 and 13,608 kg): 1-3/4 inch (44 mm) OD x 5/16 inch (8 mm) wall.

CIR 35,000 and 40,000 lbs (15,876 and 18,144 kg): 1-7/8inch (48 mm) OD x 3/8 inch (9.5 mm) wall.

CIR 45,000 and 50,000 lbs (20,412 and 22,680 kg): 2-1/8 inch (54 mm) OD x 1/2 inch (13 mm) wall.

* + - * 1. Lip Hinge Pins: 1 inch (25 mm) M1044 steel.
				2. Steel Lip Gussets: Standard on CIR 50,000 lbs (22,6801 kg) models.
				3. Steel Header Gussets: On all models CIR 35,000 lbs (15,876 kg) or greater.
			1. Operation: Remotely controlled from wall mounted push button control panel. No manual lifting is required.
				1. Pressing the Raise Button: Electric blower motor fills an air bladder providing upward lift of platform.

Lip: Extends and secures in with Lip Drive positive lip extension.

* + - * 1. Releasing the Raise Button: Platform floats downward to the truck bed.
				2. Elevated, frame mounted air bladder assembly keeps clear of debris accumulated in the pit.
			1. Electrical: Unless specifically noted on quotation, all electrical requirements are the responsibility of others.
				1. Blower Motor: 115 V single phase, 1400 watt drawing 11 amps at startup.
				2. Optional voltage motors are available, consult factory.
				3. Control Panel: Non-metallic Nema 4 enclosure for single push-button, or NEMA 4X for iDock Controls.
				4. Electrical Components, Connections, and Wiring: UL listed or recognized.
			2. Options:

\*\* NOTE TO SPECIFIER \*\* Delete options not required.

* + - * 1. Color: Manufacturer's standard Battleship gray.
				2. Color: As determined by Architect from Manufacturer's range.
				3. Capacity: CIR 25,000 lbs (11,339 kg).
				4. Capacity: CIR 30,000 lbs (13,607 kg).
				5. Capacity: CIR 35,000 lbs (15,875 kg).
				6. Capacity: CIR 40,000 lbs (18,143 kg).
				7. Capacity: CIR 45,000 lbs (20,411 kg).
				8. Capacity: CIR 50,000 lbs (22,6801 kg).
				9. Width: 6 ft (1,829 mm).
				10. Width: 6.5 ft (1,981 mm).
				11. Width: 7 ft (2,134 mm).
				12. Length: 6 ft (1,829 mm).
				13. Length: 8 ft (2,438 mm).
				14. Length: 10 ft (3,048 mm).
				15. Extended Lip: 18 inches (457 mm).
				16. Extended Lip: 20 inches (508 mm).
				17. Weather Seal: Brush.
				18. Weather Seal: Rubber.
				19. Pit Steel: 3 x 3 x 1/4 inch (76 x 76 x 6 mm) 6 piece curb steel.
				20. Pit Steel: 3 x 3 x 1/4 inch (76 x 76 x 6 mm) 4 piece curb steel with 2 bumper mounting brackets.
				21. Pit Steel: 3 sided box.
				22. Pit Steel: 4 sided box - leveler pre-installed.
				23. Dock Bumpers: B410-14 Laminated; standard.
				24. Dock Bumpers: B410-14 Steel face.
				25. Dock Bumpers: B610-14 Laminated.
				26. Dock Bumpers: B610-14 Steel face.
				27. Dock Bumpers: VB420-11 Laminated.
				28. Dock Bumpers: VB420-11 Steel face.
				29. Dock Bumpers: VB620-11 Laminated.
				30. Dock Bumpers: VB620-11 Steel face.
				31. Integrated control panel.
				32. Safety Barrier Lip: 5 inches (127 mm) high (not available on 6 ft (1829 mm) long units
				33. Foam Insulated Deck.
				34. Connect online to myQ Dock Management.
	1. MECHANICAL LOADING DOCK LEVELERS

\*\* NOTE TO SPECIFIER \*\* Delete basis of design option not required.

* + 1. Basis of Design: HM Series Mechanical Dock Leveler as manufactured by Poweramp. Incorporates mechanical components to raise and lower platform and lip.
			1. Features:
				1. Structural Steel frame. Four-sided box construction.
				2. Ships assembled and ready for use, once installed in pre-formed pit.
				3. Service Range: 12 inches (305 mm) above to 12 inches (305 mm) below dock level. Platform compensates for canted truck beds up to 4 inches (102 mm).
				4. End loading capability.
				5. Integral Maintenance Strut Lockout/tagout compliant.
				6. Lip keepers are welded to frame and members providing nighttime security and cross-traffic support.
				7. Extended range float/hold-down mechanism.
				8. Yieldable lip plate.
				9. Working Range Toeguards
				10. Cam control counterbalance assembly.
				11. Lip drive positive lip extension.
				12. CleanSweep frame.
				13. Grease fittings.
			2. Construction:
				1. Platform: 1/4 inch (6 mm) thick 4-way high tensile 50,000 minimum yield A572 steel safety tread-plate. All platforms are designed to compensate for up to 4 inches (102 mm) of canted truck beds.

Reinforced and supported by full-length structural "C" channels and/or "I" beams.

* + - * 1. Front and Rear Header Plate: 1/2 x 7 or 8 inch (13 x 178 or 203 mm) hot rolled steel.
				2. Lips: 4-way safety tread-plate.

CIR 30,000 35,000 and 40,000 lbs (13,608, 15,876, and 18,144 kg): lbs: 5/8 inch (16 mm) thick.

CIR 45,000 and 50,000 lbs (20,412 and 22,680 kg): 3/4 inch (19 mm) thick.

Standard Lip Length: 16 inches (406 mm) all capacities.

* + - * 1. Lip Hinge Tubes:

CIR 30,000 lbs (1360 mm): 1-3/4 inch (44 mm) OD x 5/16 inch (8 mm) wall.

CIR 35,000 and 40,000 lbs (15875 and 18143 kg): 1-7/8inch (48 mm) OD x 3/8 inch (9.5 mm) wall.

CIR 45,000 and 50,000 lbs (20,412 and 22,680 kg): 2-1/8 inch (54 mm) OD x 1/2 inch (13 mm) wall.

* + - * 1. Lip Hinge Pins: 1 inch (25 mm) M1044 steel.
				2. Steel Lip Gussets: Standard on 50,000 lbs CIR models.
				3. Steel Header Gussets: On all models with CIR of 35,000 lbs (15875 kg) or greater.
			1. Operation:
				1. Activation: Pulling and holding ring at rear of ramp.

Unit will raise and lip will extend and hold. No manual lifting is required.

Unit is powered by extension springs and guided by CamControl counterbalance assembly.

Operator to walk ramp down to truck bed. Hold-down and Float mechanism will hold ramp in place and will float with trailer movement.

* + - * 1. Deactivation:

To Store Leveler While Truck is in Place: Feather release chain until lip folds and is clear of truck. Then walk ramp down into lip keepers.

* + - 1. Options:

\*\* NOTE TO SPECIFIER \*\* Delete options not required.

* + - * 1. Color: Manufacturer's standard Battleship gray.
				2. Color: As determined by Architect from Manufacturer's range.
				3. Capacity: CIR 30,000 lbs (13,607 kg).
				4. Capacity: CIR 35,000 lbs (15,875 kg).
				5. Capacity: CIR 40,000 lbs (18,143 kg).
				6. Capacity: CIR 45,000 lbs (20,411 kg).
				7. Capacity: CIR 50,000 lbs (22,680 kg).
				8. Width: 6 ft (1,829 mm).
				9. Width: 6.5 ft (1,981 mm).
				10. Width: 7 ft (2,134 mm).
				11. Length: 6 ft (1,829 mm).
				12. Length: 8 ft (2,438 mm).
				13. Length: 10 ft (3,048 mm).
				14. Extended Lip: 18 inches (457 mm).
				15. Extended Lip: 20 inches (508 mm).
				16. Weather Seal: Brush.
				17. Weather Seal: Rubber.
				18. Full Range Telescoping Toe Guards: Close off sides even in highest position.
				19. Pit Steel: 3 x 3 x 1/4 inch (76 x 76 x 6 mm) 6 piece curb steel.
				20. Pit Steel: 3 x 3 x 1/4 inch (76 x 76 x 6 mm) 4 piece curb steel with 2 bumper mounting brackets.
				21. Pit Steel: 3 sided box.
				22. Pit Steel: 4 sided box - leveler pre-installed.
				23. Dock Bumpers: DB-13. Molded.
				24. Dock Bumpers: B410-14 Laminated; standard.
				25. Dock Bumpers: B410-14 Steel face.
				26. Dock Bumpers: B610-14 Laminated.
				27. Dock Bumpers: B610-14 Steel face.
				28. Dock Bumpers: VB420-11 Laminated.
				29. Dock Bumpers: VB420-11 Steel face.
				30. Dock Bumpers: VB620-11 Laminated.
				31. Dock Bumpers: VB620-11 Steel face.
				32. Foam insulated deck.
				33. Connect online to myQ Dock Management.
		1. Basis of Design: LMP Series Mechanical Dock Leveler as manufactured by Poweramp. Incorporates mechanical components to raise and lower platform and lip,
			1. Features:
				1. Structural Steel frame. Four-sided box construction.
				2. Ships assembled and ready for use, once installed in pre-formed pit.
				3. Service Range: 12 inches (305 mm) above to 12 inches (305 mm) below dock level. Platform compensates for canted truck beds up to 4 inches (102 mm).
				4. End loading capability.
				5. Integral Maintenance Strut: Lockout/tagout compliant.
				6. Working Range Toe Guards: .
				7. Lip keepers are welded to frame and members providing nighttime security and cross-traffic support.
				8. Extended range float/hold-down mechanism.
				9. Yieldable lip plate.
				10. Cam control counterbalance assembly.
				11. Lip drive positive lip extension.
				12. CleanSweep frame.
			2. Construction:
				1. Platform: 1/4 inch (6 mm) thick 4-way high tensile 50,000 minimum yield A572 steel safety tread-plate. All platforms are designed to compensate for up to 4 inches (102 mm) of canted truck beds.

CIR 25,000 and 35,000 lbs (113,40 and 15,876 kg):

Reinforced and supported by full-length roll formed "C" channels.

CIR 40,000 lbs (18,143 kg):

Reinforced and supported by Structural "C" channels.

* + - * 1. Front and Rear Header Plate: 1/2 x 7 inch (13 x 178 mm) hot rolled steel.
				2. Lips: 4-way safety tread-plate.

CIR 25,000 lbs (11,339 kg): 1/2 inch (13 mm) thick.

CIR 35,000 and 40,000 lbs (13,607 and 15,875): 5/8 inch (16 mm) thick.

Standard Lip Length: 16 inches (406 mm) all capacities.

* + - * 1. Hinge Lugs: 5-1/2 x 3 inch (140 x 76) high tensile (A572) steel.
				2. Lip Hinge Pins: 1 inch (25 mm) M1044 steel.
			1. Operation:
				1. Activation: Pulling and holding ring at rear of ramp.

Unit will raise and lip will extend and hold. No manual lifting is required.

Unit is powered by extension springs and guided by CamControl counterbalance assembly.

Operator to walk ramp down to truck bed. Hold-down and Float mechanism will hold ramp in place and will float with trailer movement.

* + - * 1. Deactivation:

To Store Leveler While Truck is in Place: Feather release chain until lip folds and is clear of truck. Then walk ramp down into lip keepers.

* + - 1. Options:

\*\* NOTE TO SPECIFIER \*\* Delete options not required.

* + - * 1. Color: Manufacturer's standard Battleship gray.
				2. Color: As determined by Architect from Manufacturer's range.
				3. Capacity: CIR 25,000 lbs (11,339 kg).
				4. Capacity: CIR 35,000 lbs (15,875 kg).
				5. Capacity: CIR 40,000 lbs (18,143 kg).
				6. Width: 6 ft (1,829 mm).
				7. Width: 6.5 ft (1,981 mm).
				8. Width: 7 ft (2,134 mm).
				9. Length: 6 ft (1,829 mm).
				10. Length: 8 ft (2,438 mm).
				11. Extended Lip: 18 inches (457 mm).
				12. Extended Lip: 20 inches (508 mm).
				13. Weather Seal: Brush.
				14. Weather Seal: Rubber.
				15. Full Range Telescoping Toe Guards: Close off sides even in highest position.
				16. Pit Steel: 3 x 3 x 1/4 inch (76 x 76 x 6 mm) 6 piece curb steel.
				17. Pit Steel: 3 x 3 x 1/4 inch (76 x 76 x 6 mm) 4 piece curb steel with 2 bumper mounting brackets.
				18. Pit Steel: 3 sided box.
				19. Pit Steel: 4 sided box - leveler pre-installed.
				20. Dock Bumpers: DB-13. Molded.
				21. Dock Bumpers: B410-14 Laminated; standard.
				22. Dock Bumpers: B410-14 Steel face.
				23. Dock Bumpers: B610-14 Laminated.
				24. Dock Bumpers: B610-14 Steel face.
				25. Dock Bumpers: VB420-11 Laminated.
				26. Dock Bumpers: VB420-11 Steel face.
				27. Dock Bumpers: VB620-11 Laminated.
				28. Dock Bumpers: VB620-11 Steel face.
				29. Foam insulated deck.
				30. Connect online to myQ Dock Management.

\*\* NOTE TO SPECIFIER \*\* Delete article if not required.

* 1. SPECIALTY LOADING DOCK LEVELERS
		1. Basis of design: VS Vertical Storing Leveler as manufactured by Poweramp.
			1. Features:
				1. Structural steel "C" channel and "I" beam deck support.

Four-sided box construction.

* + - * 1. Operation: Constant pressure push button; smooth, and consistent.
				2. Full float all positions.
				3. Control Panel: Power-up and power-down control. Constant pressure push buttons for safety.
				4. Below dock end load capability.
				5. Mechanical Locking Mechanism: With push button release for added safety.
				6. Safety Run-Off Guards: 3 inch (76 mm) high on platform.
				7. Rear embedded channel with factory installed hinges for ease of installation.
				8. Stores in upright position completely inside exterior door.

Safely stored blue indicator light.

* + - * 1. Easily accessible to under-deck for cleaning.

Ideal for sanitation, security, and safety.

* + - * 1. Dock Service Range: 10 inches (254 mm) above, 8 inches (203 mm) below.
				2. Infinite lip control.
				3. Stored with slight tilt away from dock attendants.
				4. Aircraft grade hydraulic fluid.
				5. Painted Manufacturer's Battleship gray.
			1. Hydraulics and Electrical:
				1. Platform is raised by hydraulic cylinder. Route hydraulic hoses under leveler platform, away from debris.
				2. Hoist Cylinder: Hard chrome-plated design. 3-1/2 inch (89 mm) ID bore. Anti-corrosive rod coating.

\*\* NOTE TO SPECIFIER \*\* Remote mounting of motor and pump for easier access is available. Contact manufacturer for more details.

* + - * 1. Motor and Pump Mounting: Deck mounted; standard.

\*\* NOTE TO SPECIFIER \*\* Delete motor option not required.

* + - * 1. Motor: 1.5 HP TENV. 120 V or 208 V, single phase.
				2. Motor: 1.5 HP TENV. 208 V, 230 V or 460 V three phase.
				3. Electrical Components, Connections and Wiring: UL listed or recognized.
			1. Options:

\*\* NOTE TO SPECIFIER \*\* Delete options not required.

* + - * 1. Color: Manufacturer's standard Battleship gray.
				2. Color: As determined by Architect from Manufacturer's range.
				3. Capacity: CIR 40,000 lbs (18,143 kg).
				4. Capacity: CIR 45,000 lbs (20,411 kg).
				5. Capacity: CIR 50,000 lbs (22,680 kg).
				6. Width: 6 ft (1,829 mm).
				7. Width: 6.5 ft (1,981 mm).
				8. Width: 7 ft (2,134 mm).
				9. Length: 5 ft (1,524 mm).
				10. Length: 6 ft (1,829 mm).
				11. Length: 8 ft (2,438 mm).
				12. Hoist cylinder embed plate.
				13. Remote mount powerpack
				14. Extended Lip: 18 inches (457 mm).
				15. Extended Lip: 20 inches (508 mm).
				16. Under leveler curtain with wedge pads.
				17. Control panel stanchions.
				18. Steel Face Dock Bumpers.
				19. Connect online to myQ Dock Management.

\*\* \*\* NOTE TO SPECIFIER \*\* Delete article if not required.

* 1. LOADING DOCK COMMUNICATION AND CONTROLS
		1. Basis of Design: iDock Controls as manufactured by Poweramp. Technologically advanced push-button controllers and light communication used with various Poweramp loading dock equipment. Standard with automatic Poweramp vehicle restraints, with or without dock levelers.
			1. Construction: UL 4X Nonmetallic enclosures.
				1. Modular design to reduce maintenance costs.
				2. Light Assembly: 3-in-1. On controller showing state of station and whether it is safe to enter trailer.
				3. LCD Display: Shows status of controls and explains fault conditions.
				4. Metal Dome Buttons: Provide positive feedback to controls.
			2. Messenger Display: LCD interactive message display for equipment information, system information, maintenance history, counters, and settings.
				1. Operator presses Menu button, then up and down arrows to navigate menu.
				2. Press Enter to advance one screen, or Menu to go back.
				3. Provide notices of faults, or instructions for Bypass mode or a sequence of operation.
			3. Operation: Used to operate light communication, vehicle restraint, dock leveler, overhead door, and/or light accessories.
				1. Operator presses appropriate dome button to operate each component.
				2. Depending on the options selected, a sequence of operation can be applied to only allow operation of each component in a specific order.
				3. If operation is attempted out of sequence, controller's Message Display will indicate the correct button to press next.
				4. Using Controller Menu: Operator can place dock equipment in Bypass mode if necessary.

Exterior Light: Red.

Interior Light: Green. Accompanied by Amber Caution Light indicating to dock attendant to proceed with caution.

* + - 1. Exterior Lights: Low profile, traffic style, red and green LED lights opposite of interior lights. Standard for communication to truck driver.
				1. A set of caution signs warns truck driver to "Back In or Pull Out On Green Light Only."
			2. Warranty: Full one year base warranty on structural, mechanical, and electrical parts, including freight and labor charges in accordance with Systems, LLC's Standard Warranty Policy. Systems, LLC warrants all components to be free of defects in materials and workmanship, under normal use, during the warranty period. This base warranty period begins upon completion of installation or sixtieth day after shipment, whichever is earlier.

\*\* NOTE TO SPECIFIER \*\* Delete voltage options not required.

* + - 1. Voltage: 115 V / 1 PH / 60 HZ.
			2. Voltage: 208 V / 1 PH / 60 HZ.
			3. Voltage: 230 V / 1 PH / 60 HZ.
			4. Voltage: 208 V / 3 PH / 60 HZ.
			5. Voltage: 230 V / 3 PH / 60 HZ.
			6. Voltage: 460 V / 3 PH / 60 HZ.
			7. Voltage: 575 V / 3 PH / 60 HZ.
			8. Options:

\*\* NOTE TO SPECIFIER \*\* Delete options not required.

* + - * 1. Door controls: 3-Button.
				2. Audible alarm.
				3. Disconnect: Rotary fused.
				4. Disconnect: Rotary non-fused.
				5. Disconnect: Flange fused.
				6. Disconnect: Flanged non-fused.
				7. Dock Light Control: Automatic control with door position.
				8. Dock Light Control: Automatic control with leveler position.
				9. Dock Light Control: Manual control; On/Off.
				10. Edge light controls.
				11. Emergency stop push button.
				12. Guide light controls.
				13. Independent lip control.
				14. LiftMaster Logic 5.0 Maintenance System Monitoring.
				15. Light Communication System: Automatic control with leveler position.
				16. Light Communication System: Automatic control with door position.
				17. Light Communication System: Manual control.
				18. Sensor: Fluid level.
				19. Sensor: Fork lift.
				20. Sensor: Truck present.

\*\* NOTE TO SPECIFIER \*\* If door limits are present and wired into controller, door must be open for leveler to operate.

* + - * 1. Interlocking:

\*\* NOTE TO SPECIFIER \*\* Select one option and delete all others.

None.

Restraint engaged before leveler operate.

Restraint engaged before door open.

Leveler stored before restraint release.

Leveler stored before door closed.

Door open before restraint engage.

Door closed before restraint release.

Restraint engaged before leveler operate.

Leveler stored before restraint release.

Restraint engaged before door open.

Door closed before restraint release.

Restraint engaged before leveler operate.

Restraint engaged before door open.

Leveler stored before restraint release.

Leveler stored before door closed.

Door closed before restraint release.

Door open before restraint engage.

Restraint engaged before leveler operate.

Leveler stored before restraint release.

Leveler stored before door closed.

Restraint engaged before leveler operate.

Leveler stored before restraint release.

Leveler stored before door closed.

* + - * 1. Connect online to myQ Dock Management.

\*\* NOTE TO SPECIFIER \*\* Delete article if not required.

* 1. VEHICLE RESTRAINTS

\*\* NOTE TO SPECIFIER \*\* Delete basis of design options not required.

* + 1. Basis of Design: PowerHook Vehicle Restraint as manufactured by Poweramp
			1. Hydraulic restraint mechanism secures a cargo trailer's rear impact guard (RIG) reducing likelihood of premature trailer separation during the loading and unloading.
			2. Features:
				1. Push button activation.
				2. iDock Controls with interactive message display.
				3. Restraining Force: In Excess of 35,000 lbs (15,875 kg).
				4. Recessed Design: For unobtrusive access.
				5. Positive Restraining Force: Eliminates "trailer creep."
				6. Custom PLC solid state control.
				7. Operational Range:

Horizontally: 0 to 15 inches (0 to 381 mm).

Vertically: 7 to 34 inches (178 to 864 mm).

* + - * 1. Caution Indicator: Amber light.
				2. Exterior light emphasizer upon early truck departure.
				3. Diagnostic: Fault indicator light.
				4. Bypass and override passcode.
				5. Exterior Communication Lights: Low profile, traffic style, red, green and pull out warning lights to communicate with truck driver.
				6. Instructional Signs: Warns driver to "Back In or Pull Out On Green Light Only".
			1. Operation:
				1. As a Trailer Backs into Position:

Exterior Light: Green. Interior Light: Red.

* + - * 1. Once the Trailer is Positioned Against the Dock Bumpers:

Activation: Operator presses the "Engage" button.

While the restraint is in motion.

Exterior Light: Red. Interior Light: Amber.

Exterior Light Indicator: Provides additional emphasis to driver during pull-out.

PowerHook: Lowers, extends, and seeks out the RIG.

Once the Trailer is Secured:

Exterior Light: Red. Interior Light: Green.

PowerHook: Floats freely vertically while trailer is being loaded or unloaded. Provides positive engagement for horizontal forces.

* + - * 1. After the loading or unloading is complete,

Operator presses the "Release" button.

When Trailer is Released:

Restraint is safely stored.

Exterior Light: Green. Interior Light: Red.

* + - * 1. If PowerHook is unable to secure the trailer's RIG,

Bypass: Restraint communicates the fault condition on the message display. Amber "caution" light starts flashing.

If Bypass of System is Necessary:

Secure trailer by other means before proceeding with the loading or unloading process.

Caution Situation is Present:

Exterior Light: Flashing Red. Indicates to driver to remain at the dock area.

Interior Light: Green.

Interior Caution Indicator Light: Accompanies Interior green light indicating to dock attendant that a caution situation is present.

Manual Reset of "Bypass:" Accomplished by entering bypass/override passcode.

* + - 1. Construction: System is installed in a box form for permanent placement in a concrete pit or as a component of a dock leveler's free-standing frame.
				1. The PowerHook remains protected behind the pit wall until activation.
			2. Electrical: Standalone or combined electrically and hydraulically with dock leveler.
				1. Hydraulic Pump / Motor: 1-1/2 HP TENV at 120 or 208 V, single phase or, 208, 230, 460 or 575 V three phase.
				2. Electrical Control Panels: NEMA 4X enclosure. Manufactured in Poweramp UL approved panel shop.

Panel Components, Connections, and Wiring: UL listed and recognized.

* + - * 1. Unless Specifically Noted on Quotation: All electrical requirements, including control box mounting, outside lights, and signs, are the responsibility of others.
			1. Options:
				1. Integrated control panel (effects panel size).
				2. Dock leveler interlock.
				3. Limit switch for door interlock.
				4. Self-contained.
				5. Combination leveler and restraint with box form.
				6. Combination leveler and restraint with free standing frame.
				7. Combination VS series leveler/restraint with box form.
				8. CentraPower.
				9. Remote Power pack.
				10. Extended range hook.
				11. Connect online to myQ Dock Management.
		1. Basis of Design: TPR UniLock Vehicle Restraint as manufactured by Poweramp.
			1. Upgrade to the TPR Series, with added internal safety mechanism, as well as advanced cam design that rotates hook away from trailer's Rear Impact Guard (RIG) to release "RIG Wedge" pressure.
			2. Features:
				1. Automatically releases RIG Wedge pressure without the trailer reversing.
				2. Locking mechanism to prevent the restraint from disengaging the trailer's RIG when pressure is applied.
				3. Universally effective on an obstructed Rear Impact Guard, including intermodal trailers with cover plates.
				4. Restraining force in excess of 32,000 lbs (14515 kg).
				5. Locking mechanism maintains engagement on the trailer's Rear Impact Guard (RIG).
				6. LED 3-light system for communication between truck driver and dock attendant.
				7. Inside iDock control panel. Interactive Message Display Automatic light sequence.
				8. Low profile 9 inch (229 mm) carriage:

Service Range: 9 to 30 inch (229 to 762 mm) off grade.

* + - * 1. Advanced cam design rotates hook away from Rear Impact Guard to release "RIG Wedge" pressure.
				2. On-demand motor operation preserves energy.
				3. Gear motor keeps hook continuously engaged.
				4. Automatically ensures safe capture or auto-stores.
				5. Integrated iDock Controls for safe leveler interlock.
				6. Full communication package with signage and interior exterior, red/green LED lights in opposing mode.
			1. Operation:
				1. As truck is backed into position:

Trailer's Rear Impact Guard (RIG) contacts structural steel housing, lowering UniLock in its track and positioning itself for engagement.

Operator presses "Engage" button, activating hook to rotate up and secure the trailer to loading dock.

* + - * 1. Restraint maintains contact with RIG and adjusts automatically with trailer float motion to ensure proper engagement at all times during loading/unloading.
				2. After loading is complete:

Operator presses "Release" button, rotating hook away from RIG first to remove "RIG wedge" pressure, and then lowering the hook to a safely stored position, releasing the trailer.

* + - * 1. Communication: iDock Controls with LED 3-color light communication system.

As truck approaches:

Exterior Light: Green.

Interior Light: Red.

Once the trailer is restrained:

Interior Light: Green. Dock attendant may safely enter e trailer.

Exterior Light: Red. Warning driver not to pull away from dock.

When trailer is released: Restraint hook is safely stored.

Exterior Light: Green.

Interior Light: Red.

If unable to secure the trailer's RIG due to abnormal trailer conditions:

Bypass: Restraint communicates the fault condition illuminating an amber "caution" light on the iDock Controls.

If Bypass of System is Necessary: Secure trailer by other means before proceeding with the loading or unloading process.

Exterior Light: Red.

Interior Light: Green.

Amber caution light indicating to proceed with caution.

* + - 1. Construction: Durable zinc-plated, steel housing to withstand impact from trailers and protect internal components from weather conditions.
			2. Electrical:
				1. Motor: 1/10 HP TENV 115 V single phase. IP67 rated; submersible in 1 meter of water for 30 minutes.
				2. Control Panel: NEMA 4X. Built in Poweramp UL approved control panel shop.
				3. Components, Connections and Wiring: UL listed and/or recognized.
			3. Options:

\*\* NOTE TO SPECIFIER \*\* Delete options not required.

* + - * 1. Integrated control panel.
				2. Custom interlock sequence with leveler.
				3. Audible alarm.
				4. Configured back plate for custom hooking range.
				5. Variety of cantilever brackets and installation hardware.
				6. Bypass Mode: 3-Digit passcode.
				7. Connect online to myQ Dock Management.
		1. Basis of Design: TPR Vehicle Restraint as manufactured by Poweramp.
			1. Trailer-positioned vehicle restraint mounted to face of dock and utilizes a motor and gears to rotate a hook and secure the trailer.
			2. Features:
				1. Unit automatically positions itself when impacted by the rear impact guard (RIG).
				2. Locking mechanism maintains engagement on the trailer's RIG.
				3. Restraining force in excess of 32,000 lbs (14515 kg).
				4. Auto recycle if restraint is manually forced down.
				5. Motor and gears keep hook continuously engaged with the RIG.
				6. LED 3-light system for communication between truck driver and dock attendant.
				7. Inside iDock control panel. Interactive Message Display Automatic light sequence.
				8. Low profile 9 inch (229 mm) carriage.

Service Range: 9 to 30 inch (229 to 762 mm) off grade.

* + - * 1. On-demand motor operation preserves energy.
				2. Gear motor keeps hook continuously engaged.
				3. Automatically ensures safe capture or auto-stores.
				4. Integrated iDock Controls for safe leveler interlock.
				5. Full communication package with signage and interior exterior, red/green LED lights in opposing mode.
				6. As truck is backed into position:

Trailer's Rear Impact Guard (RIG) contacts structural steel housing, lowering UniLock in its track and positioning itself for engagement.

Operator presses "Engage" button, activating hook to rotate up and secure the trailer to loading dock.

* + - * 1. Restraint maintains contact with RIG and adjusts automatically with trailer float motion to ensure proper engagement at all times during loading/unloading.
				2. After loading is complete:

Operator presses "Release" button, rotating and lowering hook to a safely stored position, releasing the trailer.

* + - * 1. Communication: iDock Controls with LED 3-color light communication system.

As truck approaches:

Exterior Light: Green.

Interior Light: Red.

Once the trailer is restrained:

Interior Light: Green. Dock attendant may safely enter e trailer.

Exterior Light: Red. Warning driver not to pull away from dock.

When trailer is released: Restraint hook is safely stored.

Exterior Light: Green.

Interior Light: Red.

If unable to secure the trailer's RIG due to abnormal trailer conditions:

Bypass: Restraint communicates fault condition illuminating an amber "caution" light on the iDock Controls.

If Bypass of System is Necessary: Secure trailer by other means before proceeding with the loading or unloading process.

Exterior Light: Red.

Interior Light: Green.

Amber caution light indicating to proceed with caution.

* + - 1. Construction: Durable zinc-plated, steel housing to withstand impact from trailers and protect internal components from weather conditions.
			2. Electrical:
				1. Motor: 1/10 HP TENV 115 V single phase, IP67 rated; submersible in 1 meter of water for 30 minutes.
				2. Control Panel: NEMA 4X. Built in Poweramp UL approved control panel shop.
				3. Components, Connections and Wiring: UL listed and/or recognized.
			3. Options:

\*\* NOTE TO SPECIFIER \*\* Delete options not required.

* + - * 1. Audible alarm.
				2. Variety of cantilever brackets and installation hardware.
				3. Integrated control panel.
				4. Custom interlock sequence with leveler.
				5. Configured back plate for custom hooking range.
				6. Bypass Mode: 3-Digit passcode.
				7. Connect online to myQ Dock Management.
		1. Basis of Design: Automatic PowerStop Vehicle Restraint as manufactured by Poweramp
			1. Non-impact, hydraulic, exterior mounted to front of loading dock.
			2. Features:
				1. Hydraulic operation to vertically raise the restraint and engage the RIG.
				2. LED 3-light system for advanced communication between the truck driver and dock attendant.
				3. Push Button Activation: 115 V single phase operation.
				4. iDock Controls with interactive message display.
				5. Automatic light sequence.
				6. Low profile, non-impact design. Wall or driveway mount.
				7. Remote power pack with translucent reservoir.
				8. Restraining force in excess of 32,000 lbs (14515 kg).
				9. Zinc-plated.
				10. RIG sensor bar. Notifies operator if restraint is not securely engaged to trailer's rear impact guard.
				11. Override passcode.
				12. Protective debris guard.
				13. Automatically ensures safe capture or auto-stores.
				14. Automatic light sequencing with interior/exterior red/green lights always in opposition.
				15. Full communication package with lights, signs, and control panel with universal signage pictures for additional communication safety.
			3. Operation:
				1. Once trailer backs into position against dock bumpers:

Operator presses "Engage" button, activating the Powerstop to rise vertically to trailer's Rear Impact Guard (RIG), placing a stop behind the RIG and preventing trailer from being able to pull away.

The restraint maintains contact with RIG.

Adjusts automatically with trailer float motion to ensure proper engagement at all times.

* + - * 1. After Loading is Complete:

Operator presses "Release" button, lowering unit to a safely stored position, releasing trailer.

* + - * 1. Communication: iDock Controls with LED 3-color light communication system.

As truck approaches:

Exterior Light: Green.

Interior Light: Red.

Once the trailer is restrained:

Interior Light: Green. Dock attendant may safely enter e trailer.

Exterior Light: Red. Warning driver not to pull away from dock.

When trailer is released: Restraint hook is safely stored.

Exterior Light: Green.

Interior Light: Red.

If unable to secure the trailer's RIG due to abnormal trailer conditions:

Bypass: Restraint will communicate fault condition illuminating amber "caution" light on iDock Controls.

If Bypass of System is Necessary: Secure trailer by other means before proceeding with the loading or unloading process.

Exterior Light: Red.

Interior Light: Green.

Amber caution light indicating to proceed with caution.

* + - 1. Construction: Durable zinc-plated, steel housing to withstand impact from trailers and protect internal components from weather conditions.
			2. Options:

\*\* NOTE TO SPECIFIER \*\* Delete options not required.

* + - * 1. Cantilever bracket.
				2. Remote power pack inside pit or inside building.
				3. Cantilever bracket with a requested projection.
				4. Audible alarm.
				5. Connect online to myQ Dock Management.
		1. Basis of Design: PowerStop Manual Vehicle Restraint as manufactured by Poweramp.
			1. Non-impact, manually operated, exterior mounted to front of loading dock.
			2. Features:
				1. Low profile, non-impact design.
				2. LED light communication available with the MML and MAL.
				3. Manually activated restraint.
				4. Message display.
				5. Low profile, non-impact design. Wall or Driveway mount.
				6. Restraining force in excess of 32,000 lbs (14515 kg).
				7. Zinc-plated.
				8. Rear impact guard sensor bar.
				9. Protective debris guard.
				10. Caution signs for communication on basic M version.
			3. Operation: With automatic lights.
				1. Once trailer backs into position against the dock bumper:

Operate bar is used under release lever to lift up, manually activating restraint.

A visual inspection should confirm restraint has moved vertically and engaged horizontal RIG.

The operate bar can be stored and loading/unloading begins.

* + - * 1. When complete and dock leveler is stored:

Operate bar is used to push down restraint arm until release lever locks restraint arm.

The operating bar is stored again.

\*\* NOTE TO SPECIFIER \*\* MML is optional. Delete if required or if using MAL

* + - * 1. Manual with Manual Light Communication (MML):

As Trailer Approaches:

Exterior Light: Green.

Interior Light: Red.

Once Trailer is in Position and Restraint is Engaged:

Operator presses Dock Alert Status.

Exterior light is red, warning driver not to pull away.

Interior light is green, allowing dock attendant to enter trailer.

When loading/unloading is complete, and restraint is safely stored.

Operator presses Dock Alert Status.

Exterior Light: Green.

Interior Light: Red.

\*\* NOTE TO SPECIFIER \*\* LED interior and exterior lights are optional. Delete if not required.

LED interior and exterior lights.

\*\* NOTE TO SPECIFIER \*\* MAL is optional. Delete if not required or if using MML.

* + - * 1. Operation Light Communication: Manual and automatic lights.

As Trailer Approaches:

Exterior Light: Green.

Interior Light: Red.

Once the trailer is in position and Restraint is engaged:

Exterior light is red, warning driver not to pull away.

Interior light is green, allowing dock attendant to enter trailer.

When loading/unloading is complete, and the restraint is safely stored.

Exterior Light: Green.

Interior Light: Red.

If Bypass of System is Necessary: Secure trailer by other means before proceeding with the loading or unloading process.

Exterior Light: Red.

Interior Light: Green.

\*\* NOTE TO SPECIFIER \*\* The next paragraph is optional for an MAL installation. Delete if not required.

Automatic iDock Light Communication System.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - 1. Connect online to myQ Dock Management.
			2. Construction: Durable zinc-plated, steel housing unit to withstand impact from trailers and protect internal components from weather conditions.
		1. Basis of Design: UniChock Wheel-Based Vehicle Restraint as manufactured by Poweramp.
			1. Wheel-based trailer restraint with advanced light communication. Standalone unit or integrated with other dock equipment. Helps prevent unexpected trailer departure or movement from loading dock during loading process.
			2. Construction and Electrical:
				1. Material: Durable and lightweight aluminum.

Traction teeth and Storage Bracket: Zinc-plated steel.

* + - * 1. Finish: Powder coat.
				2. Wired Sensors: Installed in restraint unit and storage bracket.
				3. Control Panel: NEMA 4X. Components, connections and wiring to be UL listed and/or recognized. Built in a UL-approved control panel shop.

\*\* NOTE TO SPECIFIER \*\* Delete options not required.

* + - 1. Options:
				1. Integrated control panel.

\*\* NOTE TO SPECIFIER \*\* Must choose one interlock option for leveler stored switch. Interlock options are listed in "Loading Dock Communications and Controls" Article in the "Interlocking" paragraph.

* + - * 1. Interlock with Leveler Stored Switch: \_\_\_\_\_\_\_\_.

\*\* NOTE TO SPECIFIER \*\* Must choose one interlock option for door limit switch. Interlock options are listed in "Loading Dock Communications and Controls" Article in the "Interlocking" paragraph.

* + - * 1. Interlock with Door Limit Switch: \_\_\_\_\_\_\_\_.
				2. 3-Digit passcode for bypass mode.
				3. Connect online to myQ Dock Management.
				4. Bracket extension for alternate storage positions.
			1. Operation: Advanced iDock Controls with LED 3-color light communication system.
				1. As Trailer Approaches:

Exterior light is green and interior light is red.

* + - * 1. Once Trailer is Parked in Position Against the Dock Bumpers:

Yellow UniChock: Removed from storage bracket and placed under front of one of the trailer�s back tires.

Chock Placement: Once correctly positioned.

Sounds an audible indicator and displays a message on the iDock Controller that unit is in a safe position.

Exterior light changes to red and interior light to green.

If Chock is Moved to an Unsafe Position During Loading:

Audible alarm sounds. Interior light changes to alternating red and amber until restraint is back in the correct position.

Dock Attendant: Can proceed to open the door and deploy the leveler.

After Loading is Complete:

Dock attendant stores leveler and closes overhead door.

Interior Light changes to amber, exterior light to alternating red and green, and an audible alarm sounds until chock is placed back on the storage bracket.

Chock is Placed on Storage Bracket:

Exterior light changes to green and interior light to red.

1. EXECUTION
	1. EXAMINATION
		1. Do not begin installation until substrates have been properly constructed and prepared.
		2. If substrate preparation is the responsibility of another installer, notify Architect in writing of unsatisfactory preparation before proceeding.
	2. PREPARATION
		1. Clean surfaces thoroughly prior to installation.
		2. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
	3. INSTALLATION
		1. Install in accordance with manufacturer's instructions, approved submittals, and in proper relationship with adjacent construction.
	4. FIELD QUALITY CONTROL
		1. Field Inspection: Coordinate field inspection in accordance with appropriate sections in Division 01.

\*\* NOTE TO SPECIFIER \*\* Include if manufacturer provides field quality control with onsite personnel for instruction or supervision of product installation, application, erection, or construction. Delete if not required.

* + 1. Manufacturer's Services: Coordinate manufacturer's services in accordance with appropriate sections in Division 01.
	1. CLEANING AND PROTECTION
		1. Clean products in accordance with the manufacturer's recommendations.
		2. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION